103

VP SHELLS AND ARGUMENT STRUCTURE IN TURKISH

A THESIS SUBMITTED TO

THE GRADUATE SCHOOL OF INFORMATICS

OF

THE MIDDLE EAST TECHNICAL UNIVERSITY

BY

CEM KESKİN

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR

THE DEGREE OF MASTER OF SCIENCE

IN

COGNITIVE SCIENCE

SEPTEMBER 2002

Approval of the Graduate School of Informatics

Prof. Dr. Neşe Yalabık

Director

I certify that this thesis satisfies all the requirements as a thesis for the degree of Master of Science.

Assoc. Prof. Dr. H. Gürkan Tekman

Head of Department

This is to certify that we have read this thesis and that in our opinion it is fully adequate, in scope and quality, as a thesis for the degree of Master of Science.

Asst. Prof. Dr. Bilge Say	Prof. Dr. Wolf König
Co-Supervisor	Supervisor

Examining Committee Members:

Dr. Ayşenur Birtürk

Prof. Dr. Wolf König

Asst. Prof. Dr. Bilge Say

Assoc. Prof. Dr. H.Gürkan Tekman

Assoc. Prof. Dr. Nadir Engin Uzun

ABSTRACT

VP SHELLS AND ARGUMENT STRUCTURE IN TURKISH

Keskin, Cem

M.Sc., Cognitive Science

Supervisor: Prof. Dr. Wolf König

Co-Supervisor: Asst. Prof. Dr. Bilge Say

September 2002, 92 pages

This thesis deals with Turkish predicates within the framework of the Minimalist Program, which is the current phase of the Generative Grammar tradition based primarily on Chomsky's work (e.g. Chomsky, 1957-1995). It aims to discover what kind of structures the Larsonian vp shell approach yields in the analysis of Turkish predicates. The vp shell structure was introduced by Larson (1988) for the analysis of double object constructions. The proposal was then adopted, modified and expanded by various authors (e.g., Chomsky, 1995; Hale and Keyser, 1993; Radford, 1997). The derivation of a vp shell structure is now standardly assumed to involve the adjunction of a verb (V) to a light verb (v), thereby forming a complex verb of some sort in the form V-v (see Chomsky, 1995 and Radford, 1997). This thesis claims that the direct application of this derivation to Turkish involves a Lexical Insertion Principle violation and proposes a variant for the vp shell derivation that involves replacing the light verb with a voice feature. Then, using this alternative derivation, it undertakes the analysis of Turkish predicates, also demonstrating problematic areas and offering solutions to these.

Keywords: vp shells, argument structure, light verbs, voice

ÖZ

TÜRKÇEDE EÖ KABUKLARI VE ÜYE YAPISI

Keskin, Cem

Yüksek Lisans, Bilişsel Bilimler Anabilim Dalı

Tez Yoneticisi: Prof. Dr. Wolf König

Ortak Tez Yoneticisi: Y. Doç. Dr. Bilge Say

Eylül 2002, 92 sayfa

Bu calisma, asıl olarak Chomsky'nin çalışmaları (ör. Chomsky, 1957-1995) üzerinde temellenen Üretimsel Dilbilgisi geleneğinin günümüzde ulaştığı aşama olan Yetinmeci Kuram çerçevesinde, Türkçe yüklemlerle ilgilenmektedir. Çalışmanın amacı, Larson'un eö kabukları yaklaşımının Türkçe yüklemlerin çözümlemesinde ne tür yapılar ürettiğini bulgulamaktır. Eö kabuğu yapısı ilk olarak Larson (1988) tarafından üç üyeli yüklemlerin çözümlemesi için kullanılmıştır. Larson'un önerisi daha sonra başka yazarlar tarafından da benimsenmiş, değiştirilmiş ve genişletilmiştir (ör., Chomsky, 1995; Hale ve Keyser, 1993; Radford, 1997). Şu anda, bir eö kabuğu yapısının türetiminin bir eylemin (E) bir eylemciğe (e) eklenmesini içerdiği ve bunun sonucunda da E-e biçiminde bir tür karmaşık eylem oluştuğu varsayılmaktadır (bkz., Chomsky, 1995; Radford, 1997). Bu çalışma, bu türetimin Türkçeye doğrudan uygulanmasının Sözlüksel Yapıştırma İlkesinin çiğnenmesiyle sonuçlandığını savlamakta ve eö kabuğu türetiminde, eylemcik yerine bir çatı özelliği kullanılmasını içeren, bir değişiklik önermektedir. Daha sonra da, önerilen bu türetimi kullanarak, Türkçe yüklemlerin çözümlemesini ele almakta, aynı zamanda sorunsal noktalara değinip çözüm önerileri getirmektedir.

Anahtar Sözcükler: eö kabukları, üye yapısı, eylemcikler, çatı

To

the Future

of

the Nation,

of

the World

ACKNOWLEDGEMENTS

I express my hearty gratitude for my advisor Prof. Dr. Wolf König who transformed this work from an "invincible monster" to a great opportunity for learning. I also thank my co-advisor Asst. Prof. Dr. Bilge Say for her patience and guidance till the very end. I owe many thanks also to Assoc. Prof. Dr. Engin Uzun and Assoc. Prof. Dr. Cem Bozşahin for sharing their ideas and time. Thanks go to Assoc. Prof. Dr. Hasan Gürkan Tekman and Dr. Ayşenur Birtürk as well, for spending their time and energy for the jury. Moreover, I am indebted to Prof. Dr. Güray König who provided me with the opportunity to study cognitive science and bring my studies to fruition. I am infinitely grateful to my friends at Cognitive Science, especially Ümit Yaşar Karadeniz, Ceyhan Temürcü, Nart Bedin Atalay, Kaan Bıyıkoğlu, Umut Özge, Oya Özağaç and Soner Tarı without the solidarity of whom I could not have even dreamt of coming this far. Furthermore, I express my humble gratitude for my beloved parents Meral and Abdullah Keskin for teaching me to love to learn, seek, question, be curious and feel wonder, and for their love, wisdom, patience and encouragement of epic proportions. I owe many thanks to my grandparents Fatma and Mehmet Özdemir and Zeynep and Kadir Keskin for teaching me to feel humility in the midst of this great marvelous universe. I am also grateful to my mother-in-law Prof. Dr. Mine Yurttagül for sharing her experiences as an academician in Turkey and my father-in-law Dr. Sinan Yurttagül for sharing his wisdom, to encourage me. Saving the best for last, I thank my beloved wife Melis for her love, patience, understanding, encouragement and faith in me during the ups and downs of this "baptism of fire". Her presence was a gift.

TABLE OF CONTENTS

LIST OF SYMBOLS AND ABBREVIATIONS

1s	1st person singular
3p	3rd person plural
3s	3rd person singular
ABS	Absolute
ACC	Accusative
ACT	Active
Agr	Agreement
AgrP	Agreement phrase
A-P	Articulatory-Perceptual
ART	Article
CAUS	Causative
C-I	Conceptual-Intentional
comp-VP	Complement position of the VP
DAT	Dative
DO	Direct object
DP	Determiner phrase
e	Unfilled
FI	Full Interpretation
GB	Government and Binding
INFL	Inflection

IO	Indirect object
LF	Logical Form
LIP	Lexical Insertion Principle
LOC	Locative
LRcC	Lexical reciprocal construction
LRfC	Lexical reflexive construction
MP	Minimalist Program
MRcC	Morphological reciprocal construction
MRfC	Morphological reflexive construction
NOM	Nominative
NP	Noun phrase
NTC	Non-thematic complement
ø	Empty element
PASS	Passive
PAST	Past
PERF	Perfective
PF	Phonological from
PLUR	Plural
PP	Prepositional phrase
PC	Predication Condition
RECIP	Reciprocal
REFL	Reflexive
SMC	Shortest Movement Condition
spec-vp	Specifier position of the vp
spec-VP	Specifier position of te VP
Subj	Subject

t	Trace
T	Tense
TP	Tense phrase
UTAH	Uniformity of Theta Assignment Hypothesis
V	Verb
v	Light verb
V′	V-bar
v′	v-bar
v^0	Head position of the vp
V^0	Head position of the VP
VP	Verb phrase
vp	vp shell

CHAPTER 1

INTRODUCTION

The vp shell structure was introduced by Larson (1988) for the analysis of three-place predicates. The proposal was then adopted, modified and expanded by various authors (e.g., Chomsky, 1995; Hale and Keyser, 1993; Radford, 1997). At present, the derivation of a vp shell structure is standardly assumed to involve verb (V) raising to an already filled position (v^0) occupied by a light verb (v) that has been selected from the lexicon and heads its own projection (vp). V adjoins v, thereby forming a complex verb of some sort in the form V-v (see Chomsky, 1995 and Radford, 1997). The operation is supposed to be permissible if the target v requires a verbal affix. In other words, the 'takes verbal affix' feature of the v forces V to move to adjoin v, as a result of which they enter a checking relation, whereby the relevant feature of the v is checked. This thesis claims, assuming that the light verb of the standard analysis corresponds to any one of several voice morphemes in Turkish (e.g. *–DIr*), that the direct application of the vp shell derivation to Turkish involves a Lexical Insertion Principle violation, as well as failing to yield the correct structure of the verb. The thesis, later, tries to remedy these problems by proposing a variant for the vp shell derivation, which involves replacing the light verb with a voice feature, consequently eliminating V-to-v adjunction, so that verb raising to v^0 is now attributed to voice feature checking. Then, using this alternative derivation, it undertakes the analysis of Turkish predicates, demonstrating problematic areas and offering solutions to these in the process.

In order to establish a basis for the account that will be given, it was deemed necessary and appropriate to undertake a brief exposition of the tools to be worked with. It ought to be stated, though, that in what follows, a great deal has been omitted, for the purpose is to highlight only the pertinent parts of the whole theoretical framework.

Before commencing the expositions, however, it needs to be remarked that Chomsky (1995) states that the current formulation of minimalist ideas still leaves substantial gaps and a range of plausible alternatives. He explains furthermore that it is far from obvious that language should have anything at all like the character postulated in the MP, which is only a research program concerned with filling the gaps and determining the answers to the following basic questions raised:

(i) What are the general conditions that the human language faculty should be expected to satisfy, (a) by virtue of its place within the array of cognitive systems of the brain/mind, and (b) general considerations of conceptual naturalness that have some independent plausibility, namely, simplicity, economy, symmetry, non-redundancy, and the like?

(ii) To what extent is the language faculty determined by these conditions?

Attempting to answer these questions, Chomsky (1995) assumes that the linguistic system interacts with the two external systems: the *articulatory-perceptual* (A-P) system and the *conceptual-intentional* (C-I) system. The structural descriptions that the linguistic system generates are taken to be "instructions" to these external systems and so they have to be *interpretable* by these systems. It is in virtue of this fact that these systems are thought to impose conditions to the linguistic system at their interfaces. These are called *bare output conditions*. Furthermore, he also assumes that a linguistic computation must be optimal, satisfying certain natural economy conditions. Less economical computations are blocked by economy conditions. In other words, the computation must keep to computational principles that are minimalist in spirit, both in their character and in the economy conditions that select computations. What, then, are the components of this linguistic computation system?

1.1 Building up structure

1.1.1 Operations

The linguistic computational model, that Chomsky (1993, 1995) proposes, within the framework of the Minimalist Program, consists of, first of all, a *Lexicon*, which is the inventory of the words of the language. It is possibly irreducible, encompassing a speaker's knowledge of the words of that language. Each element in the Lexicon, termed a *lexical entry*, is assumed to embody linguistic *features*, specifying the properties of the item relevant to the computation.

Second, this computational model embodies a generative procedure, which consists of two concatenative and formally simple binary transformational operations – 'transformational' meaning that their goal is to build structures. The first one is *Merge*; the other is *Move*. Each of these operations concatenates two and only two categories, say α and β, forming a third, say γ. In fact, Merge and Move are technically identical in this respect, the difference between the two being that in the case of the latter, α is already contained in β, whereas in the case of the former, α and β are two independent elements (Epstein et al., 1996: 35). From this perspective, Move can even be regarded as a sub-case of Merge.

The procedure applies iteratively, thus building *constituent structure* of a sentence and yielding a *PF* (sound) representation and an *LF* (meaning) representation for each expression. More formally stated, it generates structural descriptions in the form of (π, λ), π being the PF representation and λ, the LF representation. It is in virtue of this last fact that the linguistic computational model is said to bridge the C-I and the A-P systems, the above-mentioned two levels of representation, namely LF and PF, being the *interface levels* of these two systems respectively. The construction of constituent structure itself consists of picking items from the Lexicon and applying Merge or Move, the choice determined by the requirements of the stage of the *derivation*, i.e., linguistic computation, at which they are applied.

Here, a number of additional remarks are due. First, it is supposed that the various forms of the lexical items are not created by the derivation. They enter *fully-inflected*. So, for instance, the item *worked*, made up of the elements *work* and *–ed*, joins the derivation as *worked* and this particular form is not created in the course of the derivation by attaching *–ed* to *work*. The particular form of the lexical item is given in the Lexicon. This supposition is referred to as the *Lexical Insertion Principle* (LIP). The second remark is that a moved constituent leaves behind a *trace* (t), which is regarded as a copy of the moved element. The constituent in question and its trace form a *chain*, whose *head* is the former and whose *foot* is the latter. Third, each application of Move is subject to the *Shortest Movement Condition* (SMC), requiring that, in any single movement operation, a particular type of element departing from its *extraction site*, move to the first *(potential) landing site* reserved for its type, positioned higher in a *hierarchical structure* (The form of this hierarchical structure will become more concrete further below).

At a certain stage of the derivation, an operation is applied to send certain information about the structure thus far derived to the phonological, i.e., sound, component for the pronunciation of the expression: S*pell-out*. Spell-out is a non-transformational operation. In addition to being pronounced, linguistic structures are also interpreted, i.e., they are assigned semantic, i.e., meaning, representation. Consequently, the derivation continues after Spell-out, generating structures to be fed into the LF.

Now, as π and λ consist of objects that are interpreted at the A-P and C-I interfaces respectively, a condition is imposed on their form to insure that they are interpretable at the interfaces: the condition of *Full Interpretation (FI)*, which dictates that a representation must consist only of legitimate objects at the interfaces. Thus, if a derivation satisfies FI at both interfaces, it is said to *converge*, while a violation of FI causes it to *crash*. So, for the purpose of insuring that the derivation satisfies FI, the contents of the above-mentioned feature sets of lexical elements are *checked* during the structure building process. Each instance of checking broadly consists of moving a lexical item to a specific position in the structure, reserved for a specific feature, and confirming that the lexical item in question carries the feature that that position is specified for, thereby erasing uninterpretable features. It needs to be added here that checking and Move are more closely linked that it seems, in that an application of Move is licit only if it is driven by the need to check a given feature, in other words by *Greed*.

1.1.2 Structure

The structural representation obtained by the process briefly outlined above, adopted by Chomsky (1993) from Pollock (1989), consists of three kinds of structural layers: one, the *lexical* layer (or, the lexical domain), the portion of clause structure that interests me for the purposes of this thesis and to be focused on below; two, the *inflectional* layer (the checking domain), housing elements corresponding to concrete or abstract *morphological,* i.e., word structure, specifications of the verb, and responsible for the checking of features; three, the *complementizer* level (functional domain), hosts what are called topics, interrogative and relative pronouns, focalized elements, etc.

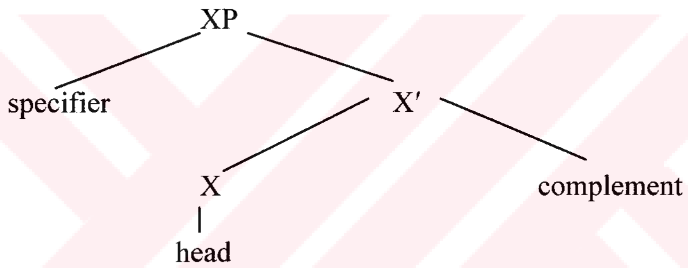
1.2 The lexical domain

1.2.1 Basic structure

The center of attention, the lexical layer, consists of three types of elements. The first constituent is the *verb* (V), which is the *head* of the lexical layer. Hence, the layer, being the *projection* of its head, is the *verb phrase* (VP). Next, the VP hosts the *complement(s)*, if any, of the verb, and the *specifier* completes the structure of the VP.

The relative positioning of these three types of elements conforms to what is called the *X-bar* schema of *phrase structure* (Chomsky, 1986b; Chomsky, 1970 (cited in Haegeman, 1994); Jackendoff, 1977 (cited in Webelhuth, 1995b)) represented in (1) below. Notice that this structure has three levels: the *minimal projection* level, i.e., the level of the specifier, head and the complement, the *intermediate projection* level, i.e., the X-bar (X′) level, and the *maximal projection* level, i.e., the XP level. The various positions in this structure are named after the elements that occupy them: the position occupied by the specifier is termed the *specifier position* of the XP (spec-XP), that occupied by the complement is the *complement position* of the XP (comp-XP), and the one occupied by the head is called the *head position* of the XP (X^0).

(1)



It needs to be added, however, that Turkish is traditionally accepted to be a *head-final language*, i.e., a language where the heads of phrases are positioned to the right sides of their complements. Yet, Turkish, being a highly flexible language in terms of word order, seems to behave, more frequently than not, against this conviction. Hence, it was felt that any phrase internal organization of elements was appropriate for Turkish. So, an organization similar to that of English was chosen. This choice is not the outcome of a deep-rooted theoretical predilection, though, and was motivated merely by the desire for ease of comparison with the English examples. It seems to have had no all-encompassing serious repercussions on the analysis undertaken below.

The lexical layer is where *thematic role (θ-role) assignment* takes place (Chomsky, 1986a). In this process, the verb, which can also be referred to as the *predicate* in semantic terminology and thus can be said to denote an activity or event, assigns *roles* to the specifier and the complement, these being the *arguments* of the predicate and thus the participants in the relevant event or activity. Using semantic terminology, the specifier may be called the external argument and the complement(s) the internal argument(s)(see Sportiche, 1988 and Koopman and Sportiche, 1991 for the discussion that external argument is VP-internal). Predicates may be classified on the basis of their *valency*, i.e., number of arguments they require, as one-place, two-place, etc. The assignment of θ-roles is no straightforward procedure, however, and deserves to be dealt with in a separate section.

1.2.2 Thematic considerations

1.2.2.1 Θ-ROLES

This paper adopts the inventory of θ-roles proposed by Kural (1996), which Kural explains as having roots in three separate lines of theoretical research: the Fillmorean tradition (Fillmore, 1965, 1968), the Gruber-Jackendoff (Gruber, 1965; Jackendoff, 1972) line and Dowty's (1991) theory (For the explanation of this relationship, refer to Kural (1996: 15-22).). Kural postulates four basic role types: *Actor*, *Experiencer*, *Neutral* and *Patient*. These basic roles are described roughly as follows: An Actor manipulates the event, an Experiencer responds internally to some event/state, a Neutral remains outside the event/state, and a Patient undergoes a change of state as a result of the event. Furthermore, Kural says that even though these roles are basic they are not atomic. They are each formed as a combination of two event-based properties: *affectedness* and *protagonism* (event prominence). Affectedness refers to the change of state that an argument undergoes as a result of the event. An entity changes states by burning, acquiring new color, having a thought or desire. It does not change states by standing at a location, moving from one place to another, being seen or noticed, or by eating food. Protagonism is, on the other hand, determined by the active participation of an argument. For instance, a brick that breaks a window is actively determining the course of the breaking events. Likewise, a person who is enjoying a game actively determines the type, intensity, and the duration of the enjoying event. In his schema, these properties distinguish the basic roles as follows:

(2)

Actor	: Unaffected Protagonist
Experiencer	: Affected Protagonist
Neutral	: Unaffected Nonprotagonist
Patient	: Affected Nonprotagonist

The reason that this paper favors this schema over the traditionally used lists (e.g., Gruber, 1965) and definitions is that θ-roles are not regarded as atomic entities, as a result of which it becomes possible to define and enumerate them in a principled manner. The traditional approach merely, defines roles and leaves their number and the primitives that constitute them and hence distinguish between them undetermined. For instance, a patient is merely defined as an entity undergoing the effect of some action, or a recipient as an entity receiving some entity, etc., without further clarification. It ought to be remarked, however, that this predilection does not seem to be crucially important for the analysis to come.

1.2.2.2 THE Θ-CRITERION

Another point to be mentioned on thematic issues is the arguably biunique nature of thematic assignment: every argument associates with a unique thematic role and every role is associated with a unique argument. Such biuniqueness was formulated as a criterion.

(3) *The θ-criterion:*

Each argument bears one and only one θ-role and each θ-role is assigned to one and only one argument (Chomsky, 1981).

Kural (1996), whose stance I adopt, argues, following Jackendoff (1972), that the θ-criterion only enforces that each argument carry one and only one θ-role, and that no θ-roles are left unassigned, but that it does not say anything about the type of roles assigned to arguments. Consequently, the same type of role can be assigned to two separate arguments. As it will be clear below, the θ-criterion is essential in proposing structure for various voice constructions, notably the passive and the reflexive, while a 'relaxed' version provides the basis on which to build the analysis of the causative voice (see Section 1.2.4 for the brief description of voice).

1.2.2.3 CONFIGURATIONALITY

Another important point in the issue of role assignment that needs to be highlighted and made explicit is related to the structural properties of the relations between a predicate and its argument(s): The MP adopts a *configurational* theory to θ-role assignment, based on Hale and Keyser (1993). According to this approach, a predicate P assigns a θ-role to an element E only if P heads a particular configuration (i.e. a 'static' spec-head, comp-head relation), and E receives a θ-role from P only if it is either the specifier or the complement of P. It follows from this that if P were to move, it would no longer be in a configuration, being part of a chain, which is a non-configurational abstract relation between two elements. Similarly, if E were to move, intending to receive a θ-role, it would no longer be in a configurational relation, hence cannot receive a role in its landing site (see Chomsky, 1995: 312-316 for further discussion.).

1.2.2.4 THE UTAH

Finally, as put forth by Baker (1997), "One central task for any theory of grammar is to solve the so-called 'linking problem': the problem of discovering regularities in how the participants of an event are expressed in the surface grammatical forms and explaining those regularities." As a solution to this problem, Baker (1988) (cited in Baker, 1997) proposes the following hypothesis:

(4) *The Uniformity of Theta Assignment Hypothesis* (UTAH):

Identical thematic relationships between items are represented by identical structural relationships between those items at the level of D-structure[1].

The exact formulation of the UTAH has been changed over the course of time and many different versions of it have been formulated, but the crux of the matter has remained the same: thematic structure correlates with syntactic structure in a uniform fashion. In its strongest from the UTAH postulates three θ-roles, namely Agent, Theme and Goal/Path/Location, roughly corresponding to Kural's Actor, Patient and Neutral respectively. The hypothesis holds that a Theme is the specifier of the VP, a Goal/Path/Location is the complement of the VP, and an Agent is the specifier of the higher VP of a Larsonian structure (Larsonian structures will be explained in the next section.). This work assumes some version of the UTAH to be valid. The hypothesis will be of assistance in establishing parallelism between the argument structures of various voice constructions, hence achieving uniformity in the analysis.

---

[1] D-structure is the initial representation of the structure of a sentence, where all the elements are in their original positions prior to movement, postulated in the Government and Binding framework which can be regarded as the former versions of Generative Grammar.

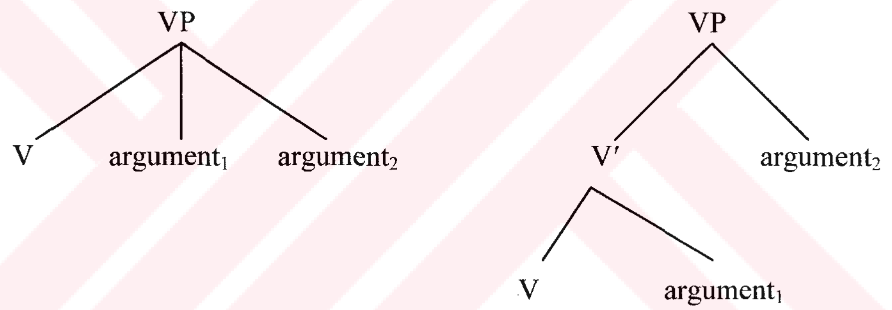
1.2.3 VP Shells

In the light of what has been said above on the basic structure of the VP and the thematic considerations made so far, identifying the lexical layer with the single-bar projection in (1) now seems to be too simplistic: Two argument verbs may well fit into the schema, but the binary nature of the operations mentioned above and the resultant binary branching structure of the clause seems incompatible with multi-argument verbs.

In the past, various different proposals were made for the structure of the VPs of sentences involving three-argument verbs, such as *send*. The two most frequently assumed structures were those in (5)(i) and (ii), the first proposed by Oehrle (1976) (cited in Larson , 1988) and the second by Chomsky (1981) (In both structures the external argument is supposed to be positioned outside the VP.):

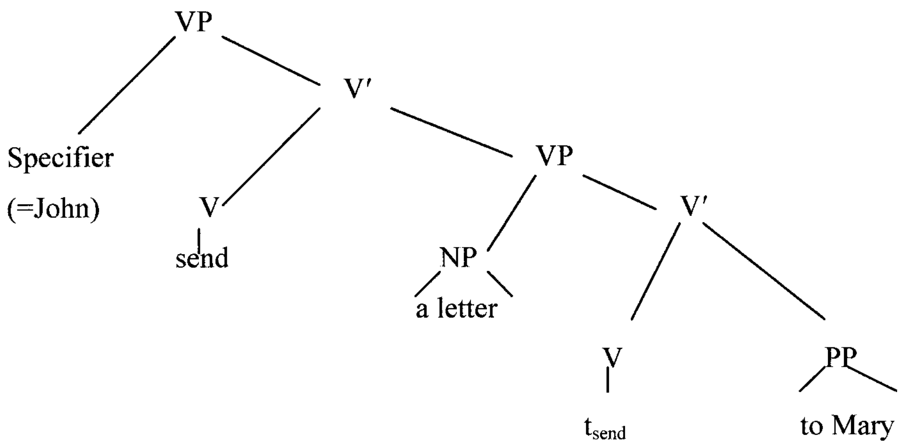
(5)

(i) (ii)



The first structure is a non-binary-branching one, so it may be ruled out at least on that account. The second structure, though, seems to be unproblematic. Yet, Larson (1988), demonstrating the inadequacy of both structures above from various perspectives, proposed a third type of structure, where one VP is topped by another. For the lexical layer of a sentence like *John sent a letter to Mary*, called a double complement structure, then, the following structure is given:

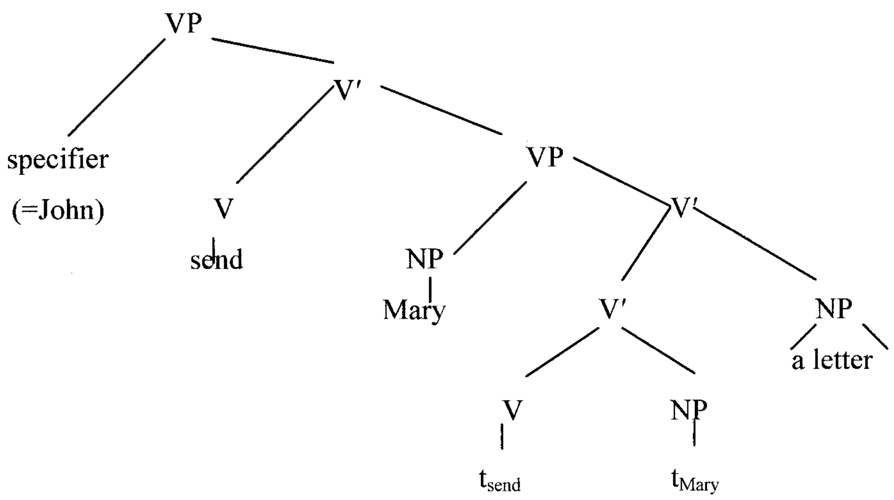
(6)



Here, the inner structure of the categories NP, *noun phrase*, and PP, *prepositional phrase*, are irrelevant to the discussion. However, the important things to note are that they occupy the specifier and complement positions of the lower VP respectively, and that the verb moves from the V^0 of the lower VP to the V^0 of the higher, leaving behind a trace.

