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San Diego

The Relational Structure of Turkish Syntax

A dissertation submitted in partial satisfaction of the

requirements for the degree Doctor of Philosophy

in Linguistics

by

İnci Zühra Özkaragöz

Committee in charge:

Professor Sandra Chung, Chairperson

Professor Edward Klima

Professor Margaret Langdon

Professor David Jordan

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1986


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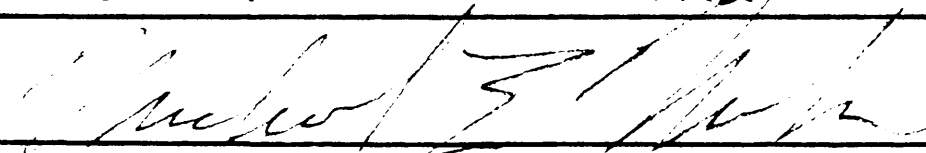
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İnci Zühra Özkaragöz

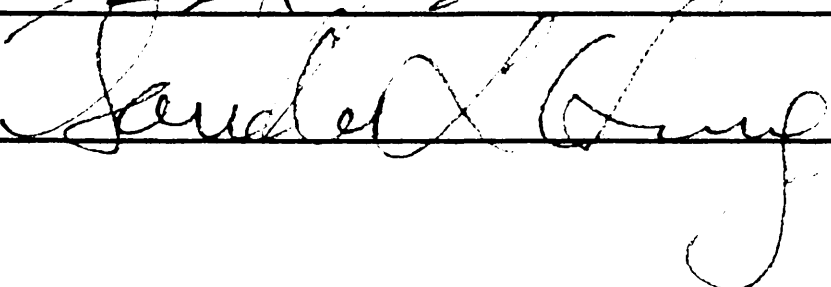
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List of Abbreviations

1pl	first person plural
1sg	first person singular
2pl	second person plural
2sg	second person singular
3pl	third person plural
3sg	third person singular
AUX	auxiliary
ABIL	ablative
Abs	absolute
ACC	accusative
AOR	aorist
BEN	benefactive
CAUS	causative
Cho	chomeur
COND	conditional
D	dummy
DAT	dative
Erg	ergative
FUT	future
GEN	genitive
GL	glide
INF	infinitive
LOC	locative
OBL	oblique
OP	object participle
PASS	passive
PL	plural
POSS	possessive
PROG	progressive
PRESUMP	presumptive
PST	past
REFL	reflexive
SP	subject participle

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As a graduate student at UCSD, I was very fortunate to have David Perlmutter as one of my teachers. I learned a great deal about universal grammar from him. His influence on my linguistics career is evident in the following pages of this dissertation, which was written within the framework of Relational Grammar, as developed by Paul Postal and himself. Sandra Chung, who was my advisor, was invaluable in the creation of this dissertation. I have benefitted greatly from her quick intellect and her ability to take an amorphous idea and give constructive suggestions. Also, at different stages of the evolution of this dissertation, I profitted from correspondence with Edward Keenan, Laura Knecht, and Paul Postal.

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ABSTRACT OF THE DISSERTATION

The Relational Structure of Turkish Syntax

by

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Professor Sandra Chung, Chairperson

This work is a study of certain Turkish syntactic constructions, such as the reflexive, the passive, and the causative, and their interaction with one another. In particular, it is a well-known fact that the passive and the -In reflexive constructions cannot occur in the complement clause of the Turkish causative. However, no unified analysis within Turkish grammar has heretofore been presented to account for this fact. I argue that the structures I propose for the -In reflexive and the structure of passive share a common feature; thus, these structures can be ruled out from the causative complement clause by a single generalization. In the course of positing the structures for the above construction, various theoretical issues

are discussed: for example, the necessity of the notion of coreference in reflexive structures vs. multiattached structures which do not mark coreference, and the lexical vs. syntactic nature of the causative construction.

This study was conducted within the framework of Relational Grammar (RG) (Perlmutter and Postal; 1974, 1977, 1983, 1984) which takes grammatical relations and multiple syntactic levels to be primitives of the theory. The structures posited for the constructions in Turkish have also been proposed for languages unrelated to Turkish; thus, the structures not only account for data specific to Turkish, they are representations of possible constructions in human language.

Many of the assumptions and hypotheses of Relational Grammar are upheld by the grammar of Turkish. For example, Chapter Five presents three syntactic pieces of Turkish-internal evidence for the Unaccusative Hypothesis. There are two constructions in Turkish, however, which violate one of two major assumptions within the theory: the 1 Advancement Exclusiveness Law or the advancement analysis of passive. Turkish provides no evidence as to which of the assumptions should be abandoned. The constructions which violate one of these assumptions include the impersonal passive of an initially unaccusative predicate and the impersonal passive of a personal passive. Alternative analyses of the apparent impersonal passive of superficially

intransitive predicates, which do not counterexemplify either of the major assumptions of RG, are considered. I show, however, that these alternative analyses, which claim that Turkish does not possess true impersonal passives, cannot be maintained in light of the complications they create elsewhere in Turkish grammar. Thus, the alternative analyses are inferior to the analyses I propose; consequently, one of the two aforementioned assumptions of RG must be abandoned as a universal.

Introduction

This work examines various Turkish syntactic constructions such as the reflexive, the causative, and the passive, and their interaction with one another. The goal of the study is two-fold: while providing a comprehensive description of the aforementioned Turkish constructions, it also addresses a number of theoretical issues which Turkish raises for universal grammar. The present study was conducted within the framework of Relational Grammar (RG), as developed by Perlmutter and Postal (1974, 1977, 1983, 1984). By employing RG, which emphasizes the importance of grammatical relations and multiple syntactic levels, I have been able to provide a unified account of Turkish grammar as well as to bring out significant cross-linguistic generalizations.

Perlmutter and Postal's (1984a) proposal to replace the notion of coreference with the notion of multiattachment is discussed in Chapter Three. The evidence from Turkish reflexives corroborate Rosen's (1981) claim that both of the aforementioned notions are necessary to account for the clause structure of Italian reflexives. There are two reflexive forms in Turkish: the lexical kendi and the -In suffix. It is proposed that the former has a nonmultiattached structure which requires the use of coreferential indices while the latter has a multiattached structure which

eliminates the need for the notion of coreference. It is a well-known fact that the passive and the -In reflexive cannot occur in the complement clause of Turkish causatives. However, no unified analysis to account for this fact has heretofore been given. By positing a multiattached structure for the -In reflexive, a feature common to it and the passive structure can be extracted to formulate a general condition for the complement clause of causatives.

In Chapter Four, the syntactic vs. the lexical nature of Turkish causative formation is discussed. It is argued that there is no evidence to posit causative formation as a lexical rule, contrary to Aissen and Hankamer's (1980) claim. Aissen and Hankamer claim that the fact that passive cannot occur in the complement clause of causatives can be accounted for by positing causative formation as a lexical rule. Since passive is arguably a syntactic rule, it is not expected to occur before the application of a lexical rule such as causative formation. However, as mentioned above, I posit a condition on the complement clause of causatives which prohibits passive and -In reflexivization while correctly allowing other syntactic rules to apply. With the addition of this condition to the grammar, it is no longer necessary to claim that causative formation is a lexical rule to account for the nonoccurrence of passive in the complement clause. In the course of the discussion, an argument against Zimmer's (1976) contention that

passive can occur in the complement clause is presented. Furthermore, no-revaluation unions in causative structures are argued to exist in Turkish, thus corroborating Rosen's (1981) claim that such unions exist in Romance languages.

While Chapters Three and Four, which discuss reflexives and causatives respectively, are of interest in themselves to both Turcologists and universal grammarians, the above chapters also serve as background for the discussion and argumentation in Chapters Five and Six.

Three syntactic diagnostics for distinguishing between initial unaccusativity vs. initial unergativity are presented in Chapter Five. The diagnostics include the -ArAk gerund construction, predicates consisting of a loanword and auxiliary, and double causatives. Contrary to Perlmutter's (1978) claim, the impersonal passive is not a diagnostic for making this distinction among intransitive predicates in Turkish. It is argued that the assignment of initial unaccusativity and unergativity to a particular predicate is not based on its semantic role but rather its syntactic behavior.

The structures that are posited for the Turkish constructions, in the main, support the major assumptions of RG. However, as Chapter Six demonstrates, there are data in Turkish which counterexemplify either the 1 Advancement Exclusiveness Law or the advancement analysis of passive.

Turkish does not provide evidence as to which assumption should be abandoned. In particular, Chapter Six argues that impersonal passives of initially unaccusative predicates and of personal passives are possible in Turkish. Such constructions counterexemplify either of the aforementioned assumptions of RG. I show that impersonal passives of initially unaccusative predicates are indeed possible in Turkish in the following way. First, I argue, as in Chapter Five, that the Unaccusative Hypothesis finds motivation in Turkish by presenting three syntactic diagnostics for distinguishing between initially unaccusative and initial unergative predicates. Predicates which are deemed to be initially unaccusative by these diagnostics are then shown to be able to impersonally passivize. That is, unaccusative predicates can appear with passive morphology and other features characteristic to the passive. Three alternative nonpassive analyses which do not violate either of the assumptions of RG are considered. These analyses claim that Turkish contains no true impersonal passives. However, as I argue in depth, the alternative analyses can be shown to create complications elsewhere in the grammar of Turkish; thus, they are inferior to the structures which violate the RG assumptions.

The organization of this study is as follows. Chapter One provides an introduction to Relational Grammar. In Chapter Two, a brief overview of Turkish grammar is

presented. Two types of reflexives involving multiattached and nonmultiattached structures are discussed in Chapter Three. Chapter Four discusses the lexical vs. syntactic nature of causatives in Turkish. Chapter Five is devoted to a detailed discussion of Turkish-internal evidence for the Unaccusative Hypothesis. Finally, Chapter Six presents evidence against either the 1 Advancement Exclusiveness Law or the advancement analysis of passive by arguing for the possibility of impersonal passive of initially unaccusative predicates and of personal passives.

Chapter One

Relational Grammar

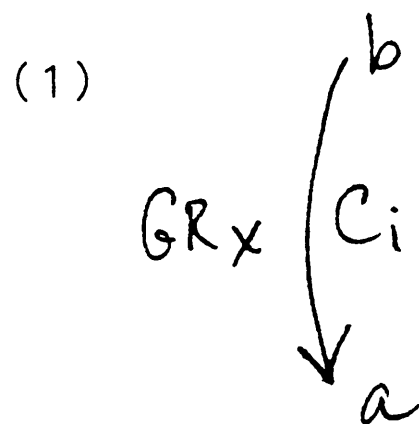
1.1 Introduction

The primary goal of syntactic theory, in Perlmutter and Postal's view, is to characterize the syntactic structures that are possible in the world's languages. To accomplish this goal, they employ the universal framework of Relational Grammar (RG), which is developed in Perlmutter and Postal (1974, 1977, 1983, 1984) and in Perlmutter and Rosen (1984). The formalism and well-formedness conditions of RG allow one to characterize the syntactic constructions of particular languages in such a way that cross-linguistic generalizations can be factored out straightforwardly. RG has been instrumental in bringing out data to be considered and accounted for that have not been noticed before. While this study adopts the RG framework, and corroborates many of the major assumptions of RG, I hope that the data that is brought out will be of value to linguists working in other frameworks as well.

The aim of this chapter is to introduce various aspects of RG as an aid to decoding and understanding the analyses of Turkish constructions presented in the following chapters.

1.2 Clause Structure

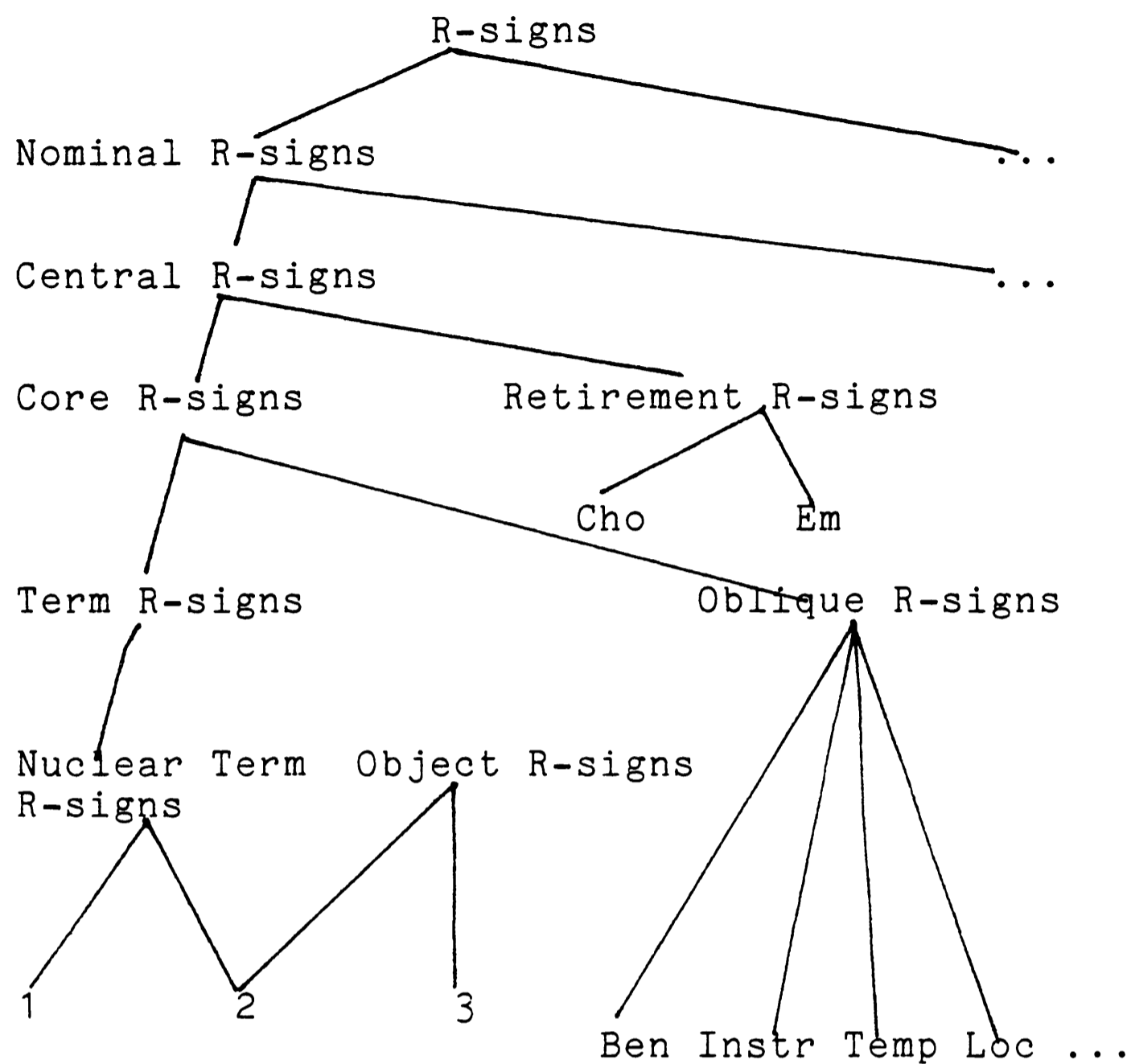
In RG, the structure of a clause is depicted by the linguistic object called the relational network (RN). An RN involves three primitives: nodes, which represent a set of linguistic elements consisting of a governor node and a dependent node; relational signs, which refer to grammatical relations; and coordinates, which denote the level at which the relation holds. These primitives are associated with arcs which, taken together, constitute an RN. An example of an arc is given in (1).



The arc in (1) consists of the governor node b, which is the tail of the arc, and the dependent node a, which is the head of the arc. A nominal which occurs at the head of the arc bears the GR_x relation at the c_i level to the element b.

Arcs can be classified according to the R-sign they bear. Perlmutter and Postal (1983:86) classify R-signs as shown in the following chart. Like Perlmutter and Postal, I only describe connections between nominals and basic clause nodes, as other types of connections are irrelevant to our discussion.

(2)



This study deals mostly with the central nominal R-signs, which consist of term R-signs, retirement R-signs, and oblique R-signs. The term relations 1, 2, and 3, which denote subject, direct object, and indirect object, respectively, can be subdivided into nuclear terms and object terms. The nuclear term R-signs are 1 and 2, and the object R-signs are 2 and 3. These two classes are often referred to by language-specific rules and universals. I am not aware of any rule or condition that groups 1 and 3 together

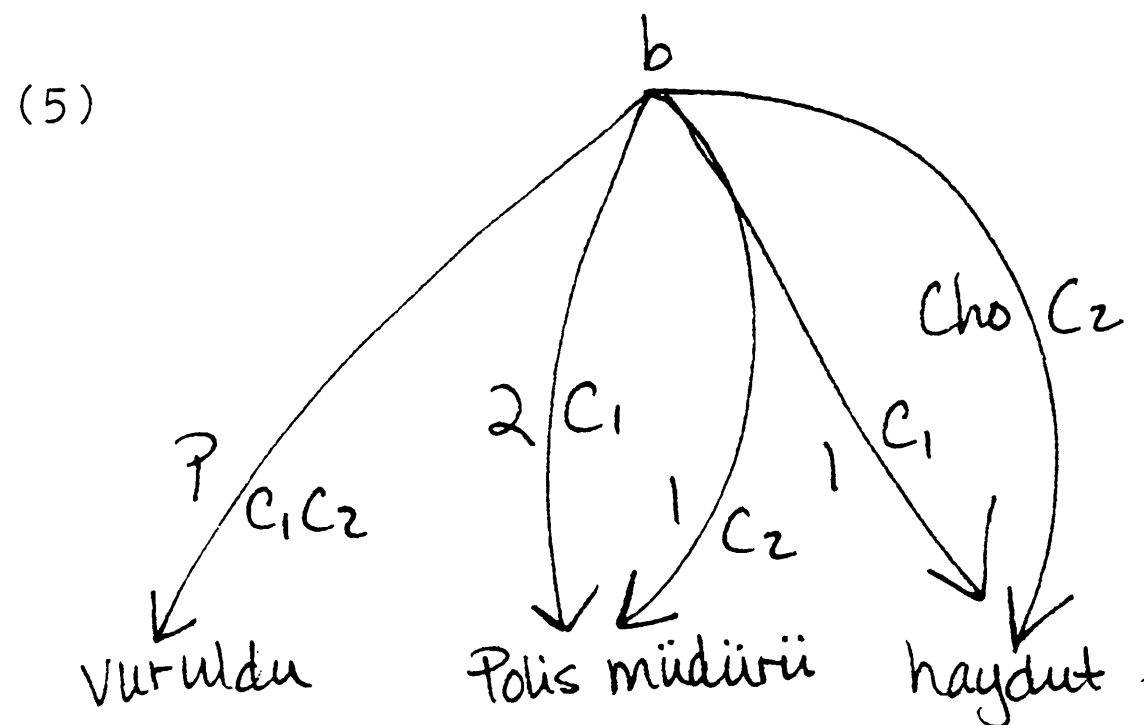
as opposed to all the other relations.¹ The oblique and chomeur R-signs are often referred to as nonterms. Furthermore, central R-signs as a whole are arranged in a hierarchy:

(3) 1 > 2 > 3 > nonterms

Consider the passive sentence in (4), whose partial RN is represented in (5).