Larson (1988) assumes that a sentence like *John sent Mary a letter*, on the other hand, termed a double object structure, has a more complex structure, where Mary moves from one of the complement positions of the lower VP to the specifier position of that VP and the verb undergoes a V^0-to-V^0 movement from the lower VP to the upper:

(7)



This analysis of three-place predicates, termed the *vp shell* analysis, was later adopted by various authors, such as Hale and Keyser (1993), Chomsky (1995), Fujita (1996), Guasti (1996), Radford (1997) and Collins (2002) to be applied to various languages, embellished and expanded to be include other types predicates as well as three-place predicates, so that the lexical domain in virtually every construction is now construed as having a vp shell layer.

Due to the fact that they constitute a basis for my analysis of Turkish predicates, let us, now, focus on the extensions made in Radford (1997: 369), which proceed as follows:

Take a three-place predicate, say *fill,* in (8)(i):

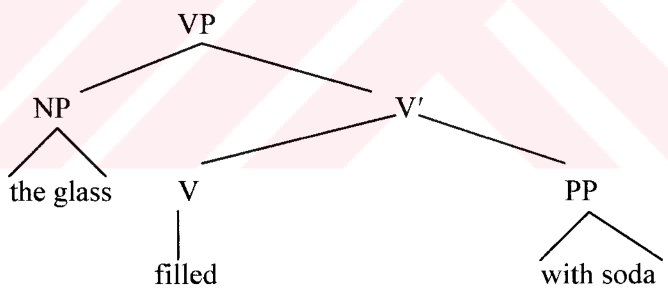
(8)

(i) I filled the glass with soda.

(ii) The glass filled with soda.

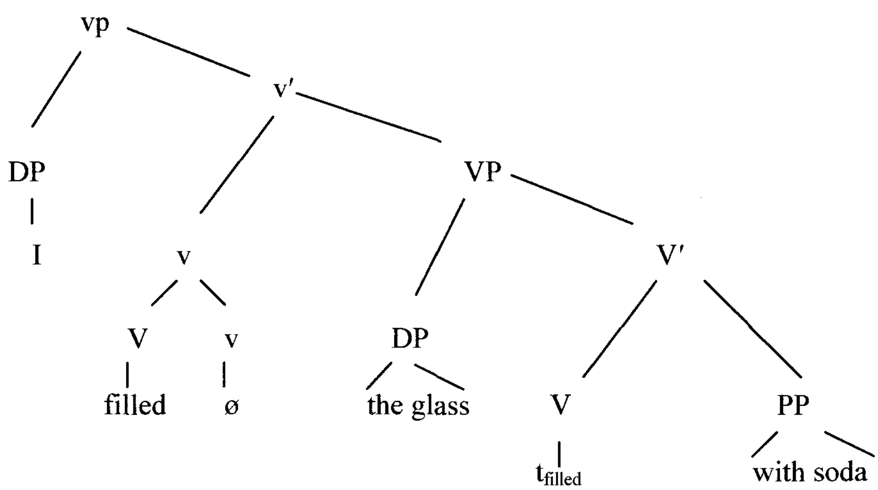
Its three arguments are *I*, *the glass* and *with soda.* Notice that the same verb has a two-place use as in (8)(ii). The VP of (8)(ii) has the following structure:

(9)



Now, from the fact that in both sentences the arguments seem to play the same respective roles, (*the glass*, Patient and *with soda*, Neutral) it follows, in accordance with the UTAH, that (8)(i) has the following derivation:

(10)



The V *filled* is merged with its PP complement *with soda* to form the V′ *filled with soda*; this is then merged with the DP (determiner phrase) *the glass* to form a VP. In this process, the verb assigns its arguments whatever roles it is specified to assign. Two arguments have now taken their places in the structure and been assigned their θ-roles; one, namely, *I*, remains to be dealt with: Once formed, this VP is then merged with an *abstract causative light verb* (*ø*), i.e. a phonologically null verb with much the same causative interpretation as a verb like *make* (so that *I filled the glass with soda* has a similar interpretation to *I made the glass fill with soda*), to which the verb *filled* raises to adjoin. The resulting v′ structure is then merged with the subject *I*, which is assigned its θ-role by the causative light verb, to form the vp. The portion of the lexical domain headed by v is the vp shell.

Radford states that the proposed derivation in (10) is based on Hale and Keyser's (1993) and Chomsky's (1995: 315, 321, 331) work. For example, for the Papago sentence in (11)(ii), Hale and Keyser (1993: 85-89, 99-101) propose the (slightly modified) structure in (12):

(11)

(i) 'A'al 'at bisc.

children 3:PERF *sneeze*:PERF

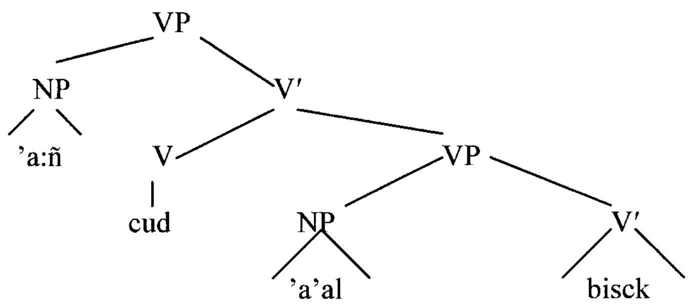
The children sneezed.

(ii) ’A:ñ ’ant g ’a’al ha-bisck-c.

I 1s:PERF ART *children* 3p-*sneeze*-CAUS:PERF

I made the children sneeze.

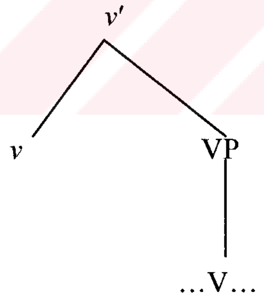
(12)



Here, the verb *bisck* is supposed to adjoin the affixal causative verb *cud* (which is its form before it is transformed into perfective), forming *bisckcud*, ‘cause to sneeze’.

As to Chomsky’s proposal, the following (slightly modified) structure is given, where v is a light verb, expressing causativity or agentivity, to which V raises to adjoin:

(13)



Here, Chomsky explains, V raises to an already filled position occupied by the light verb v that has been selected from the lexicon and heads its own projection. V adjoins v, forming [$_v$ V v]. The operation is permissible if the target v requires a verbal affix. In other words, the ‘takes verbal affix’ feature of the v forces V to move to adjoin v, as a result of which they enter a checking relation, whereby the relevant feature of the v is checked.

1.2.4 Voice

The causative marker, supposed to occupy v^0 in the preceding account, is accepted to be among *voice* categories in Turkish. Consequently, it will be assumed throughout this work that the v^0 position in Turkish is occupied by various voice markers. Voice is defined by Trask (1993: 299) as "the grammatical category expressing the relationship between, on the one hand, the [θ-] roles of the…arguments of a verb and, on the other hand, the grammatical relations borne by those same [arguments]…the most familiar voice contrast is that between active and passive constructions." In addition to the causative cited above, Turkish also has *active*, *passive*, *reflexive* and *reciprocal* as voice categories. A brief description of these now follows:

In an active construction, in the most typical cases, the external argument is typically represented by what is called the grammatical *subject* of the sentence. The grammatical subject is the element marked by the *nominative case*[2] in Turkish. In this construction, the internal argument(s) of the verb occur(s) as the *direct* and/or *indirect object(s)*. The direct object is the element is marked by the *accusative* case in Turkish while the indirect carries *dative* or *ablative* cases. It is interesting to note that among voice categories in Turkish, it is only the active that lacks an affix[3] expressing it. Despite this observation, it will not be assumed that the v^0 position is unfilled or inexistent (Hence, the vp layer itself is inexistent) in an active voice construction. Instead, it will be supposed that the active affix is phonologically null, i.e. –ø, in Turkish and, hence, that verb raising to v^0 is still necessitated in active constructions (for reasons which will become clear below). This supposition has as motive the desire for uniformity of the analysis: All various voice constructions are thus accepted to involve vp shells.

In a passive construction, on the other hand, one of the internal arguments of the verb becomes the subject of the sentence and the external argument is only optionally

---

[2] Case is a distinctive form, overtly marked in Turkish, which can be assumed by an argument to indicate that that argument bears some identifiable grammatical or semantic relation to the rest of the sentence (Trask, 1993: 35). Turkish has nominative/absolute, accusative, dative, locative, ablative and genitive cases (Kornfilt, 1997).

[3] Affixes are elements that can only occur attached to a word, e.g., *–s* in *cats*.

expressed by adjuncts[4]. In this construction, the verb carries the affix *–(I)l* or *–(I)n*. Below are examples of active and passive constructions:

(14)

(i) Adam-ø kadın-ı sev-ø-di-ø.

man-NOM (Subj) *woman*-ACC (DO) *love*-ACT-PAST[5]-3s[6]

The man loved the woman.

(ii) Kadın-ø (adam tarafından) sev-il-di-ø.

woman-NOM (Subj) (*man by*) *love*-PASS-PAST-3s

The woman was loved (by the man).

Causative constructions involve the introduction of an additional argument that is perceived as the direct instigator of the action expressed in a simpler construction (Trask, 1993: 38). If an active construction is transformed into a causative, the subject of the active construction becomes a direct object, the newly introduced argument becomes the subject and the verb is attached the affix *–(D)Ir*, or *–(I)t*.

(15) Çocuk-ø adam-a kadın-ı sev-dir-di-ø.

child-NOM (Subj) *man*-DAT (IO) *woman*-ACC (DO) *love*-CAUS-PAST-3s

The child made the man love the woman.

---

[4] Adjuncts are elements which modify a head and which can be removed without affecting well-formedness.

[5] The past is a tense marker. Tense is defined as a grammatical category correlating with distinctions of time (Trask, 1993: 276). Turkish has present, past and future tenses (Kornfilt, 1997).

[6] This is a marker of person and number. Person is a grammatical category, which primarily distinguishes among entities in terms of their role in a conversational exchange. Turkish has three persons, the first (the speaker), the second (the addressee) and the third (everyone and everything else). Number marks, on the other hand, the number of distinguishable entities. Turkish has singular and plural number. The existence of these markers are instances of agreement, which is a grammatical phenomenon by which the appearance of one item in a sentence in a particular form requires a second item which is grammatically linked with it to appear in a particular form (Trask, 1993: 12). Turkish verbs agree with their subjects in person and number with reservations (see Kornfilt, 1997 for discussion).

Reflexive expressions are constructions where an entity performs an action onto itself. As a consequence, in English, subject and object refer to the same entity in such sentences. Turkish employs two reflexive constructions, one using the various forms of the reflexive pronoun *kendi* 'self', the other using the reflexive voice affix *–(I)n*. Let us call these two methods, the lexical reflexive construction (LRfC) and the morphological reflexive construction (MRfC) respectively. The MRfC, in which I shall focus, also seems to involve the omission of some argument.

(16) Adam-ø yıka-n-dı-ø.

man-NOM (Subj) *wash*-REFL-PAST-3s

The man washed himself.

Finally, reciprocals involve mutual actions. Turkish employs two methods for expressing reciprocity: first, using the various forms of the reciprocal pronoun *birbiri* 'each other', and second, attaching the reciprocal voice affix *–(I)ş* to the verb. Using terminology similar to that used for reflexives, let us call these two methods, the lexical reciprocal construction (LRcC) and the morphological reciprocal construction (MRcC) respectively. (17) is an example of the MRcC. Observe the possible omission of an argument.

(17) Adam-lar-ø döv-üş-tü-ler.

man-PLUR-NOM (Subj) *fight*-RECIP-PAST-3p

The men fought each other.

It is a well-known fact that Turkish voice markers can be stacked. Grammatically possible combinations have been listed in a number of studies, such as Lees (1973), Çağlar (1977) and Göksel (1993) (all cited in Aksan, 1995). Aksan (1995) distills the various lists, providing the following combinations:

(18)

(i) V-RECIP-CAUS-PASS

asker-ler-ø döv-üş-tür-ül-dü-ø

soldier-PLUR-NOM *beat*-RECIP-CAUS-PASS-PAST-3s

(ii) V-RECIP-CAUS

komutan-ø asker-ler-i döv-üş-tür-dü-ø

commander-NOM *soldier*-PLUR-ACC *fight*-RECIP-CAUS-PAST-3s

(iii) V-RECIP-PASS

döv-üş-ül-dü-ø

fight-RECIP-PASS-PAST-3s

(iv) V-CAUS-PASS

Adam-ø Ali-ye döv-dür-ül-dü-ø.

man-NOM *Ali*-DAT *beat*-CAUS-PASS-PAST-3s

(v) V-CAUS-CAUS

Ahmet-ø Osman aracılığıyla Ali-ye adam-ı döv-dür-t-tü-ø.

Ahmet-NOM *Osman by* Ali-DAT *man*-ACC *beat*-CAUS-CAUS-PAST-3s

(vi) V-REFL-PASS

krem-ø sür-ün-ül-dü-ø

cream-NOM *smear*-REFL-PASS-PAST-3s

(vii) V-PASS-PASS[7]

çocuk-ø yıka-n-ıl-dı-ø.

child-NOM *wash*-PASS-PASS-PAST-3s

I shall assume this list to be exhaustive, ignoring other mathematically possible combinations for which I lack evidence, such as VERB-ACT-CAUS.

To sum up this introductory chapter, I shall employ basic minimalist machinery building an X-bar schematic clause structure, (i.e., Merge, Move and checking) espouse minimalist principles (i.e., the Lexical Insertion Principle and the Shortest Movement Condition) and make use of thematic building blocks (such as the θ-criterion, the UTAH and a θ-role inventory restricted in a principled manner). I shall, then, undertake, building on this basis, the vp shell analysis of Turkish predicates, linking the shell analysis to voice phenomena.

---

[7] Used to eliminate ambiguity in cases such as *yıka-n* 'wash oneself' v. *yıka-n* 'be washed' (Lewis, 1967: 150).

CHAPTER 2

VP SHELL ANALYSIS AND TURKISH

The preceding account of vp shells describes the process of derivation standardly assumed for them. Certain complications seem to arise, however, if the shell analysis is applied to Turkish predicates. Let us now focus on these.

So, returning to (8) above, repeated below for the reader's convenience as (19),

(19) I filled the glass with soda.

recall that in the derivation of this sentence demonstrated in (9) and (10), *filled* is inserted into the syntactic process fully-inflected, later to be raised to adjoin the light verb, subsequent to the stage of the derivation where the causative light verb is merged with VP. This movement operation, then, creates a compound verb of some sort, in the form V+v: *filled+make, filled+CAUS* or *filled+ø*, whichever notation preferred. In other words, and the most importantly, the light verb is supposed to be inserted to the derivation as a lexical item separately, later to be *incorporated* into the main verb. The verbal complex, created thus, has the following morphological structure:

(20) V_{ROOT}[8]-PAST-v_{CAUS}

Then, let this procedure be applied directly to the Turkish counterpart of (19):

(21) (Ben) bardağ-ı soda-yla dol-dur-du-m.

I glass-ACC *soda*-WITH *fill*-CAUS-PAST-1s

The complement *sodayla* merges with the verb, *doldu*, which is the counter part of *filled*, to from the V′, with which *bardağı* merges to complete the VP, identical to (9). Next,

---

[8] A root is the simplest possible form of a lexical item.

following the derivation in (10), this VP merges with a causative element, which as mentioned above is presumably the causative marker *–DIr*, to form the v′. The v′ bar, then, merges with *ben* to form the vp. Finally, the verb *doldu* adjoins the causative element *–DIr*. Now, study the verbal complex supposed to have formed at the end of this adjunction:

(22) dol-du-DIr

$\mathrm{V_{ROOT}}$-PAST-$\mathrm{v_{CAUS}}$

filled-CAUS

An order of morphemes[9] identical to that in (20) has been obtained, yet, a number of problematic points immediately strike one:

First, the order of the morphemes in the verbal complex immediately strikes one as deviant: $\mathrm{V_{ROOT}}$-INFL[10]-CAUS, is simply not a valid order of morphemes for Turkish. Second, and the most importantly, remember that the MP adopts a lexicalist approach to morphology in the sense that lexical items are supposed to emerge from the Lexicon fully clad, this assumption being referred to as the LIP. Thus, there is no affixation of elements to words via the application of some syntactic adjunction operation. Hence, the direct application of (10) to Turkish involves the violation of the LIP: the *single* word[11], i.e., the lexical item, *doldurdum*, is supposed to have been derived through the syntactic adjunction of the verb *doldu* to the causative element *–DIr*. The latter should have joined the derivation as an integral part of the verb, following the LIP. Third, the first person singular agreement affix *–m* is missing. There are two ways to circumvent this problem: either supposing that it will be picked up higher up in the structure or supposing that it is inserted attached to *doldu*. Yet, the first is a violation of the LIP and the second still does not yield the correct order of morphemes. It, thus, becomes obvious that (21) is not derived in the same manner as (19). How will these two structures be reconciled, then?

---

[9] A morpheme is usually defined as the minimal grammatical unit (Trask, 1993: 175).

[10] Here, inflections are tense and agreement affixes.

[11] I am aware of no empirical research on the intuitions of native speakers of Turkish as to the 'integrity' of such words, however, Harley (1995) reports that speakers of Japanese have the strong intuition that the causative verb in Japanese, with a structure almost identical to the Turkish causative verb (e.g., *tabe-sase-ta* , [*eat*-CAUS-PAST]), in some sense forms a word.

There seems to be a number of solutions to this problem, each lying on a separate track and each with its particular set of ramifications, what differentiate between solutions being the minimalist conjectures that one chooses to agree or disagree with: one may retain or discard the LIP; one may suppose the existence of a vp shell layer, or not; etc. Let us gloss over a few of the solutions, disregarding at least as many[12] and highly probably overlooking even more.

2.1 Discarding the LIP

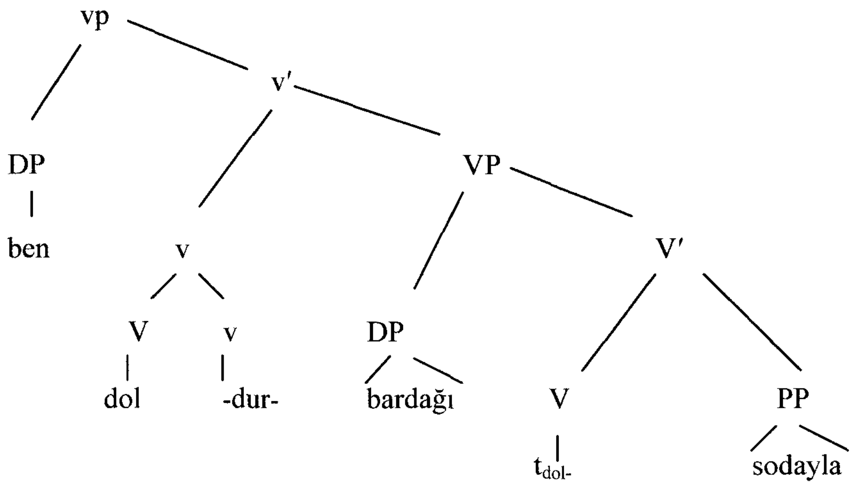
The most radical solution is the rejection of the LIP, implicating a syntactic process similar to that found in the Government and Binding (GB)[13] framework: The GB, in contrast to the MP, supposed that the syntactic processes involved, among many other things, affixation of inflectional affixes to roots via the application of what is called syntactic head-adjunction, that lexical items did not join the derivation fully-inflected. Without the lexical items being inserted in fully-inflected form, ignoring parts of the derivation that are irrelevant here, the derivation of (21) would proceed as follows:

---

[12] Among which I would like to mention two: The element supposed to head the shell may, in fact, not be an entry in the Lexicon but an integral part of another: In the case of *doldurdum*, then, this would mean that *doldur-* is listed as an entry in the Lexicon, separate from *dol-* for instance. Thus it would not be necessary to posit a shell, or any other projection for that matter, to deal with the causative element. This would bring a great deal of redundancy to the Lexicon and forgo a whole rather productive mechanism however, as thus, *doldurt-*, *doldurttur-* and all other verb forms with combinations of derivational suffixes would have to be envisaged as separate entries. Another solution outside the syntax may be along the following lines: Take (21). In the derivation of that sentence, the verbal complex that is formed is not the seeming V_{BASE}-CAUS-INFL, but in fact V_{BASE}-INFL-v_{CAUS}, just like in (10). The organization of the affixes can then be supposed to be undertaken at PF. No such heavy burden is assumed by the PF in the MP to my knowledge.

[13] The GB is the previous phase of Generative Grammar, some of the principles and formalisms of which the MP adopts, reinterprets and elaborates.

(23)



The verb is taken from the Lexicon as *dol-*. It is, then, at the stage of the derivation subsequent to the merger of v with the VP, raise to adjoin the causative affix. The verbal complex thus formed then moves to pick up its inflectional endings, namely tense and agreement.

This seems to be a rather appropriate solution in fact, one forming a V+v compound similar to that in (10), for one has, here, reasons to suppose *–DIr-* to be an affixal light verb, like *ø*: the introduction of the argument *ben* and the assignment of its θ-role can be rather suitably attributed to the introduction of *–DIr-*, a situation identical to that of *ø* and *I* in (10).

It ought to be noted, though, that, despite its seeming plausibility, such a structure would seem to suffer the indeterminism governing the causative in Turkish, casting doubt on the solution. First, it is doubtful whether each occurrence of the causative element, really entails the introduction of an extra argument. While, double causatives can support two additional arguments, as in (24),

(24)

(i) Ben_1 sözdizimi sev-di-m.

like-PAST-1s

(ii) Ali_2 bana_1 sözdizimi sev-**dir**-di-ø.

like-**CAUS**-PAST-3s

(iii) Ahmet$_3$ Ali$_2$ aracılığıyla bana$_1$ sözdizimi sev-**dir-t**-ti-ø.

like-**CAUS-CAUS**-PAST-3s

a third is unwelcome in an additional iteration of the causative, as in (25),

(25)

*Ayşe$_4$ Ahmet$_3$ aracılığıyla Ali$_2$ aracılığıyla bana$_1$ sözdizimi

sev-**dir-t-tir**-ti-ø.

like-**CAUS-CAUS-CAUS**-PAST-3s

Furthermore, it is questionable whether each additional argument is really associated with a causative morpheme; the grammaticality of (26) may indicate that it is not,

(26)

Ahmet$_3$ Ali$_2$ aracılığıyla bana$_1$ sözdizimi sev-**dir**-ti-ø.

like-**CAUS**-PAST-3s

Perhaps, the grammaticality of (26) may be ascribed to the fact that *Ali aracılığıyla* is an adjunct. But, if *Ali aracılığıyla* is an adjunct, why can expressions of the same type not be stacked as in (25), a possibility for adjuncts?

And, perhaps the ungrammaticality of (25) is due to the fact that the surface realization of 'too many' arguments is blocked, for (27) is quite grammatical:

(27)

Ayşe$_3$ Ali$_2$ aracılığıyla bana$_1$ sözdizimi sev-**dir-t-tir**-ti-ø.

like-**CAUS-CAUS-CAUS**-PAST-3s

On the other hand, such lack of systematicity as in (26) and (27) may also be interpreted as the indication that multiple causatives are mere rhetorical devices, not the iterations of an affixal predicate.

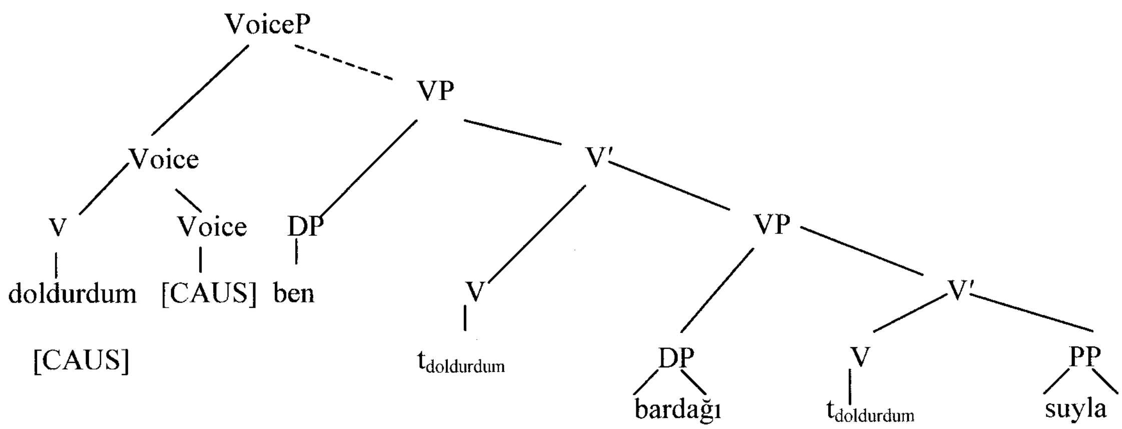
Still, these problematic aspects of the phenomenon in question need not constitute an insolvable problem. In fact, radical though this solution may appear, it seems to be supported by Pollock's (1997) claim, following Bak (1991) and Hong (1992), that "languages like Japanese and Korean, in which, ... the morphological ordering of affixes does seem to directly mirror their syntactic scope, have "real" head-to-head incorporation, à la Baker, *not* checking…". What Pollock refers to as "mirroring" is the Mirror Principle of Baker (1985), proposing that the hierarchical relations within the inflectional domain mirror the morphological structure of inflected forms. Simply stated, the affix farthest from the verb takes widest scope. Accordingly, an element of the form V_{ROOT}+T(ense)+Agr would require a structure of the form $[_{AgrP}$ Agr $[_{TP}$ T $[_{VP}$ V$]]]$. As to head-to-head incorporation, it is, in this case, the association of a verb with various affixes in syntax through movement, the supposition of the GB mentioned a little earlier.

Yet, the problem lies precisely here: In the case of Turkish, unfortunately, the Mirror Principle and incorporation seem not to have fared too well. Göksel (1993) (cited in Aksan, 1995), for instance, argues that the Mirror Principle and incorporation analysis of complex predicates in Turkish is inefficient, basing her arguments on the negation of causatives and the suffixation of category changing morphemes to complex predicates.

2.2 Eliminating the vp

Following another line of reasoning, one may discard the shell layer, using a structure where the lexical domain is supposed to have the structure of several VP layers on top of each other. During the derivation of this structure, the verb successively raises to the head positions of the VPs to assign θ-roles. The light verb, supposed to head the vp in other approaches, is replaced by a specific feature heading a separate projection outside the lexical domain, to which the verb raises in order to check its corresponding feature. In the case of (21) above, then, the [CAUS] feature would presumably head VoiceP to which the V, *doldurdum*, raises to check its [CAUS] feature:

(28)



This structure seems similar to those that would be derived using the vp shell layer, yet there is a difference in that the VoiceP in (28) is outside the lexical domain and plays no function in θ-role assignment, being regarded as solely related to a formal, i.e., non-thematic, feature.

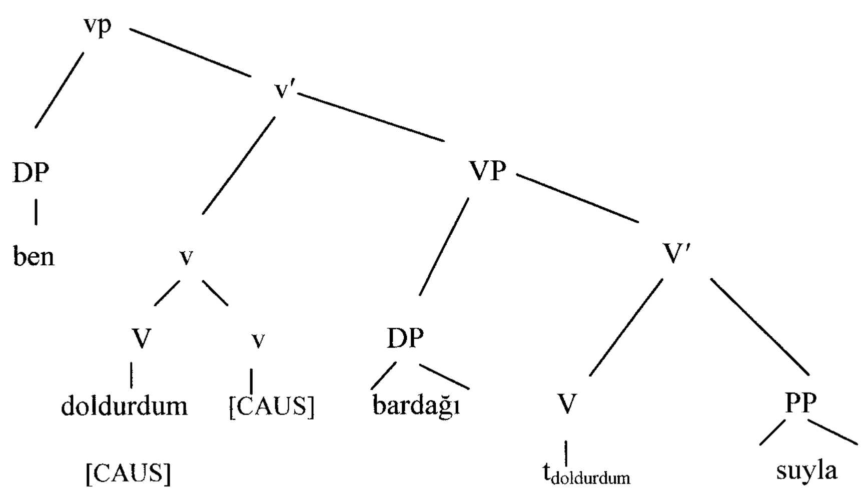
However, this structure fails to take notice of the intuition that the thematic contribution of *ben* in (28) is closely related to the causative element. The addition of a spec-VoiceP position, to establish a relation between *ben* and the causative element, will probably not resolve the issue, for, as it is supposed to lie outside the lexical domain, such a position will have no thematic contribution to clause structure, being reserved for formal features only.

2.3 Replacing the light verb

As a third alternative, refusing to reject the LIP and the shell analysis, preferring to be prudent and less radical, I shall propose the following alternative:

Instead of a light verb, suppose that a *feature* of some sort occupies v^0. Suppose, then, that, after lexical insertion, the V raises to v^0 in order to check off a matching feature. In the case of (21) above then, the case would be that v^0 is occupied by the causative feature [CAUS] and the V, *doldurdum*, raises to v^0 in order to check off its [CAUS] feature. The verb, then, raises to other parts of the structure, to check other features. In the light of these assumptions, then, (21) will have the simplified structure below:

(29)



It is this final proposed solution — a variant of the shell analysis which I have proposed, involving not a light verb but a voice feature in its stead — that I shall accept and apply for the analysis of Turkish predicates to be undertaken immediately.

In conclusion, to rephrase and summarize, it seems that a direct application of the vp shell derivation to Turkish is problematic, as a consequence of which, a modification of the shell approach is needed. Among the number of possible paths to take, I shall follow one that preserves the vp shell, yet, supposes that v^0 is occupied by a voice-marking feature (not by a light verb) to be checked as the Verb raises to v^0. I shall deal the problematic points in this solution and its possible ramifications on the overall framework and other intricacies of the matter in the course of the analysis to be undertaken immediately.

CHAPTER 3

VP SHELLS AND ARGUMENT STRUCTURE

Due to the link established between vp shells and voice in Turkish, it was deemed appropriate to divide the present chapter in a manner parallel to the demarcations of the voice phenomenon in Turkish. Each section begins with an analysis of two-place predicates, continuing with three-place predicates, to conclude with one-place predicates. This internal organization of the section may seem awkward, as opposed to the more natural one-place, two-place, etc., order. Ease of analysis was the main criterion in determining this arrangement.

3.1 Active voice

3.1.1 Two-place predicates

Two-place predicates are traditionally also referred to as mono-transitive verbs or simple transitive verbs. Below are examples including a construction that involve simple transitives and some two-place predicates represented in a *θ-grid* of the form, *predicate* 'meaning' <Role$_n$,...,Role$_1$>, where, as suggested by the indexes, Role$_1$ is assigned to Argument$_1$, Role$_2$ to Argument$_2$, etc.:

(30)

(i) Adam-ø kadın-ı sev-ø-di-ø.

man-NOM *woman*-ACC *love*-ACT-PAST-3s

The man loved the woman.

(ii)

ye ‘eat’ <Actor, Patient>

kes ‘cut’ <Actor, Patient>

sev ‘love’ <Experiencer, Neutral>

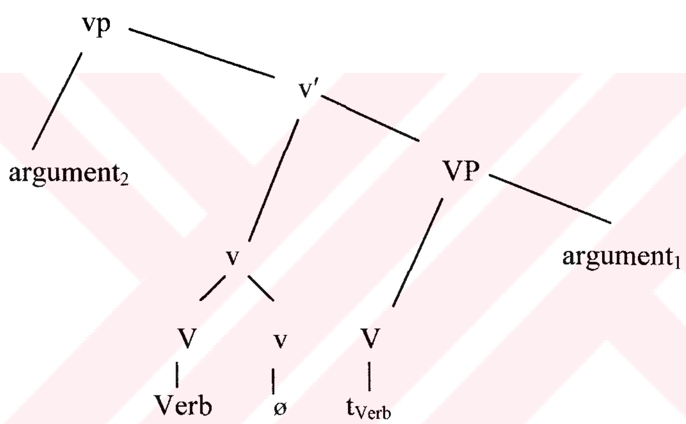
anla ‘understand’ <Experiencer, Neutral>

oku ‘read’ <Actor, Neutral>

öv ‘praise’ <Actor, Neutral>

For the analysis of simple transitive verb constructions, Chomsky (1995) and Radford (1997) propose the following structure:

(31)

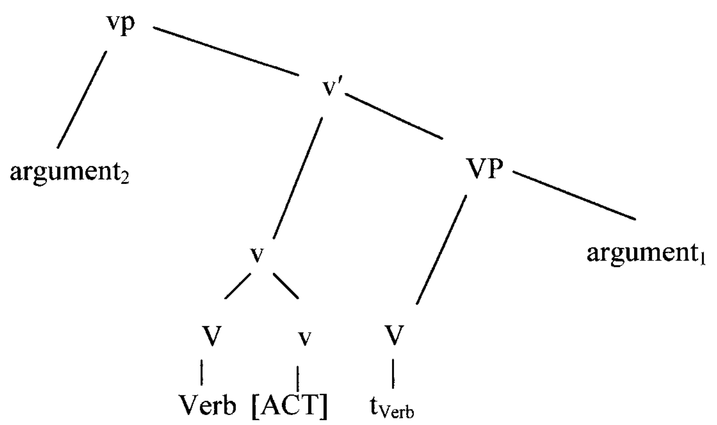


Here, argument$_1$, (the internal argument), and the Verb merge to form a VP. argument$_1$ is assigned its θ-role in this process. Then, this VP, which lacks a specifier position, is merged with a light verb, to form a v′. The Verb, then, raises to adjoin the light verb. Finally, the light verb assigns argument$_2$ (the external argument), a θ-role, when these two merge to form the vp.

The crucial part of this analysis is the supposition that the two arguments in the structure are each assigned their θ-roles by different verbal elements. Recall, however, that v^0 is supposed to host a voice feature, consequently, (31) needs to be modified and it needs to be assumed that v^0 is occupied not by a light verb but by an active voice feature. Such an approach would imply, however, that the role assigned by the light verb would need to be assigned by some other means: A mere feature is not thought of as a role assigner in the MP.

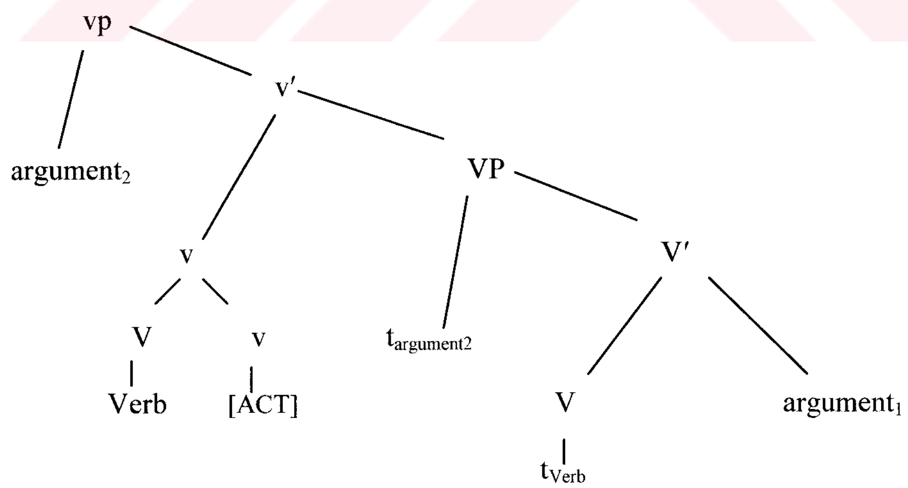
The most obvious candidate would be the V. Consequently, if the structure in (31) is adopted, it will have to be assumed that the θ-role of $argument_2$ is assigned by the Verb, when it raises to v^0, in order to check its active voice feature:

(32)



After these modifications, necessitated by the approach I adopt, then, it may seem superfluous to analyze a simple transitive using the structure in (32). Hence, one might, in the light of the suppositions made above, propose the following structure as an alternative to (32) for simple transitives in the active voice:

(33)



In this structure, it is the Verb that assigns the two arguments their θ-roles through Merge. The Verb, then, moves to v^0, in order to check off its voice feature. The subsequent movement of $argument_2$ to spec-vp, is the part of this structure that requires further thought: Remember that Move is an operation performed in the case of checking. However, it is not known whether there is a feature in spec-vp for $argument_2$ to check. Perhaps, argument raising to the position in question may be supposed to be the outcome of a syntactic condition such as the *Predication Condition* (PC) of Rothstein (1995):

(34) The Predication Condition:

Every syntactic predicate must be syntactically saturated.

Rothstein defines a syntactic predicate as an open maximal projection and argues that it needs to be saturated by being linked to a syntactic argument, its subject. In other words, a syntactic predicate is defined in terms of syntactic projections of heads and not necessarily in terms of the θ-roles assigned by those heads, i.e. predicates need not have a thematic relation with their subjects, they may be regarded as non-θ-marked maximal projections[14]. The vp in (33), then, qualifying as a syntactic predicate, has its specifier position filled by a raising argument, to satisfy this condition.

The structure (32) derived from (31) seems more acceptable at this stage, economically yielding structure and not requiring a problematic movement operation.

3.1.2 Three-place predicates

Three-place predicates are also traditionally referred to as ditransitive verbs. Examples of constructions that involve ditransitives and of some three-place predicates may be seen below:

(35)

(i) Adam-ø kadın-a kitab-ı ver-ø-di-ø.

man-NOM *woman*-DAT *book*-ACC *give*-ACT-PAST-3s

The man gave the woman the book.

---

[14] The PC resembles Chomsky's (1981) Extended Projection Principle, which requires that all sentences have subjects, yet differs from it in that it is not only a sentence-level condition but one within the scope of which are various types of phrases, such as verb phrases, adjective phrases and some noun phrases.

(ii) Adam-ø kadın-dan kitab-ı al-ø-dı-ø.

man-NOM *woman*-ABL *book*-ACC *take*-ACT-PAST-3s

The man took the book from the woman.

(iii)

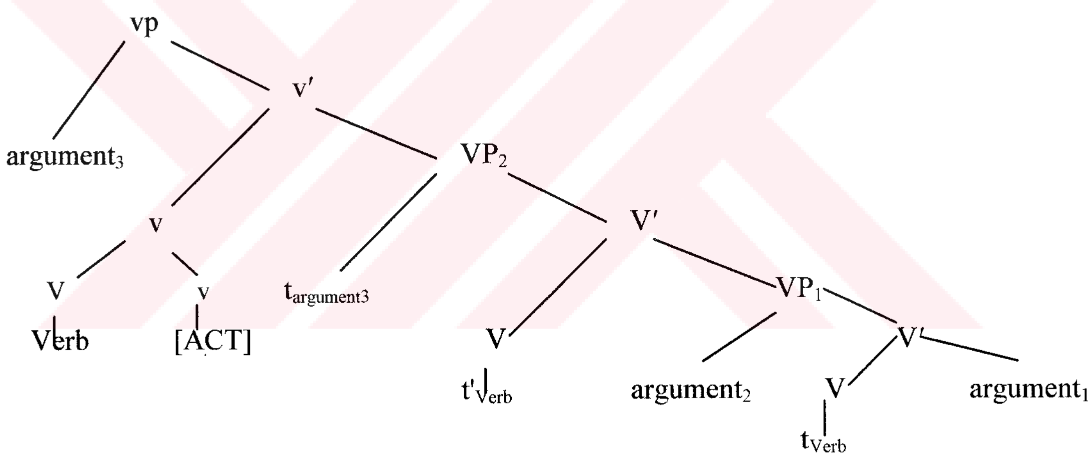
ver 'give' <Actor, Experiencer, Neutral>

sat 'sell' <Actor, Experiencer, Neutral>

al 'take' <Experiencer, Actor, Neutral>

In the case of three-place predicates, it is possible to propose a structure, that runs parallel to that in (33), in that the θ-roles of the arguments are assigned by the verb in the VP, as in (36), where, $argument_1$ is the direct object, $argument_2$ is the indirect object and $argument_3$ is the subject:

(36)



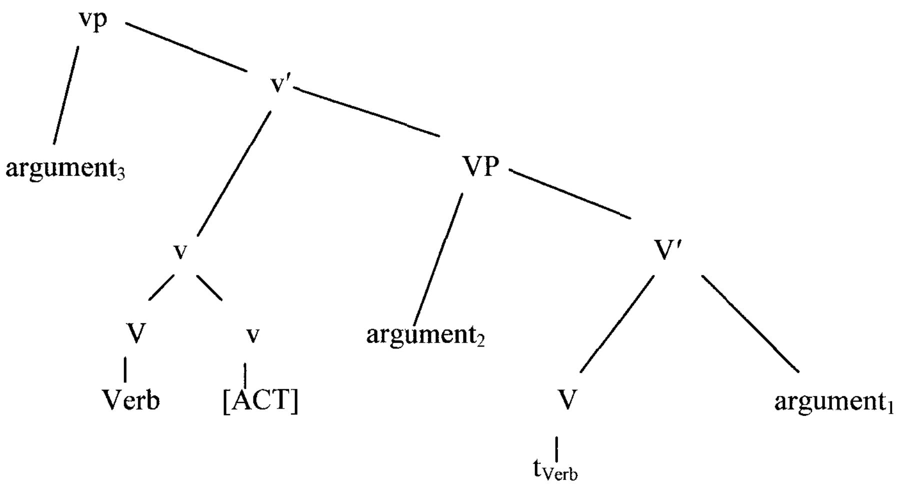
There are two problems with this structure, though. First, observe that the θ-role of $argument_3$ is supposed to be assigned in spec-VP_2, when the Verb raises to V^0 of that phrase, on the way to v^0. However, Chomsky (1995: 312-316) reminds us that θ-relatedness is a "base property", i.e., a property prior to any movement. More accurately, in the configurational theory of θ-roles, θ-relatedness is a property of the position of merger and its very local configuration. Accordingly, as an immediate conclusion, he claims, it makes little sense to think of a head of a chain as assigning a θ-role, chains being non-configurational.

The resolution of this first problem is by no means a mean feat: As a remedy, first of all, instances of verb movement may be eliminated from the lexical domain to the greatest extent possible so that the configurationality of the elements is restored. Yet this would require that an alternative process for role assignment to argument$_3$ be posited which would probably entail reverting to the light verb analysis, an undesirable outcome which could mean that the LIP may have to be rejected after all, despite the fact that this option had been ruled out in Section 2.1. As a second solution, either the θ-theory used may be modified, by supposing that features, especially certain verbal features, can assign θ-roles (as a consequence of which argument$_3$ may be assigned its role by some feature in v^0), or, the configurational θ-theory may be replaced by another that allows θ-role assignment through movement. Whether there are any other possible solutions to this problem, I do not know.

Second, notice that the Verb moves twice, the first time from V^0 to V^0, the second time from V^0 to v^0. Accounting for the second movement is rather straightforward: the Verb raises to v^0 in order to check off its [ACT] feature. It is the first movement operation that poses problems: what makes the verb move from V^0 to V^0? Recall that in the minimalist program movement is triggered by checking. Hence, for the Verb to make the V^0-to-V^0 move, there has to be a feature at the higher V^0 position. There is, as yet, no reason to believe that such a feature exists. So, either the SMP will have to be violated or a seemingly unsupported movement operation will have to be performed. Here, an operation introduced by Chomsky (1993) might solve the dilemma: *Form Chain*. This operation moves the Verb in a single step, forming the chain (Verb, t'_{Verb}, t_{Verb}) in the process. Thus, the problem of justifying the stop at an intermediary head position is eliminated.

This second problem may also be solved by eliminating the problematic movement operation in (36), and supposing that the structure of a construction involving a three-place predicate is, in fact, almost identical to that of a simple transitive construction. In other words, the structure in (37), inspired by Radford (1997), may be posited:

(37)



In this proposed derivation, then, the Verb moves only once, i.e. from V^0 to v^0, for the purpose of feature checking as in (33). The positions reserved for the arguments of the Verb are identical to those in structure (33). The main difference between the two structures lies in the arguments that occupy the argument positions and their origins: Argument$_2$ is hosted by the specifier position of the VP and argument$_3$ by the specifier position of the vp, the latter having come to occupy that position through merger, not through movement from the specifier position of the VP, an operation undergone by argument$_2$ in (33). The θ-roles of argument$_1$ and argument$_2$ are assigned by the Verb in the VP, and that of argument$_3$ again by the Verb, when it merges with v′, subsequent to the stage where the Verb raises to v^0 to check off its [ACT] feature. This second derivation, which seems to be kin to (33) in its treatment of internal arguments separately from the external argument, appears to be more adequate at this stage, economically yielding the structure, requiring as few head and argument positions, and movement operations as possible.

At this stage, it needs to be mentioned that it is not very clear which three-place predicate construction structures found in the literature are applicable to Turkish. The two preceding structures were inspired by Radford (1997), in certain respects, e.g., the relative positioning of the indirect and direct objects, the position where the external argument entered the derivation. Other structures may be proposed, however, on the basis of other approaches to the positioning of arguments. For instance, adopting the 'double complement' structure that Larson (1988) proposes, two possibilities are derivations that are basically the same as (36) or (37), differing only in argument positioning: the indirect object is argument$_1$

and the direct object is argument$_2$. Two other structures may also be formed on the basis of Larson's (1988) 'double object' construction, where argument$_1$ would be the direct object, argument$_2$ the indirect object and argument$_3$ the subject. In such structures, the vp layer may be similar to those in (36) or (37). The choice between these proposals will be postponed until later sections.

3.1.3 One-place predicates

One-place predicates, or intransitive verbs as they are traditionally termed, require only one argument. Here are examples of one-place predicates and their θ-grids:

(38)

(i)

öl 'die' <Experiencer>

düş 'fall' <Experiencer>

kop 'break' <Experiencer>

eri 'melt' <Experiencer>

bat 'sink' <Experiencer>

koş 'run' <Actor>

yürü 'walk' <Actor>

uyu 'sleep' <Experiencer>

yüz 'swim' <Actor>

düşün 'think' <Experiencer>

Despite being unifiable in terms of their valency, these verbs do not, in fact, constitute a uniform class. This diagnosis is based on a number of differences in the behavior of these verbs. So, it is generally assumed that the intransitive verb class is divided up into subcategories on the basis of behavioral differences. Though various schemes can be found, such as that proposed by Kural (1996)[15], the most commonly accepted holds that two types of intransitive verbs exist: unaccusatives and unergatives. I will adopt this standard distinction for the purposes of this thesis, in virtue of the extensive literature that facilitates the task of analysis. It seems, though, that espousing an alternative, such as Kural's classification would have produced no dire consequences for my vp shell analysis.

Let me demonstrate the behavioral differences between these two verb types by means of examples (see Levin and Rappaport Hovav, 1995 for more examples and further discussion):

(39) Unaccusatives:

(i) Three men appeared at the door.

(ii) There appeared three men at the door.

(iii) At the door appeared three men.

(iv) The book appeared recently.

(v) a recently appeared book

(40) Unergatives:

(i) The man ran in the woods.

(ii) *There ran a man in the woods.

(iii) *In the woods ran a man.

(iv) The man run fast.

(v) *a fast run man

Although, people such as Rosen (1984) (cited in Levin and Rappaport Hovav, 1995) criticize the sub-categorization schemes of the intransitive verb class and their generalizability to all languages on a number of accounts, namely, the lack of a single semantic property common to all unaccusative verbs selected by all diagnostic tests in all languages, the fact that verbs with similar meanings in and across languages may be

---

[15] Kural argues for a four-partite split of the intransitive verb class into unaccusative verbs, change of state verbs, change of location verbs and unergative verbs. He uses the distribution of constructions such as there-insertion, locative inversion, cognate objects, etc. as criteria.

classified differently with respect to unaccusativity, and the existence of individual verbs that appear to be classified as both unaccusative and unergative by the same diagnostic test, cross-linguistic research has strengthened the view that the intransitive verb class really is a non-uniform class. Examples of such research include Baker (1989, 1995b), Alsina and Mchombo (1988), Machobane (1989) (all cited in Baker, 1997), Bresnan and Kanerva (1989), Levin and Rappaport Hovav (1995).

A number of studies have concentrated on the application of the unaccusative-unergative distinction to Turkish. Among these, Özkaragöz (1986), Biktimir (1986), Knecht (1985) (all cited in Uzun, 2002) propose the two following lists:

(41)

(i) Unaccusatives: *bat* 'sink', *çürü* 'rot', *don* 'freeze', *eri* 'melt', *karar* 'darken', *patla* 'explode', *sol* 'fade', *büyü* 'grow up', *kay* 'slide', *kana* 'bleed'

(ii) Unergatives: *koş* 'run', *çalış* 'work', *düşün* 'think', *konuş* 'talk', *oyna* 'play', *yürü* 'walk', *yüz* 'swim', *atla* 'jump', *hopla* 'jump'

Also, Perlmutter (1978) (cited in Levin and Rappaport Hovav, 1995) presents evidence that in Turkish impersonal[16] passivization is possible only with unergative verbs. Here are examples of the impersonal passives in Turkish:

(42)

(ia) Bura-da bomba-ø patla-ø-dı-ø

here-LOC *bomb*-NOM *explode*-ACT-PAST-3s

(ib) *Bura-da patla-n-dı-ø.

here-LOC *explode*-PASS-PAST-3s

(iia) Bura-da adam-ø koş-ø-ar-ø.

here-LOC *man*-NOM *run*-ACT-PRES-3s

(iib) Bura-da koş-ul-ur-ø.

here-LOC *run*-PASS-PRES-3s

---

[16] Impersonal passives are passive constructions where there is no lexical subject.

In addition to these, Nakipoğlu (1998) employs a number of tests to distinguish between unaccusatives and unergatives. According to these, in the case of unergatives, the subject is both an actor and an experiencer, whereas the subject of unaccusatives is either, not an actor but an experiencer, or, neither an actor nor an experiencer.

(43)

(i) Adam koştu.

man-NOM (actor/experiencer) *run*-ø-PAST-3s

The man ran.

(ii) Adam boğuldu.

man-NOM (experiencer) *drown*-ø-PAST-3s

The man drowned.

Also, on the basis of the *çalış-* test she uses, she discovers that *çalış-* can be used with unergatives but not with unaccusatives. *Çalış-*, meaning 'try' in Turkish, obviously requires an actor, which can only be the subject of an unergative.

(44)

(i) Adam koşmaya çalıştı.

man-NOM *run*-ANom-DAT *try*-ø-PAST-3s

The man tried to run.

(ii) *Adam büyümeye çalıştı.

man-NOM *grow*-ANom-DAT *try*-ø-PAST-3s

The man tried to grow up.

Findings of another test Nakipoğlu uses indicate that *–(y)Ik* can be affixed to unaccusatives that modify subjects and transitives that modify objects but not to unergatives that modify subjects:

(45)

(i) batık gemi

sink-*Ik* ship

sunken ship

(ii) kırık kol

break-*Ik* arm

broken arm

(iii) *koşuk adam

run-*Ik* man

*run man

Furthermore, Nakipoğlu diagnoses that *–mIş* can be affixed to unaccusatives that modify subjects but not to unergatives that modify subjects:

(46)

(i) donmuş et

freeze-*mIş* meat

frozen meat

(ii) *koşmuş atlet

run-*mIş* athlete

*run athlete

The affix *–mIş* can be attached, though, to unergatives with objects, when modifying subjects,

(47) maraton koşmuş atlet

marathon run-*mIş* athlete

an athlete who has run a marathon

and to passive participles modifying objects,

(48) kırılmış kol

break-PASS-*mIş* arm

broken arm

What, then, are the structures of unaccusative and unergative verb constructions? In fact, there is a considerable body of evidence that unaccusative subjects behave like the objects of transitives and the subjects of passive constructions. (I will show below that the subjects of passive verbs raise to the subject position from the complement position, the 'canonical' position for objects.) For instance, Rosen (1981) and Perlmutter (1989) (cited in Levin and Rappaport Hovav, 1995) show that Italian participial absolutes can be used with the subjects of unaccusative and passive verbs but not of the subjects of transitive and unergative verbs. Also, Burzio (1986) (cited in Haegeman, 1994) reports that, in Italian, the single argument of an unaccusative verb can appear either before the verb or after the verb just like the subjects of passive verbs, adding that, Italian transitive verbs permit *ne*-cliticization to apply to their direct object argument and unaccusative verbs permit *ne*-cliticization to apply to their sole argument, but only when it appears after the verb – that is, only if it remains in what appears to be the direct object position.