(4) Polis müdürü haydut tarafından vur-ul-du.
 sheriff brigand by shoot-PASS-PST

'The sheriff was shot by the brigand.'

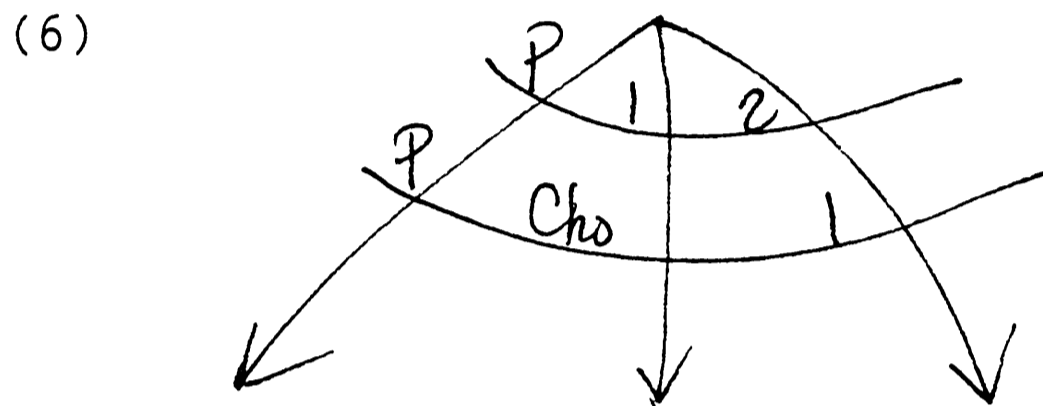


In the partial RN in (5) (agreement and tense are not included), all three dependents, one verbal and two nominal, have the same governing node b. The coordinates are specified by c_k and appear to the right of the arc. The R-signs appear to the left of the arc. IN (5), all of the

¹ The rule of inversion demotes an initial 1 to 3 but this is not the same as some rule affecting arcs bearing just the 1 and 3 relations.

dependents which head arcs share both the c_1 and c_2 coordinates which means they head arcs belonging to the first and second strata. A c_k stratum is defined as the set of all arcs with the same tail which have the coordinate c_k .

The RN in (5) can be alternately represented by a stratal diagram, as in (6).



The first stratum in (6) is also known as the initial level. It contains the set of all arcs which have the coordinate c_1 with tail b . The second stratum of (6) is also the final stratum, as there are no further strata. When representing the structure of a clause, a stratal diagram, as in (6), is opted for more often than the RN in (5) since in (6) the strata are more visible.

(5) and (6) are equivalent notations for the same RN. In both (5) and (6), haydut is said to head an initial 1-arc and a final cho-arc. Polis müdürü heads an initial 2 arc and a final 1 arc. The predicate vurmak heads the predicate arc in both the initial and final strata. In the following chapters and elsewhere in the RG literature, a dependent is often said to simply bear a certain relation at

a particular stratum, rather than it being specified each time that a dependent heads an arc bearing a certain relation to the clause node at a particular stratum.

There are two other types of relations that facilitate discussion of certain analyses in the following chapters. These are the relations of sponsor and erase which are borrowed from Arc Pair Grammar (Johnson and Postal 1980). Unlike the R-signs above, which arcs bear to the clause node, sponsor and erase are two primitive binary relations between arcs. Each arc is thought of as having a sponsor arc, or 'creator' arc, and arcs which do not have superficial existence have a erase arc, or 'destroyer' arc. Thus, in the RN in (5), the final cho-arc erases its sponsor, the initial 1 arc. The final 1 arc erases its sponsor, the initial 2 arc.

1.3 Typology of Strata and some Defined Concepts

RG asserts that each stratum is either transitive or intransitive. Thus, it is necessarily incorrect to refer to a clause as being transitive or intransitive without referring to the stratum. There are four types of strata which will be referred to throughout the following study.

- (7) a. transitive: a transitive stratum is one that contains a 1 arc and a 2 arc.
 b. intransitive: an intransitive stratum is one that is not transitive.
 c. unergative: an unergative stratum is one that contains a 1 arc and no 2 arc.
 d. unaccusative: an unaccusative stratum is one that contains a 2 arc and no 1 arc.

Note that according to the definition of transitivity in (7a), unergative and unaccusative strata are intransitive.

The theoretical constructs of ergative-arc and absolutive-arc are then defined as follows:

- (8) a. Erg-arc: A 1-arc of a transitive stratum is an Erg-arc in that stratum.
 b. Abs-arc: A 2-arc in a transitive stratum or the nuclear term arc in an intransitive stratum is an Abs-arc in that stratum.

Finally, the concept of surface-arc is borrowed from Arc Pair Grammar (Johnson and Postal 1980; Postal 1986). A surface-arc belongs to the S-graph of an RN, where an S-graph is defined as follows.

- (9) S(urface)-Graph: consists of the maximal set of surface arcs none of whose members are erased.

For example, the dependents in (6) which head the final predicate, cho, and 1-arcs also head surface arcs which bear these same relations. On the other hand, the dependents heading the initial arcs do not head surface arcs, because they are erased by the final arcs. Thus, the initial arcs do not appear in the S-graph.

1.4 Well-formedness Conditions

In RG, RNs are regulated by the proposed universals which are informally stated in (10), and by language-specific rules.² The proposed laws below govern uniclausal RNs.

- (10) a. Oblique law: Oblique relations are never acquired in post-initial strata.
 b. Stratal Uniqueness Law: No two nominals can bear the same term relation in the same stratum.
 c. Chomeur Law: A nominal must acquire the chomeur relation in any stratum where retention of its previous relation would create a violation of Stratal Uniqueness.
 d. Motivated Chomage Law: The chomeur relation can be acquired only under the condition stated in the Chomeur Law. There is no "spontaneous chomage".
 e. Final 1 Law: Every "basic clause" has a final 1.
 f. Nuclear Dummy Law: A dummy never bears any relation other than 1 or 2.
 g. 1-Advancement Exclusiveness Law: No clause can contain more than one advancement to 1.

In the light of some Kinyarwanda data, the Chomeur Law has been abandoned by Perlmutter and Postal (1983). It is included in (10) because the Motivated Chomage Law makes reference to it.

² The informal statements of the universals are taken from Rosen (1981).

Chapter Two
Aspects of Turkish Grammar

2.1 Introduction

The purpose of this chapter is to briefly introduce selected elements of Turkish grammar as an aid to understanding the discussion in the following chapters. The description here, as in subsequent chapters, is couched in the framework of Relational Grammar (RG).

2.2 Word Order

The canonical word order in Turkish is SOV, as exemplified in (1).

- (1) Sema kitab-~~i~~ oku -yor.
book -ACC read-PROG

'Sema is reading the book.'

In terms of final grammatical relations, the canonical word order can be described by the following schema.

- (2)
(1) 3 2 (non-terms) V

Examples are given in (3) and (4)

- (3) Sema Hasan-a kitab -~~i~~ ver -di.
-DAT book -ACC give-PST

'Sema gave the book to Hasan.'

(4) Sema Hasan-a kitab- \ddot{i} lokanta -da ver -di.
 -DAT book -ACC restaurant-LOC give-PST

'Sema gave the book to Hasan in the restaurant.'

Word order, however, is not rigid. Consider (5) and (6), both of which depart from the canonical word order in (4).

(5) Sema lokanta -da Hasan-a kitab- \ddot{i} ver -di.
 restaurant-LOC -DAT book -ACC give-PST

'Sema gave the book to Hasan in the restaurant.'

(6) Lokanta-da Hasan-a kitab- \ddot{i} ver-di Sema.
 'Sema gave the book to Hasan in the restaurant.'

The variation in word order found in (5) and (6) is due to the effect of discourse conditions. Information appearing after the predicate is backgrounded, while information appearing before the predicate is foregrounded. Nominals which are emphasized bear the primary stress of the sentence and appear in a position immediately before the predicate, which is known as the "focus" position.

Returning to the examples above, we note that (4), (5), and (6) all carry similar meanings. In (5), however, the oblique lokantada does not appear in its usual position before the predicate. Instead, kitab \ddot{i} , the final 2, appears immediately before the predicate in the focus position. Consequently, although (4) and (5) carry similar meanings, (5) stresses that it was 'the book' that Sema gave to Hasan as opposed to other things that she could have given him. Likewise in (6), the speaker has chosen to place kitab \ddot{i} in

the focus position as well as to background Sema as old and recoverable information by placing it after the predicate.¹

Assuming that lokantada is a final locative in both (4) and (5) Sema in (6) is a final 1 although it appears postverbally, (5) and (6) show that word order in Turkish is not always a function of grammatical relations alone. For this reason, word order cannot be used as a diagnostic for determining the final grammatical relations of certain nominals. In the following chapters, the data under analysis involves, whenever possible, only the canonical order of grammatical relations in (2). In this way, the correspondence between word order and final grammatical relations can be seen more clearly.

2.3 Nominal Morphology

In this section, some pertinent types of nominal morphology are discussed.

2.3.1 Case Marking and Articles

There are six cases in Turkish, which are realized morphologically via suffixes. These cases mark the final grammatical relations of the nominals to which they are attached. The case suffixes are listed in (7).

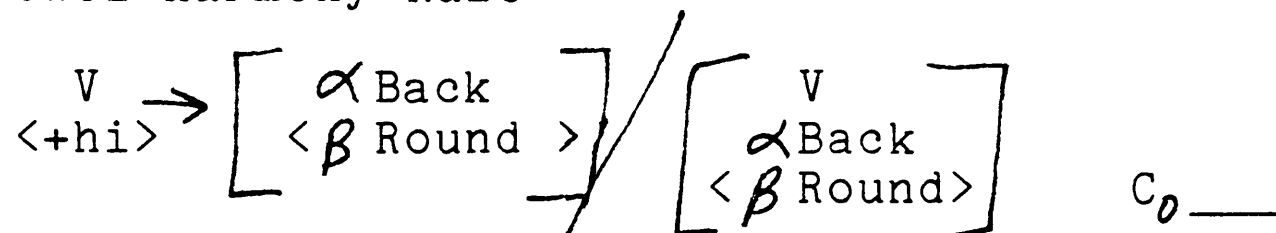
¹ See Erguvanlı (1979) for further information.

(7) Case Suffixes

absolute	[∅]
accusative	[-I]
genitive	[-In]
dative	[-E]
locative	[-DE]
ablative	[-DEn]

It is standard Turcological practice to use archiphonemes (represented by capital letters) to represent segments that undergo the phonological rules of vowel harmony and consonant assimilation. The vowel harmony rule states that a vowel has the same value for backness as the immediately preceding vowel in the word. Further, if a vowel is high, it will also have the same value for roundness as the immediately preceding vowel.

(8) Vowel Harmony Rule



Some examples of vowel harmony are presented in (9).

- | | | | |
|--------|---------------|----|-------------------|
| (9) a. | resim + i | c. | cam + \dot{i} n |
| | picture + ACC | | glass + GEN |
| b. | yüz + ün | d. | tuz + u |
| | face + GEN | | salt + ACC |

In (9), the second and following vowels have the same value for backness and roundness as the first vowel of the word. For example, in (9a), vowels following the first vowel, which is [-Back], are also [-Back]. In (9b), vowels following the first vowel agree with this vowel not only in backness, but in roundness as well.

The Consonant Assimilation rule states that the initial consonant of a suffix will assimilate in voicing to the immediately preceding sound.

(10) Consonant Assimilation Rule:

$$\left[\begin{array}{l} \text{-Cont} \\ \text{-del rel} \end{array} \right] \text{-----} \rightarrow [\alpha \text{voice}] / [\alpha \text{voice}] + \underline{\quad}$$

Examples of consonant assimilation are given in (11).

- (11) a. yüz-den
face-ABL
- b. nefret-ten
hatred-ABL

In (11a) and (11b), the initial suffixal consonant has taken on the voicing of the immediately preceding consonant.

The rules which stipulate how cases are assigned to nominals are the following.²

(12) Case Marking Rules

- (i) Final 1 appears with absolutive case.
- (ii) Final specific and definite 2 appears with accusative case.
- (iii) Final 3 appears with dative case.
- (iv) Final locative appears with the locative case.
- (v) Final source or ablative appears with ablative case.
- (vi) Final possessor appears with genitive case.

Nominals heading arcs bearing certain other final oblique relations must appear as the objects of particular postpositions

² All final 3s are dative-marked, but not all dative-marked nominals are final 3s. For example, directionals can appear with dative case.

There are two major classes of postpositions in Turkish.³ The first type, which Lewis (1967) calls 'primary', governs the case of its object. Depending on the postposition, the object appears in either the absolutive, genitive, dative, or ablative case. Some examples are presented in (13).

- | | | | |
|---------|---|----|---|
| (13) a. | ben-im gibi
I-GEN like
'like me' | d. | bu adam gibi
this man like
'like this man' |
| b. | bir saat kadar
one hour for
'for one hour' | e. | akşam-a kadar
evening-DAT until
'until evening' |
| c. | bugün-den evvel
today-ABL before
'before today' | f. | hoca-ya göre
teacher-DAT according
'according to the teacher' |

The objects of some of the primary postpositions may appear in either of 2 cases: absolutive or genitive case for objects of gibi, as in (13a) and (13d), and absolutive or dative case for objects of kadar, as in (13b) and (13e). Other postpositions, however, restrict their objects to appearing one case only: dative for objects of göre and ablative for objects of evvel.

The second class of postpositions, which Lewis calls 'secondary', is divided into three subgroups. An immediate difference between the primary and secondary postpositions is that the secondary postpositions must be 'annexed' to

³ This account of postpositions is due to Lewis (1967).

their objects. This is done by appending the 3rd person possessive suffix onto the postpositional stem. In addition, the object can appear with the genitive suffix if the relationship is possessive or definite; otherwise, the object appears in absolutive form. Examples from the first subgroup are given in (14).

- (14) a. Masa -n_{in} üst-ü -n -e otur-du.
 table-GEN top-3POSS-3sg-DAT sit -PST
 'S/he sat on top of the table.'
- b. Masa üst-ü -n -e otur-du.
 table top-3POSS-3sg-DAT sit -PST
 'S/he sat on top of a table.'
- c. Doğu ile Batı ara -s_{in} -da
 East COM West interval-3POSS-LOC
 'between the East and West'
- d. Dağ ile ırmağ-ın ara -s_{in} -dan
 mountain COM river-GEN interval-3POSS-ABL
 'from between the mountain and the river'

As shown in the above examples, this subgroup of secondary postpositions bears one of the following oblique relations: directional (marked with dative), locative, or ablative. In contrast, the primary postpositions do not take any case suffixes, as shown in (13).

In example (14a), the 3rd person possessive suffix joins the postposition üst with the preceding noun masa. The genitive suffix is affixed to masa because it is definite. Example (14b) is similar to (14a). It differs only in that masa is indefinite and so does not have a genitive suffix. In (14c), Batı is construed as indefinite and thus does not have genitive marking. ırmağın in (14d) does have genitive marking, on the other hand, because it is intended as a

definite river. Dag, which is the noun it is in comitative relationship with, is also construed as definite.

The second subgroup of secondary postpositions differs from the first subgroup in the following ways. First, the postpositional noun stems can only have one case attached to it. The choice of the case is determined by the postpositional stem. For example, consider the postpositions in (15).

- (15) a. hakk -in -da
 right-3POSS-LOC
 'concerning'
- b. taraf-in -dan
 side -3POSS-ABL
 'by, through the agency of'

Postpositions whose stems are hakk and taraf can take only the locative and ablative case. In the first subgroup, the postpositional stems were not as restricted and could take more than one type of case. Compare arasında in (14c) and arasından in (14d). In these examples, ara takes the locative and ablative cases, respectively. Another way in which the second subgroup differs from the first subgroup is that the possessive suffix attached to the postposition may vary for person. Recall that in the first subgroup, the 3rd person possessive suffix is used invariably to annex the postposition to its object, as shown in (14).⁴ Examples where

⁴ The fact that only the 3rd person possessive suffix is used to annex the postposition to its object with the first subgroup does not mean that only 3rd person

the possessive suffix varies in the second subgroup are given in (16).

- (16) a. taraf-*im*-dan
side-1POSS-ABL
'by me'
- b. hakk-*iniz*-da
right-2POSS-LOC
'concerning you'
- c. hakk-*im*-da
right-1POSS-LOC
'concerning me'

In (16a), the stem taraf appears with 1st person, as does hakk in (16c). Example (16b) shows hakk appearing with the 2nd person suffix.

The third way in which the second subgroup differs from the first is that the annexation of the second subgroup must always be indefinite.⁵ Thus, in the first subgroup, some objects of postpositions could be definite, as was shown in (14a) and (14d), where the objects appear with genitive case. Now consider the examples in (17) and (18), in which the postposition is chosen from the second subgroup.

objects are allowed. Consider the example:
(i) Süt -*ü* ben-*im* üst-*ü* -*m* -*e* dök -*tü*.
milk-ACC me -1sg top-3POSS-1sg-DAT spill-PST
'S/he spilled the milk on me.'

⁵ The only exception to this generalization is the class of pronouns. Pronouns are inherently definite and specific and therefore always appear with genitive marking.

- (17) Kardeş-i tarafından uzaklaş-tır-ıl-dı.
 brother-3sg by send away-CAUS-PASS-PST

'He was sent away by his brother.'

- (18) İnkilâp hakkında bir nutuk söyle-di.
 revolution about a apeech say -PST

'He gave a speech about the revolution.'

Note that the objects of tarafından and hakkında do not appear with genitive case. If we were to add the genitive case to the objects, the meanings of the postpositions would become literal. Compare (17) with (19) and (18) with (20) where the genitive case is affixed to the postpositional objects.

- (19) Kardeş -i -nin taraf-ın -dan
 brother-ACC-GEN side -3POSS-ABL

uzaklaş -tır -ıl -dı.
 send away-CAUS-PASS-PST

'He was sent away from his brother's side.'

- (20) İnkilâb -ın hakk -ın -da
 revolution-GEN right-3POSS-LOC

'in the truth of the revolution'

Like the second subgroup, the third and last subgroup of the secondary postpositions also restricts its postpositional stems to occurring with one particular case. However, unlike the second subgroup, the annexation of the postposition to its object can be definite, i.e. the object of the postposition can have the genitive case suffix, although in general, the object appears without it.

Consider the examples cited in (21) and (22).

(21) a. Asistan, profesör -ü yer -in -e
 assistant professor-3POSS place-3POSS-DAT
 ders -e git-ti.
 class-DAT go -PST

b. Asistan, profesör -ü -nun yer-in-e ders-e
 professor-3POSS-GEN

git-ti.

'The assistant went to the class in lieu of his professor.'

(22) a. Ahmet saye -sin -de her şey iyi ol-du.
 shadow-3POSS-LOC everything good be-PST

b. Ahmed-in sayesinde her şey iyi oldu.
 -GEN

'Thanks to Ahmet, everything has become all right.'