The unaccusative verb shows further similarities to the passive verb: Rosen (1989) mentions voice marking in Albanian, citing Hubbard (1980) that unaccusative and passive verbs share a voice-marking morpheme, which is lacking on transitive and unergative verbs. Moreover, Burzio (1986) says that the unaccusative verb in Italian selects the auxiliary *essere* 'be', like the passive verb. Also, in English, the participle forms (i.e., *-en* or *–ed*) of unaccusative verbs can be used to modify unaccusative subjects, similar to passive participles modifying their subjects (Radford, 1997: 395), as in:

(49)

(i) The train arrived at the station is the morning train from Peking.

(ii) The woman arrested for shoplifting is now in jail.

In the case of Turkish, observe that Nakipoğlu's data show the similarity between the subjects of unaccusatives and the objects of transitives: They can both be modified by the *–Ik* forms of their verbs.

(50)

(i) batık gemi

(ii) kırık kol

Furthermore, Nakipoğlu's data also show that the subjects of unaccusatives can be modified by their verbs in *–mIş* form.

(51) donmuş et

This peculiarity can also be observed with the subjects of passive verbs and the passive verbs themselves.

(52) kırılmış kol

All these findings are, in fact, formulated in the so-called unaccusative hypothesis based on Perlmutter (1978), and Burzio (1986).

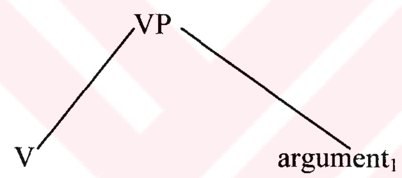
(53) The Unaccusative Hypothesis:

The sole argument of an agentive intransitive verb is a subject at all levels, but the sole argument of a non-agentive intransitive verb is generated as an initial object.

Thus, an unaccusative verb may be defined as an intransitive verb whose only argument seems to have been generated in the canonical object position. An unergative verb, on the other hand, is an intransitive verb whose sole argument has been generated in the canonical subject position.

So, I can finally propose a structure for the unaccusative construction. Chomsky (1995) claims that the structure of unaccusatives is the same as that for transitives without the vp shell, hence also without spec-vp:

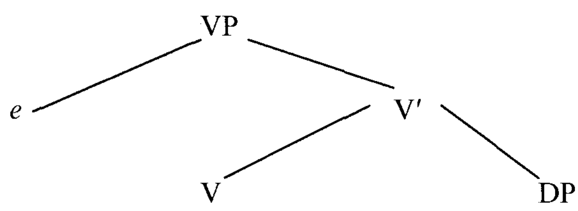
(54)



As Chomsky (1995) reserves the spec-vp position for actor subjects, it can be presumed that such a structure is a result of the fact that these verbs do not have such subjects. As I do not regard the spec-vp position as related exclusively to that θ-role, I will not omit the shell layer in the structure I will propose for unaccusatives.

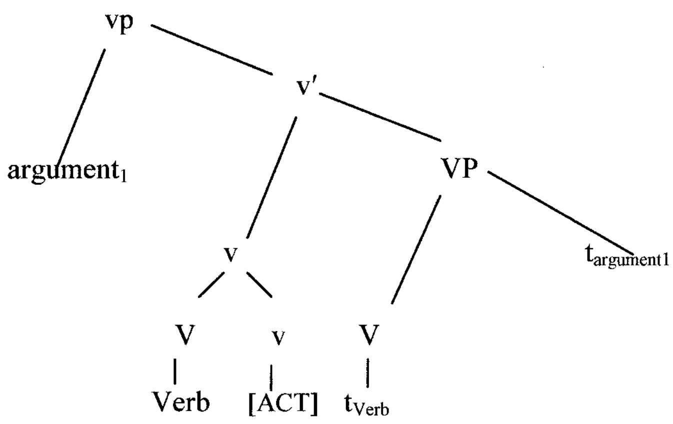
Other authors, such as Kural (1996), propose the following structure for unaccusatives, where a spec-VP exists but remains unfilled:

(55)

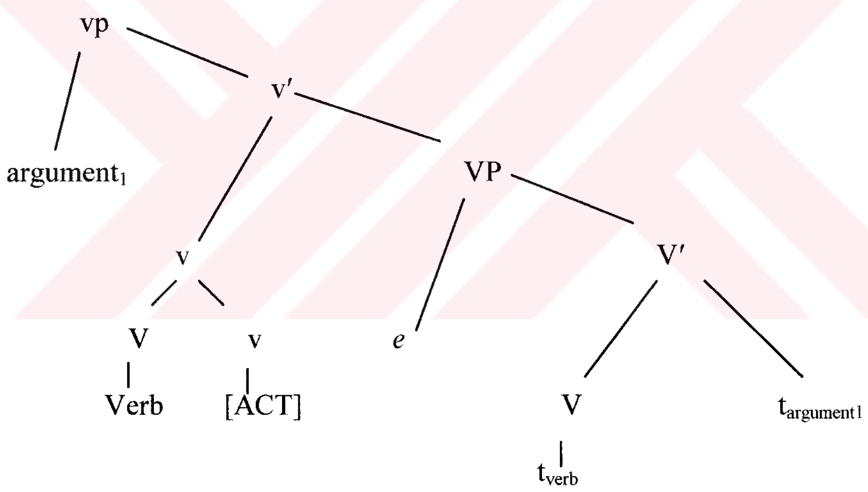


Blending the vp shell structure with the structures proposed by Chomsky and Kural, the following two structures may be obtained:

(56)



(57)



(57) appears more favorable because in such a structure, it may be supposed, inspired by Kural (1996), that the unfilled spec-VP is occupied by what are called non-

thematic complements (NTCs), which are complements that do not bear any thematic relation with respect to the verb[17], such as,

(58)

(i) Gemi *iki metre* battı.

The boat sank *two meters*.

(ii) Çocuk *iki metre* kaydı.

The child slid *two meters*.

Although the position in question is not regularly reserved for complements, the possibility of such positioning may be taken to be indicated by the impossibility of accusative case assignment to such elements:

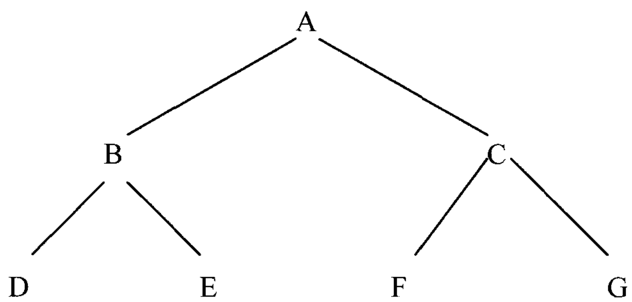
(59) *Gemi iki metreyi battı.

boat-NOM *two meter*-ACC *sink*-PAST-3s

Yet, there are two problems with this structure. First, the movement of argument$_1$ to spec-vp is a violation of the SMC: The argument in question has skipped a potential landing site, namely, spec-VP. Chomsky (1993: 10-14) deals with such problematic movement operations and proposes the following solution:

Take the basic relation of *domination* in (60), where B dominates D and E, C dominates F and G, and A dominates all other nodes (Chomsky and Lasnik, 1993):

(60)

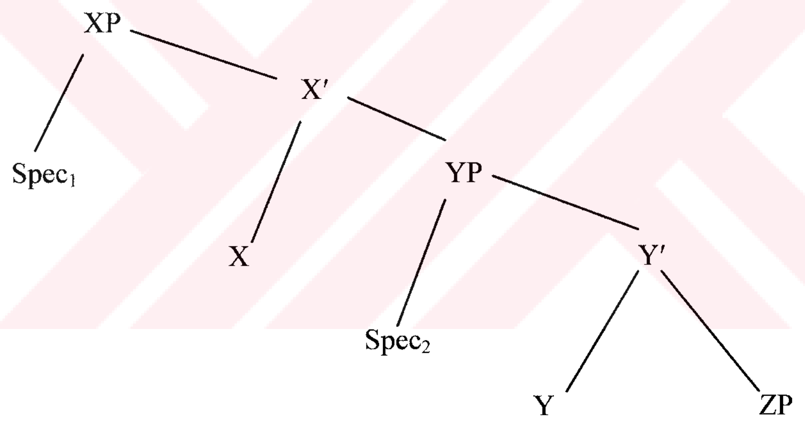


[17] It ought to be noted that these constituents may also be analyzed as adverbial elements specifying the verb. Yet, as it will be demonstrated below, when used with unergatives, they may carry accusative case and be passivized, casting some doubt on this analysis.

It is said that A *contains* B if every segment of A dominates B. Next, for a head α, take the *domain* of α to be the set of nodes dominated by the least maximal projection dominating α, with the exception of α itself and the nodes that contain α. The *minimal domain* of α is a subset of the domain of α, namely those nodes in the domain of α that are not dominated by another node in the domain of α. If these definitions are expanded to include chains, the situation is as follows: For an X^0-chain, such as $CH=(\alpha_1,\ldots,\alpha_n)$, the domain of CH is the set of nodes dominated by the least maximal projection dominating α_1, with the exception of any α_i and the nodes that contain any α_i. The minimal domain of CH is a subset of the domain of CH, namely those nodes in the domain of CH that are not dominated by another node in the domain of CH. Finally, if α and β are in the same minimal domain, they are *equidistant* from γ. In particular two landing sites are equidistant if they are in the same minimal domain.

Then, in an abstract structure such as the following,

(61)



observe that the domain of Y is the set {$Spec_2$, ZP} and the minimal domain of Y is again the set {$Spec_2$, ZP}. Next, suppose that ZP must raise to $Spec_1$ crossing $Spec_2$ and the element that occupies it, thus violating the SMC. Now, if Y adjoins to X, this movement operation, creating the chain (Y, t_Y), enlarges the domain of Y to {$Spec_2$, $Spec_2$, ZP} and consequently, the minimal domain of Y to again {$Spec_2$, $Spec_2$, ZP}. Thus, this last movement operation renders $Spec_1$ and $Spec_2$ equidistant from ZP (or anything it contains), so that raising of (or from) ZP can cross $Spec_2$ to $Spec_1$.

In fact, Chomsky's proposal seems to echo what is known in the literature as Holmberg's Generalization (Holmberg, 1986) (cited in Epstein et al., 1996: 45). Holmberg suggests that there is a connection with verb raising and object raising, on the basis of facts from Swedish and Icelandic, where movement of a pronoun (in Swedish) or noun phrase (in Icelandic) is not possible in past participle constructions. Assuming that the participle does not move (and that the negation marker *inte* is positioned above the VP), it appears that object movement is dependent on verb movement:

(62)

(i) Johan köpte den inte.

John bought it not

(ii) *Johan har den inte köpt.

John has it not bought.

(iii) Johan har inte köpt den.

John has not bought it

What the equidistance solution entails for (57) is, then, that Verb movement to v^0, would make spec-vp and spec-VP equidistant to comp-VP. This is precisely the movement of the verb in the structure in question.

The second problem is the following: If, as mentioned in the discussion of (33) on page 28, Rothstein's PC is at work in this analysis, then why is spec-VP unfilled? I am aware of no solution to this problem, save the modification of the proposed structure by the addition of an intermediary comp-VP-to-spec-VP argument movement operation. (If the spec-VP is filled by a NTC, that position may be skipped by the raising argument.) Such an additional movement operation would seem to be supported by the similarity of unaccusatives with passives mentioned above, for, as it will be clearer below, the movement of the sole argument of the unaccusative predicate will thus be identical to one of the possible types of argument raising processes in passive constructions.

As for the unergatives, following similar reasoning to that which was followed when proposing a structure for unaccusative verb constructions, the structure in (64) may be proposed, where there is a comp-VP position that can be filled by NTCs, as in (63). That the complement position may be filled by NTCs is suggested by the possibility of accusative case assignment to these complements, as in (63)(ii):

(63)

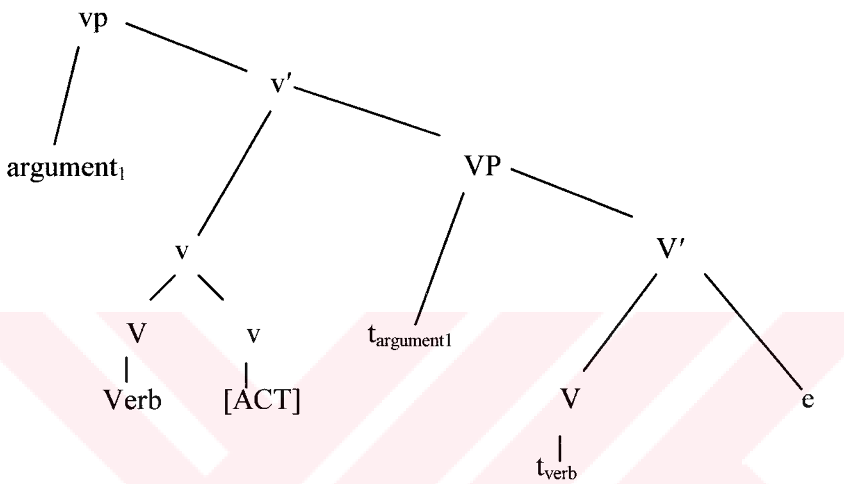
(i) Çocuk *beş metre* koştu.

The child ran *five meters*.

(ii) Çocuk o 5 metreyi koştu.

child-NOM *those five meter*-ACC *run*-PAST-3s

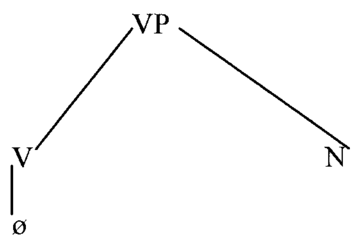
(64)



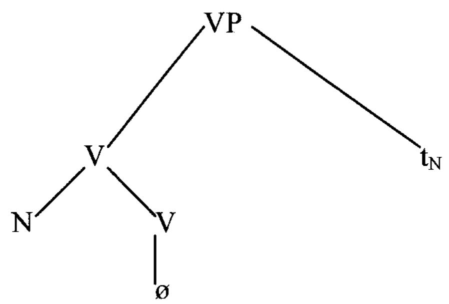
Other structures have been proposed in the literature, such as that proposed by Radford (1997: 390-392)(based on Baker (1988) and Hale and Keyser (1993)), and Hale and Keyser (1993: 53-64, 77-81), according to which an unergative verb construction would proceed as follows:

(65)

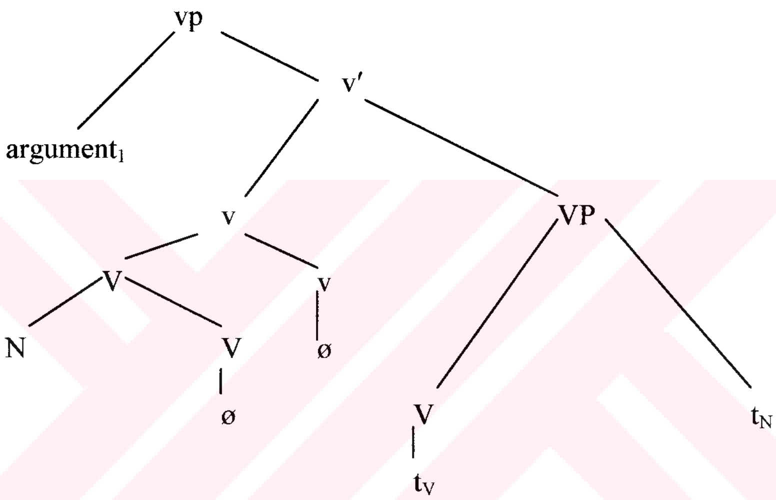
(i)



(ii)



(iii)



Here, a noun first merges with a light verb. Next, the noun incorporates into the light verb forming a derived verb of some sort. The VP thus formed is then merged with another agentive light verb, to form v′. Subsequently, the derived verb raises to adjoin this second light verb. The merging of the sole argument of the verb completes the lexical domain.

A careful examination of this structure, in the light of the LIP, though, reveals a problem similar to the one confronted in the application of the vp shell analysis to Turkish predicates: Take an inflected unergative verb such as *lunching*. According to the structure in (65), this verb will be formed by means of the incorporation of an abstract light verb into the noun *lunch*. But, then, what will happen the inflectional suffix *–ing*? Presumably, it will be picked up when the verb raises to some higher position in the structure. The incompatibility of this analysis with the LIP is evident, this outcome stemming from the pre-MP era origin of this analysis.

3.2 Causative voice

Voice variation typically has the effect of altering the valency of a verb. In Turkish, the causative is the only means of increasing the valency of the verb, involving, as mentioned above, the introduction of one additional argument with each iteration of the causative affix (Recall, however, the restrictions governing this phenomenon mentioned in Section 2.1). Here are some examples of the causative construction in Turkish. Notice that (67)(ib) and (iib) are not very good. I have, nonetheless, taken them as grammatical.

(66)

(i) Adam-ø ev-i sev-ø-di-ø.

man-NOM *house*-ACC *like*-ACT-PAST-3s

The man loved the house.

(ii) Kadın-ø adam-a ev-i sev-dir-di-ø.

wo*man*-NOM *man*-DAT *house*-ACC *like*-CAUS-PAST-3s

The woman made the man love the house.

(67)

(ia) Adam-ø çocuğ-a oyuncağ-ı ver-ø-di-ø.

man-NOM *child*-DAT *toy*-ACC *give*-ACT-PAST-3s

The man gave the child the toy.

(ib) ?Kadın-ø adam-a çocuğ-a oyuncağ-ı ver-dir-di-ø.

woman-NOM *man*-DAT *child*-DAT *toy*-ACC *give*-CAUS-PAST-3s

The woman made the man give the child the toy.

(iia) Adam-ø çocuk-tan oyuncağ-ı al-ø-dı-ø.

man-NOM *child*-ABL *toy*-ACC *take*-ACT-PAST-3s

The man took the toy rom the child.

(iib) ?Kadın adama çocuktan oyuncağı aldırdı.

woman-NOM *man*-DAT *child*-ABL *toy*-ACC *take*-CAUS-PAST-3s

The woman made the man take the toy from the child.

(68)

(ia) Adam-ø koş-ø-tu-ø.

man-NOM *run*-ACT-PAST-3s

The man ran.

(ib) Koç-ø adam-ı koş-tur-du-ø.

c*oach*-NOM *man*-NOM *run*-CAUS-PAST-3s

The coach made the man run.

(iia) Gemi-ø bat-ø-tı-ø.

ship-NOM *sink*-ACT-PAST-3s

The ship sank.

(iib) Düşman-ø gemi-(y)-i bat-ır-dı-ø.

enemy-NOM *ship*-ACC *sink*-CAUS-PAST-3s

The enemy sank the ship.

The θ-grids of causative verbs will be similar to their active 'counterparts' with one additional Actor argument for the causative. Notice that the assignment of the Actor role twice has been made possible by the relaxed version of the θ-criterion:

(69)

(i)

yedir 'make-eat' <Actor$_c$, Actor, Patient>

kestir 'make-cut' <Actor$_c$, Actor, Patient>

sevdir 'make-love' <Actor$_c$, Experiencer, Neutral>

anlat 'make-understand' <Actor$_c$, Experiencer, Neutral>

okut 'make-read' <Actor$_c$, Actor, Neutral>

(ii)

verdir 'make-give' <Actor$_c$, Actor, Experiencer, Neutral>

sattır 'make-sell' <Actor$_c$, Actor, Experiencer, Neutral>

aldır 'make-take' <Actor$_c$, Experiencer, Actor, Neutral>

(iii)

öldür 'kill' <Actor$_c$, Experiencer>

düşür 'drop' <Actor$_c$, Experiencer>

kopar 'break' <Actor$_c$, Experiencer>

erit 'melt' <Actor$_c$, Experiencer>

batır 'sink' <Actor$_c$, Experiencer>

koştur 'run' <Actor$_c$, Actor>

yürüt 'walk' <Actor$_c$, Actor>

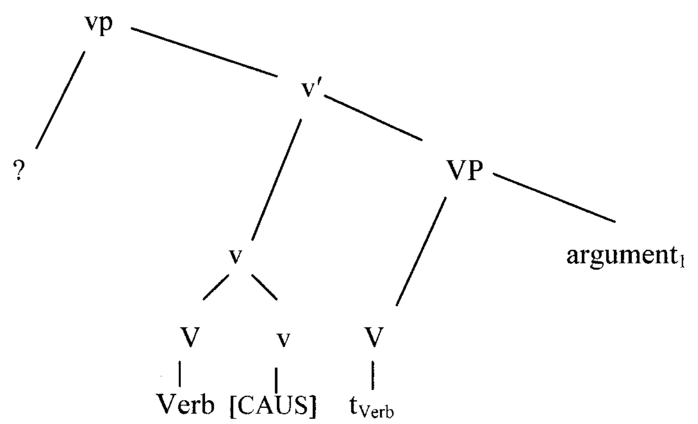
uyut 'sleep' <Actor$_c$, Experiencer>

yüzdür 'make-swim' <Actor$_c$, Actor>

düşündür 'make-think' <Actor$_c$, Experiencer>

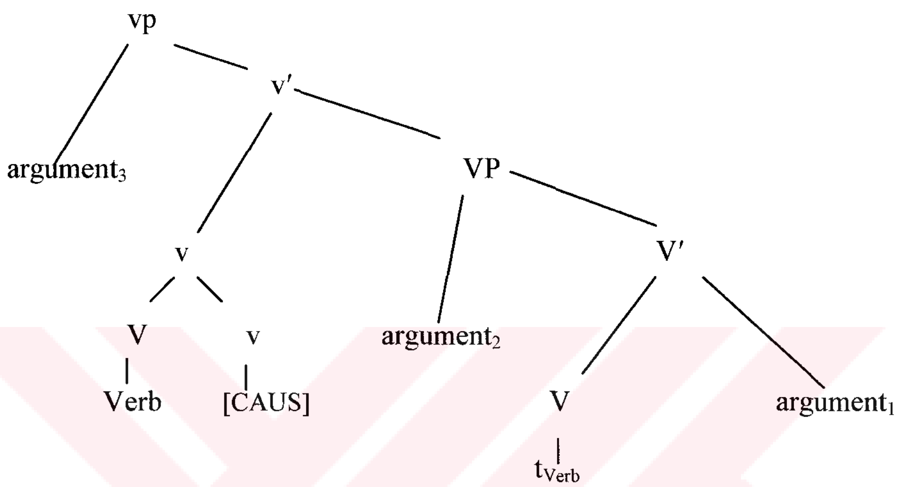
Let us, then, study the various structures derived by attaching the causative to predicates of different valencies. Recall that, in Section 3.1.2, the existence of a number of possible structures for two and three place predicates was mentioned. Also, recall that I had proposed two possible structures for the vp shell layer, one into the spec-vp of which the external argument moves, and another where the external argument is generated in spec-vp. Let us, then, evaluate these structures in the light of the causative construction. Replacing the causative feature with the active, in the light of the assumptions put forth in Section 1.2.4, (70) would be derived from (32):

(70)



As seen in the diagram, such a structure is problematic. Spec-vp should be occupied by the additional argument introduced by the causative construction, but if that position is allotted to the 'newcomer', no position will remain for argument$_2$ to occupy. An additional position is required, then, most probably between v′ and VP. Creating that additional position, presumably with the categorical status of spec-VP, the following structure would be obtained:

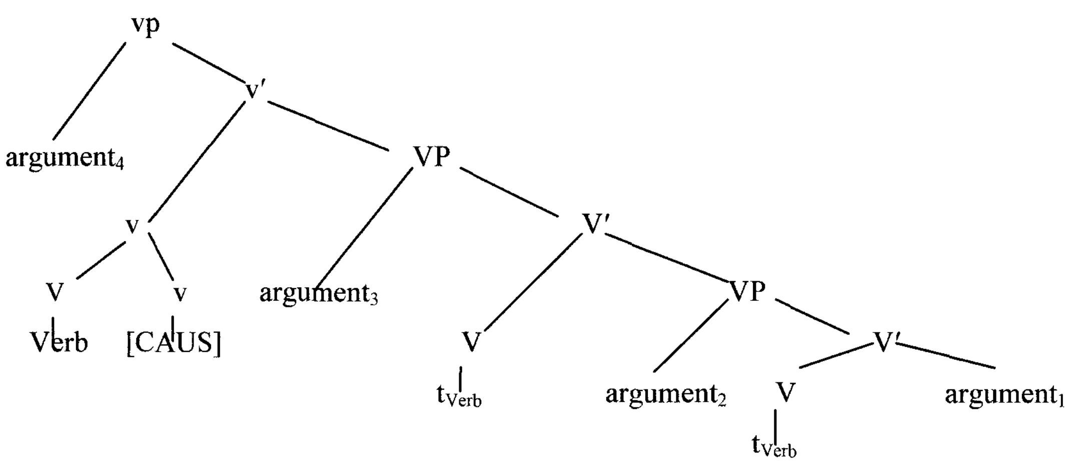
(71)



Interestingly, this structure is identical to one that would be formed if (33) were transformed into a causative construction: Argument$_1$, argument$_2$ would be generated in the two argument positions provided by the VP. The causative element would merge with the VP structure to form v′. Argument$_2$ would remain in place, as the specifier position of the vp is filled by the additional argument introduced by the causative, namely, argument$_3$. Semantic roles would be assigned to the first two arguments in the VP and the third argument would be given its θ-role when the Verb raises to v^0.

On the basis of this finding, then, I shall judge the structure in (33) to be more adequate than that in (32). The causative of simple transitive verb constructions will then be the structure in (71). The motivation for this choice is my desire to achieve the most uniform and simple description of the voice phenomenon possible. For while it may well be argued that two place predicates have the structure in (32) in active voice, whereas their structure is that in (71) in the causative voice, this would entail unwarranted complexity for the derivational system. Next, by way of extension, I shall propose the following structure for three-place predicates, opting for the structure in (36) for their active voice structure:

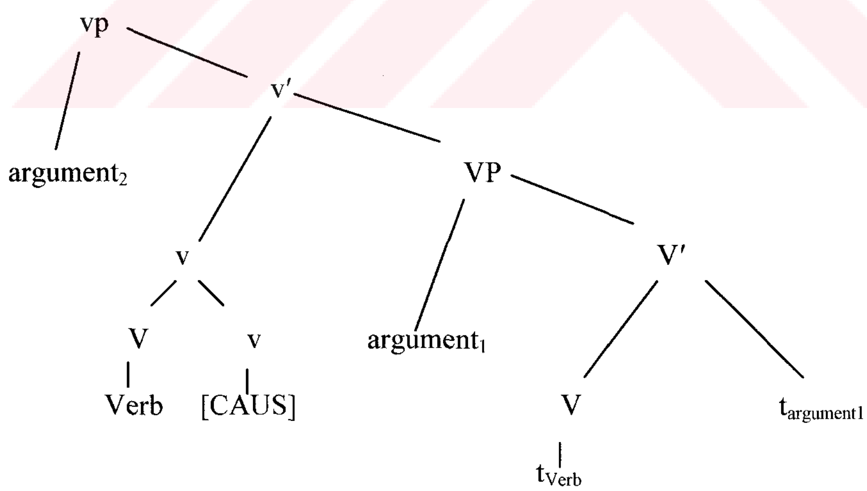
(72)



As for the Larsonian double object and double complement constructions mentioned in Section 3.1.2, the application of the causative vp structure to these constructions is rather straightforward.

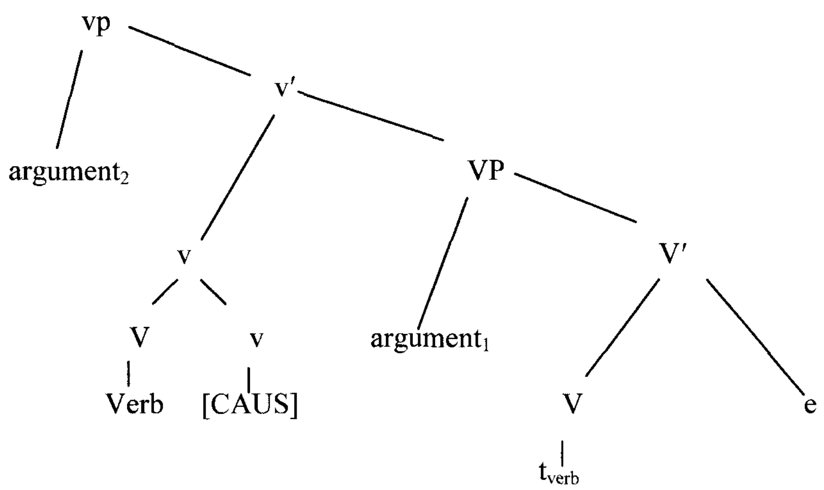
Next, for one-place predicates, the structures in (73) and (74) may be proposed, for unaccusative and unergative verbs respectively:

(73)



Here, again, after the formation of the VP, v′ and vp are formed successively. The causative feature occupies v^0, to which the verb raises. The same process is at work below, with the exception of the positioning of elements in the VP:

(74)



It needs to be added, at this stage, that the similarity of the positioning of the internal arguments in a causative sentence like (66)(ii) and the positioning of the arguments in its active 'counterpart', (66)(i), is the outcome of the UTAH: If in (66)(i), *adam* is Experiencer and *ev* is Neutral, and, if the introduction of an additional element in (66)(1)(ii) has not changed the roles of these two arguments, it follows, then, that these elements occupy the same positions in both structures.

Notice, however, that the structures in (71), (72), (73) and (74) suffer the role assignment through movement problem mentioned in Section 3.1.2, in the role assignment process to the argument introduced by the causative construction.

Let me then at this point summarize what has been done so far in the analysis: First, in Section 3.1, a number of structures were proposed for predicates of different valencies in the active voice: (32) and (33) for two-place predicates, (36) and (37) for three-place predicates, and (56), (57), (64) and (65) for one-place predicates. Of these, (50) and (57) were discarded in that section. Later, in the present section, (29) and (33) were discarded due to failing to provide a position for the additional argument required by the causative construction, in virtue of their incompatibility with the basic assumption that the causative and th active are mutually-exclusive, leaving (30) for two-place predicates and (32) for three-place predicates in the active voice. The intransitives were unaffected by this elimination process. Also in this section, the structures in (71) and (72) were proposed for two-place and three-place predicates respectively, and those in (73) and (74) for one-place predicates. In all the structures that remained, then, all the available argument positions of the lexical domain, i.e. the comp-VP and the spec-VP of a lower (or single) VP, spec-VP of a higher VP and the spec-vp, were used and the Verb was supposed to raise, in a cyclic fashion stopping at all head positions, to check its voice feature at v^0, assigning θ-roles to its arguments in this process. Recall that this process of θ-role assignment seeming to require verb movement, handled in both Section 3.1.2 and the present section, has possibly serious repercussions on the framework adopted in this analysis. I shall now move on to the passive voice constructions, evaluating the passive derivation standardly assumed and proposing an alternative.

3.3 Passive voice

As opposed to the valency increasing causative operation, Turkish has a number of constructions employed for the purpose of decreasing verb valency. Among these, I shall now concentrate on the passive.

The passive construction is standardly assumed (Jaeggli, 1986; Roberts, 1987 (cited in Haegeman, 1994) to involve the *absorption*, i.e. omission, of the θ-role assigned to the external argument of the verb, as a consequence of which the external argument is omitted and one of the internal arguments becomes the subject of the passive construction. The external argument may be expressed by means of an adpositional[18] phrase:

(75)

(i) Avcı-ø tavşan-ı vur-ø-du-ø.

Hunter-NOM *rabbit*-ACC *shoot*-ACT-PAST-3s

The hunter shot the rabbit.

(ii) Tavşan-ø (avcı tarafından) vur-ul-du-ø

rabbit-NOM (*hunter by*) *shoot*-PASS-PAST-3s

The rabbit was shot by the hunter.

(iii) *Avcı-ø tavşan-ø vur-ul-du-ø

hunter-NOM *rabbit*-NOM *shoot*-PASS-PAST-3s

[18] Adpositions are elements such as to, from, tarafından (by), doğru (towards).

(76)

(ia) Avcı-ø köpeğ-e tavşan-ı ver-ø-di-ø.

h*unter*-NOM *dog*-DAT *rabbit*-ACC *give*-ACT-PAST-3s

The hunter gave the dog the rabbit.

(ib) Tavşan-ø köpeğ-e ver-il-di-3s.

rabbit-NOM *dog*-DAT *give*-ACT-PAST-3s

The rabbit was given to the dog.

(iia) Avcı-ø köpek-ten tavşan-ı al-ø-dı-ø.

h*unter*-NOM *dog*-ABL *rabbit*-ACC *take*-PASS-PAST-3s

The hunter took the rabbit from the dog.

(iib) Tavşan-ø köpek-ten al-ın-dı-ø.

rabbit-NOM *dog*-ABL *take*-PASS-PAST-3s

The rabbit was taken from the dog.

(77)

(ia) Bura-da bomba-ø patla-ø-dı-ø

here-LOC *bomb*-NOM *explode*-ACT-PAST-3s

A bomb exploded here.

(ib) *Bura-da patla-n-dı-ø.

here-LOC *explode*-PASS-PAST-3s

(iia) Bura-da adam-ø koş-ø-ar-ø.

here-LOC *man*-NOM *run*-ACT-PRES-3s

The man runs here.

(iib) Bura-da koş-ul-ur-ø.

here-LOC *run*-PASS-PRES-3s

One runs here.

The following θ-grids may be proposed for passive verbs, with the 'covert' θ-role in brackets:

(78)

(i)

yen 'be eaten' <(Actor), Patient>

kesil 'be cut' <(Actor), Patient>

sevil 'be loved' <(Experiencer), Neutral>

okun 'be read' <(Actor), Neutral>

övül 'be praised' <(Actor), Neutral>

(ii)

veril 'be given' <(Actor), Experiencer, Neutral>

satıl 'be sold' <(Actor), Experiencer, Neutral>

alın 'be taken' <(Experiencer), Actor, Neutral>

(iii)

koşul 'run' <(Actor)>

yürün 'walk' <(Actor)>

yüzül 'swim' <(Actor)>

Here, it may be said that the fact that reference to the performer of the act necessitates the use of an adjunct adpositional phrase, as demonstrated by (75)(ii), constitutes evidence for θ-role absorption. Another piece of evidence put forth in support of this claim involves sentences such as,

(79)

(i) They arrested several students.

(ii) There were several students arrested.

(iii) Several students were arrested.

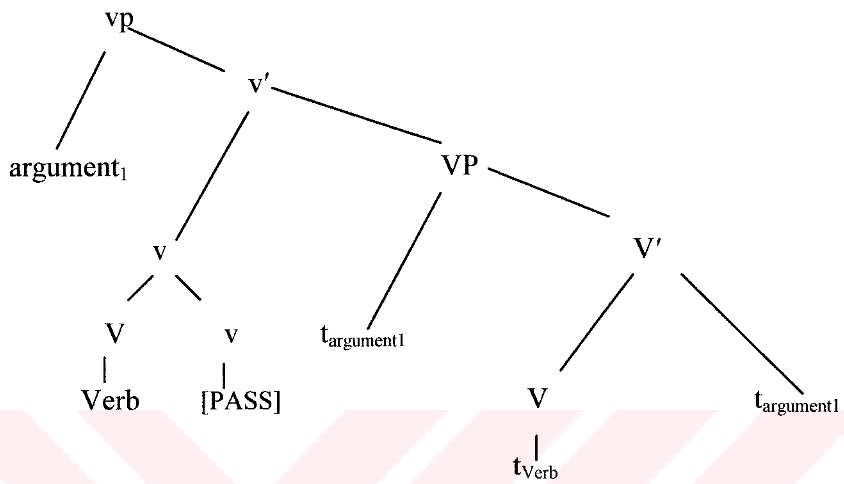
from Radford (1997) where the position of *several students* is thought to be the complement position of the VP, the specifier position of the VP and some uppermost argument position, respectively. So, in view of these sentences, *several students* seems to raise in a successive cyclic manner to the uppermost argument position. Were the specifier position of the VP used to assign a θ-role, several students would be assigned two θ-roles (the other assigned at the complement position), violating the θ-criterion. From another perspective and more accurately, in the light of the configurational θ-theory adopted in this framework, recall that a moved argument cannot receive a θ-role. Consequently, if the vacant spec-VP position had a role to assign, this role could not be assigned to the raising argument (or any other argument for that matter), hence would have to be left unassigned, resulting in a violation of the θ-criterion.

Note that the movement through the spec-VP can be explained in this analysis by means of the PC: the raising argument satisfies the requirement that every predicate have a subject. Unfortunately, however, this movement claim has become rather difficult to support empirically, due to the increase in the number of positions believed to exist above the VP in clause structure after Pollock (1989), as a consequence of which *several students* in (79)(ii) may now be claimed to occupy any one of a number of available positions above the comp-VP (see McCloskey, 1997 for further discussion on possible subject positions above the VP and the spec-VP). Consequently, if the raising complement does not necessarily stop at the specifier position of the VP, it may well be assumed that the θ-role assigned in this position is, in fact, not absorbed. This entails that an argument of some sort occupies the position in question, to which the external θ-role is assigned, so as not to violate the θ-criterion. This is presumably a covert (*empty*) element (ø). (75)(iii) would, thus, be explained under this assumption, as the impossibility of an overt performer of the action to be assigned a θ-role, this role having been assigned to the empty element. The adjunct adpositional phrase in (75)(ii) would, then, only serve to make the performer in question explicit. The intuition that a doer is implied even in a passive (independent of the fact that it is explicitly stated or not) would thus be paid heed to. Yet, in response to this, it is possible to claim that the adjunct in question does more than making the performer explicit: it expresses agentivity. Accordingly, it becomes possible to argue that if the actor role is really assigned to a covert element, that would imply that there are two actors in the event, one too many.

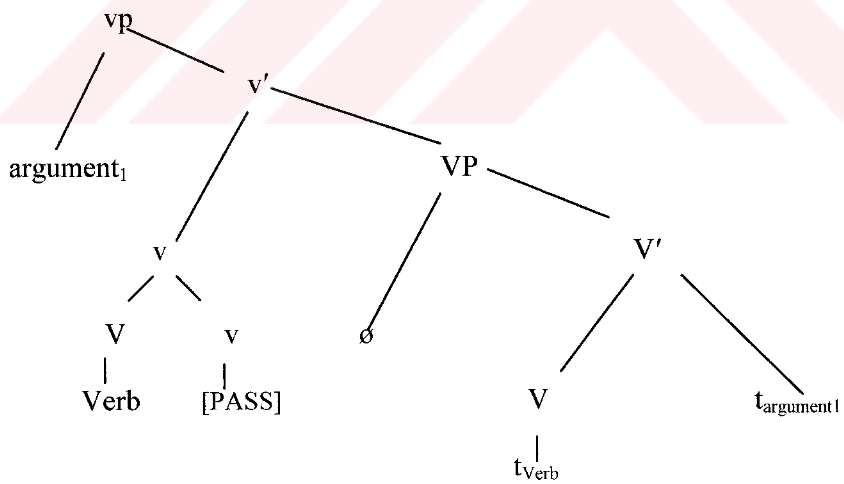
Suspending decision until a little later, let us consider the possible structures for passive constructions, dealing first with the passives of two-place predicates, moving on to three and one-place predicates. In the light of the above discussion then I shall follow two competing approaches, namely that, either a covert element *ø* fills the position of the argument that has been absorbed, or, that the raising internal argument stops at the position of the absorbed internal argument. With the number of solutions proposed above for two-place and three-place predicates, these two approaches yield eight possible structures for the passive constructions of these predicates:

(80)

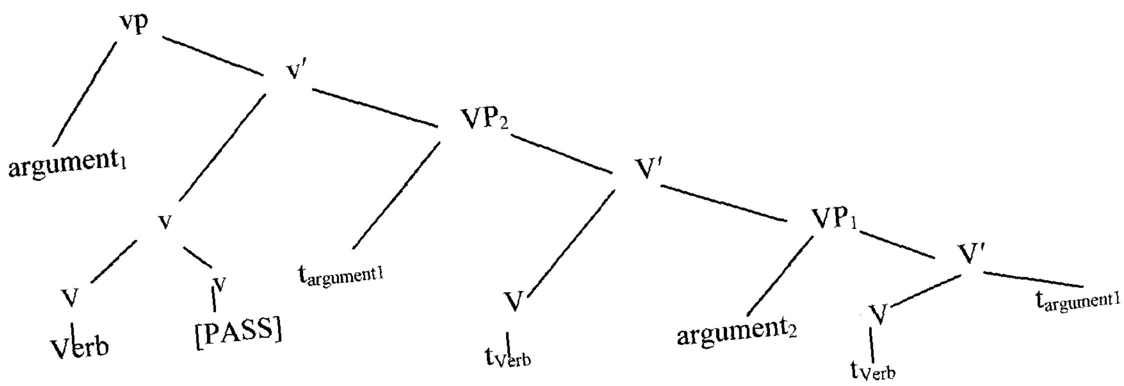
(i)



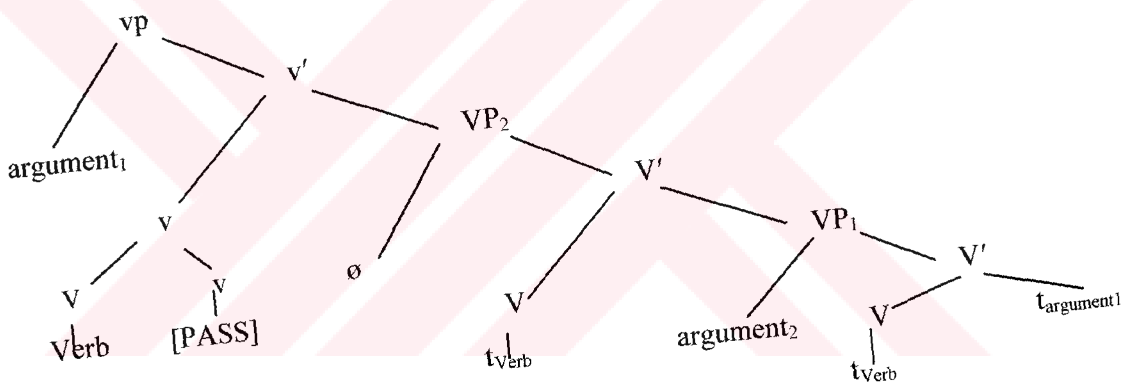
(ii)



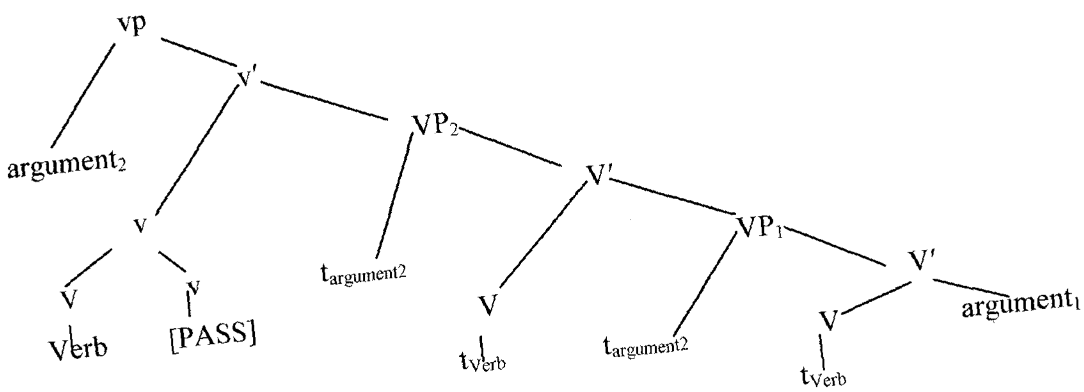
(iii)


vp
v′
argument1
VP2
V′
v
VP1
V′
v
v
targument1
V
argument2
V
targument1
Verb
[PASS]
tVerb
tVerb

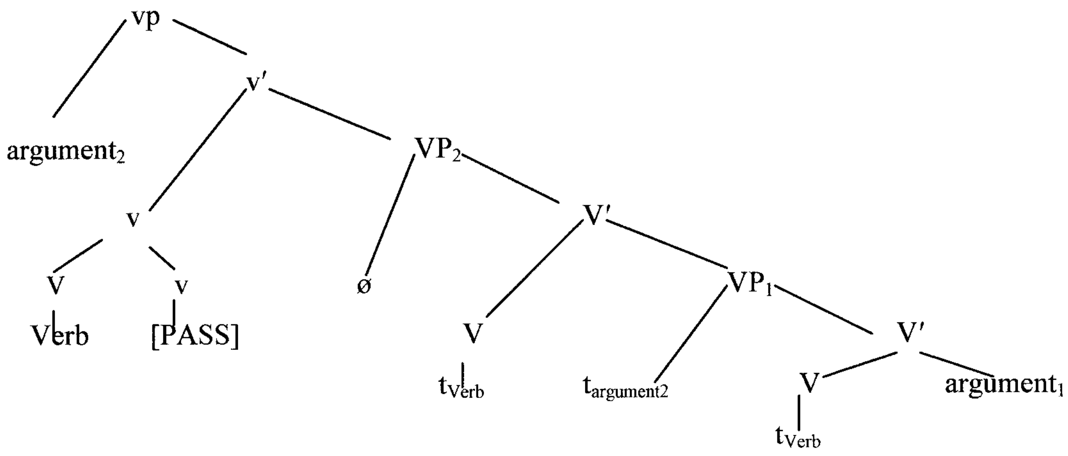
(iv)


vp
v′
argument1
VP2
V′
v
VP1
V′
v
v
ø
V
argument2
V
targument1
Verb
[PASS]
tVerb
tVerb

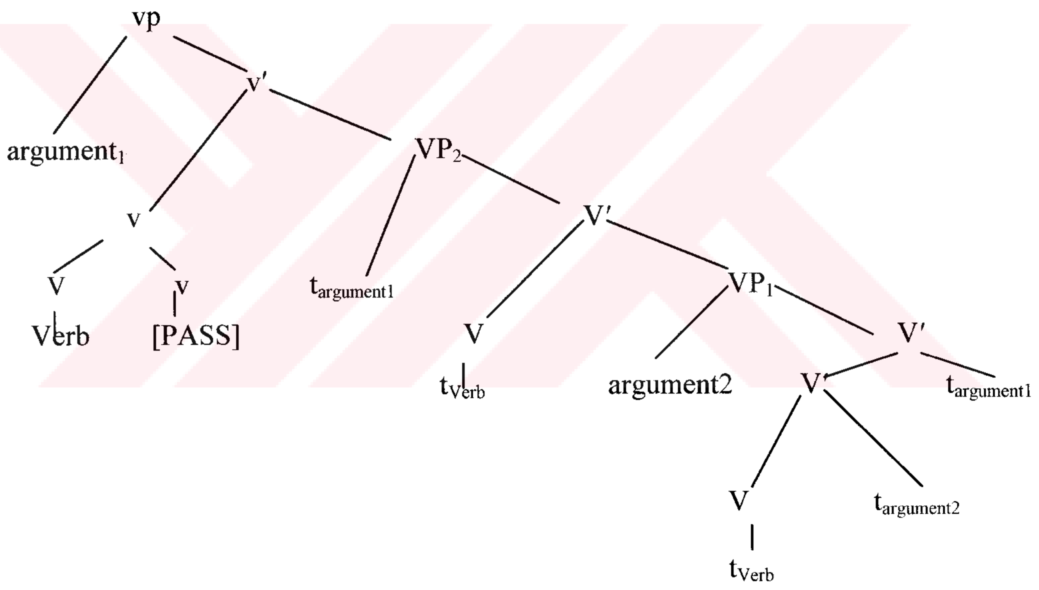
(v)


vp
v′
argument2
VP2
V′
v
VP1
V′
v
v
targument2
V
targument2
V
argument1
Verb
[PASS]
tVerb
tVerb

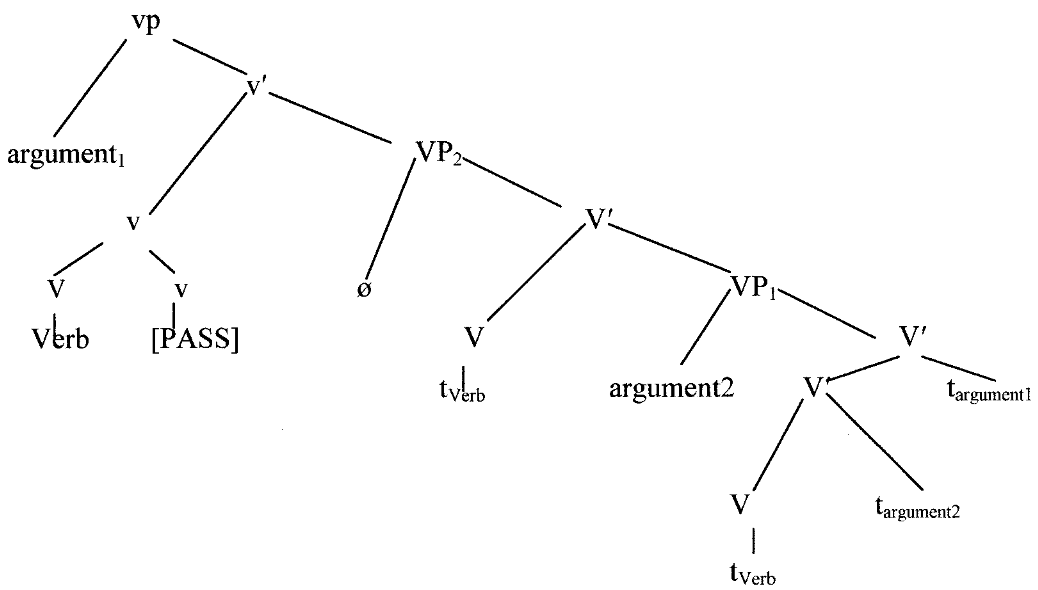
(vi)


vp
v′
argument₂
VP₂
v
V′
V
v
ø
VP₁
Verb
[PASS]
V
V′
t_Verb
t_argument2
V
argument₁
t_Verb

(vii)


vp
v′
argument₁
VP₂
v
V′
V
v
t_argument1
VP₁
Verb
[PASS]
V
V′
t_Verb
argument2
V′
t_argument1
V
t_argument2
t_Verb

(viii)

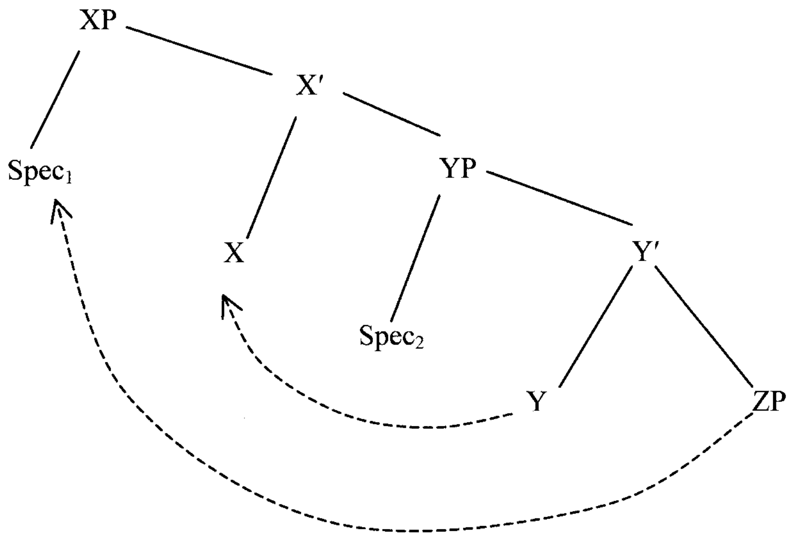


Notice that the argument occupying the spec-vp in all these structures is assumed to have raised to that position from some extraction site positioned lower in the structure. This assumption is based both on the sentences in (79) and the UTAH: Take an active sentence, such as (75)(i). In that sentence, the internal argument *tavşan* carries the θ-role Patient and occupies comp-VP. If in the passive of that sentence (75)(ii) *tavşan* still carries that θ-role, yet occupies the spec-vp, then, UTAH necessitates that it must have occupied comp-VP at least at one stage of the derivation.

Also, notice that in (80)(ii) comp-VP-to-spec-vp movement of $argument_1$, (iii) comp-VP_1-to-spec-VP_2 movement of $argument_1$, (iv) comp-VP_1-to-spec-vp, (vi) spec-VP1-to-spec-vp movement of $argument_2$, (vii) comp-VP1-to-spec-VP2 movement of argument1, (viii) comp-VP1-to-spec-vp movement of argument1, are violations of the SMC: in each case the element in question has skipped at least one potential landing site, or, quoting from Chomsky (1993), "the moved element has 'skipped' a position it could have reached by a shorter move, had that position not been filled", namely, spec-VP in (i), spec-VP_1 in (iii), spec-VP_1 and spec-VP_2 in (iv), spec-VP2 in (vi), spec-VP1 in (vii), and spec-VP1 and spec-VP2 in (viii).