As seen in (21a) and (21b), the postpositional stem yer- can only appear with the dative case. The object can optionally appear with the genitive case. The definiteness of the object does not govern the usage of the genitive case, since 'professor' is definite in both sentences. Examples (22a) and (22b) are parallel to the above sentences. The postpositional stem saye- can only appear in locative case and its object Ahmet can optionally appear in genitive case.

Returning to the casemarking rules in (12), we add two more rules.

(23) Addition to (12):

(vii) Final passive chomeur appears with the instrumental postposition tarafından which is annexed to its object in the absolute case.

(viii) Final non-passive 1 chomeur appears with other postpositions, such as vasıtasiyle.

Note that the postposition which marks the final passive chomeur is chosen from the second subgroup of secondary postpositions, which allows only absolutive case on the object; this postposition must take the ablative case. Thus, like the other casemarking rules in (12) which stipulate that nominals heading arcs bearing certain grammatical relations must be marked with an invariant case, nominals heading arcs bearing the passive 1-chomeur relation must be marked on the surface by the combination of absolutive case and the invariant postposition tarafından. The fact that the passive 1-chomeur is marked with the tarafından postposition, which belongs to the second subgroup of secondary postpositions, is pertinent to the section on relativization in Chapter Five.

The casemarking rule in (23viii) refers to the type of 1 chomeur found in causative structures. This relation is discussed in more detail in the double causative section in Chapters Four and Six.

Turkish has no definite articles. Rather, a complex interplay of word order, case, the absence of the indefinite article, tense, aspect, and animacy indicates the

definiteness of a nominal. The best approximation of an indefinite article in Turkish is the word meaning the number 'one' bir.⁶ In addition, an indefinite nominal can be construed as specific or nonspecific, depending upon case marking and word order.

For example, consider the following sentence which contains definite nominals heading arcs bearing the 1 and 2 grammatical relations.

- (24) Ördek yavru-y-u göl-e doğru dürt-tü.
 duck baby-Y-ACC lake-DAT towards nudge-PST

'The duck nudged the offspring towards the lake.'

The final 1 of this sentence, ördek, is definite; therefore it lacks the indefinite article and appears in non-immediate preverbal position, as discussed in section 2.2. On the other hand, the final 2, yavruyu, is definite, lacks the indefinite article, and bears accusative marking. Now note ördek and yavru in (25), whose indefiniteness is marked with the indefinite article.

- (25) Bir ördek bir yavru-y-u göl-e doğru dürt-tü.
 a duck a offspring-Y-ACC lake-DAT towards nudge-PST

'A duck nudged an offspring towards the lake.'

The final 1, ördek, is interpreted as a specific indefinite

⁶ According to Erguvanlı (1979), other factors such as context, stress, etc. determine specificity of an indefinite nominal. These parameters do not concern the present issue.

because of the past tense of the verb. If the tense is changed to the aorist, the final 1 is interpreted as a non-specific indefinite. Consider (26).

(26) Bir ördek bir yavru-yu göl-e doğru dürt-er.
 a duck a offspring-ACC lake-DAT nudge-AOR

'A duck nudges an offspring towards the lake.' or
 'The thing that a duck does is to nudge an offspring towards the lake.'

The final 2 in (25) is interpreted as a specific indefinite because it appears with the indefinite article and accusative marking. As noticed by Hankamer and Knecht (1976), when the final 2 is nonhuman and nonspecific, a process called incorporation applies. A nominal is said to incorporate onto the verb in Turkish if it appears caseless and immediately before the verb. For a nonspecific nominal to incorporate, it must bear an initial nuclear term relation and a final chomeur relation. It is claimed that the incorporated nominal is a final chomeur because, as Hankamer and Knecht showed by using various syntactic tests such as raising, the nominal no longer behaves as a final 1 or final 2. For example, consider the following example with an incorporated 2.

(27) Bir ördek göl-e doğru bir taş dürt-tü.
 a duck lake-DAT towards a stone nudge-PST

'A duck nudged a stone towards the lake.'

Bir taş, the incorporated 2, is indefinite and nonspecific, as shown by the indefinite article and lack of accusative case. Similarly, a 1 can incorporate if it is nonhuman and

nonspecific.

- (28) Kız-ı arı sok-tu.
 girl-ACC bee sting-PST
 'A bee stung the girl.'

Hankamer and Knecht (1976), in a transformational framework, suggested that the nominal that undergoes incorporation has been demoted from its original relation and no longer behaves syntactically like a (final) 1 or 2. Following up on this suggestion, I claim that a nominal must bear the final chomeur relation in order to incorporate (c.f. Ozkaragoz 1982 and Chapter Five). The nonspecific nominal is placed en chomage by a dummy entering as a 1 or 2.

Final 3's and obliques always bear their respective casemarking whether they are specific or nonspecific indefinites or definites. Indefinites are marked by the article bir. Specificity is determined by the context.⁷ In summary, we can include the following general statements in the grammar of Turkish:

- (29) a. An indefinite final 1 or 2 is marked by the indefinite article.
 b. Only nonspecific 1s and 2s bearing the final chomeur relation can incorporate. (A nonspecific 1 or 2 is caseless and appears in immediate preverbal position.)

⁷ See Erguvanlı (1979) for an in depth discussion of definite and indefinite nominals in Turkish.

2.3.2 Pronouns

There are three sets of pronouns in Turkish which are relevant to the discussion in the following chapters. The first set is the personal pronouns, the second set is comprised of the possessive pronominal suffixes, and the third set is represented by the reflexive pronoun kendi.

The set of personal pronouns are given in (30).

(30)

	Singular	Plural
1	ben 'I'	biz 'we'
2	sen 'you'	siz 'you' (plural or polite form)
3	o 's/he' 'it'	onlar 'they'

Case is assigned to the pronouns, as it is to other nominals, by the casemarking rules in (12). As will be pointed out in the section on verbal morphology, predicates agree in person and in number with their final 1. One consequence of this agreement is that the presence of the 1, when it is a personal pronoun, is superfluous. Thus, as shown in (31) and (32), nonemphatic pronouns which are final 1's do not appear on the surface.

(31) Gid-iyor-um.
go -PROG-1sg
'I am going.'

- (32) Şişko-yum.
 fat -1sg
 'I am fat.'

The table in (33) gives the set of possessive pronominal suffixes which are affixed to their head nominals.

(33) Possessive Pronominal Suffixes

	Singular	Plural
1	-Im	-ImIz
2	-In	-InIz
3	-(s)I(n)	-lArI(n)

Examples are given in (34).

- (34) a. kiz-im 'my daughter'
 b. kiz-in 'your daughter'
 c. kiz-i 'his/her daughter'
 d. kiz-imiz 'our daughter'
 e. kiz-iniz 'your daughter'
 f. kiz-lar-i 'their daughter'

Example (34f) is ambiguous as it can mean 'their daughter', 'his/her daughters', or 'their daughters', as shown below.

- (35) a. Kiz-lari
 daughter-3plPOSS
 'their daughter'
 b. Kiz-lar-i
 daughter-pl-3sgPOSS
 ''his/her daughter'
 c. Kiz-lari
 daughter-3plPOSS
 'their daughters'

The plural suffix -lAr, which pluralizes nominals, cannot co-occur with the plural possessive pronominal suffix -lAr;

hence (35c) is homophonous with (35a) and (35b).⁸ Even if the possessors of the heads are overt, the phrase is still doubly ambiguous, as shown in (36).

- (36) Tuncay-lar-in kız-lari
 -pl-GEN daughter-3plPOSS
 'The Tuncay's daughter' or
 Tuncay-lar-in kız-lar-i
 -pl-GEN daughter-pl-3POSS
 'The Tuncay's daughters'

There are two types of reflexive constructions in Turkish: the reflexive pronoun kendi and the verbal suffix -In. Both of these constructions are discussed in depth in Chapter Three, where different structural analyses are posited for them. They will be discussed here only briefly.

The reflexive pronoun kendi 'self', takes a possessive suffix (see (33)) denoting person and number.

- | | | | | |
|------|----------|---------------|-----------|--------------|
| (37) | kendim | 'myself' | kendimiz | 'ourselves' |
| | kendin | 'yourself' | kendiniz | 'yourselves' |
| | kendi or | 'him/herself' | kendileri | 'themselves' |
| | kendisi | 'itself' | | |

Kendi must be coreferential with a final term in its clause, although it may itself bear any grammatical relation.

⁸ Kızları can also be glossed as 'the girls' if the nominal is analyzed as daughter-pl-ACC.

- (38) a. Kendi-m -e bir not yaz -dı -m.
 self -1sg-DAT a note write-PST-1sg
 'I wrote a note to myself.'
- b. (Ben) Zeynep-e kendin-den bahset-ti-m.
 I -DAT self-ABL mention-PST-1sg
 'I mentioned to Zeynep about herself.'

In (38a), the controller of kendi reflexivization is a final 1, ben, whereas in (38b), the controller is a final 3, Zeynep.

The reflexive -(I)n is not productive and can only appear with a special set of verbs. These verbs almost invariably indicate that the action is to be performed with special reference to the final 1. This is the reason why this construction is sometimes referred to as 'middle voice'.⁹ The reflexive pronoun kendi is in complementary distribution with the reflexive suffix -(I)n. In general, a verb which appears with the reflexive suffix cannot appear with the pronoun kendi instead.¹⁰

⁹ See Aissen and Hankamer (1980).

¹⁰ There are a few exceptions:

- (i) Düşman-dan koru -n -duk.
 enemy -ABL protect-REFL-1pl

'We protected ourselves from the enemy.'

- (ii) Kendi-miz-i düşman-dan koru-duk.
 self-1pl-ACC enemy-ABL protect-1pl

'We protected ourselves from the enemy.'

- (39) a. Hasan giy -in -di.
 dress-REFL-PST
 'Hasan dressed (himself).'
- b. Sema süsle-n -di.
 adorn-REFL-PST
 'Sema adorned (herself).' or
 'Sema got dressed up.'

Constructions involving the reflexive suffix -(I)n are always finally intransitive while those involving the reflexive pronoun may be transitive at the final level. Compare the -In reflexive examples in (39) which cannot have an overt direct object with the kendi example in (40), in which kendi is the final direct object.

- (40) Kendisi-ni beğen-iyor.
 self -ACC like -PROG
 'He likes himself.'

I will not go into further diagnostics for transitivity as they are discussed more fully in Chapter Three.

2.4 Verbal Morphology

Some verbal morphology which is pertinent to our discussion of Turkish syntax is presented in this section.

2.4.1 Final 1 and Person and Number Agreement

The verbal stem agrees in person and number with the final 1. The table in (41) presents the personal agreement

endings for predicates.

(41) Personal Agreement Suffixes

-(y)Im	'I'	-(y)Iz	'we'
-sIn	'you' (sg)	-sInIz	'you' (pl)
0	's/he, it'	-lAr	'they'

The consonants in parentheses appear when the verbal stem is vowel-final. As brought out in section 2.3.2, pronouns which are final 1s almost invariably do not appear on the surface. In contrast, final non-1s do not trigger agreement on the predicate and must obligatorily appear in the surface string.¹¹

(42) (Sen) ben-i küçük-en cingene-ler-e
 you I -ACC small-ADV gypsy -pl -DAT

ver -mek iste-miş -sin.
 give-INF want-PRESUMP-2sg

'You (reportedly) wanted to give me to
 the gypsies when I was small.'

¹¹ In context, such as in response to a question, non-final 1's may be omitted:

(i) Çocuğ-u yıka-dı-n mı?
 child-ACC wash-PST-2sg Q

'Did you wash the child?'

(ii) Yıka-dı-m.
 wash-PST-1sg

'I washed (the child).'

(43) (Sen) bebek-en cingene-ler tarafından
 you baby -ADV gypsy -pl by

kaçır -ıl -miş -sin.
 kidnap-PASS-PRESUMP-2sg

'You were (reportedly) kidnapped by
 the gypsies when you were a baby.'

2.4.2 Tense and Aspect

There are eight tense and aspect markers in Turkish.
 They are listed in (44).

(44) Participle Suffixes

a. -ir	aorist
b. -iyor	progressive
c. -meli	necessitative
d. -yecek	future
e. -miş	presumptive-past
f. -ye, Ø	optative
g. -di	past
h. -se	conditional

Tense is suffixed to the verbal stem. Person and number agreement is suffixed to the right of the tense/aspect suffix.

(45) Gid-iyor-um.
 go-PROG-1sg
 'I am going.'

(46) Git-meli-yim.
 go-NEC-1sg
 'I should go.'

The past and conditional tense/aspect markers take different personal suffixes from the other tense and aspect markers.

Compare the personal suffixes in (47) with those in (41).

(47) Personal Suffixes for the Past and Conditional
Tense/Aspect Markers

Singular	Plural
-m 'I'	-k 'we'
-n 'you'	-nIz 'you'
0 's/he, it'	-lAr/0 'they'

(48) Git-ti -niz.
go -PST-2pl

'You went.'

(49) Git-ti -k.
go -PST-1pl

'We went.'

(50) Git-se -niz
go -COND-2pl

'You should go.'

(51) Git-se -k.
go -COND-1pl

'We should go.'

2.5 Monoclausal Syntax

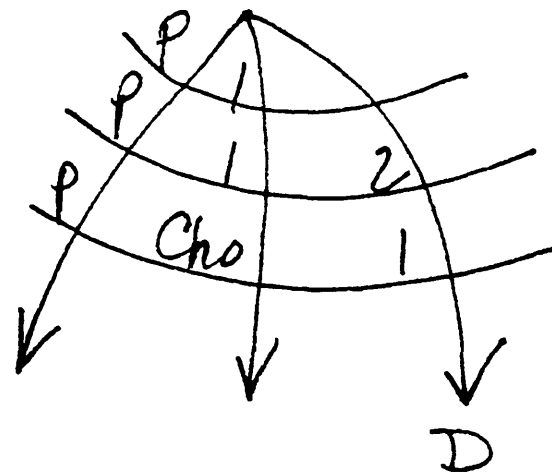
In this section, I present some monoclausal syntactic constructions in Turkish. Those to be discussed are three advancements and a demotion.

2.5.1 Advancements

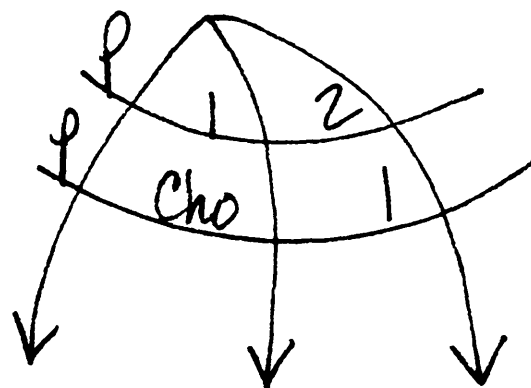
2.5.1.1 Passive

Passive is universally characterized by Perlmutter and Postal (1977;1983) as involving a 2 to 1 advancement from a transitive stratum. There are two types of Passive: impersonal and personal. Impersonal passives involve a dummy advancing from 2 to 1 and personal passives have a nominal, other than a dummy, advancing from 2 to 1. The 1 in the transitive (i.e. departure) stratum is a chomeur in the next stratum. (52) exemplifies an impersonal passive of an intransitive predicate and (53), personal passive.

(52)



(53)



In the impersonal passive structure (52), the dummy enters as a 2 at the second stratum in order to create a transitive departure stratum for passive. Note that the second and third strata of (52) are identical to the first and second

strata of the personal passive in (53), the only difference being that in (52), the dummy undergoes 2 to 1 advancement. Turkish has both impersonal and personal passives. If a relational network meets either of the structural descriptions in (52) or (53), the passive morpheme -Il is suffixed to the verbal stem. The use of the same marker for both types of passives can be attributed to the fact that they have similar relational structures, as in (52) and (53). Dummies in Turkish, unlike dummies in English, are phonetically null. Thus, impersonal passives in Turkish have nonovert final 1s, because the final 1 is a dummy. As discussed in Chapter Five, an account of relativization data follow straightforwardly if a silent final 1 dummy is assumed. This final 1 dummy satisfies the Final 1 Law in RG (c.f. Chapter One).

Compare the nonpassive sentence in (54) with the personal passive in (55).

(54) İhtiyar kadın hırsız-ı vur-du.
old woman thief-ACC shoot-PST

'The old woman shot the thief.'

(55) Hırsız ihtiyar kadın tarafından vur-ul-du.
thief old woman by shoot-PASS-PST

'The thief was shot by the old woman.'

The initial 2 hırsız in (54) is a final 1 in (55). The initial 1 ihtiyar kadın in (54) is a chomeur in (55) and is marked by the instrumental postposition tarafından.

Since there are no advancements to 2 in Turkish, only initial 2's (and starter 2s in causative constructions) allow personal passive advancement. Note the ungrammaticality of (56b), in which an initial 3 advances to 2 and then is promoted to 1.

- (56) a. Talebe hoca -ya hediye-yi ver -di.
 student teacher-DAT gift -ACC give-PST
 'The student gave the gift to the teacher.'
- b. *Hoca hediye-yi talebe tarafından ver -il -di.
 teacher gift-ACC student by give-PASS-PST
 ('The teacher was given the gift by the student.')

Note also the ungrammaticality of (57b), in which an initial locative is promoted to 1 in passive advancement.

- (57) a. Kadın hırsız-ı ev -in -de vur -du.
 woman thief -ACC house-POSS-LOC shoot-PST
 'The woman shot the thief in her house.'
- b. *Ev hırsız-ı kadın tarafından vur -ul-du.
 house thief -ACC woman by shoot-PASS-PST
 ('The house the thief by the woman was shot.')

Some examples of impersonal passives are given in (58)-(59).

- (58) Misafir oturma oda -sın -da otur-ul -ma -z.
 guest sitting room-POSS-LOC sit -PASS-NEG-AOR
 'One does not sit in the guest living room.' or
 'It is not sat in the guest living room.'
- (59) Cami için -de az konuş-ul -ur.
 mosque inside-LOC little talk -PASS-AOR
 'It is spoken little in the mosque.' or
 'One speaks little in the mosque.'

Impersonal passives universally have a final 1 dummy as

discussed above. Some languages, like Dutch, have overt dummies, so their impersonal passives have overt final 1s. Consider the Dutch impersonal passive in (60), in which the dummy er appears.¹²

(60) Er wordt hier door de jonge lui veel gedanst.
'It is danced here alot by the young people.'

Furthermore, in the Dutch example, the initial 1, i.e. the final chomeur, may also be overt. In the Turkish impersonal passive however, neither the final 1 dummy or the passive chomeur can be overt. The impersonal passive chomeur in Turkish must always be PRO, where PRO designates the generic, unspecified NP. This condition, attributed to Knecht (personal communication), is discussed further in Chapter Five.

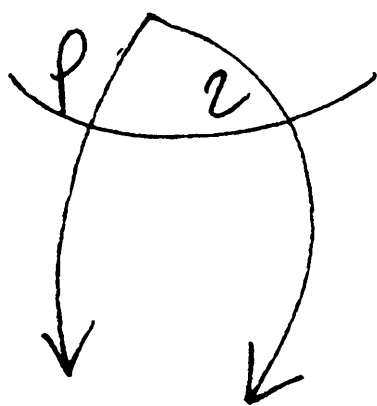
Turkish impersonal passives are of particular interest because it appears that any superficially intransitive predicate, whether unaccusative or personal passive, allows an impersonal passive to be formed with it as long as the condition that the 1 chomeur be a PRO is met. As discussed fully in Chapter Five, this fact has significant consequences for some major assumptions of RG.