Now, remembering Chomsky's equidistance solution,

(81)



notice that in all cases the 'competing' argument landing sites may be rendered equidistant to the extraction site of the raising argument by means of verb raising to the intervening head position(s), namely, v^0 in (80)(ii), the head position of VP_2 in (iii), the head position of VP_2 and v^0 in (iv), v^0 in (vi), the head position of VP_2 in (vii), and v^0 and the head position of VP_2 in (viii). The Verb having raised to all the required head positions, all problematic argument movement operations have, consequently, been made licit.

As to the case of the passives of one-place predicates, accounting for phenomena is rather trying. Recall that passive constructions involve the absorption of the external argument and the raising of the internal argument(s) to the highest subject position (and possibly some 'lesser' subject positions). However, as intransitives have only one argument, it is puzzling how one can form passives from them. In fact, as mentioned above in (42) on page 35, all passivization is impossible with unaccusatives and only impersonal passives are possible with unergatives:

(82)

(ia) Bura-da bomba-ø patla-ø-dı-ø

here-LOC *bomb*-NOM *explode*-ACT-PAST-3s (ib) *Bura-da patla-n-dı-ø.

here-LOC *explode*-PASS-PAST-3s

(iia) Bura-da adam-ø koş-ø-ar-ø.

here-LOC *man*-NOM *run*-ACT-PRES-3s

(iib) Bura-da koş-ul-ur-ø.

here-LOC *run*-PASS-PRES-3s

Remembering the structure proposed for the unaccusatives, the lack of passivized unaccusatives may be claimed to be a natural outcome of the nature of such predicates: they lack the external argument that can be absorbed in passivization. It may further be claimed that the argument that raises to fill the external argument position in the course of the derivation may not be absorbed, in virtue of the fact that it is a raising internal argument. Yet, remember that intransitives can take NTCs, as shown in (58) and repeated here as (83) for convenience' sake:

(83)

(i) Gemi *iki metre* battı.

The boat sank *two meters*.

(ii) Çocuk *beş metre* koştu.

The child ran *five meters*.

Then, in the light of the process that yields the passive construction, one might ask why unaccusatives with NTCs may not be passivized, for these elements are claimed to be generated in spec-VP.

(84)

*İki metre bat-ıl-dı-ø.

two meter sink-PASS-PAST-3s

However, recall that the elements in question bear no thematic relation to the verb and are optional, hence, they do not qualify as arguments, as a consequence of which they may claimed to be impossible to absorb for passivization. On the other hand, as their NTCs do not occupy the specifier position, and their absorbed argument is the external argument of the verb, unergatives should permit passivization. This is really the case:

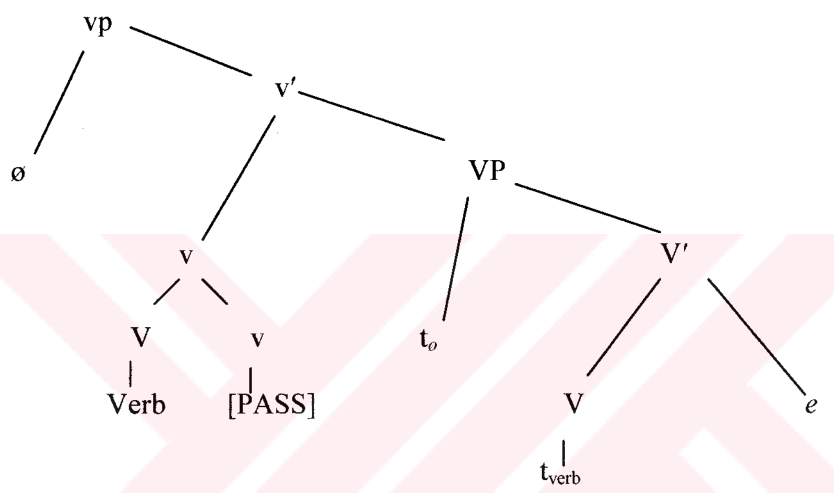
(85)

yüz metre koş-ul-du-ø.

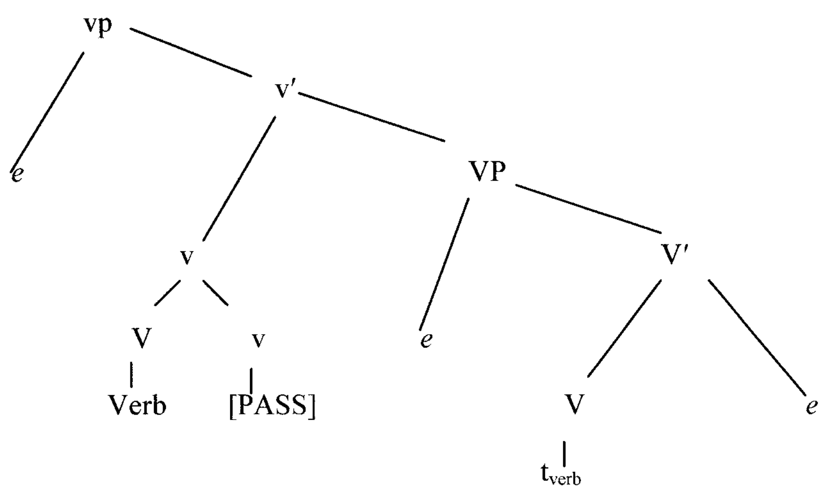
hundred meter run-PASS-PAST-3s

Then, let me propose a structure for unergatives. There are two possible structures, one where a covert element occupies spec-VP and later raises to spec-vp due to the PC and another where spec-VP is presumably unfilled for the argument occupying that position has been absorbed and there is no element to move into it:

(86)



(87)



Observe, however, that the structure in (87) violates the PC that seems to be required in my analysis of Turkish predicates. In the case of the existence of an NTC, this principle is satisfied by moving the element in question to spec-VP as required by the process of passivization, in the opposite case, however, there seems to be no means of observing the principle in question. In consequence, the structure in (86) seems to be favored over that in (87).

It needs to be remarked at this stage that this finding has repercussions on the analysis of passivized two-place and three-place predicates: if the ø-fills-spec-XP approach has thus proven itself to be more compatible with my assumptions and accepted principles, then, it needs to be concluded that the structures in (80)(ii), (iv), (vi) and (viii) are, in their turn, favored over those in (80)(i), (iii), (v), (vii).

Having scrutinized passive voice constructions, and favored the alternative analysis that supposes a covert argument, in the light of the Predication Condition foregrounded by the passives of unergatives, I shall now resume the analysis with reflexive voice constructions. I shall assumed that the MRfC involves, similar to the passive, a covert element.

3.4 Reflexive voice

Turkish also employs reflexive voice constructions for the purpose of decreasing verb valency, with two means of expressing reflexivity, as mentioned in Section 1.2.4. The two methods can be used interchangeably in certain cases, as demonstrated in (88)-(90), whereas in certain others mutual substitution is blocked, as in (91)-(93). Notice that the examples involve two-place and three-place predicates only, due to the lack of reflexive construction for intransitives.

(88)

(i) Adam-ø yüz-ü-(n)-ü yıka-ø-dı-ø.

man-NOM *face*-POSS-ACC *wash*-ACT-PAST-3s

The man washed his face.

(ii) Adam-ø kendi-ni yıka-ø-dı-ø.

man-NOM *himself*-ACC *wash*-ACT-PAST-3s

The man washed himself.

(iii) Adam-ø (kendi/kendi kendine) yıka-n-dı-ø.

man-NOM *wash*-REFL-PAST-3s

The man washed himself.

(iv) *Kendi yıka-n-dı-ø.

himself wash-REFL-PAST-3s

(89)

(i) Adam-ø yaşam-ı-(n)-ı iş-i-(n)-e ada-ø-dı-ø.

man-NOM *life*-POSS-ACC *job*-POSS-DAT *devote*-ACT-PAST-3s

The man devoted his life to his job.

(ii) Adam-ø kendi-(n)-i iş-i-(n)-e ada-ø-dı-ø.

man-NOM *himself*-ACC *job*-POSS-DAT *devote*-ACT-PAST-3s

The man devoted himself to his job.

(iii) Adam-ø iş-i-(n)-e ada-n-dı-ø.

man-NOM *job*-POSS-DAT *devote*-REFL-PAST-3s

The man devoted himself to his job.

(90)

(i) Kadın-ø el-i-(n)-e krem-ø sür-ø-dü-ø.

woman-NOM *hand*-POSS-DAT *cream*-ABS *smear*-ACT-PAST-3s

The woman put cream on her hand.

(ii) Kadın-ø kendi-(n)-e krem-ø sür-ø-dü-ø.

woman-NOM *herself*-DAT *cream*-ABS *smear*-ACT-PAST-3s

The woman put cream on herself.

(iii) Kadın-ø krem-ø sür-ün-dü-ø.

woman-NOM *cream*-ABS *smear*-REFL-PAST-3s

The woman put cream on herself.

(91)

(i) Adam-ø eş-i-(n)-e bak-ø-tı-ø.

man-NOM *spouse*-POSS-DAT *look*-ACT-PAST-3s

The man looked at his spouse.

(ii) Adam-ø kendi-(n)-e bak-ø-tı-ø.

man-NOM *himself*-DAT *look*-ACT-PAST-3s

The man looked at himself.

(iii) *Adam-ø bak-ın-dı-ø.

man-NOM *look*-REFL-PAST-3s

(92)

(i) Adam-ø yaşam-dan kaç-ø-ıyor-ø.

man-NOM *life*-ABL *escape*-ACT-PROG-3s

The man is running away from life.

(ii) Adam-ø kendi-(n)-den kaç-ø-ıyor-ø.

man-NOM *himself*-ABL *escape*-ACT-PROG-3s

The man is running away from himself.

(iii) *Adam-ø kaç-ın-ıyor-ø.

man-NOM *escape*-REFL-PROG-3s

(93)

(i) Adam-ø gücü-(n)-ü herkes-e ispatla-ø-dı-ø.

man-NOM *power*-ACC *everyone*-DAT *prove*-ACT-PAST-3s

The man proved his strength to everybody.

(ii) Adam-ø kendi-(n)-i herkes-e ispatla-ø-dı-ø.

man-NOM *himself*-ACC *everyone*-DAT *prove*-ACT-PAST-3s

The man proved himself to everybody.

(iii) *Adam-ø herkes-e ispatla-n-dı-ø.

man-NOM *everyone*-DAT *prove*-REFL-PAST-3s

Here are the possible θ-grids of reflexive verbs, with the 'covert' θ-role in brackets:

(94)

(i)

dövün 'hit oneself' <Actor, (Patient)>

yıkan 'wash oneself' <Actor, (Patient)>

(ii)

adan 'devote oneself' <Actor, Neutral, (Patient)>

sürün 'smear onto oneself' <Actor, Patient, (Patient)>

It needs to be mentioned that (88)(iv) is given for the purpose of showing that it is not the external argument that is omitted. This sentence is grammatical if the intended meaning is *He washed himself all by himself.* Here, however, the intended meaning is something like *The man washed himself* or *Himself washed the man.* This meaning is obtained with the use of the adjuncts in (88)(iii), employed not for the purpose of expressing some absorbed internal argument but possibly emphasizing agentivity.

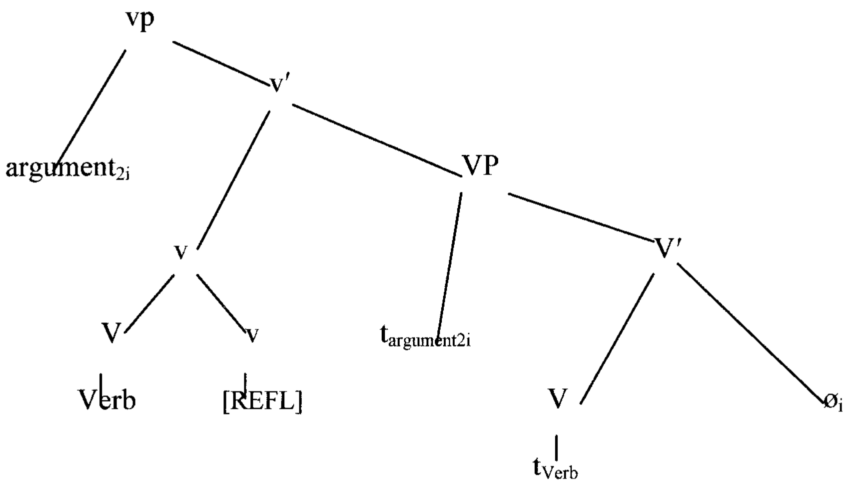
It also ought to be noted that Turkish allows the derivational[19] use of the reflexive affix, in the process of which the affix loses its reflexive meaning. If the reflexive affixes in (91)(iii) and (92)(iii) are interpreted as derivational morphemes these sentences will be grammatical, meaning, *The man looked around*, and *The man is avoiding to do something*, respectively. However, here, the reflexive affix is being used as a voice marker, as a result of which ungrammaticality arises.

I shall leave aside the job of accounting for the mismatches between the two types of reflexives and that of revealing the pattern behind the lexical reflexive construction, which are not within the scope of this thesis. Suffice it to note once more that the MRfC involves the omission of an internal argument. This implies that indirect as well as direct objects may

[19] The term derivation, in the context of word-formation, is the process of obtaining new words by adding affixes to existing words, as illustrated by the formation of *happiness* from *happy*.

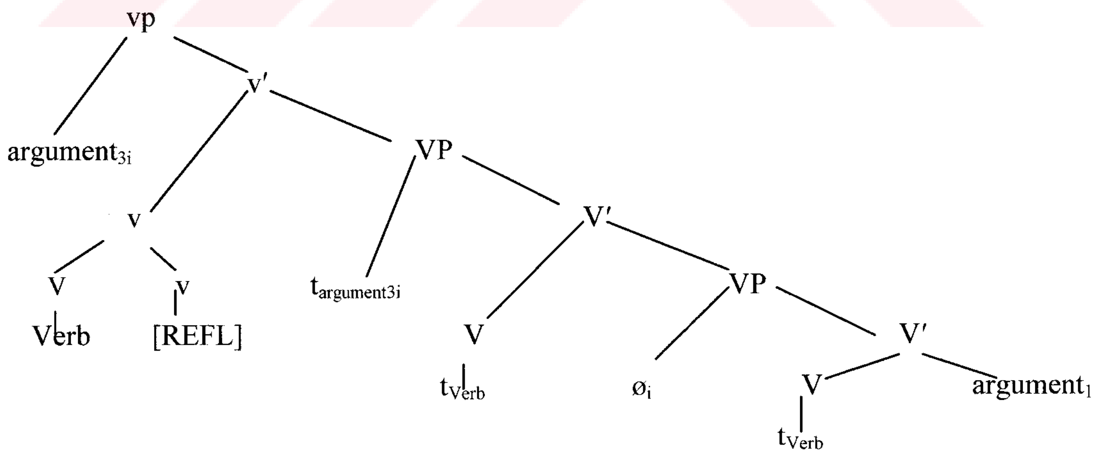
be omitted in this construction. On the basis of this observation, let me propose, then, structures for the MRfCs of two-place and three-place predicates.

(95)

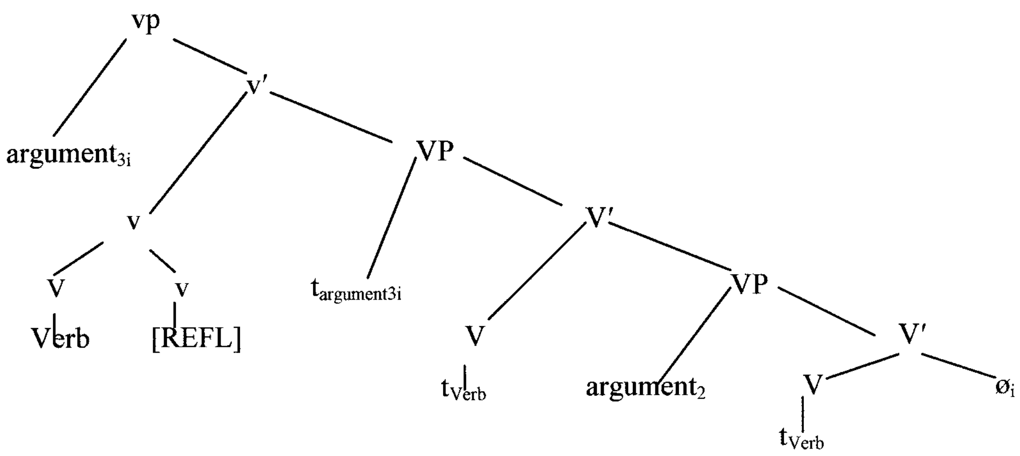


For three-place predicates, there are six possible structures. Those derived from Radford and Larson's double complement structure yield two each. These are almost identical, however, differing only in their positioning of direct and indirect objects. Larson's double object structure also yields two structures.

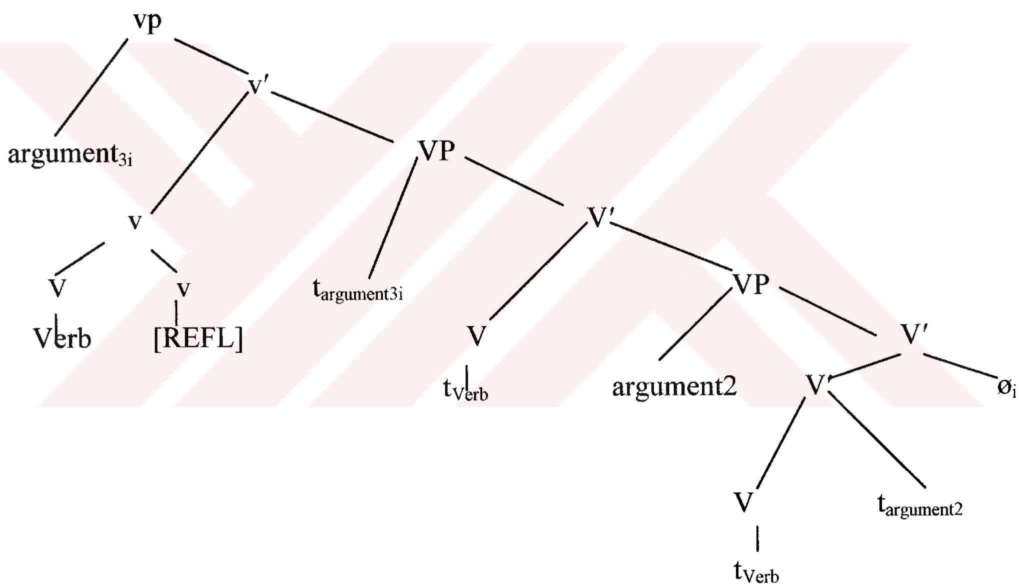
(96)



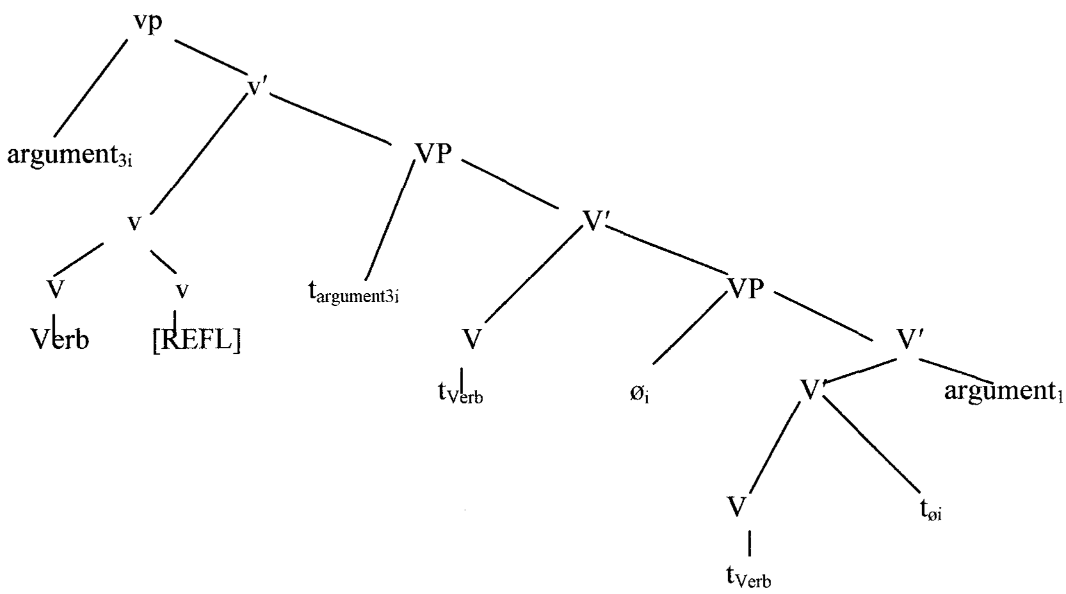
(97)


vp
argument$_{3i}$
v′
v
VP
V
Verb
v
[REFL]
t$_{argument3i}$
V′
V
t$_{Verb}$
VP
argument$_2$
V′
V
t$_{Verb}$
ø$_i$

(98)


vp
argument$_{3i}$
v′
v
VP
V
Verb
v
[REFL]
t$_{argument3i}$
V′
V
t$_{Verb}$
VP
argument2
V′
V′
ø$_i$
V
t$_{Verb}$
t$_{argument2}$

(99)



Notice that in the proposed structures above, some sort of reflexive empty element (its reflexivity indicated by co-indexation) occupies the positions from which an element has been removed. The reason for this is as follows:

The reflexive action is necessarily performed onto one's self. Consequently, the performer of the act is at the same time the sufferer of the act: It is both an Actor and a Patient. In the MRfC there is seemingly only one element. However, the θ-criterion prohibits the assignment of two θ-roles to one argument. So, the existence of a covert element, to which one of the two θ-roles in question is assigned, has to be supposed.

3.5 Reciprocal voice

Similar to reflexives, reciprocals of intransitives are inexistent, setting aside cases where the reciprocal affix is used as a derivational suffix. Also, similar to the two reflexive constructions, the two reciprocal constructions can be used interchangeably in certain cases, as demonstrated in (100) and (101), whereas in certain others mutual substitution is problematic, as in (102)-(107):

(100)

(i) Adam-lar-ø birbirleri-n-i döv-ø-dü-ler.

man-PLUR-NOM *each other*-ACC *beat*-ACT-PAST-3p

The men beat each other.

(ii) Adam-lar-ø döv-üş-tü-ler.

man-PLUR-NOM *beat*-RECIP-PAST-3p

The men fought each other.

(iii) *Birbirleri-ø döv-üş-tü-ler.

each other-NOM *beat*-RECIP-PAST-3p

(iv) Adam-lar-ø birbirleri ile döv-üş-tü-ler.

man-PLUR-NOM *each other with beat*-RECIP-PAST-3p

The men fought with each other.

(v) Adam-lar-ø düşman-lar ile döv-üş-tü-ler.

man-PLUR-NOM *enemy*-PLUR *with beat*-RECIP-PAST-3p

The men fought with the enemy.

(vi) Adam-lar-ø ile düşman-lar döv-üş-tü-ler.

man-PLUR-NOM *with enemy*-PLUR *beat*-RECIP-PAST-3p

The men fought with the enemy.

(vii) *Adam-lar-ø ile birbirleri döv-üş-tü-ler.

man-PLUR-NOM *with each other beat*-RECIP-PAST-3p

(101)

(i) Adam-lar-ø birbirleri-n-e bak-ø-tı-lar.

man-PLUR-NOM *each other*-DAT *look*-ACT-PAST-3p

The men looked at each other.

(ii) Adam-lar-ø bak-ış-tı-lar.

man-PLUR-NOM *look*-RECIP-PAST-3p

The men looked at each other.

(102)

(i) Adam-lar-ø birbirleri-n-den kaç-ø-tı-lar.

man-PLUR-NOM *each other*-ABL *flee*-ACT-PAST-3p

The men ran away fom each other.

(ii) *Adam-lar-ø kaç-ış-tı-lar.

man-PLUR-NOM *flee*-RECIP-PAST-3p

(103)

(i) Adam-lar-ø birbirleri-n-e madalya-ø tak-ø-tı-lar.

man-PLUR-NOM *each other*-DAT *medal*-ABS *decorate*-ACT-PAST-3p

The men decorated each oter with medals.

(ii) ?Adam-lar-ø madalya-ø tak-ış-tı-lar.

man-PLUR-NOM *medal*-ABS *decorate*-RECIP-PAST-3p

The men decorated each oter with medals.

(104)

(i) Adam-lar-ø birbirleri-n-i polis-e şikayet et-ø-ti-lerø.

man-PLUR-NOM *each other*-ACC *police*-DAT *report*-ACT-PAST-3p

The men reported each other to the police.

(ii) *Adam-lar- polis-e şikayet ed-iş-ti-ler.

man-PLUR-NOM *police*-DAT *report*-RECIP-PAST-3p

(105)

(i) Aile-ler-ø birbirleri-n-den kız-ø al-ø-dı-lar.

family-PLUR-NOM *each other*-ABL *girl*-ABS *take*-ACT-PAST-3p

The families took brides from each other.

(ii) ?Aile-ler-ø kız-ø al-ış-tı-lar.

family-PLUR-NOM *girl*-ABS *take*-RECIP-PAST-3p

The families took brides from each other.

(106)

(i) Adam-lar-ø birbirleri-n-den bez-ø-di-ler.

man-PLUR-NOM *each other*-ABL *weary*-ACT-PAST-3p

The men grew weary of each other.

(ii) *Adam-lar-ø bez-iş-ti-ler.

man-PLUR-NOM *weary*-RECIP-PAST-3p

(107)

(i) Adam-lar-ø birbirleri-n-i düşman-dan koru-ø-du-lar.

man-PLUR-NOM *each other*-ACC *enemy*-ABS *defend*-ACT-PAST-3p

The men defended each other from the enemy.

(ii) ?Adam-lar-ø düşman-dan koru-y-uş-tu-lar.

man-PLUR-NOM *enemy*-ABS *defend*-RECIP-PAST-3p

The men defended each other from the enemy.