2.5.1.2 Unaccusative Advancement

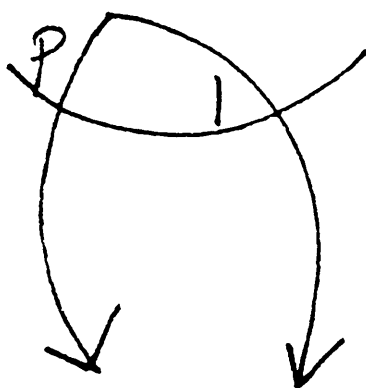
¹² This example is taken from Perlmutter (1978).

The Unaccusative Hypothesis (Perlmutter, 1978) claims that there are two types of initially intransitive clauses: the unaccusative clause, which has an initial 2 but no initial 1, as shown in (61), and the unergative clause, which has an initial 1 but no initial 2, as shown in (62).

(61)



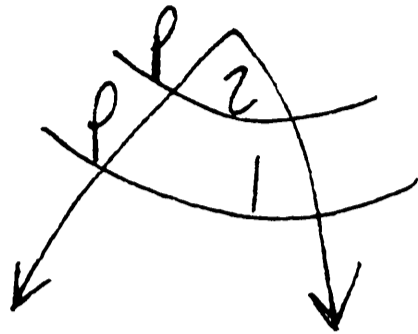
(62)



Unaccusative predicates are distinguished from unergative predicates by language-internal syntax. The Unaccusative Hypothesis and its application to Turkish will be discussed in detail in Chapter Four. In this section, it is simply asserted that Turkish has certain syntactic diagnostics which differentiate initial unaccusatives from initial unergatives. Consider example (63), which I claim contains an unaccusative predicate.

- (63) Güneş bat-tı.
 sun set-PST
 'The sun set.'

(64)



The initial 2 advances to final 1 in order to satisfy the Final 1 Law, via Unaccusative Advancement.

2.5.1.3 Benefactive to 3 Advancement

It was noticed in Özkaragöz (1980) that under certain conditions, nominals bearing the benefactive relation in Turkish may advance to 3.¹³ Consider the examples in (65), which are related by the rule of Benefactive to 3 advancement.

¹³ See also Gibson and Özkaragöz (1981). In this paper and in Özkaragöz (1980), a syntactic condition was placed on the advancement of Benefactive to 3. Knecht (1986), however, offers a semantic condition which makes the original syntactic condition superfluous.

(65) a. Metin ben-im için çorba yap-tı.
 me-POSS for soup make-PST

'Metin made soup for me.'

b. Metin ban-a çorba yap-tı.
 me-DAT soup make-PST

'Metin made soup for me.'

In (65a), the benefactive appears with the postposition için; in (65b), it has advanced to 3 and appears with dative case marking.

Knecht (1986:163-164) proposed that the conditions which allow Benefactive to 3 advancement are semantic: "Ben-3 may apply just when an agent's activities make it possible for the entity denoted by the benefactive to use or enjoy something or further his ability to use or enjoy it. Disposition of whatever the agents acts upon should be understood to pass to the benefactive." This condition is met in (65).

Benefactive to 3 advancement and its interaction with causative structures is of interest in Chapter Six. The ability of benefactive to advance to 3 in the embedded clause of causatives is consistent with the claim that Turkish causatives are biclausal in nature. Furthermore, it is also consistent with a condition placed on the complement clauses of causatives in Turkish, if no-revaluation unions are assumed to exist in Turkish. Rosen (1983) argues that no-revaluation unions exist in Romance languages. I argue

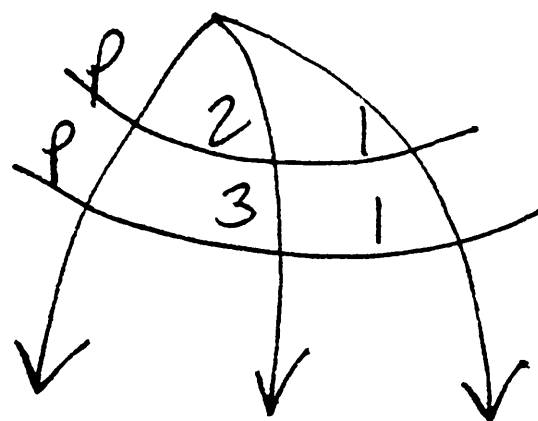
in Chapter Six that such unions also exist in Turkish causatives.

2.5.2 Demotions

2.5.2.1 2 to 3 Retreat

It has been proposed (Özkaragöz 1980) that the grammar of Turkish includes 2 to 3 retreat. Several other languages, such as Choctaw (Davies 1981) and Yukulta (Klockied 1978), have also been argued to exhibit the 2 to 3 retreat construction. The rule of 2 to 3 retreat detransitivizes a clause by allowing the 2 of a transitive stratum to demote to 3 in the immediately subsequent stratum.

(66)



The 2 to 3 retreat rule in Turkish is governed by a subset of the class of verbs which idiosyncratically take their objects in the dative case. I have argued that the objects of this subset of verbs are initial 2's which retreat to 3. I refer to this subset of verbs as "middle

verbs" (Özkaragöz, 1980). The surface form of clauses containing a 2 to 3 retreat verb is controlled by the condition in (67).¹⁴

(67) The initial 2 of a 2 to 3 retreat clause cannot be a surface 2 of that clause.

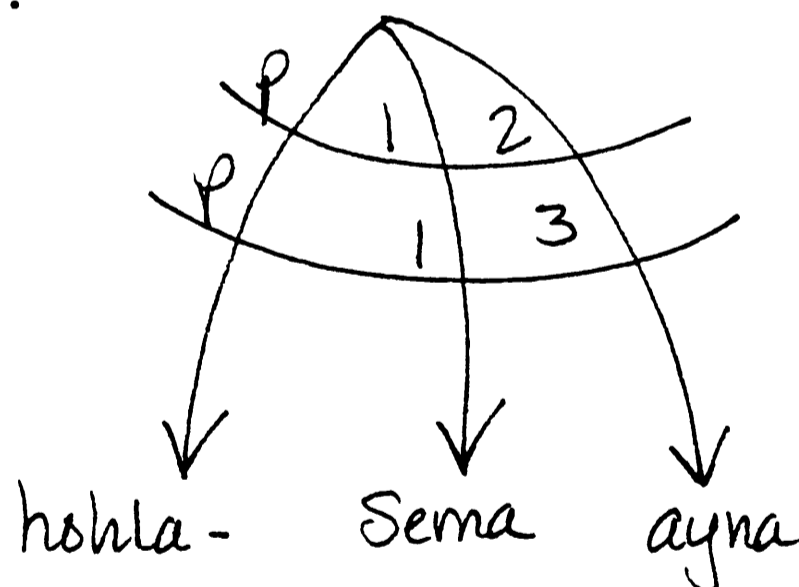
Thus, given (67), the initial 2 must either retreat to 3 or advance to 1 in monoclausal constructions.

For example, a verb which allows 2 to 3 retreat is hohlamak 'to blow on'. Consider (68), in which the initial 2 retreats to 3.

(68) a. Sema ayna-ya hohla-dı.
mirror-DAT blow on-PST

'Sema blew on the mirror.'

b.

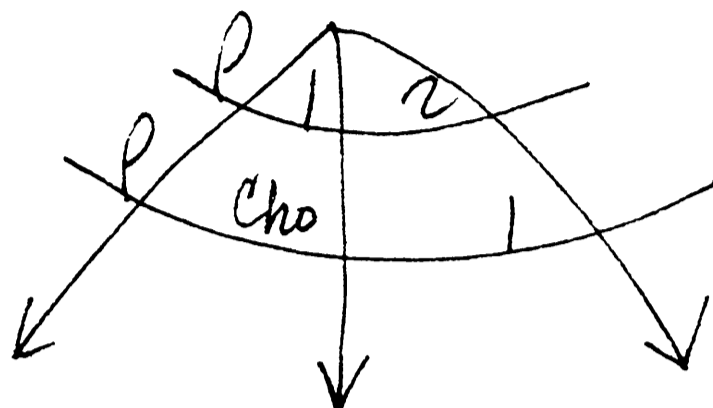


One piece of evidence for the initial 2-hood of ayna 'mirror' comes from the fact that personal passive is possible, as shown in (69).

¹⁴ The condition refers to 'surface' rather than final because a 2 to 3 retreat clause can have a final 2 in the complement clause of causative structures.

- (69) a. Ayna hohla-ni-l-di.
 mirror blow on-PASS-PST
 'The mirror was blown on.'

b.



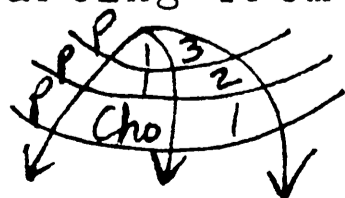
As illustrated in section 2.5.1.1, only 2's can advance to 1 in Turkish. 3's and obliques cannot advance to 1, as attempted in (70).

- (70) a. Kadın çanta-si-ni hırsız-a ver-di.
 woman purse-3POSS-ACC thief-DAT give-PST
 'The woman gave her purse to the thief.'
- b. *Hırsız çanta-si-ni (kadın tarafından) ver-il-di.
 thief purse-3POSS-ACC woman by give-PASS-PST
 ('The thief was given the purse by the woman.')

There is no 3 to 2 advancement in Turkish; thus, ayna in (69) could not be an initial 3 which first advanced to 2 before advancing to 1.¹⁵

¹⁵ Conceivably, there could be an obligatory 3 to 2 advancement which is allowed to occur just in this small subset of verbs. That is, in clauses where there is passive advancement, an obligatory 3 to 2 advancement departing from the initial stratum would be entailed.

(i)



Another piece of evidence for the initial 2-hood of the objects of middle verbs comes from data involving the gerundial -ArAk construction. This construction will be discussed and motivated in more detail in Chapter Four. It suffices here to say that the -ArAk gerund construction denoted simultaneous action and requires cross-clausal multiattachment of the final 1s (i.e. subject to subject equi). The following conditions, besides coreference, must hold for a sentence containing the -ArAk suffix to be grammatical.

(71)

- i. The controller and the target of Equi must bear the same initial grammatical relation.
- ii. The controller and the target of Equi must be final 1's.

Thus (72) is grammatical because the controller and the target are both final 1's and bear the same initial GR, namely, initial 1:

(72) Çocuk sakız çiğne-yerek anne -si -ni öp -tü.
 child gum chew -ArAk mother-3POSS-ACC kiss-PST

'The child, chewing gum, kissed his mother.'

However, (73) is ungrammatical because the initial grammatical relations of the final 1's are not the same.

However, this solution is not consistent with the -ArAk construction facts below which argue that the objects of middle verbs are initial 2's, i.e. not intermediate 2's.

(73) *Çocuk sakız çiğne-yerek öp-ül-dü.
 child gum chew-ArAk kiss-PASS-PST

('The child, chewing gum, was kissed.')

In (73), çocuk in the matrix clause is an initial 2 while çocuk in the embedded clause is an initial 1. In (74), although the initial grammatical relations of the controller çocuk and its target are the same, i.e. initial 1, the final grammatical relations differ. The controller is a final 1 and the target is a final 1-chomeur.

(74) *Çocuk sakız çiğne-n -erek
 child gum chew -PASS-ArAk

anne -si -ni öp -tü.
 mother-3POSS-ACC kiss-PST

('The child, while gum was chewed (by child), kissed his mother.')

Below are some middle clauses which occur in -ArAk constructions.

(75) El -ler ağza tut-ul-arak hohla-nıl-ır.
 hand-PL mouth hold-PASS-ArAk blow on-PASS-AOR

'The hands, being held to the mouth, get blown on.'

(76) Öküz tap -ıl -arak kilise-ye getir-il -di.
 ox worship-PASS-ArAk church-DAT bring-PASS-PST

'The ox, while being worshipped, was brought to the church.'

In (75), the initial grammatical relation of eller is a 2 for it is the initial 2 of the embedded passive predicate tutulmak 'to hold'. According to condition (71i), this means that the final 1 of the matrix clause must also be an

initial 2, for it must be an initial 2 in order to undergo subject to subject equi. Likewise in (76), öküz 'ox', the final 1 of the passive predicate getirmek 'to bring', is an initial 2. In keeping with condition (71i), it follows that the final 1 of the embedded -ArAk clause, whose predicate is a middle verb, is also an initial 2.

In short, middle verbs (i.e. 2 to 3 retreat verbs) behave syntactically as having objects heading initial arcs which bear the 2 relation. Evidence will now be presented that the objects of middle verbs are final 3's. The arguments involve casemarking, impersonal passive, and benefactive to 3 advancement.

In accordance with the casemarking rules in (12), final 3's appear with dative case. The objects of middle verbs appear superficially with dative case, which indicates that they are final 3s.

(77) Vahşi -ler öküz-e tap -ar -lar-dı.
 savage-pl ox -DAT worship-AOR-pl-PST

'The savages used to worship the ox/oxen.'

In example (77) which contains the middle verb 'to worship', the object öküz

'ox' bears dative case.

It was shown above, for example in (69), that middle verbs could undergo personal passive. Middle verbs may also optionally undergo impersonal passive.¹⁶

(78) San-a tap -i1 -iyor.
you-DA worship-PASS-PROG

'It is being worshipped to you.'¹⁷

(79) Ayna -ya hohla -ni1 -di.
mirror-DAT blow on-PASS-PST

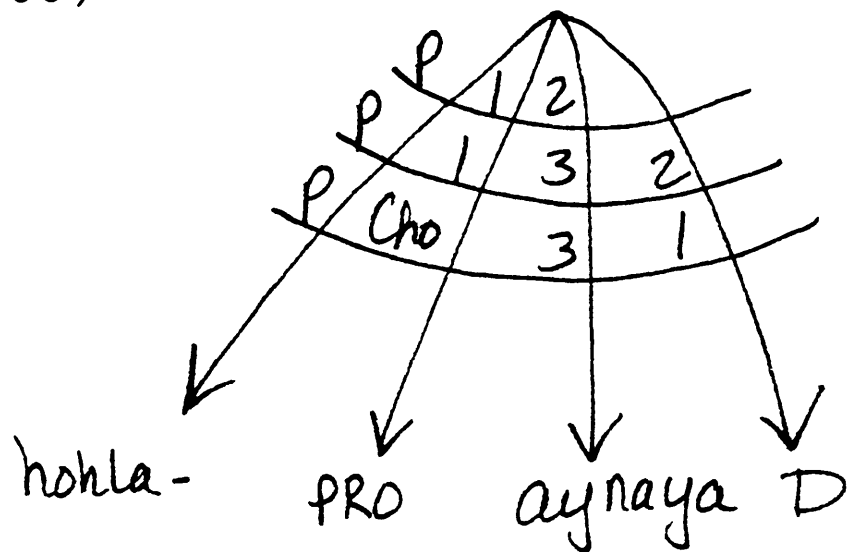
'It was blown on (to) the mirror.'

The following stratal diagram is assumed for the impersonal passive in (79).

¹⁶ Turkish native speakers, in fact, prefer impersonal passives to personal passives of middle clauses.

¹⁷ Following Perlmutter 1978, Turkish impersonal passives in this dissertation are glossed in English with the dummy 'it' as the subject, to reflect the fact that a dummy is claimed to be the final subject of an impersonal passive in Relational Grammar. Dummies are not lexically realized in Turkish. A literal translation of (78) would be 'To you, is being worshipped.' A more natural English expression of (78) would be 'You are being worshipped.'; this way of expressing (78) is, however, not used in order to avoid giving (78) a true personal passive interpretation.

(80)



Crucially, the 2 that advances to 1 in this passive construction is the dummy rather than ayna; the advancement of the dummy is characteristic of impersonal passive advancement.

Sana in (78) and aynaya in (79) appear in dative case. As shown in (69), if the above examples were personal passives, these nominals would have appeared with absolutive case (i.e. zero marking) as stated in the case marking rules in (12). Final 1's always appear with absolutive case.

It should be made clear that by showing that middle verbs can impersonally passivize, we have not shown that their objects are final 3's. Rather, we have shown that simple middle clauses are finally intransitive. This fact is consistent with our claim that the objects of middle verbs are final 3's.

Further, as stated in (67), the initial 2 of a middle clause (or 2 to 3 retreat clause) cannot be a surface 2

of that clause. However, if the middle clause is embedded in a causative construction, for example, the initial 2 may surface as a 2 in the matrix clause.¹⁸

- (81) a. Sema ayna-ya hohla-d_i.
 mirror-DAT blow on-PST
 'Sema blew on the mirror.' (as to clean it)
- b. Sema-y_i ayna-ya hohla-t-t_i-m.
 -ACC mirror-DAT blow on-CAUS-PST-1sg
 'I made Sema blow on the mirror.'
- c. Sema-ya ayna-y_i hohla-t-t_i-m.
 -DAT mirror-ACC blow on-CAUS-PST-1sg
 'I made Sema blow on the mirror.'

Example (81) is a simple middle clause. In (81b), the initial 2 of the embedded middle clause retreats to 3. In (81c), the initial 2 has optionally not retreated to 3. Thus, condition (67), is met since the initial 2 of the embedded middle clause is not a surface 2 of that clause. Rather, it is the surface 2 of the matrix clause.

Assuming a syntactic biclausal analysis of Turkish causatives, the fact that 2 to 3 retreat can occur in the complement clause indicates that 2 to 3 retreat is a syntactic rather than a lexical rule.

The interaction of 2 to 3 retreat and causatives is discussed further in Chapter Four. It is shown there that

¹⁸ The interaction of causatives and 2 to 3 retreat will be discussed more fully in the causative chapter.

the ability of 2 to retreat to 3 in the complement clause of causatives is consistent with a condition posited on the complement clauses of causatives.

As already noted in the example in (69), another construction in which the initial 2 of a middle verb does not have to retreat to 3 is the personal passive construction. Thus, (69) has a monoclausal structure and meets the condition in (67), since the initial 2 advances to 1.

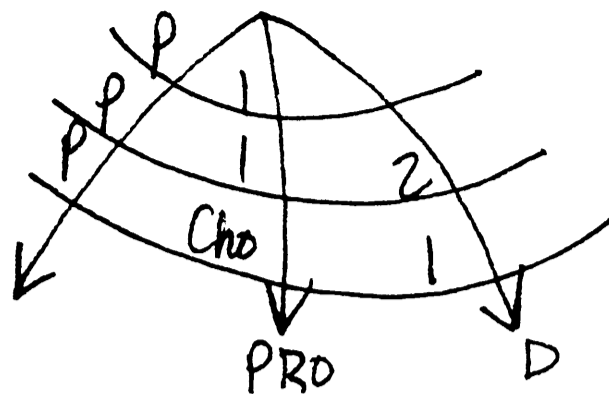
2.6 Two Conditions and A Surface Structure Constraint on PRO

There are two conditions on Turkish constructions involving PRO, which designates the generic, unspecified NP. PRO in Turkish can only head initial arcs which bear nuclear term relations, i.e. 1 and 2, and it can only head final arcs which bear the acting 1 relation. The notion of 'acting term' is defined (Perlmutter and Postal 1984a:130) as follows:

- (82) A nominal node is an acting term if and only if:
- a. it heads a term arc, A, whose last coordinate is c_j , and;
 - b. it does not head an arc B with:
 - (i) the same tail as A
 - (ii) a term R-sign distinct from term , and,
 - (iii) a coordinate c_j , where $j > i$.

Thus, a nominal is an acting term_x only if term_x is the last term relation it bears in a clause. The clauses in (83) show examples of acting 1s.

(83) a.



b.



PRO heads a final acting 1 arc in (83a) because it heads a 1 arc in the second stratum and does not head a different term arc in a successive stratum. In (83b), PRO heads a final 1 arc which can also be referred to as an acting 1 since there is no arc in a successive stratum bearing a different term.

Whenever PRO occurs in a Turkish structure, it heads a final acting 1 arc. Such structures include causatives, passives, relativization, and equi. These constructions, with and without PRO, are discussed in detail in the following chapters. Since PRO must always head a final arc bearing the acting 1 relation, the following condition is posited for PRO.

(84) PRO must head a 1-arc.

Consequently, if PRO heads an initial arc bearing the 2 relation, it must also head an arc bearing the 1 relation at some subsequent level. Furthermore, PRO cannot head an initial arc bearing either the 3 relation or an oblique since

neither of these relations can advance to 1 in Turkish. That is, if PRO headed an initial arc bearing the 3 relation, for example, the RN would be marked ungrammatical since condition (84) could not be met.

Like PRO in Italian, PRO in Turkish is never lexically realized. Consequently, in addition to the condition on PRO in (84), the following condition must also be met.

(85) PRO cannot head a surface arc.

Recall from Chapter One that a surface arc is one that is not erased. Although PRO must head a 1-arc as stipulated in (84), it cannot head an unerased 1-arc. For example, the condition in (85) marks as ill-formed the following example with PRO.

(86) * PRO git -ti.
 leave-PST
 ('PRO left.')

In (86), PRO heads an initial and final 1 arc which is not erased; that is, PRO heads a surface arc. As the constructions in the upcoming chapters illustrate, the final arc headed by PRO is always erased in order to avoid ill-formed sentences, as in (86). Thus, constructions having PRO involve either equi, relativization, or passive because such structures involve the erasure of the final 1-arc headed by PRO.¹⁹

¹⁹ Causative constructions may also contain PRO. As

In passives and causatives, the 1-arc headed by PRO is erased by an arc bearing a final cho relation. The constraint in (87) forces the self-erasure of the cho-arc headed by PRO in order to satisfy the condition in (85).

- (87) If A is a final cho-arc headed by PRO, then A self-erases.²⁰

argued in Chapter Four, Turkish causatives may involve no-revaluation unions. In such cases, PRO heads a final cho-arc in the matrix clause. The constraint in (87) applies and the cho-arc headed by PRO self-erases. Consequently, PRO does not head a surface arc.

²⁰ As discussed in Chapter Five, equi in -ArAk constructions must erase the embedded 1-arc. In some cases, the equi constructions have an embedded 1 PRO which heads a final cho-arc. Consequently, equi erases the cho-arc headed by PRO. In this case, the constraint in (87) would not apply since its application would violate a rule in Arc Pair Grammar which states that an arc can involve only one erasure. That is, the embedded cho-arc cannot self-erase once it is erased by equi. The choice of whether the cho-arc headed by PRO is erased by equi or by the constraint in (87) is governed by the fact that equi is obligatory in -ArAk constructions.

The constraint in (87) is stated in terms of the Arc Pair Grammar notion 'self-erased' arc, that is, one with no local eraser.²¹

²¹ Postal (1986:105) asserts that a similar self-erasure rule is necessary to erase pronominal 2-arcs which are dummies in English. Local eraser refers to an arc which erases another arc within the same clause.

Chapter Three

Reflexives

3.1 Introduction

There has been very little discussion regarding reflexives in Turcological literature. The purpose of this chapter is to study two types of reflexive constructions in Turkish and present arguments for positing different structural analyses for them, rather than deriving one from the other. I discuss in depth the various syntactic properties of reflexives to which upcoming chapters make reference. In particular, I show that the condition which prohibits passive in the complement clause of causatives also prohibits one type of reflexive from occurring there. In this way, the generality of the condition is highlighted.

As mentioned in Chapter Two, there are two reflexive constructions in Turkish. One involves the pronoun kendi, and the other involves the verbal suffix -(I)n.¹ In sections 3.2 and 3.3, the controllers of kendi and -(I)n reflexivization are examined. Arguments are then presented

¹ As Lewis (1967:70) notes, the reflexive pronoun kendi is derived from the adjective kendi 'own' as in kendi kedim 'my own cat'. When the possessive suffixes are attached to the adjectival form, the reflexive pronouns result.

(i)	kendi-m	kendi-miz
	kendi-n	kendi-niz
	kendi	kendi-leri

in section 3.4 for positing different analyses for the kendi and -(I)n reflexives. It is argued that kendi involves no multiattachment while -(I)n does involve multiattachment.

3.2 Controllers of kendi Reflexivization

Turcologists (see e.g. Aissen and Hankamer:1980) have generally assumed that the controller of kendi in a non-causative construction is a final 1, as in (1).²

- (1) a. Hasan kendin-den nefret edi-yor.
 self -ABL hate -PROG
 'Hasan hates himself.'
- b. Genç çocuk kendisi tarafından vur -ul -muş.
 young child self by shoot-PASS-PRESUMP
 'The young boy was apparently shot by himself.'
- c. Turgut kendi-ni öv -dü.
 self -ACC praise-PST
 'Turgut praised himself.'

The pronoun kendi itself can bear any grammatical relation other than final 1. Note that in (1a), kendi bears the ablative relation, in (1b), the passive 1-chomeur relation, and in (1c), the final 2 relation.

It appears, however, that the assertion that the controller of kendi can only be a final 1 is incorrect. The

² For example, Underhill (1976:355) states that "The reflexive pronoun stem kendi means 'self'; like the corresponding English pronoun, it refers to the subject of the sentence...."

controller can also be a final 2 or 3. Consider the following examples.

- (2) Acı çekmek o -nu kendi-si -ne karşı çok
 Suffering him-ACC self -3sg-DAT towards much
 acımasız yap -ti.³
 merciless make-PST

'Suffering made him more merciless to himself.'

- (3) Her asker kendisi hakkında sorgu -ya
 each soldier self about interrogation-DAT
 çek -ti -m.
 pull-PST-1sg

'I questioned each soldier about himself.'

The controllers in (2) and (3) are final 2s and the reflexive pronoun kendi is final 3. The examples in (4) and (5) below demonstrate the reverse: the controller is a final 3 and kendi is a final 2.

³ Examples (2) and (3) are translations of Russian data given in Timberlake (1980). Until Timberlake's counterclaim, it had generally been assumed (see e.g. Perlmutter:1978) that the controllers of Russian reflexivization must be final 1's. Timberlake showed that final 1-hood is not a necessary condition for controllers of Russian reflexivization, but rather only a sufficient condition. There are some differences in the conditions for the possibility of reflexivization between Russian and Turkish, however. For example, (3) is ungrammatical in Russian, but grammatical in Turkish. Further, (4) and (5) show that the controller need not be a final 2 in Turkish, as required in Russian. The controller in Turkish may also be a final 3.

(4) Bu usta tüccar ban-a kendi-m -i sat -ar
 this expert merchant I -DAT self -1sg-ACC sell-AOR

alim allah.⁴
 by God

'This expert merchant would sell myself to me,
 by God.'

(5) Hasan ban-a ayna-da kendi-m-i göster-di.
 I-DAT mirror-LOC self-1sg-ACC show-PST

'Hasan showed myself to me in the mirror.'⁵

Although the controller of kendi can be a final non-1, as shown above, it must be a final term. Consider (6)-(7), where an oblique is the controller and the target of reflexivization is a term.⁶

(6) a. *(Ben) kendi-ne Zeynep-ten bahset-ti-m.
 I self-DAT -ABL mention-PST-1sg

('I talked to herself about Zeynep.')

b. *(Ben) Zeynep-ten kendi-ne bahset-ti-m.
 I -ABL self-DAT mention-PST-1sg

('I talked to herself about Zeynep.')

⁴ This example is taken from Özsoy (1983). Özsoy independently arrived at the conclusion that controllers of reflexivization could bear relations other than final 1.

⁵ This example is cited as grammatical in Aissen (1974a), but as ungrammatical in Aissen and Hankamer (1980). Since my consultants did not have trouble in accepting (5), I mark it as grammatical.

⁶ Examples (6)-(7) are taken from Özsoy (1983:27).

- (7) a. *(Ben) kendisi-ni Berna için
 I self -ACC for
 bahçe -ye çıkar -dı -m.
 garden-DAT take out-PST-1sg
 ('I took herself out to the garden
 for Berna.')
- b. *(Ben) Berna için kendisi-ni
 I for self-ACC
 bahçe-ye çıkar-dı-m.
 garden-DAT take out-PST-1sg
 ('I took herself out to the garden
 for Berna.')

If the relations of controller and target are reversed,
 these examples are grammatical.

- (8) a. (Ben) Zeynep-e kendin-den bahset-ti-m.
 I -DAT self-ABL mention-PST-1sg
 'I mentioned to Zeynep about herself.'
- b. (Ben) Berna-yı kendisi için bahçe-ye
 I -ACC self for garden-DAT
 çıkar-dı-m.
 take out-PST-1sg
 'I took out Berna to the garden for herself.'

The restriction on reflexivization illustrated above must be
 stated in terms of grammatical relations, rather than in
 terms of linear order, as examples (6) and (7) show. That
 is, it is irrelevant whether the reflexive kendi precedes or
 follows the controller. Note that in the (a) sentences,
kendi precedes the controller, and in the (b) sentences,
kendi follows the controller.

All four sentences are ungrammatical because an oblique is controlling reflexivization.⁷

In view of the reflexive examples in (1)-(8), the following tentative condition on reflexivization is posited.

(9) Only terms can be controllers of reflexivization.⁸

As it stands, condition (9) is not restrictive enough, for

⁷ Özsoy (1983:21) claims that the following sentence is grammatical, where a passive chomeur controls reflexivization of a nominal bearing the final 3 relation.

(i) Gardiyan tutuklu; tarafından kendi-ne;
guard inmate by self -DAT

doğru çek -il -di.
towards pull-PASS-PST

'The guard was pulled by the inmate;
toward self.'

Although one of my consultants accepts this sentence fairly readily, my other consultants consider it an awkward construction at best.

⁸ Özsoy (1983:14) cites examples where genitives can optionally control reflexivization.

(i) Ayşe-nin; baba -sı kendisi-ne/ o -na
-GEN father-POSS self -DAT/she-DAT

her ay para yoll-uyor.
each month money send-PROG

'Ayşe's; father sends self;/her money
every month.'

The genitive NP must be third person as the following examples illustrate.

(ii) (Ben-im); baba -m ban-a/ * kendim-e;
I -GEN father-1POSS I -DAT/ self -DAT

her ay para yoll-uyor.
each month money send-PROG

'My father sends me/*myself money
every month.'

(iii) (Sen-in); baba -n san-a /*kendin-e;

it would allow the following examples.

(10) * Kendi-m ben-i vur -du -m.
self -1sg I -ACC shoot-PST-1sg

('Myself shot me.')

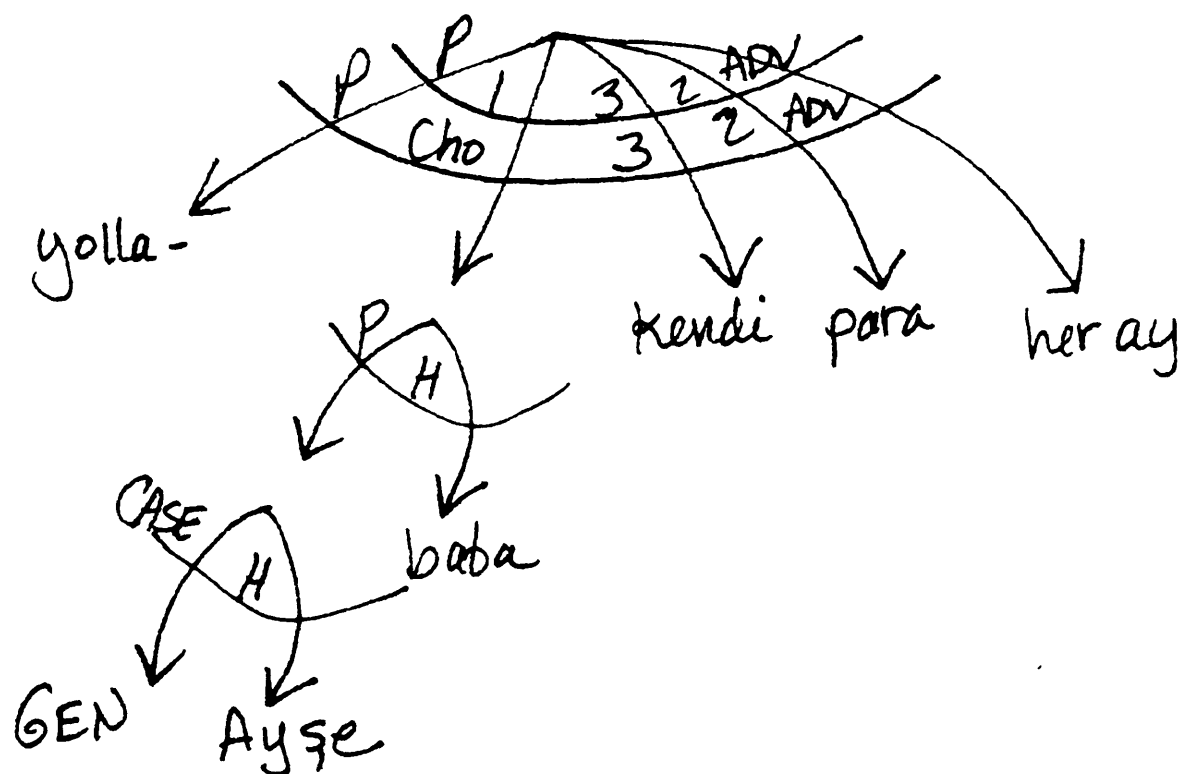
you-GEN father-2POSS you-DAT/ self -DAT

her ay para yoll-uyor mu?
each month money send-PROG Q

'Does your father send you/*yourself
money every month?'

The example in (i), which appears to be a counterexample to the condition in (9), can in fact be accounted for by (9) if we posit the following possessor ascension analysis. (iv) represents the structure of sentence (i).

(iv)



Ayşe is the possessor in the nominal Ayşenin babası, which is the initial 1 of the clause. By assuming a possessor ascension analysis, Ayşe is an ascende and thus the final 1 of the clause. Since Ayşe is a final term, its ability to control reflexivization is consistent with the condition in (9). Since reflexivization is optional in (i), it can be assumed that possessor ascension optionally occurs to account for the reflexivization cases.

Furthermore, Ozsoy notes in a footnote that (i) is ambiguous. The reflexive kendi may refer either to the possessor or to the head. A more semantically relevant

(11) * Kendi-m ban-a oy ver-di -m.
 self -1sg I -DAT vote -PST-1sg

('Myself voted for me.')

Although the final 2 in (10) and the final 3 in (11) are controllers, the sentences are ungrammatical. Final 2's may control final 3's, as exemplified in (2)-(3), and final 3's may control final 2's, as exemplified in (4)-(5). However, final 2's or final 3's may not control final 1's. Thus, we modify (9) to the following.⁹

example is given in (v).

(v) Ayşe-nin; baba -sı; kendisi-ne; palto
 -GEN father-3POSS self -DAT coat

al-acak.
 buy-FUT

'Ayşe's father will buy himself/herself a coat.'

Although Ozsoy does not entertain the possibility of possessor ascension to account for (i) and (v), it is clear that such an analysis will straightforwardly explain the possibility of a genitive acting as a controller while also allowing the head to be a controller. In view of the sentences in (i)-(iii), however, the following condition would have to be posited for possessor ascension.

(vi) Optional possessor ascension:
 Possessor ascension is permitted only if
 the possessor is 3rd person.

In (v), if the possessor Ayşe optionally ascends to final 1-hood, Ayşe will be coreferent with kendi. If the possessor does not ascend, the head will antecede kendi. Whether the possessor ascends or not, the controller of reflexivization is a final 1. The condition in (9) is therefore not violated.

Further work needs to be done to find independently motivated evidence for ascension in Turkish.

⁹ There are some ungrammatical examples that the condition in (12) still fails to rule out. For example,

- (12) a. Only final terms may be controllers of kendi reflexivization.
 b. A surface 1 cannot be a reflexive.¹⁰

Since any term may control reflexivization, as stated in (12), it is natural that ambiguity may arise in clauses containing more than one term, as in (13).¹¹

(4), which contains a final 3 controller and kendi as final 2, would not be grammatical if the controller were the final 2 and kendi final 3.

- (i) ?/* Bu usta tüccar ben-i; kendi-me;
 this expert merchant I-ACC self-DAT

sat-ar, alim allah.
 sell-AOR by God

('This expert merchant would sell myself
 to me, by God.')

- (ii) ?/* Bu usta tüccar kendime; beni; satar, alim allah.
 ('This expert merchant would sell myself
 to me, by God.')

Note in (i)-(ii) that whether the controller precedes or follows kendi, the sentence is awkward at best. Grammaticality is dependent upon whether the controller is a final 3 and the reflexive, a final 2, as shown in (4).

There appear to be restrictions on precisely when any term may antecede the reflexive kendi pronoun which need further study; but this is beyond the scope of this work.

¹⁰ Surface 1, rather than final 1, is referred to in part (b) of (12) because kendi can bear the final 1 relation in the complement clauses of causative and Subject-to-Object Raising constructions. (c.f. the notion of surface in the introduction to RG.)

¹¹ Although I have shown that final terms, rather than only final 1, may control kendi, further work must be done to discover what kind of predicates allow this phenomenon. For example, one of Timberlake's (1980) major claims for Russian reflexivization is that the lexical relations of the predicate are important to syntax. He showed that object reflexivization is possible in Russian when the target had one of these semantic relations: Locus, Predicate Nominal, Goal, Source, or Reciprocator. Considering that I used many

- (13) Zeynep Bernaya kendinden bahsetti.
'Zeynep talked to Berna about herself.'¹²

In (13), either the final 1, Zeynep, or the final 3, Bernaya, can be the controller of the reflexive kendinden.

Surface word order may play a role in resolving the ambiguity in examples like (13). The unmarked word order in Turkish is stated in (14).¹³

- (14) 1 3 2 Nonterms V

There are variations in this word order which are discourse-dependent. Among the processes which produce this variation are Focus and Leaking, which are exemplified in (16) and (17), respectively.

- (15) Zeynep kendi-ni ekran-da gör-dü.
self-ACC screen-LOC see-PST

'Zeynep saw herself on the screen.'