The following are the θ-grids of reciprocal verbs, with the 'covert' θ-role in brackets:

(108)

(i)

dövüş 'fight' <Actor, (Neutral)>

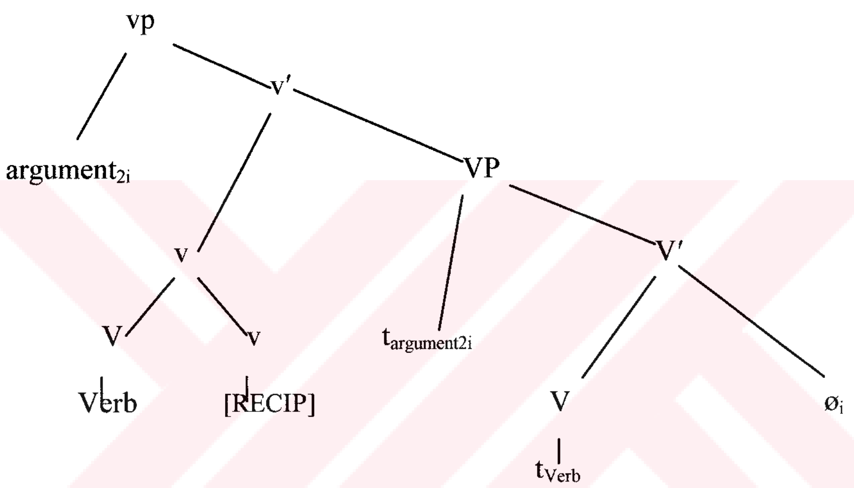
bakış 'look at each other' <Experiencer, (Neutral)>

(ii)

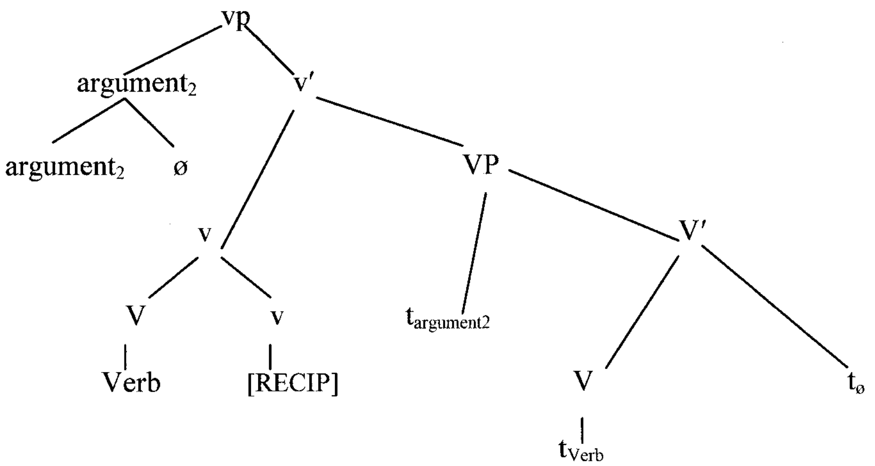
alış 'take from each other' <Experiencer, (Actor), Neutral>

Interpreting the data in (100)-(107) is no mean task however. The behavior of the reciprocal construction seems to be a blend of reflexives and passives: First, as suggested by (100), (101), (103), (105) and (107)(i) and (ii), the MRcC involves the absorption of one argument, similar to passives and reflexives. Second, as suggested by (i), (ii) and (iii) of the same exercises, if an argument is absorbed, it is an internal argument, as in reflexives. Third, notice that in (iv) and (v) of the same exercises again, the absorbed element may be expressed by means of an adpositional phrase adjunct. These adjuncts are required for the purposes of making the nature of reciprocity explicit, due to the fact that mutual acts are possible between parties within a group as in (100)(iv) or between parties in different groups as in (100)(v). Also notice that the absorbed argument may be expressed 'attached' to the subject by a commutative *ile* as in (100)(vi). The behavior of the MRcC, then, suggests the following structures in (109)-(114):

(109)

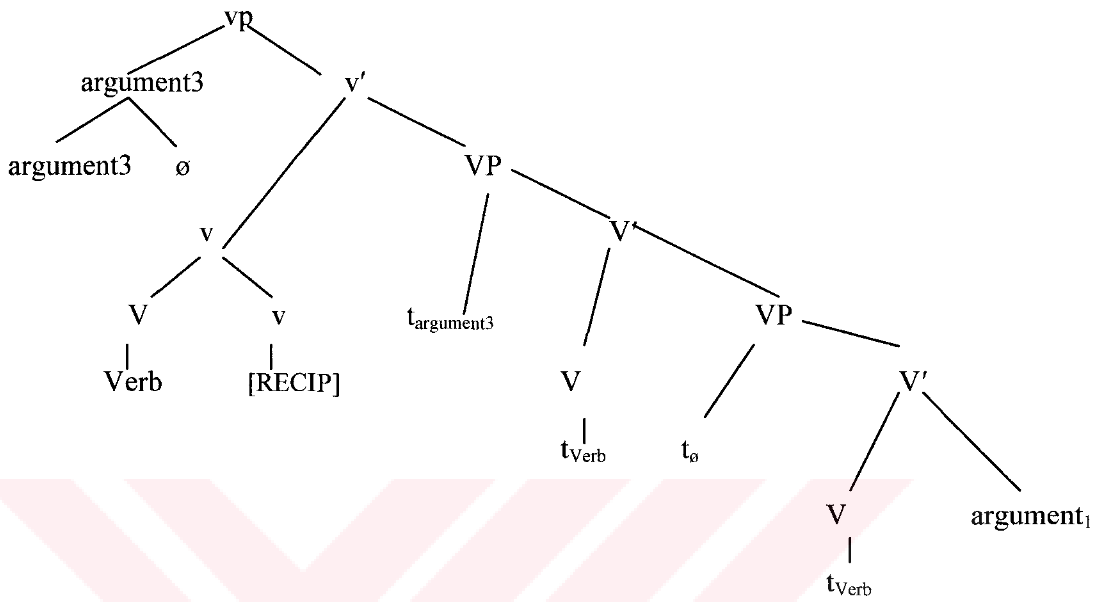


(110)

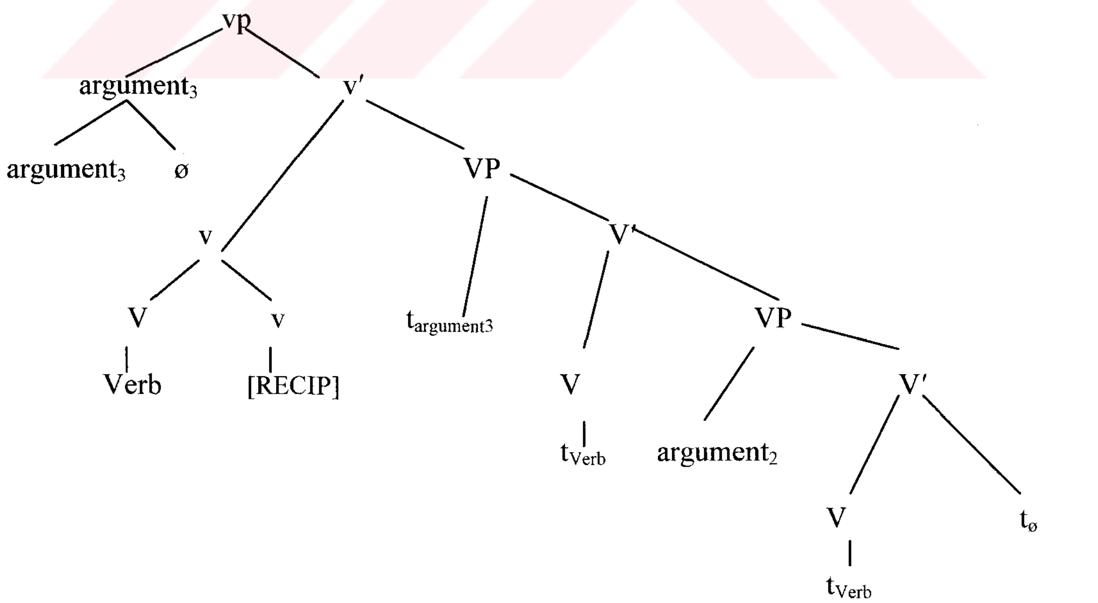


Notice that of these two structures, of two-place predicates, (109) is identical to the structure proposed for the MRfC. (110) involves, on the other hand, the adjunction of a covert element to the external argument, thus forming some kind of a complex subject.

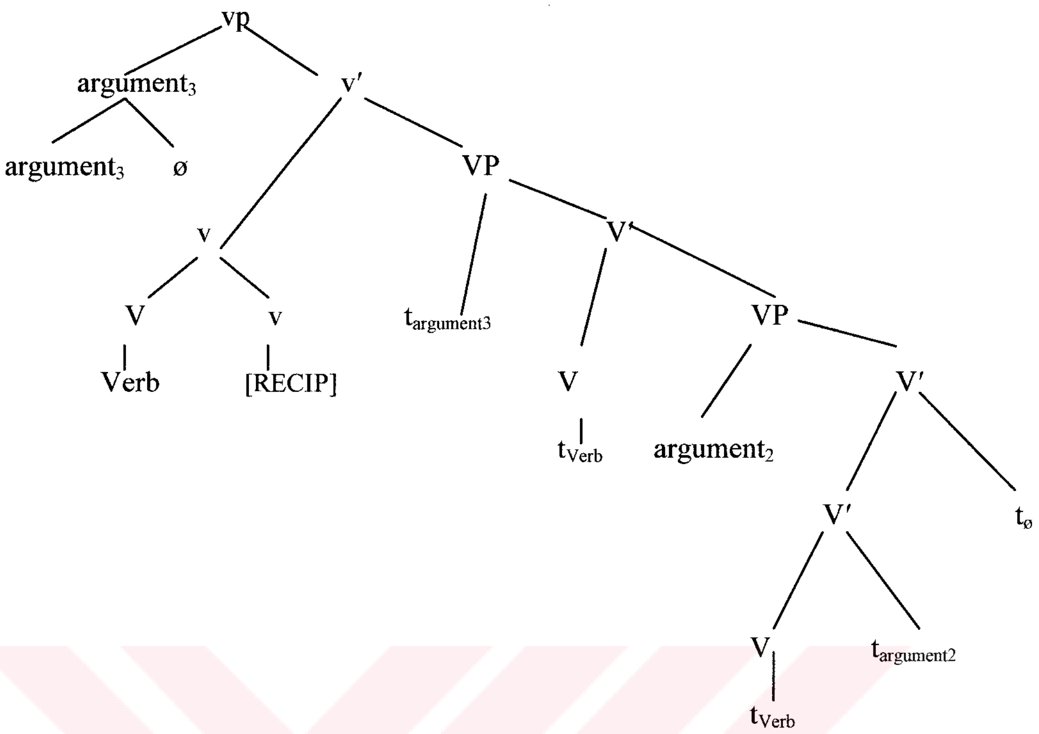
(111)



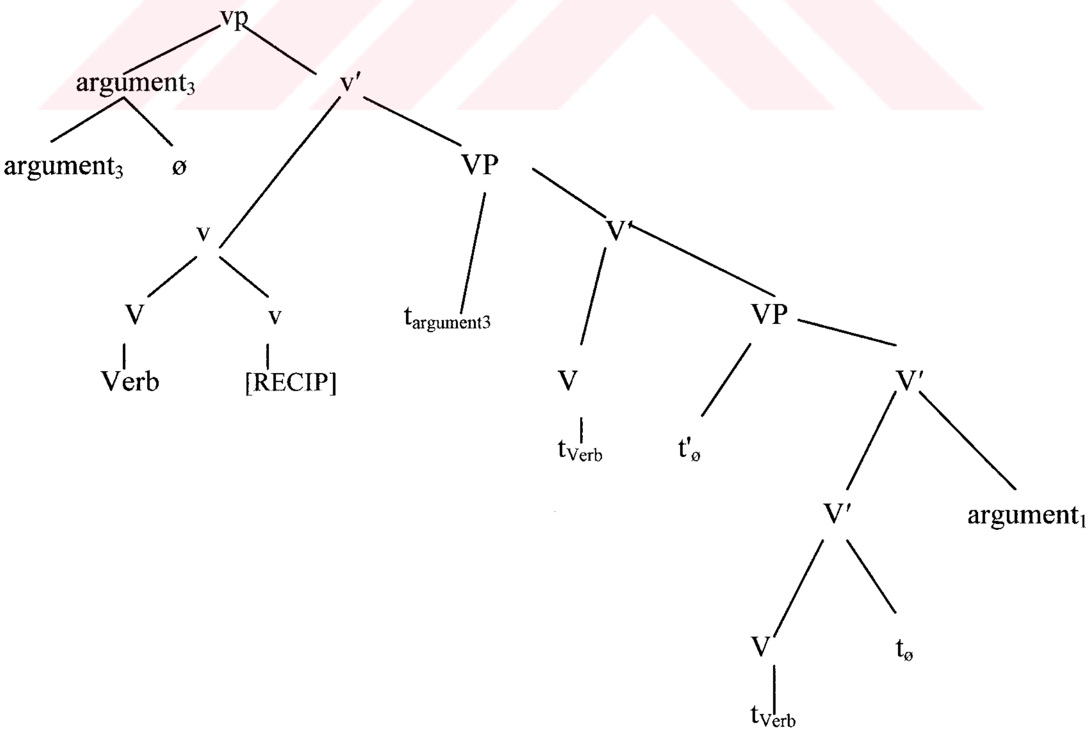
(112)



(113)


vp
argument$_3$
v′
argument$_3$
ø
VP
v
V′
V
v
$t_{argument3}$
VP
Verb
[RECIP]
V
V′
t_{Verb}
argument$_2$
V′
$t_ø$
V
$t_{argument2}$
t_{Verb}

(114)


vp
argument$_3$
v′
argument$_3$
ø
VP
v
V′
V
v
$t_{argument3}$
VP
Verb
[RECIP]
V
V′
t_{Verb}
$t'_ø$
V′
argument$_1$
V
$t_ø$
t_{Verb}

Note that in all these structures above, problematic argument raising operations are made licit by the movement of the Verb, according to the equidistance solution. It should also be mentioned that the present analysis fails to predict the anomaly in the case of the MRcC involving three-place predicates.

3.6 Combinations

It was mentioned in Section 1.2.4 that Turkish voice markers could be stacked. The possible combinations were also listed in (18) of that section, repeated here as (115):

(115)

V-CAUS-CAUS

V-CAUS-PASS

V-PASS-PASS

V-REFL-PASS

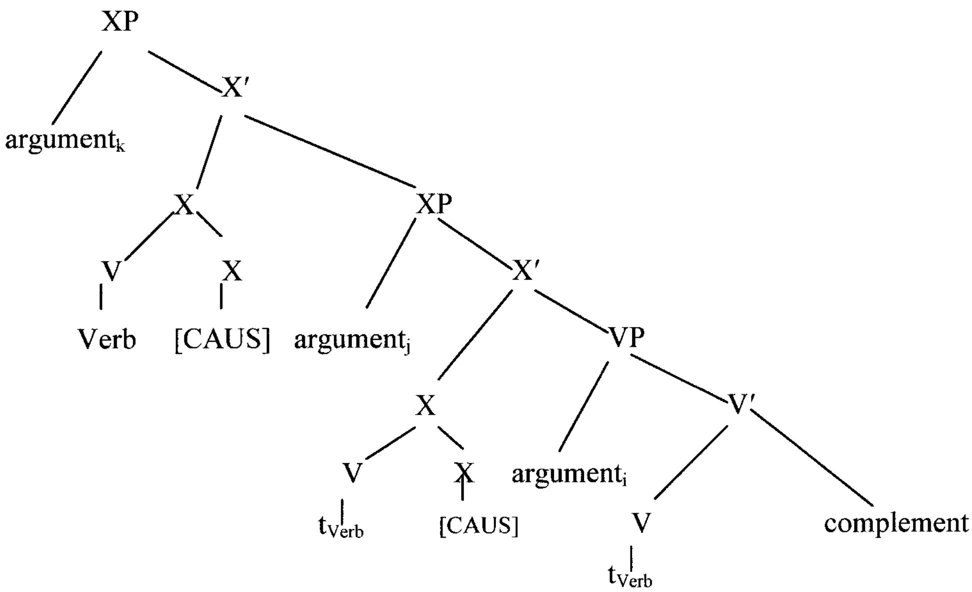
V-RECIP-PASS

V-RECIP-CAUS

V-RECIP-CAUS-PASS

The question that I shall try to answer here will be what the phrasal status of each voice element is. First of all it will be assumed that each voice element corresponds to a feature heading a separate phrase. This assumption is based on a comparison of single causative structures with multi-causatives: Recall that in single causative constructions causative feature was assumed to head a vp whose specifier was the argument 'introduced' by the causative element. Keeping in mind the restrictions mentioned earlier on, one may observe that a second causative entails the introduction of another new argument. If that causative element on the verb implies that the verb carries an additional causative feature, and if that causative feature requires that a position be created for it to be checked, and if the new causative element also involves the 'introduction' of a new argument, and finally that that argument requires a position in the structure formed, then I can reasonably suppose, on the model of the single causative construction, that, in the double causative there are two voice layers each with its distinct head and specifier positions. I shall assume that this structure is generalizable to all other constructions involving multiple voice elements.

(116)



So, at this stage, the question is, what is the category of each phrase headed by a voice element? In other words, does each voice feature project a vp shell? Now, it is granted that the argument structure of the Turkish predicate is a composite of argument structure requirements of the voice elements it carries. In other words, for instance, the argument structure of a verb carrying both causative and passive voice element needs to fulfill the requirements imposed by both the causative and the passive element. So, if the causative adds one argument, passive removes one element, then, passive on top of a causative removes the element added by the causative:

(117)

(i) Kedi-ø balığ-ı ye-ø-di-ø.

cat-NOM *fish*-ACC *eat*-ACT-PAST-3s

The cat ate the fish.

(ii) Balık-ø ye-n-di-ø.

fish-ø *eat*-PASS-PAST-3s

The fish was eaten.

(iii) Adam-lar-ø kedi-(y)-e balığ-ı ye-dir-di-ler.

man-PLUR-NOM *cat*-DAT fish-ACC *eat*-CAUS-PAST-3p

The men made the cat eat the fish.

(iv) Balık-ø kedi-(y)-e ye-dir-il-di-ø.

fish-NOM *cat*-DAT *eat*-CAUS-PASS-PAST-3s

The fish was fed to the cat.

Yet, observe that in all cases the verb agrees with the element that is supposed to occupy the specifier position of the topmost layer of the lexical domain, not any other element, for that very element is the subject of the whole verbal complex, as in (117)(iii) and (iv) above. Here are more examples:

(118)

(i) Adam-lar-ø döv-üş-tü-ler.

man-PLUR-NOM *fight*-RECIP-PAST-3p

The men fought each other.

(ii) Kadın-ø adam-lar-ı döv-üş-tür-dü-ø.

woman-NOM *man*-PLUR-ACC *fight*-RECIP-CAUS-PAST-3s

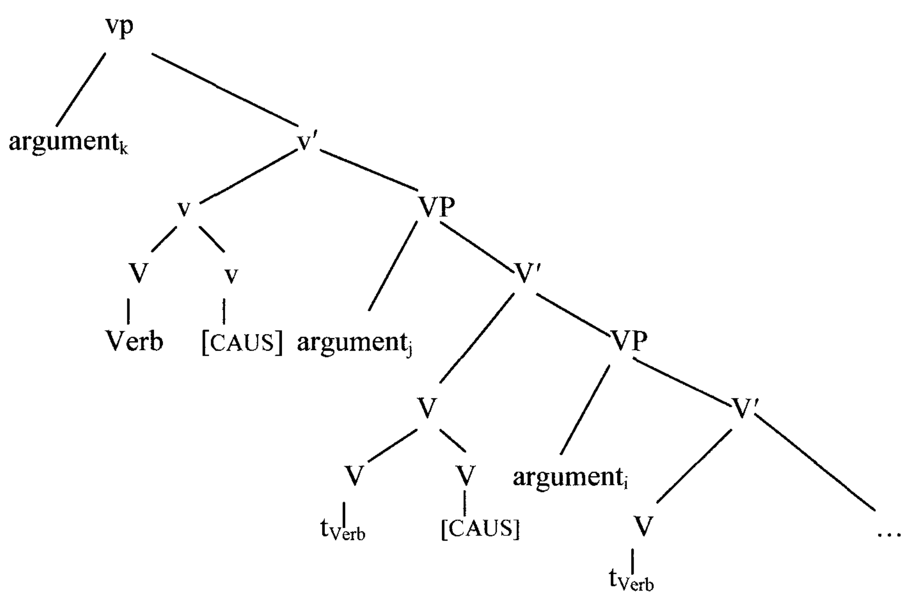
The women made the men fight each other.

(iii) *Kadın-ø adam-lar-ı döv-üş-tür-dü-ler.

woman-NOM *man*-PLUR-ACC *fight*-RECIP-CAUS-PAST-3p

So, it seems as if this topmost layer of the lexical domain has a special status in that the argument that occupies it through merger or movement becomes the subject of the whole structure. Hence, it will be assumed that this layer alone has the phrasal status of a vp and the other possible layers headed by other voice features and hosting non-subject arguments are VPs. Consequently, the structure in (116) above will be as in (119) below:

(119)

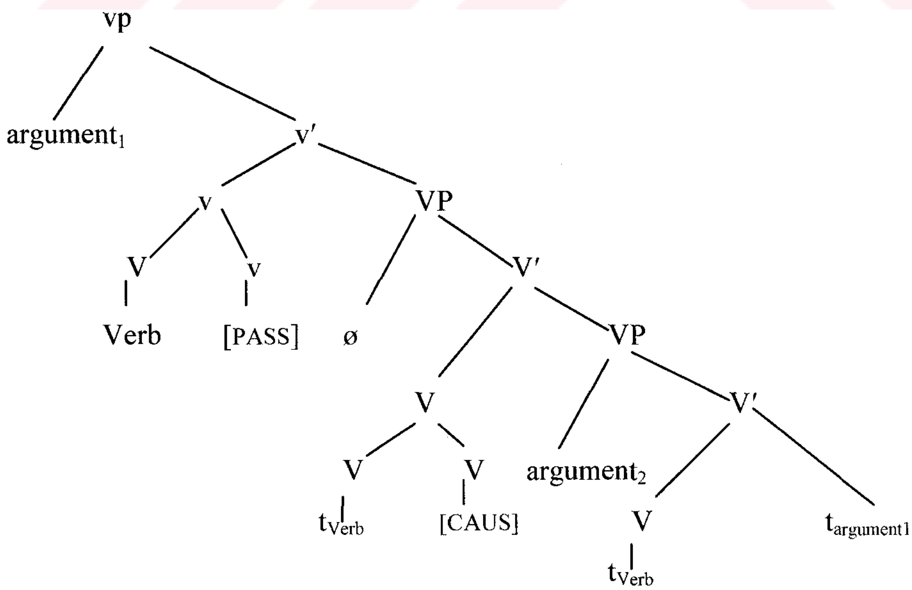


Let me, then, propose the structures in (120)-(125), for the various combinations listed in (115):

(120) V-CAUS-PASS

e.g., Adam aliye döv-dür-ül-dü-ø.

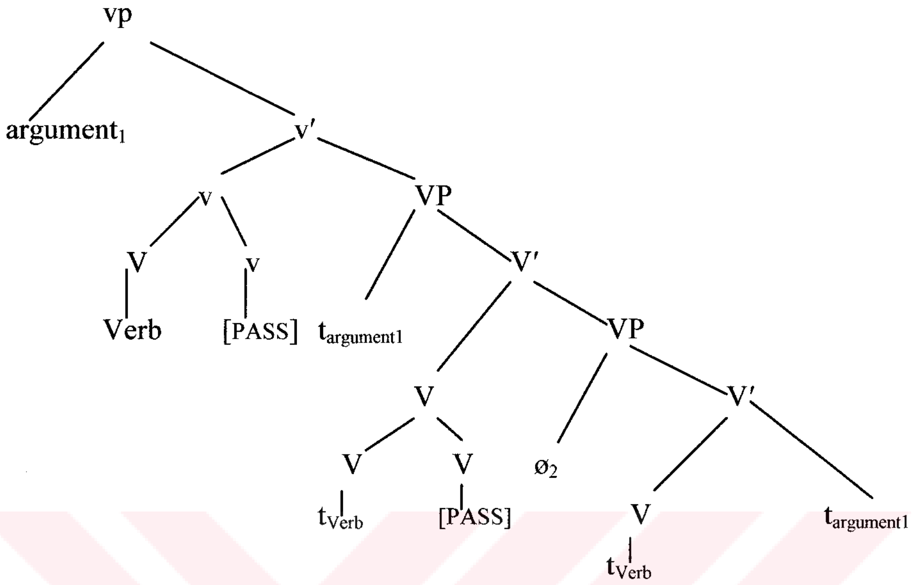
beat-CAUS-PASS-PAST-3s



(121) V-PASS-PASS

e.g., Çocuk-ø yıka-n-ıl-dı-ø.