- (16) Kendini ekranda Zeynep gördü.
'Zeynep saw herself on the screen.'

- (17) Kendini ekranda gördü Zeynep.
'Zeynep saw herself on the screen.'

In (16), Zeynep is in the focus position immediately before the predicate. In (17), Zeynep appears in the leaked position after the predicate.

of the predicates Timberlake used in his examples, I suspect that Turkish may have a similar constraint.

¹² This example is taken from Özsoy (1983:44).

¹³ See Gibson and Özkaragöz (1981).

Özsoy (1983:44-47) shows that when there is more than one possible controller (i.e. more than one term) in a sentence containing a reflexive, the range of possible interpretations for the reflexive varies according to the word order of the potential controllers. Özsoy proposes the following filter.

- (18) * { REF NP NP }
 A noun phrase NP can be interpreted as being coreferential with kendi if (a) or (b) or (c) holds:
 (a) NP is the subject of the clause, regardless of its position.
 or
 (b) NP precedes kendi.
 or
 (c) NP follows kendi and there is no subject noun phrase NP between kendi and NP.¹⁴

Aside from this filter, Özsoy (1983:26,28), who does not

¹⁴ It is not clear to me why Özsoy has included statement (c). Özsoy claims she has formulated this filter on the basis of the following three sentences.

- (i) Kendin-den_i/*_j Zeynep_i bahset -ti Berna-ya_j.
 self -ABL mention-PST -DAT
 'Zeynep talked to Berna about herself.'
- (ii) Kendinden_i/*_j Bernaya_j bahset-ti Zeynep_i.
 'Zeynep talked to Berna about herself.'
- (iii) a. Kendinden_i/*_j bahsetti Zeynep_iBernaya_j.
 b. Kendinden_i/*_j bahsetti Bernaya_jZeynep_i.
 'Zeynep talked to Berna about herself.'

Since kendi is coreferent with the subject Zeynep in all three of these examples, statement (c) is irrelevant. Statement (a) accounts for the coreference in (i)-(iii). Furthermore, (iiib) is a counterexample to statement (c). Note that although there is no subject NP between kendi and Bernaya, kendi and Berna can-

employ a strict RG framework, also proposes the following conditions.

(19) The Antecedent Condition
 Turkish reflexives are triggered obligatorily by cycle initial and cycle final terms, and optionally by agentive nonterms.

(20) The Ranking Constraint
 The target of reflexivization has to rank lower on the relational hierarchy than the trigger.

Thus, in effect, Özsoy claims that possibilities of coreference between two nominals depend on two factors: the grammatical relations borne by the nominals and their linear position in the sentence.

Returning to the example in (13), when the final 3 Bernaya is in leaked position so that it follows the reflexive, as in (21), Zeynep is more likely to be construed as not be coreferential. It is possible that statement (c) is intended to refer to sentences previously cited, such as in (iv).

(iv) Zeynep_ikendin-den_i/?_j bahset -ti Berna-ya_j.
 self -ABL mention-PST -DAT

'Zeynep talked to Berna about herself /? .'

In (iv), Bernaya follows kendi and there is no subject NP between Bernaya; kendi is possible although awkward. When Bernaya appears before the verb, however, the coreference between kendi and Bernaya is not possible, as shown in (v).

(v) Zeynep_ikendin-den_i/*_j Berna-ya_j bahset -ti.
 self -ABL -DAT mention-PST

'Zeynep_i talked about herself_i/*_j to Berna_j.'

the controller of the reflexive.

(21) Zeynep_ikendin-den_i/?_j bahset -ti Berna-ya_j.
 self -ABL mention-PST -DAT

'Zeynep talked to Berna about herself. /? .'

Similarly, when Berna is focussed, as in (22), it follows the reflexive kendi, and thus may not be construed as the controller of kendi. Instead, only Zeynep, which appears before the reflexive, may be the controller.

(22) Zeynep_ikendin-den_i/*_j Berna-ya_j bahset -ti.
 self-ABL -DAT mention-PST

'Zeynep_i talked about herself_i/*_j to Berna_j.'

However, as Özsoy shows, when the final 1 is in focus position or in leaked position, and appears after the reflexive kendi, coreference between the final 1 and kendi still holds. Consider (23), in which the final 1 is in focus position. The reflexive pronoun can be coreferent with either Zeynep or Berna, the final 3.

(23) Berna-ya_jkendin-den_i/_j Zeynep_ibahset -ti.
 -DAT self -ABL mention-PST

'Zeynep talked about herself to Berna.'

In (24), the final 1 is in leaked position and, again, kendi may be coreferent with either the final 1 which follows it, or with the final 3 which precedes kendi.

(24) Berna-ya_jkendin-den_i/_j bahset -ti Zeynep_i.
 -DAT self -ABL mention-PST

'Zeynep talked to Berna about herself. '

Thus, final objects cannot control a reflexive that precedes

them but final 1's can control a reflexive regardless of their surface order with respect to it. The accuracy of this generalization is confirmed by the following examples. Note that the final 1 and final 3 both appear after the reflexive.

- (25) Kendinden_i/_j^{*} Zeynep_i bahsetti Bernaya_j.
'Zeynep talked to Berna about herself.'
- (26) Kendinden_i/_{*j} bahsetti Zeynep_i Bernaya_j.
'Zeynep talked to Berna about herself. /* '
- (27) Kendinden_i/_{*j} Bernaya_j bahsetti Zeynep_i.
'Zeynep talked to Berna about herself.'
- (28) Kendinden_i/_{*j} bahsetti Bernaya_j Zeynep_i.
'Zeynep talked to Berna about herself.'

In view of these observations, we revise (12) to the following.

- (29) Only final terms may be controllers of kendi reflexivization.
- a. Surface 1s cannot be reflexive.
 - b. Controllers which are final objects must precede the reflexive in linear order.

3.3 Controllers of $-(\underline{I})_n$ Reflexivization

In contrast to the kendi reflexive, the controller of the $-(\underline{I})_n$ reflexive can only be an acting 1. Consider the following examples.

(30) (Ben) yika-n -dî -m.
I wash-REFL-PST-1sg

'I washed (myself).'

(31) Kadın süsle-n -di.
woman adorn-REFL-PST

'The woman adorned (herself).'

(32) Kalk-ınca yika-n -il -ir.
rise-ADV wash-REFL-PASS-AOR

'It is washed when (one) rises.'

(33) Bu oda -da süsle-n -il -ir.
this room-LOC adorn-REFL-PASS-AOR

'It is adorned in this room.'

The controller of the -In reflexive can be PRO, as shown in examples (32) and (33). The -(I)n reflexive creates an intransitive sentence; consequently, no direct object may be present for the -(I)n reflexive to be coreferential with. See (34b).

(34) a. (Ben) çocuğ-u yika-dî -m.
I child-ACC wash-PST-1sg

'I washed the child.'

b.* (Ben) çocuğ-u yika-n -dî -m.
I child-ACC wash-REFL-PST-1sg

Thus, in view of the above facts, we posit the following condition.

(35) Only acting 1's can control -(I)n reflexivization.

Acting 1, rather than final 1, is referred to in (35)

because the controller can be a final 1-chomeur as a result of passive advancement (see (32)). For a discussion of the notion of acting 1, see Chapter One.

3.4 Multiattachment vs. Non-multiattachment

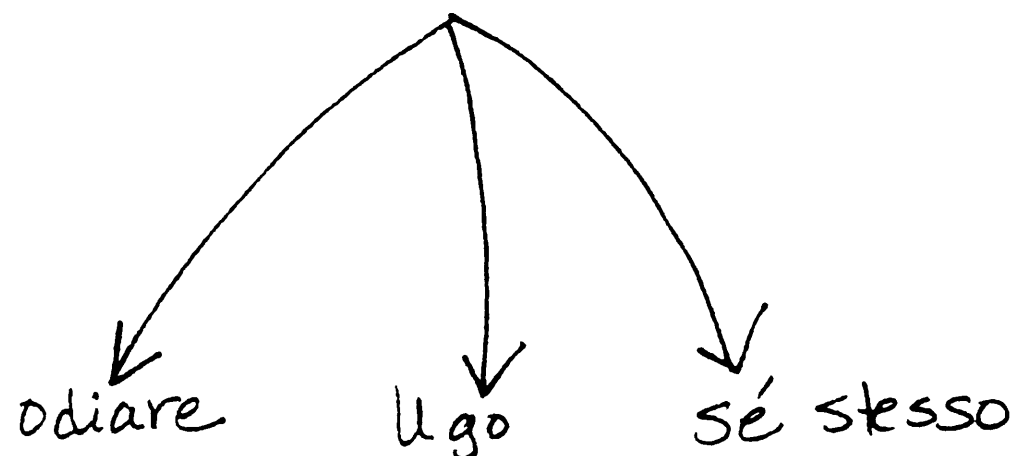
Perlmutter and Postal (1984a; and Perlmutter to appear b) have suggested that the notion of coreference is unnecessary and can be replaced by the notion of multiattachment. Multiattachment is defined in Rosen (1981:133) as the following.

- (36) a. A multiattachment is a non-null, non-unary set of arcs having the same head and sharing at least one coordinate, and all labelled with a central R-sign.
 b. A multiattachment is clause-internal if all the arcs have the same tail.

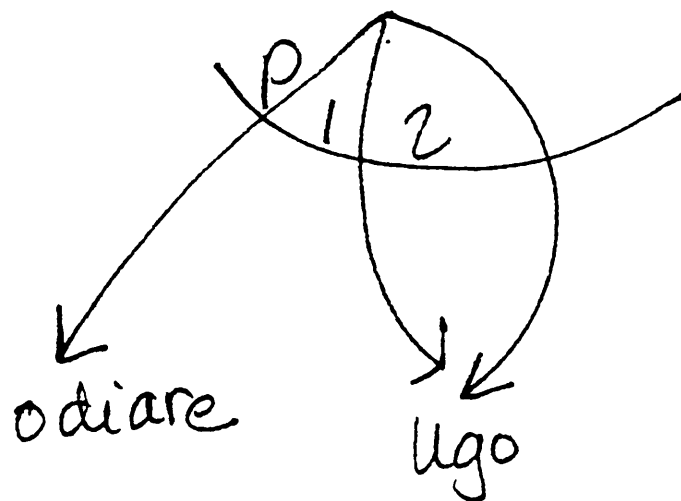
This study deals with only clause-internal multiattachment, such as reflexives, as opposed to, for example, equi structures, which also have multiattachment.

One of the most complete works on multiattachment is Rosen (1981), which deals with reflexives in Italian. Rosen (1981) presents a number of arguments that the Italian reflexive pronoun se' stesso and the clitic si have distinct syntactic structures; that is, si is not simply a counterpart of se' stesso. Rosen argues that si has a multiattached structure, whereas se' stesso does not.

(37) a. Ugo odia sé stesso.



b. Ugo si odia.



She further observes that her analysis provides a counterexample to Perlmutter and Postal's proposal that coreference can be replaced everywhere by multiattachment. Rosen claims that both multiattachment and coreference are necessary to account for the Italian reflexive data.

In the immediately following section, it will be argued that the Turkish reflexives, kendi and -(I)n, have structures strikingly similar to those of Italian sé stesso and si. The -In reflexive, like Italian si, will be argued to have a multiattached structure. It will be shown that the kendi reflexive pronoun does not involve multiattachment and subsequent pronoun birth. Rather, kendi heads an initial arc, just like any other nominal. The evidence ultimately corroborates Rosen's claim that the theory of grammar

must recognize both multiattachment and coreference.

3.4.1 Analyses for the kendi and -In Constructions

The Turcological literature has had little to say about the exact relationship, if any, between the reflexive pronoun kendi and the reflexive suffix -(I)n. Aissen (1982) states that when there is coreference between the initial 1 and 2 of a clause, the clause may either be finally transitive if kendi is chosen, or finally intransitive if the reflexive suffix is used.

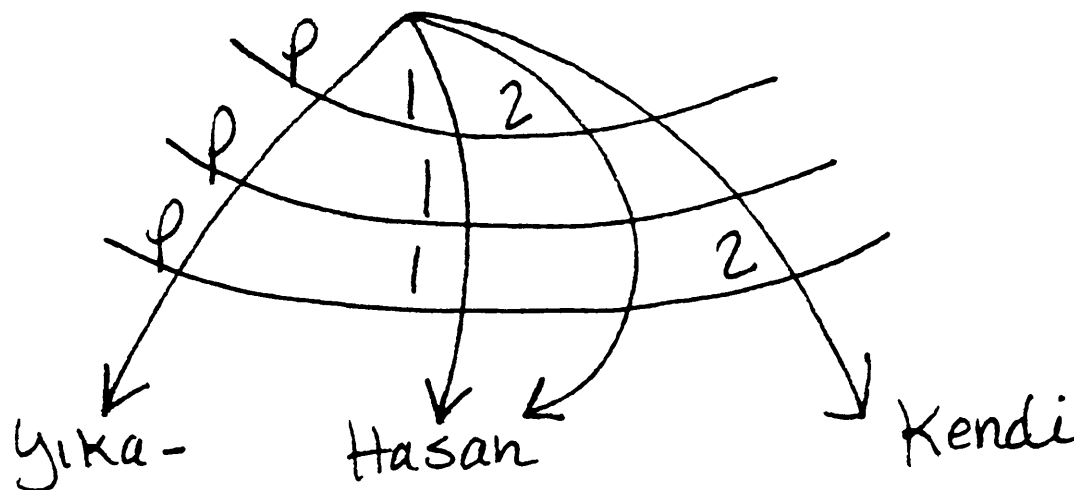
- (38) a. Hasan kendi-ni gör-dü.
 self-ACC see-PST
 'Hasan saw himself.'
- b. Hasan yıka-n-dı.
 wash-REFL-PST
 'Hasan washed (himself).'

Both of the above sentences are initially transitive but differ in transitivity in the final stratum. Aissen assumes that both sentences are initially transitive and that object cancellation accounts for the final intransitivity of -(I)n reflexive constructions.

Perlmutter and Postal's suggestion that all reflexives have multiattached structures might lead one to posit the structure in (39) for both the kendi and the -(I)n constructions.¹⁵

(39) Hasan kendi-ni yıka-dı.
self-ACC wash-PST

'Hasan washed himself.'



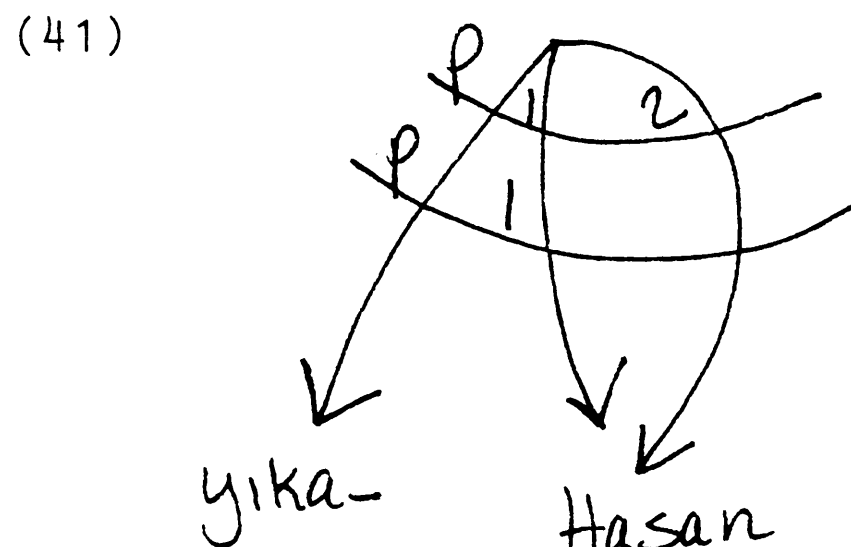
According to such a hypothesis, the kendi construction would be initially and finally transitive. Hasan would be multiattached initially and the multiattachment would be resolved in the subsequent stratum by object cancellation. Hasan would be a final 1 and kendi would appear as a final 2 in the structure via pronoun birth. Crucially, kendi would not bear an initial relation.

To account for -(I)n reflexives, the analysis in (39) would have the following condition attached to it.

¹⁵ As discussed in detail in the previous section, the controller of kendi reflexivization need not be a 1, but may be any term.

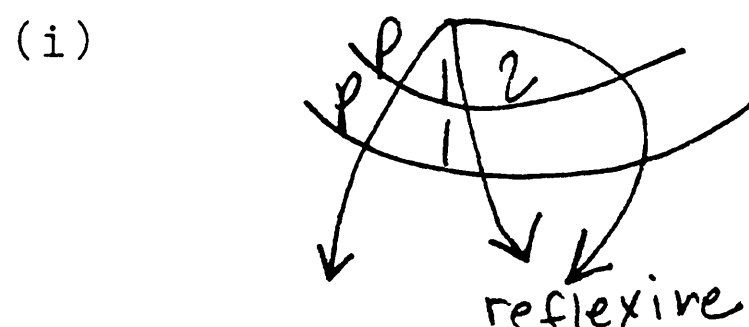
- (40) There is no kendi pronoun birth if the predicate takes an -(I)n reflexive.¹⁶

That is, the structure for the -(I)n reflexive would be that in (41). There would be initial multiattachment followed by object cancellation.



It is the contention of this study, however, that the Turkish reflexives have distinct structures, rather than one being derived from the other, or an elaboration of the other. In this section, I argue against the pronoun birth analysis in (39) and in favor of two different analyses for

¹⁶ Assumedly, one could posit (i) as the analysis for kendi and -(I)n with the condition in (ii).

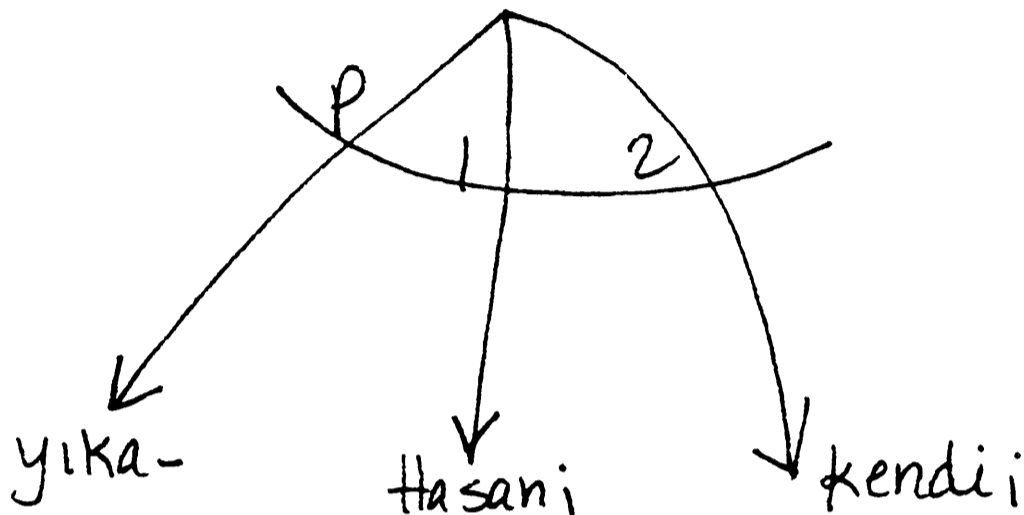


- (ii) If the reflexive construction takes kendi, there must be kendi pronoun birth.

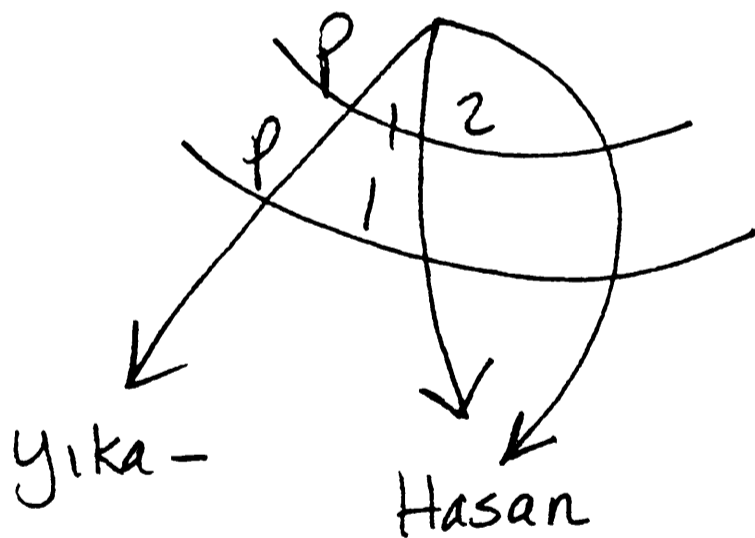
It is irrelevant to our point at hand as to which analysis and condition are posited.

kendi and -(I)n. The analyses that I propose are given in (42) and (43):

- (42) Hasan kendi-ni yıka-dı.
 self-ACC wash-PST
 'Hasan washed himself.'



- (43) Hasan yıka-n -dı.
 wash-REFL-PST
 'Hasan washed (self).'



In (42), kendi bears an initial relation like any other nominal. Hasan is not multiattached. Note that this structure goes contrary to the suggestion that all reflexive constructions have multiattached structures. Hasan and kendi are marked coreferent. The structure in (43) is identical to (41) above. Structure (43) is, however, formulated on different assumptions from that of (41), in that I assume that it is associated only with the -(I)n reflexive, and not with

all reflexives.

The following discussion contains eight arguments for positing the distinct structures (42) and (43) for the kendi and -(I)n reflexives. For ease of reference, I shall call the analysis in (42) the kendi non-multiattached structure and the analysis in (43), the multiattached structure. The structure in (39), which I argue against, is the pronoun birth structure.

3.4.1.1 The Oblique Law

The first argument which favors the kendi multiattached structure over the pronoun birth structure involves the Oblique Law.¹⁷ The Oblique Law is informally stated in (44).

(44) A nominal that bears an oblique relation in a clause bears that relation in the initial stratum.

The reflexive pronoun kendi may bear an oblique relation, as seen in the examples in the previous sections. Some of the examples are repeated below and new ones are added.

¹⁷ Rosen (1981:142) also uses the Oblique Law argument.

- (45) a. Zeynep-e kendin-den bahset -ti -m.
 -DAT self-ABL mention-PST-1sg
 'I talked about herself to Zeynep.'
- b. Çorba-ya kendisi için yap -ıyor.
 soup -DAT self for make-PROG
 'He is making soup for himself.'
- c. Her asker -i kendisi hakkında sorgu -ya
 each soldier-ACC self about interrogation-DAT
 çek -ti -m.
 pull-PST-1sg
 'I questioned each soldier about himself.'

In all the examples in (45), kendi is a final oblique, as is shown by its casemarking. According to the Oblique Law, stated in (44), if kendi bears a final oblique relation, it must also bear an initial oblique relation. Thus, if the Oblique Law is to be maintained as one of the major assumptions of RG, the kendi construction must have a non-multiattached structure, such as that in (42) where kendi bears an initial relation.

The pronoun birth structure in (39) claims, in contrast, that kendi does not bear an initial relation, since it is dependent upon pronoun birth for its existence. The structure in (39) cannot be correct for kendi constructions if the Oblique Law is to be maintained.

3.4.1.2 Derived Multiattachments

The second argument for positing the kendi non-multiattachment structure in (42), instead of the pronoun birth structure in (39), is based on one of Rosen's arguments for positing distinct analyses for the Italian reflexives se' stesso and si.

In Turkish, certain reflexive predicates with -(I)n can also be expressed with the pronoun kendi. The sentences in (46) are synonymous except for a shift in emphasis. 'Self' is emphasized in (46b).

- (46) a. Yıka-n -di -m.
wash-REFL-PST-1sg
'I washed (myself).'
- b. Kendi-m -i yıka-di -m.
self -1sg-ACC wash-PST-1sg
'I washed myself.'

Some reflexive predicates with -(I)n have no counterparts with kendi.

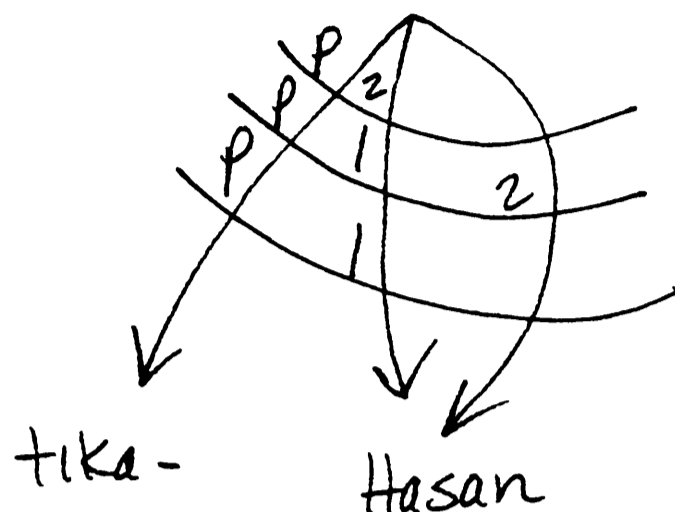
- (47) a. Hasan tıka -n -di.
choke-REFL-PST
'Hasan choked.' (Lit.: 'plugged up')
- b.* Hasan kendi-ni tıka -di.
self -ACC choke-PST
('Hasan choked himself.')

The intransitive predicate in (47), tıkamak 'to choke', is an unaccusative which is marked [+Retroherent].¹⁸

¹⁸ Tıkamak, like English break, has two lexical entries. One entry is transitive while the other is in-

(Unaccusative verbs are discussed in detail in Chapter Five.) Sentence (47a) is diagrammed in (48).

(48)



The nominal Hasan, which is an initial 2, advances to 1 retroherently. That is, Hasan advances to 1 while maintaining its 2 relation. As a consequence, the structure is multiattached.

Given that the structure for tıkamak is initially unaccusative, the ungrammaticality of (47b) is accounted for by both the nonmultiattachment hypothesis in (42) and the pronoun birth hypothesis in (39). The valence of tıkamak 'choke' does not tolerate initial transitivity, while the structures in (39) and (42) both specify that the kendi construction is initially transitive.¹⁹ Similarly, both transitive. In the above discussion, only the intransitive version is used. An example of tıkamak in transitive usage is given below.

- (i) Kulak-lar-ı-na pamuk tika-di.
ear-PL-POSS-DAT cotton plug-PST

'He plugged cotton in his ears.'

¹⁹ As indicated in the previous section and in argument one, the kendi construction need not be initially or finally transitive. For example, the controller may

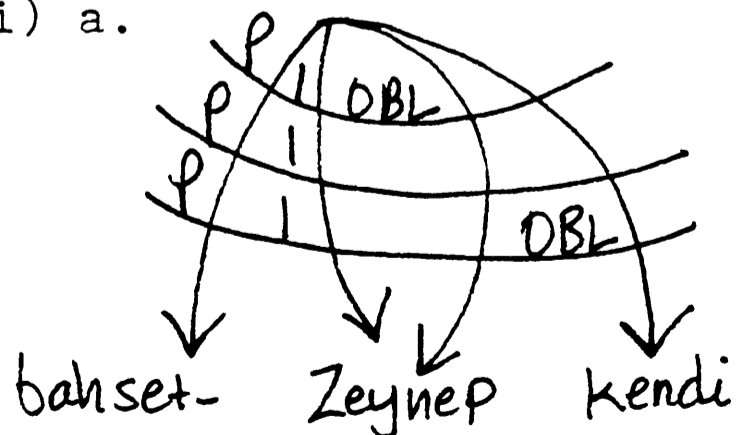
proposals predict that sentence (46b) is grammatical, given that yıkamak 'wash' has a valence that is initially transitive. Crucially, however, the pronoun birth hypothesis cannot straightforwardly distinguish between the sentences in (46) and (47). That is, the hypothesis in (39) does not explain why kendi pronoun birth is possible in (46b) but not in (47b). Condition (40), which is intended to accompany (39), states that kendi pronoun birth is not possible if the predicate is lexically marked to receive the -In reflexive. Both predicates in (46) and (47) exhibit -In, yet (46a) shows that kendi is nevertheless allowed with yıkamak. Under the hypothesis that all reflexives are multiattached, i.e. (39), the following structures are posited for (46) and (47).

be an initial 1 and kendi may be an oblique, as in (i).

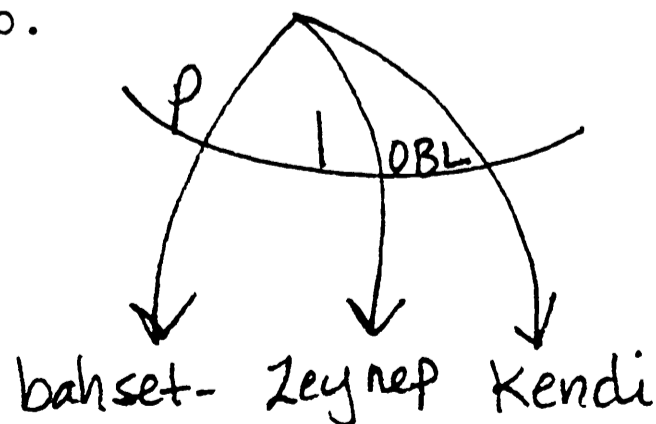
- (i) Zeynep-e kendin-den bahset-ti-m.
'I talked about herself to Zeynep.'

However, even if a kendi construction that was initially intransitive was depicted in (39) and (42), as in (ii), the valence of tıkamak would still be violated.

(ii) a.



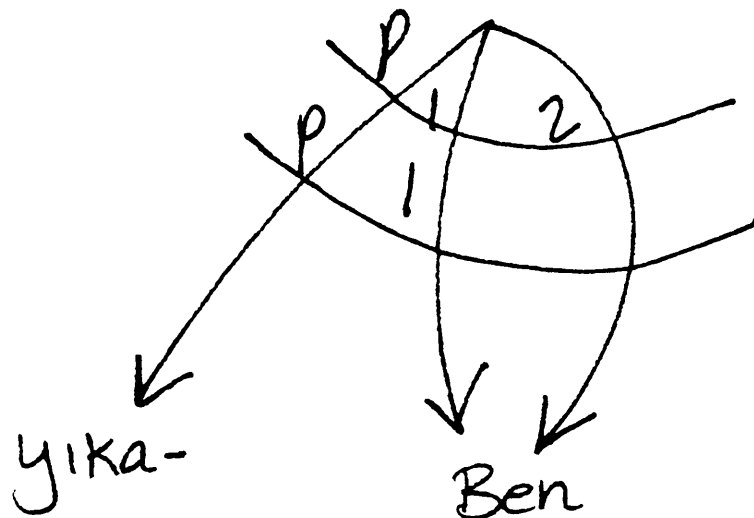
b.



Tıkamak does not have an initial 1, as shown in (48), and the kendi construction always does.

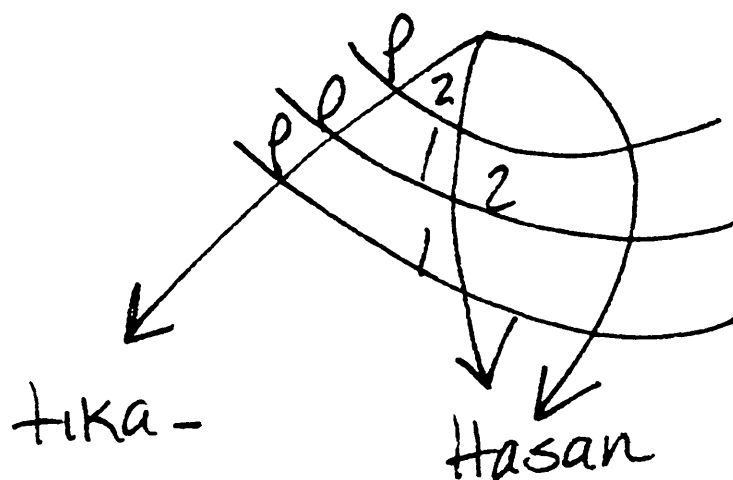
(49) Yika-n -di -m.
wash-REFL-PST-1sg

'I washed (myself).'



(50) Hasan tika -n -di.
choke-REFL-PST

'Hasan choked.'



Given condition (40), kendi pronoun birth is not expected in either of the structures in (49) and (50). Consequently, under the analysis in (39), an ad hoc condition is necessary to regulate pronoun birth.

(51) Pronoun birth from a derived multiattachement is illegal.

Thus, pronoun birth will be optional in structures with initial multiattachement as in (39), but never possible in structures with derived multiattachements as in (48) (or (50)).

Under the analysis in (43), in which only the -(I)n reflexive has a multiattached structure, the condition in (40) is not necessary. As exemplified in (42), kendi in this analysis bears an initial relation and does not occur in the structure by virtue of pronoun birth. Verbs which are marked [+ Retroherent], will, for independent reasons, automatically have the -(I)n structure in (50). Kendi does not need to be regulated since its birth is not expected in non-initial structure. As pointed out above, the presence of kendi in (46b), but not in (47b), can be accounted for by the fact that (42) requires an initially transitive clause. Tikamak is initially unaccusative and thus is not predicted to appear with kendi. Yikamak on the other hand, is initially transitive and can optionally appear with kendi, given the analysis in (42).

3.4.1.3 Morphology

Under the pronoun birth hypothesis, which asserts that all reflexives have multiattached structures, it cannot be claimed that the reflexive marker -(I)n signals all clausal-internal multiattached structures. But under the kendi non-multiattachment hypothesis which claims that only -(I)n marked reflexives have multiattached structures, this feature follows straightforwardly.

3.4.1.4 Conditions on Controllers

Another piece of evidence consistent with positing two distinct structures for the kendi and -(I)n reflexives is the fact that they exhibit different conditions on their controllers: any term may be a controller of kendi reflexives, but only 1's may be controllers of -(I)n reflexives.

3.4.1.5 Yalnız 'Only'

This argument, which uses quantifier scope, is based directly on one of Rosen's (1981) argument for positing two distinct structures for the Italian reflexives se stesso and si. Its point is this--the kendi nonmultiattachment hypothesis allows constructions in which a quantifier has scope over kendi to be interpreted at the initial level, which is linked to the semantic structure. The pronoun birth hypothesis, however, needs an ad hoc device to account for the semantic interpretation of such constructions.

Consider the following two sentences in (52), which have meanings dependent upon the position of the quantifier yalnız 'only'.

- (52) a. Yalnız Hasan ayakkabı giy -iyor-du.
 only shoes wear-PRO -PST
 'Only Hasan was wearing shoes.'
- b. Hasan yalnız ayakkabı giy -iyor-du.
 only shoes wear-PROG-PST
 'Hasan was wearing only shoes.'

In RG, the semantics of a clause is interpreted at the

initial level. It follows from this that the initial structures will encode the scope of yalnız 'only'. In (52a), the initial structure will indicate that yalnız has scope over Hasan, and in (52b), yalnız has scope over ayakkabı. As Rosen states in her discussion of the Italian quantifier solo, it is not important to the argument what the exact RN is that is posited for constructions with 'only'. The important point is that the RN must indicate the scope of 'only', in this case, yalnız, in its initial structure. The examples in (53) present constructions with yalnız and the reflexive kendi.

- (53) a. Yalnız Hasan kendi-ne bak-ıyor.
 only self-DAT look after-PROG
 'Only Hasan looks after himself.'
- b. Hasan yalnız kendi-ne bak-ıyor.
 only self-DAT look after-PROG
 'Hasan looks after only himself.'

Under the nonmultiattachment hypothesis, where kendi bears an initial relation, the fact that yalnız has scope over kendine, but not over Hasan in (53b), can be indicated straightforwardly. That is, since semantic interpretation is read off of initial structures and kendi bears an initial relation, the scope of yalnız over kendi can be encoded readily.

Under the pronoun birth hypothesis, however, the scope of yalnız over kendi cannot be indicated straightforwardly, because the reflexive pronoun kendi does not head an

initial arc. An ad hoc mechanism would be necessary in order to associate yalnız with the initial arc of the nominal Hasan, in (53b), rather than with the nominal itself. As Rosen (1981:168) states for Italian, "this entails that the status of 'scope arc' must be passed along from one stratum to the next in a regulated manner, and under appropriate conditions it must be transferred to the pronoun birth arc headed by se' stesso, [by kendi in Turkish] so that the linearization rules can place solo [yalnız in Turkish] properly." "Crucially, this extra complexity would be serving no purpose in the general case... but would be introduced solely for the sake of allowing se' stesso [kendi in Turkish] clauses to be multiattachment constructions."²⁰

In view of the fact that no such ad hocity is required in the nonmultiattached hypothesis, in which kendi bears an initial relation, this latter hypothesis is the more desirable one.

3.4.1.6 2 to 3 Retreat

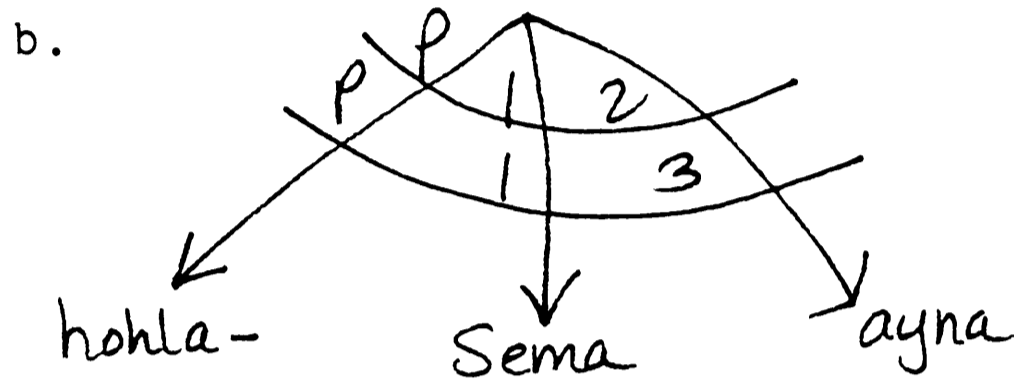
The 2 to 3 retreat construction, discussed in Chapter Two, is instantiated by a clause in which a nominal heading a 2-arc in the initial stratum demotes to a 3 in a

²⁰ I adopt Rosen's (1981:168) assumption that "the burden of showing how all this could be formalized is not mine.", especially since the outcome of incorporating a feature-passing device is incorrect.

subsequent stratum. 2 to 3 retreat constructions are possible only with lexically designated predicates. Example (81a) in Chapter Two is repeated below for convenience.