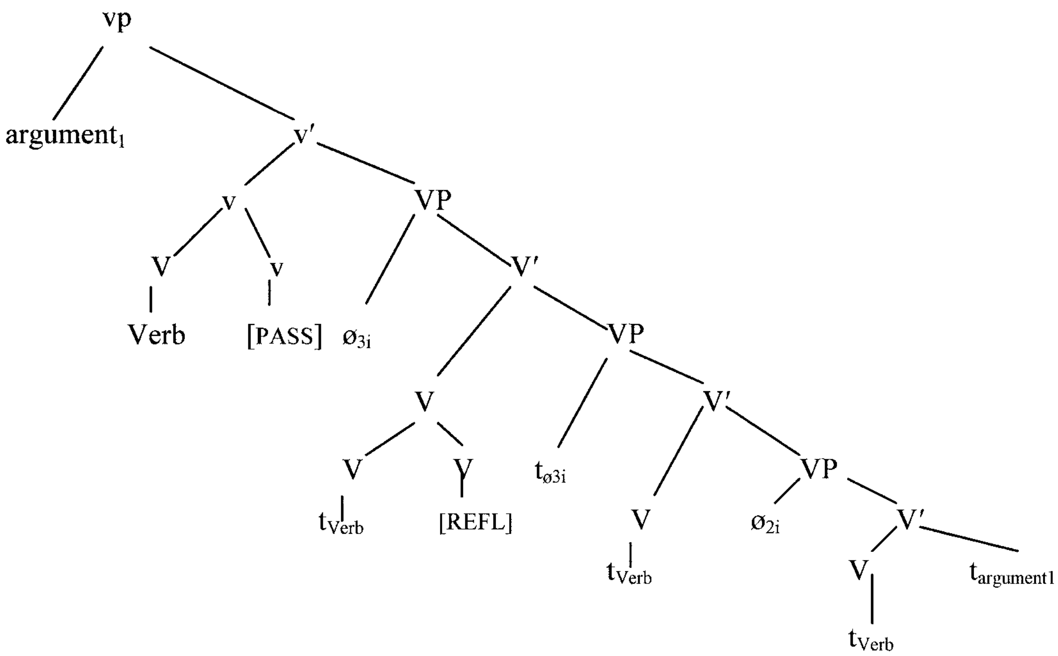
wash-PASS-PASS-PAST-3s



(122) V-REFL-PASS

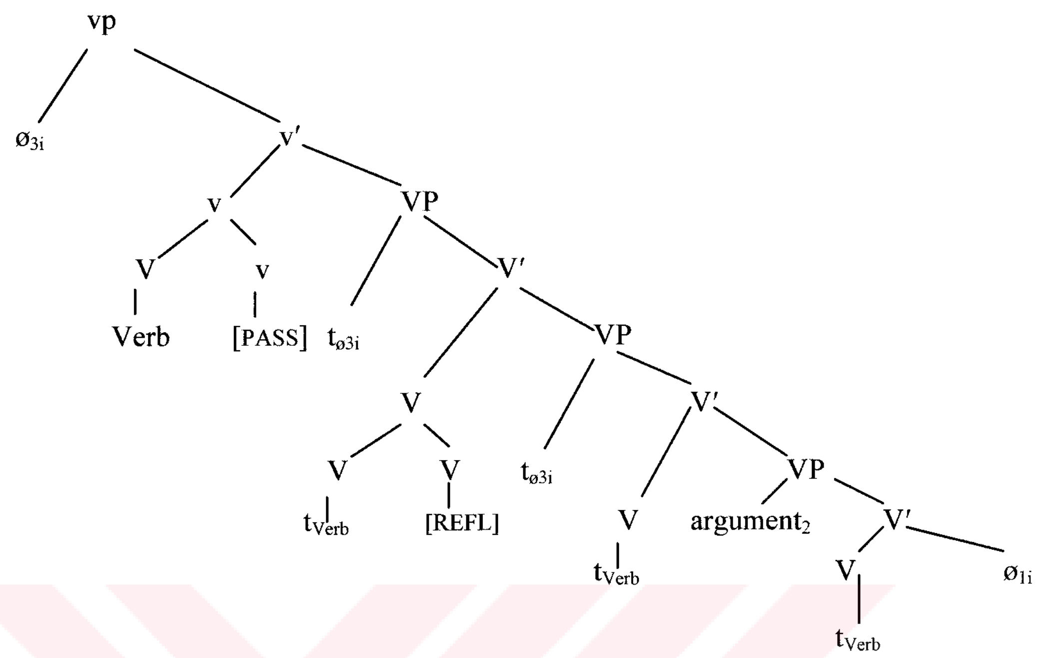
e.g., krem sür-ün-ül-dü-ø

smear-REFL-PASS-PAST-3s



e.g., işe ada-n-ıl-dı-ø

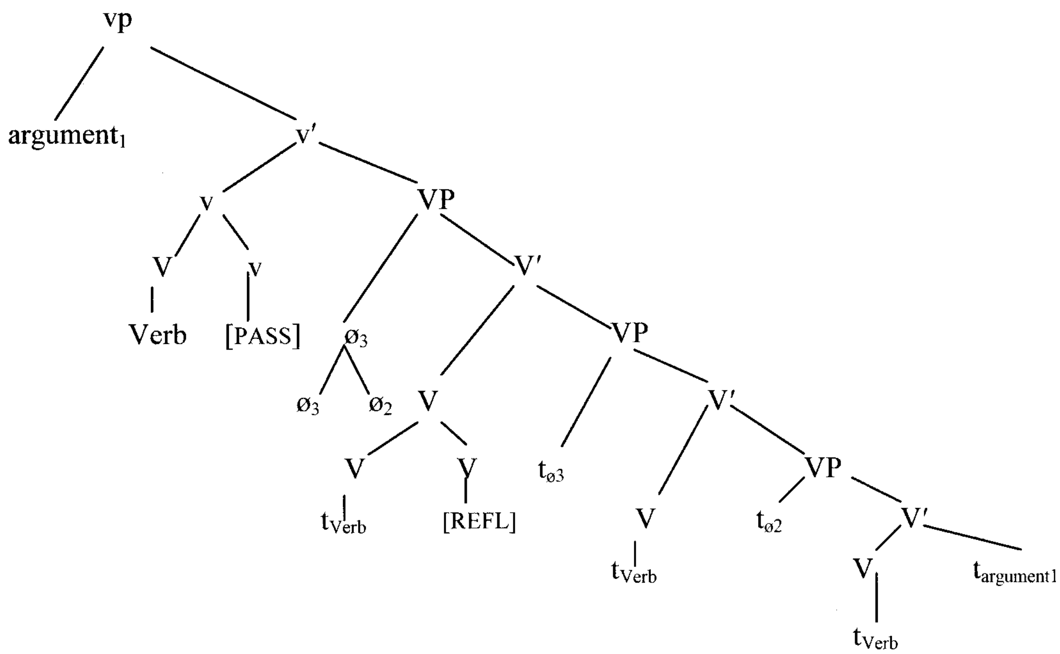
devote-REFL-PASS-PAST-3s



(123) V-RECIP-PASS

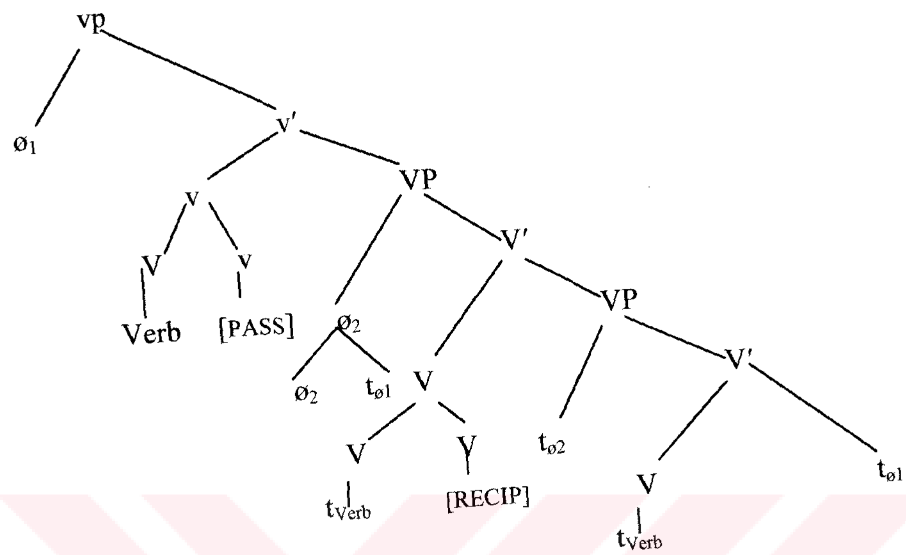
e.g., para ver-iş-il-di-ø

give-RECIP-PASS-PAST-3s



e.g., döv-üş-ül-dü-ø

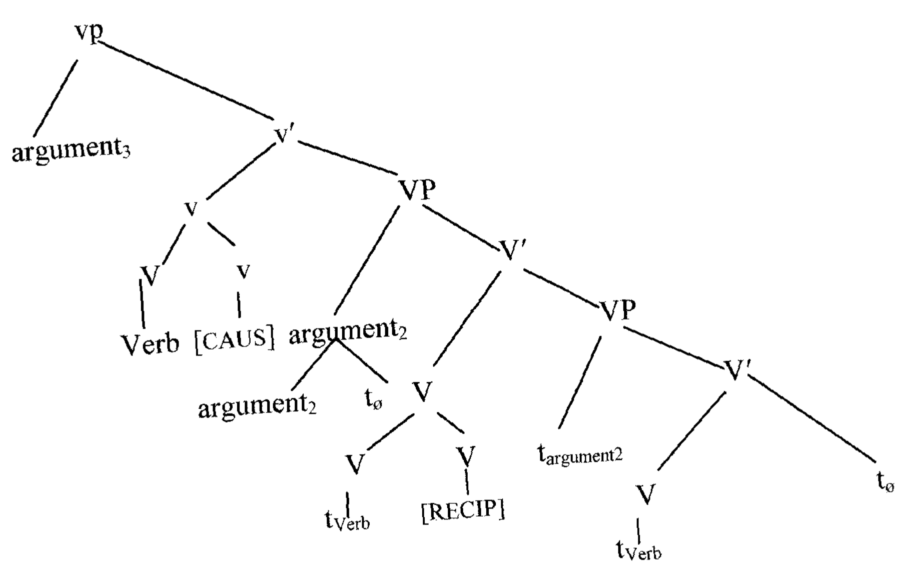
fight-RECIP-PASS-PAST-3s



(124) V-RECIP-CAUS

e.g., komutan askerleri döv-üş-tür-dü-ø

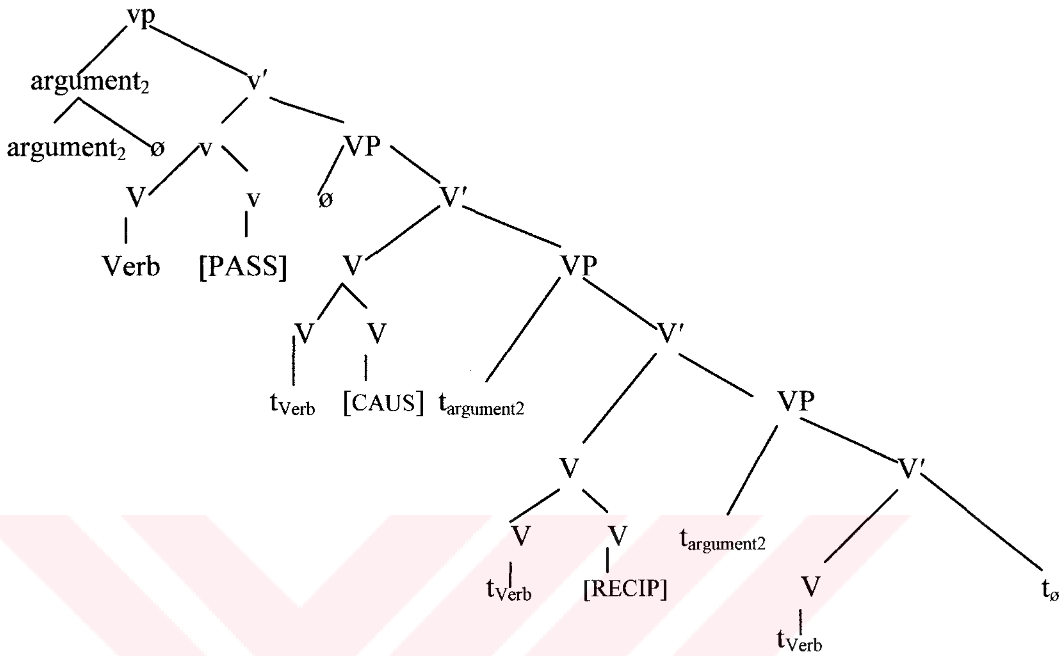
fight-RECIP-CAUS-PAST-3s



(125) V-RECIP-CAUS-PASS

e.g., askerler döv-üş-tür-ül-dü-ø

fight-RECIP-CAUS-PASS-PAST-3s



It ought to be noted that these structures above are rather speculative and not very perspicuous, particularly those that involve several empty arguments. At this stage, they seem to be the outcome of mere theoretical conjecturing, and, as yet, do not enjoy support from other source.

CHAPTER 4

CONCLUSION

In this thesis, I have, first of all, demonstrated the incompatibility of the standard vp shell analysis with the structure of the Turkish predicate: The standard vp shell derivation failed to yield the correct order of morphemes for Turkish. Then, I proposed a variant for the vp shell. In this alternative, the vp shell was supposed to be headed by a voice feature, not a light verb of some sort. The verb was then supposed to raise to adjoin v^0 in order to check off its voice feature. Finally, I undertook the analysis of the various voice constructions in Turkish on the basis of my proposal and the framework assumed to be valid, concentrating on argument structure alternations that result from the voice phenomena, demonstrating the problematic areas and proposing solutions. The pervasive problem in the analysis stemmed from replacing the light verb with a voice feature. This replacement meant that θ-assignment had to be done exclusively by the Verb, which in turn meant that movement was required for θ-assignment in certain cases, a situation disallowed by the configurational θ-theory that the MP adopts. A number of solutions may be proposed for this problem, to be embellished in future work: First, the Lexical Insertion Principle may be relaxed, so that certain lexical items are formed in the syntax. Second, the structure of the vp/VP may be modified, so as to allow θ-role assignment without verb movement. Finally, θ-theory may be modified in a number of ways: role assignment domain may be redefined, role assignment procedure may be modified, or the inventory of role assigners may be revised, so that certain types of features especially certain verbal features are allowed to assign roles.

If the proposed variant in question can be remedied along the lines expressed above, it should at least be applicable to languages similar to Turkish in morphology, such as Japanese. The lexical domains of languages similar to English with respect to phenomena dealt with here, such as causativization, on the other hand, are perhaps exempt from the relevant modification. The reason for the seeming incompatibility of the light verb analysis to Turkish, then, may be attributed to an instance of parameterization in Universal Grammar: English may be using light verbs for the expression of voice and Turkish, affixes. Yet, I believe that the alternative proposed above is more plausible than the light verb analysis, and hence, ought to be considered to involve a non-parametric portion of Universal Grammar, i.e., be universally applicable, due to reasons laid out below.

4.1 Cognitive plausibility of the analysis

In the course of the analysis, the various assumptions and principles adopted seem to have borne an interesting fruit. On the basis of the voice combinations assumed to be valid in Turkish, it was first discovered, on page 29, both that, in the analysis, the Predication Condition appeared to be valid and that the roles of all the arguments of a predicate had to be assigned in the VP. The principle in question, in turn, played a decisive role in choosing among various proposals of structure for one-place predicates. This choice, then, favored the ø-argument analysis in passive voice constructions. To sum up, the independently developing tracks of analysis converged on the following point: All roles that a predicate is specified to assign are assigned to overt or covert arguments in the VP headed by the Verb. Thus, it seems, a cognitively more plausible structure has been favored. How so?

Various researchers study the relationship between language and other cognitive systems, adopting different positions on a wide spectrum of views, such as Crain and Steedman (1985), Frazier (1987), Kintsch (1988), Fodor, Bever and Garrett (1974), Altmann and Steedman (1988) and Johnson-Laird (1983) (all cited in Stevenson, 1993). Despite their differences of point of view, they voice the following claim stated here rather informally: 'Underneath' a sentence, at some level of representation (this level differing according to the position adopted), there is a propositional representation of that sentence. A proposition consists of a predicate and one or more arguments, just like the VP. Thus, a sentence like *John killed Mary* would have a propositional representation similar to, *kill* <John, Mary>. Numerous experiments have investigated the psychological reality of propositions. Studies of memory, such as Kintsch (1974) (cited in Stevenson, 1993), reveal that, in general, people recall complete propositions, not isolated elements, thus supporting the view that propositions are processing units.

Now, despite the existence of research supporting the opposite view, it is commonly assumed that syntax is autonomous. Syntax has processes internal and peculiar to itself. Granted. Yet, this is not to say that the syntactic component is detached from other cognitive 'modules'. Hence, it is not prohibited to purport a link between the linguistic representation of an event and its non-linguistic representation. It is also possible to assume that the cognitive 'realm' as a whole would demand that a process constituting that link carry on as efficiently as possible and that this realm would favor a sub-system that employs representations parallel to those employed by other sub-systems. This is precisely the point at which the analysis of argument structure undertaken here seems to prove itself of adequacy:

First, recall that the proposition appears to be a processing unit. Similarly, recall also that, in my analysis, the predicate, its argument(s), and the process of θ-role assignment are all elements of the VP domain. In other words, they also constitute a unit. The VP in this sense is the linguistic parallel of the proposition. Second, turning to the conversion process that probably forms part of the above mentioned linking process between linguistic representation and propositional representation, remember the following: In the standard vp shell analysis, θ-role assignment to various arguments of a predicate are done by two distinct elements, namely the Verb and the light verb, in distinct parts of the syntactic structure, namely the VP and the vp. In the variant proposed in this thesis, θ-role assignment is unified in terms of role assigners and the domain of role assignment. There is only one role assigner, the Verb. Furthermore, there is only one domain of role assignment for a 'core' event, namely the VP, the core event being the event represented by a Verb and its argument(s), when all additional arguments required by elements affixed to the Verb and the elements themselves (in this case the causative marker and the argument required by it) have been stripped away. Now, it becomes possible to claim that a process that collapses a two-partite structure into a single proposition is less efficient that a process that maps a single-partite structure onto a single proposition, and, hence, to conclude the thesis in the highly speculative claim that the analysis proposed in this thesis has 'higher' cognitive plausibility.

REFERENCES

Abraham, W., Samuel D. E., Höskuldur T. and Zwart C. J.-W. (ed.) (1996). *Minimal Ideas.* John Benjamins Publishing Company.

Aksan, M. (1995). *Argument structure, morphology and some verbal derivations in Turkish.* Unpublished doctoral dissertation, Hacettepe University.

Alsina, A. and Mchombo, S. (1988). Lexical mapping in the Chichewa applicative construction. *19th Annual African Linguistics Conference*, Boston University.

Altmann, G. and Steedman, M. (1988). Interaction with context during human sentence processing. *Cognition* 30: 191-238.

Bak, J.-S. (1990). *Accord casuel et sujets multiples en coreén.* Unpublished these de doctorat, Université de Paris VIII.

Baker, M. (1985). *Incorporation: A Theory of Grammatical Function Changing.* Ph.D. dissertation, MIT.

Baker, M. (1988). *Incorporation: A Theory of Grammatical Function Changing.* University of Chicago Press, Chicago.

Baker, M. (1989). Object sharing and projection in serial verb constructions. *Linguistic Inquiry* 20: 513-553.

Baker, M. (1995). *The Polysynthesis Parameter.* Oxford University Press, New York.

Baker, M. (1997). Thematic roles and syntactic structure. Haegemann, L. (ed.) *Elements of Grammar.* Kluwer Academic Publishers, Dordrecht: 73-137.

Biktimir, T. (1986). Impersonal Passives and the Arak Construction in Turkish. Slobin D. and Zimmer, K. (eds.) *Studies in Turkish Linguistics.* John Benjamins, Amsterdam: 53-76.

Bresnan, J. and Kanerva, J. (1989). Locative inversion in Chichewa: A case study of factorization in grammar. *Linguistic Inquiry* 20: 1-50.

Burzio, L. (1986). *Italian Syntax: A government-binding approach.* Reidel, Dortrecht.

Çağlar, G. (1977). *The passive voice in Turkish.* Unpublished doctoral dissertation, Hacettepe University.

Chomsky, N. (1957). *Syntactic structures.* The Hague: Mouton.

Chomsky, N. (1970). Remarks on nominalization. Jacobs, R.A. and Rosenbaum, P.S. (eds.) *Readings in English Transformational Grammar.* Ginn, Waltham, Massachusetts: 184-221.

Chomsky, N. (1981). *Lectures on government and binding.* Foris, Dortrecht.

Chomsky, N. (1986a). *Knowledge of language: its nature, origin and use.* Praeger, New York.

Chomsky, N. (1986b). *Barriers.* MIT Press, Cambridge, Massachusetts.

Chomsky, N. (1993). A minimalist program for linguistics theory. Hale, K. and Keyser, S. J. (eds.) *The view from Building 20.* MIT Press, Cambridge, Massachusetts: 1-52. (reprinted as chapter 3 of Chomsky (1995))

Chomsky, N. (1995). *The Minimalist Program.* MIT Press, Cambridge, Massachusetts.

Chomsky, N. and Lasnik, H. (1993). The theory of principles and parameters. Chomsky, N. *The Minimalist Program.* The MIT Press, Cambridge, Massachusetts: 13-128.

Collins, C. (2002). Multiple verb movement in ǂHoan. *Linguistic Inquiry* 33: 1-29.

Crain, S. and Steedman, M. (1985) On not being led up the garden path: The use of context by the psychological syntax processor. Dowty, D.; Karttunen, L.; and Zwicky, A. (eds) *Natural Language Parsing.* Cambridge University Press, Cambridge: 320-354.

Dowty, D. (1991). Thematic Proto-roles and Argument Selection. *Language* 67: 547-619.

Epstein, S. D.; Thrainsson, H. and Zwart, J.-W. (1996). *Introduction.* Abraham, W.; Epstein, S. D.; Thrainsson, H. and Zwart, J.-W. (eds.) (1996) *Minimal Ideas.* John Benjamins Publishing Company: 1-66.

Fillmore, C. (1965). Towards a Modern Theory of Case. *Project on Linguistic Analysis Report* 13: 1-24. The Ohio State University Research Foundation, Columbus, Ohio.

Fillmore, C. (1968). The Case for Case. Bach, E. and Harms, R.T. (eds.) *Universals in the Linguistic Theory*. Holt, Reinhart, and Winstyon, New York.

Fodor, J.A., Bever, T.G. and Garrett, M.F. (1974). *The psychology of language: an introduction to psycholinguistics and generative grammar.* McGraw-Hill, New York.

Frazier, L. (1987). Sentence processing: a tutorial review. Coltheart, M. (ed.) *Attention and Performance XII: the psychology of reading.* Lawrence Erlbaum Associates, London: 559-586.

Fujita, K. (1996). Double objects, causatives, and derivational economy. *Linguistic Inquiry* 27: 146-173.

Göksel, A. (1993). *Level of representation and argument structure in Turkish.* Ph.D. dissertation, London: SOAS.

Gruber, J. (1965). *Studies in lexical relations*. Ph.D. dissertation, MIT.

Guasti, M. T. (1996). Semantic restrictions in Romance causatives and the incorporation approach. *Linguistic Inquiry* 27: 294-313.

Haegeman, L. (1994). *Introduction to Government & binding theory, (2nd edition).* Blackwell, Oxford.

Haegeman, L. (ed.) (1997). *Elements of Grammar.* Kluwer Academic Publishers, Dordrecht.

Hale and Keyser (1993). On argument structure and the lexical expression of semantic relations. Hale, K. and Keyser, S.J. (eds.) *The view from building 20.* MIT Press, Massachusetts: 53-109.

Harley, H. (1995). *Sase* bizarre: The structure of Japanese causatives. http://info-center.ccit.arizona.edu/~ling/hh/PDFs/HarleySaseCLA1996.pdf

Holmberg, A. (1986). *Word order and syntactic features in the Scandinavian languages and English.* Ph.D. dissertation, University of Stockholm.

Hong, Y.-T. (1992). *Theorie de l'incorporation et theorie du cas: leurs implications sur la structure phrastique de la structure du groupe nominal en coreen.* Unpublished these de doctorat, Universite de Paris, VIII.

Hubbard, P. L. (1980). *The syntax of the Albanian verb complex.* Ph.D. dissertation.,University of California, San Diego.

Jackendoff, R.S. (1972). *Semantic interpretation in generative grammar*. MIT press, Cambridge, Massachusetts.

Jackendoff, R.S. (1977). *X'-Syntax: A study of phrase structure*. MIT Press, Cambridge, Massachusetts.

Jaeggli, O. (1986). Passive. *Linguistic Inquiry* 17. 587-633.

Johnson-Laird, P.N. (1983). *Mental Models*. Harvard University Press, Cambridge, Massachusetts.

Kintsch, W. (1974). *The representation of meaning in memory*. Lawrence Erlbaum Associates, Hillsdale, New Jersey.

Kintsch, W. (1988). The role of knowledge in discourse comprehension: a construction-integration model. *Psychological Review* 95: 163-182.

Knecht, L. (1985). *Subject and object in Turkish*. Unpublished Ph.D. dissertation, MIT

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

Kornfilt, J. (1997). *Turkish*. Routledge, London.

Kural, M. (1996). *Verb incorporation and elementary predicates*. Unpublished Ph.D. dissertation, California University.

Larson, R. (1988). On the double object construction. *Linguistic Inquiry* 19: 335-91.

Lees, R. (1973). Turkish voice. Karchru, B.B. et al. (eds.) *Issues in linguistics*. University of Illinois, Urbana: 504-514.

Levin, B. and Rappaport Hovav M. (1995). *Unaccusativity*. The MIT Press, Cambridge, Massachusetts.

Lewis, G. L. (1967). *Turkish Grammar*. Oxford University Press, Oxford.

Machobane, M. (1989). *Some restrictions on the Sesotho transitivizing morphemes*. Ph.D. dissertation, McGill University.

McCloskey, J. (1997). Subjecthood and subject positions. Haegemann, L. (ed.) *Elements of Grammar*. Kluwer Academic Publishers, Dordrecht: 197-236.

Nakipoğlu, M. H. (1998). *Split Intransitivity and The Syntax-Semantics Interface in Turkish*. Unpublished Ph.D. dissertation, Minnesota University.

Oehrle, R. (1976). *The grammatical status of the English dative alternation*. Ph.D. dissertation, MIT, Cambridge, Massachusetts.

Özkaragöz, I. (1986). *The relational structure of Turkish syntax*. Unpublished doctoral dissertation, California University.

Perlmutter, D. M. (1978). Impersonal passives and the unaccusative hypothesis. *Proceedings of the fourth annual meeting of the Berkeley linguistics society*: 157-89, Berkeley linguistics society, University of California, Berkeley.

Perlmutter, D. M. (1989). Multiattachment and the unaccusative hypothesis: the perfect auxiliary in Italian. *Probus* 1:63-119.

Pollock, J.-Y. (1989). Verb-movement, universal grammar, and the structure of IP. *Linguistic Inquiry* 20: 365-424.

Pollock, J.-Y. (1997). Notes on Clause structure. Haegemann, L. (ed.) *Elements of Grammar*. Kluwer Academic Publishers, Dordrecht:237-280.

Radford, A. (1997). *Syntactic theory and the structure of English: a minimalist approach*. Cambridge University Press, Cambridge.

Roberts, I. (1987). *The representation of implicit and dethematized subjects*. Foris, Dordrecht.

Rosen, C. (1981). *The relational structure of reflexive clauses: evidence from Italian*. Ph.D. dissertation, Harvard university, Cambridge, Massachusetts.

Rosen, C. (1984). The interface between semantic roles and initial grammatical relations. Perlmutter, D. M. and Rosen, C. (eds.) *Studies in relational grammar 2*. University of Chicago Press, Chicago, Illinois: 38-77.

Rosen, C. (1989). *Argument structure and complex predicates*. Ph.D. dissertation, Brandeis University, Waltham, Massachusets.

Rothstein, S.D. (1995). Pleonastics and the interpretation of pronouns. *Linguistic Inquiry 26*: 499-529.

Sportiche, D. (1988). A theory of floating quantifiers and its corollaries for constituent structure. *Linguistic Inquiry* 19: 425-49.

Stevenson, R. (1993). *Language, thought and representation*. John Wiley & Sons, Chichester.

Trask, R. L. (1993). *A dictionary of grammatical terms in linguistics*. Routledge, London.

Uzun, N. E. (2002). *Türkçe eylemlerde "çatı" ve eylem türleri*. Cognitive Science Colloquium, METU.

Webelhuth, G. (1995a). X-bar theory and Case theory. Webelhuth, G. (ed.) *Government and binding theory and the minimalist program*. Blackwell, Oxford: 15 -96.

Webelhuth, G. (ed.) (1995b). *Government and binding theory and the minimalist program*. Blackwell, Oxford.