- (54) a. Sema ayna -ya hohla -d \ddot{i} .
mirror-DAT blow on-PST

'Sema blew on the mirror.'



The 2 to 3 retreat nominal ayna in (54b) is an initial 2 and a final 3. Example (53), which was part of the quantifier scope argument, also involves 2 to 3 retreat; this example is repeated in (55) without the quantifier yaln \ddot{i} z. 21

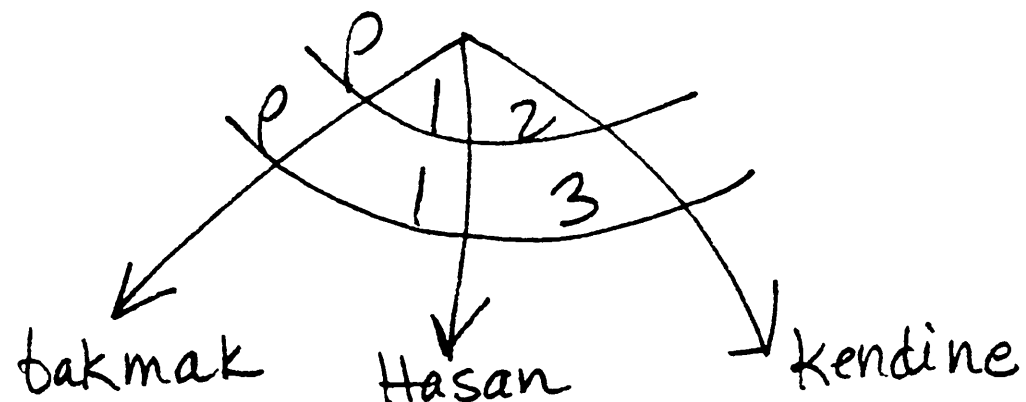
- (55) Hasan kendi-ne bak - \ddot{i} yor.
self -DAT look after-PROG

'Hasan looks after himself.'

Under the nonmultiattachment analysis, in which kendi bears an initial relation, there is no problem in handling clauses with 2 to 3 retreat verbs. As shown in (56), kendi bears an initial 2 relation which subsequently retreats to 3.

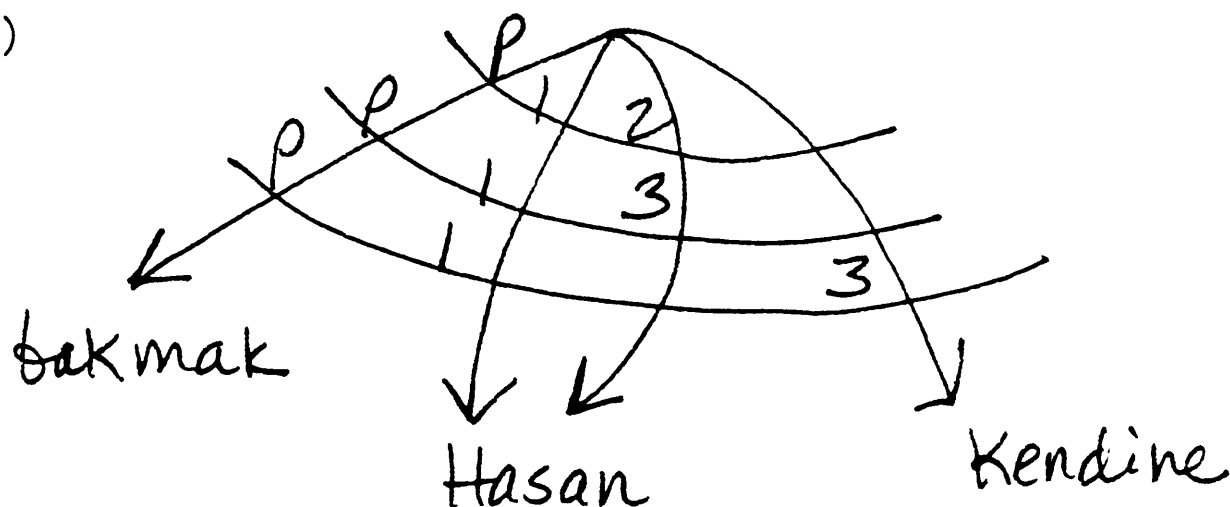
21 The verb bakmak also has the meaning 'to look at' which does not involve 2 to 3 retreat. This observation is due to Laura Knecht (personal communication). Also see Özkaragöz 1980b.

(56)



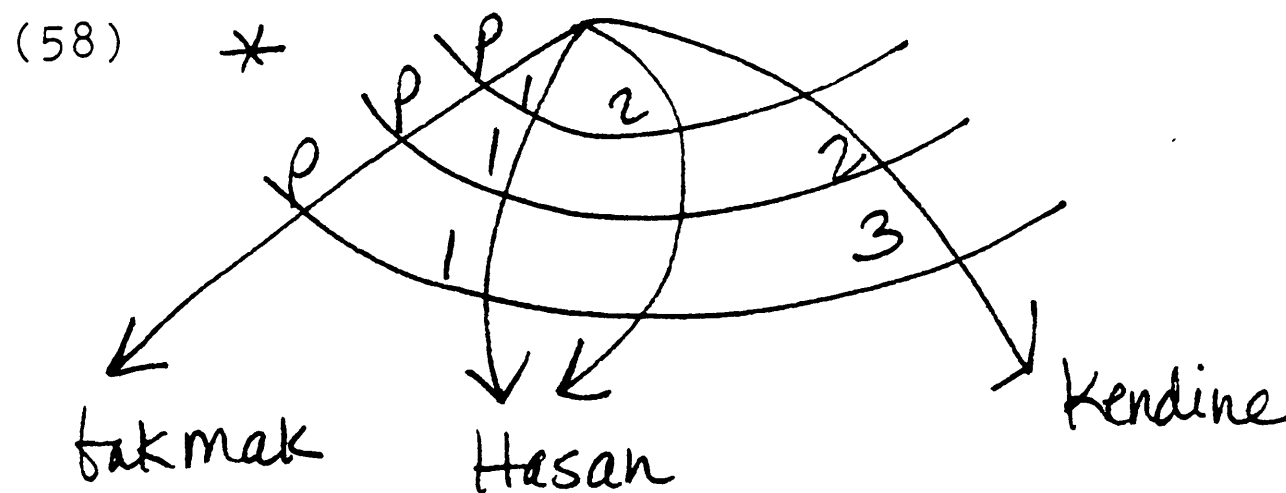
However, under the pronoun birth hypothesis, the example in (55) cannot be so readily accounted for. See (57) for the RN posited by this analysis.

(57)



In (57), the initial 2 headed by Hasan retreats to 3; then pronoun birth occurs in the subsequent stratum. There is object cancellation and kendi assumes the 3 relation. Note, however, that this RN, which has a verb lexically marked for 2 to 3 retreat, forces a different nominal to undergo 2 to 3 retreat from that in (56). Although the outcome of both RNs are the same because kendi bears the final 3 relation, it seems intuitively incorrect that the final 3 in (61) is not the 2 to 3 retreat nominal. That is, the nominal which is the final 3 in 2 to 3 retreat constructions which do not involve kendi, is the nominal to undergo 2 to 3 retreat. The pronoun birth hypothesis forces an exception to this generalization. Furthermore, in 2 to 3

retreat constructions without kendi, as in (54), the initial 2 can be shown to be the final 3. Since kendi cannot be a final 1, it cannot undergo, for example, passive 2 to 1 advancement as an argument for its initial 2-hood. However, it seems reasonable to assume that kendi bears an initial 2 relation and that it is the nominal undergoing 2 to 3 retreat. If this is a correct assumption, then a mechanism such as that required for the 'scope arc' in the previous argument would be necessary. That is, a mechanism that would pass the status of '2 to 3 retreat arc' from one stratum to the next, and ultimately, to the pronoun birth arc headed by kendi. As stated in argument five, however, the adoption of such a mechanism serves no other purpose but to maintain the pronoun birth hypothesis. Further, such a mechanism if adopted would necessitate the RN in (58).



Unlike the RN in (57), 2 to 3 retreat occurs on the arc of pronoun birth. Such an RN, however, is ruled out by the Noninitial Demotion Ban, which asserts that a term which is not in the initial stratum cannot demote (Perlmutter: Winter Quarter class 1984). The pronoun birth arc in the RN

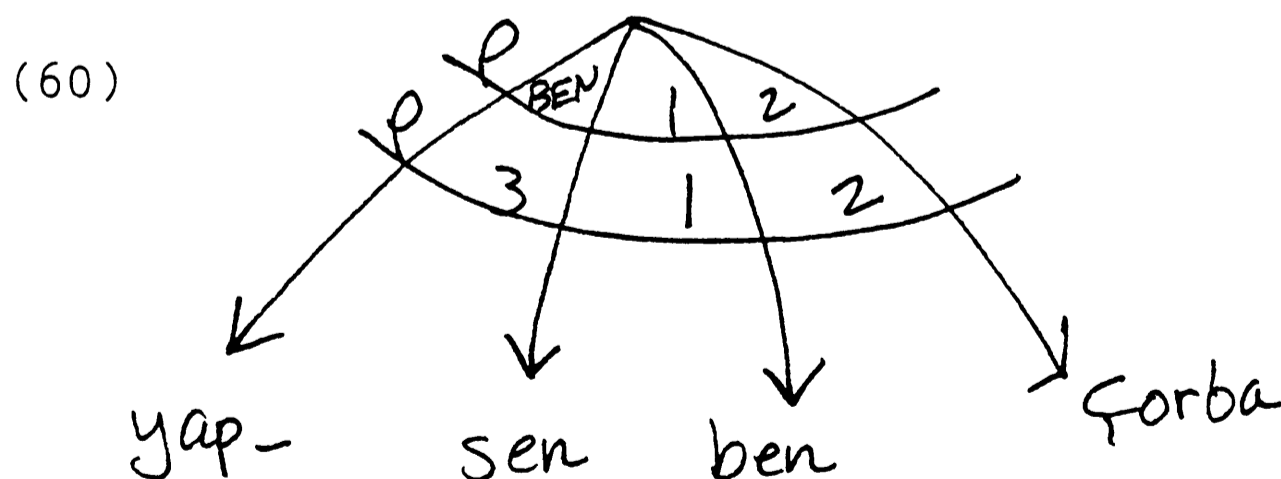
above has an illegal demotion in this respect. Therefore, examples like (55) provide evidence for the nonmultiattachment analysis, in which kendi bears an initial relation as any other nominal.

3.4.1.7 Benefactive to 3 Advancement

As discussed in Chapter Two, the benefactive to 3 construction has a nominal which bears an initial benefactive relation and the 3 relation in a subsequent stratum.

- (59) a. Ben sen-in için çorba yap -t \ddot{i} -m.
 I you-GEN for soup make-PST-1sg
 'I made soup for you.'
- b. Ben san-a çorba yap -t \ddot{i} -m.
 I you-DAT soup make-PST-1sg
 'I made soup for you.'

Example (59b) is an instantiation of a construction with Benefactive to 3 advancement. This is figured relationally in (60).

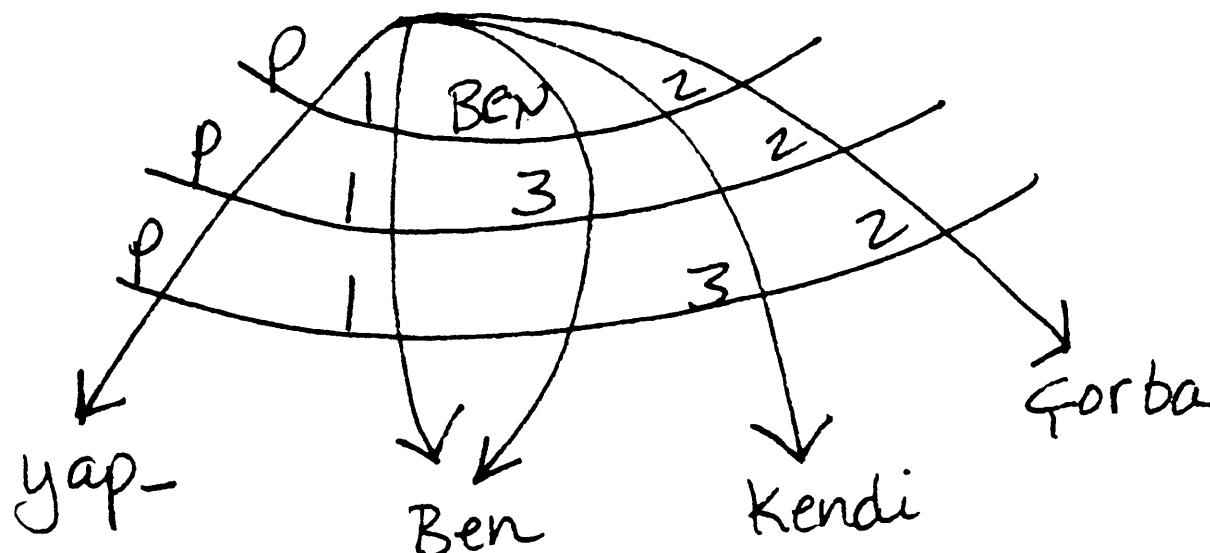


Now consider the examples in (61) which have the reflexive kendi and are related by the rule of Benefactive to 3 advancement.

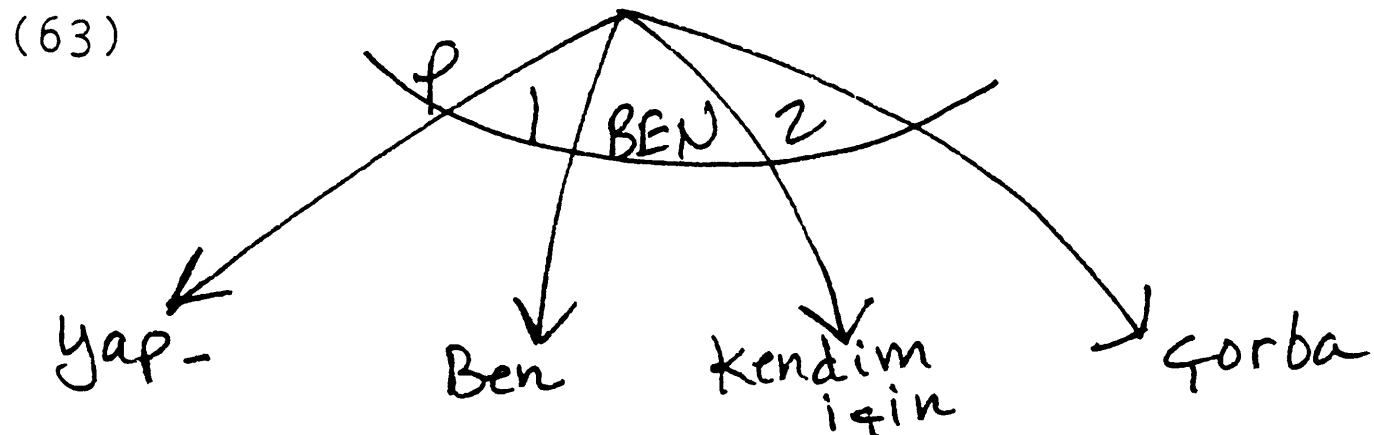
- (61) a. Ben kendi-m için çorba yap -t̃ -m.
 I self -GEN for soup make-PST-1sg
 'I made soup for myself.'
- b. Ben kendi-m -e çorba yap -t̃ -m.
 I self -POSS-DAT soup make-PST-1sg
 'I made soup for myself.'

Example (61b) has benefactive to 3 advancement. Under the pronoun birth analysis, in which kendi does not bear an initial relation, the following RN is posited.

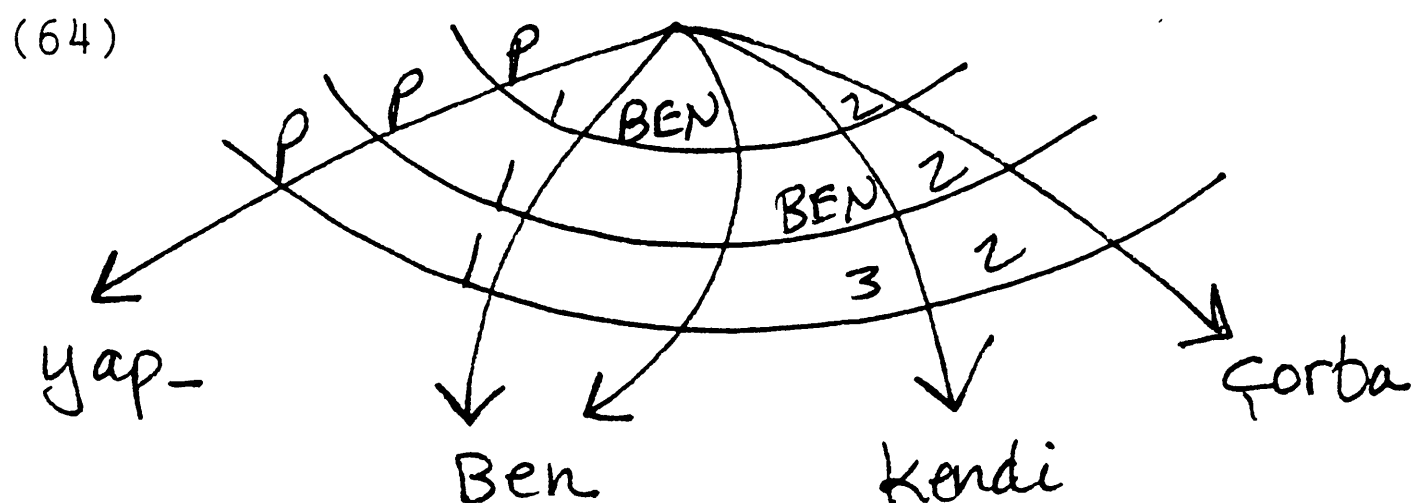
(62)



This analysis displays the same problems as the analysis of 2 to 3 retreat in (57). In (62), the wrong nominal, ben, undergoes Benefactive to 3 advancement. That is, since kendi does not ever bear the Benefactive relation, it does not advance to 3. This has the consequence that (61a), in which kendi bears the Benefactive relation, would require an entirely different structural analysis from (62b) which has ben bearing the Benefactive relation. The RN in (63) is the structure for (61a) without Benefactive to 3 advancement.



Notice that in (63), kendi bears the initial Benefactive-arc while in (62), under the pronoun birth analysis of kendi, ben is the nominal heading the initial Benefactive-arc. The structural generalization that the two sentences in (61) are related by Benefactive to 3 advancement would be lost, given the analysis in (62), because kendi does not ever bear the Benefactive relation. To save this generalization, we could employ the mechanism that was discussed in the previous two arguments. Namely, that by some device, the status of 'Ben to 3 arc' would be passed from one arc to the pronoun birth arc headed by kendi.

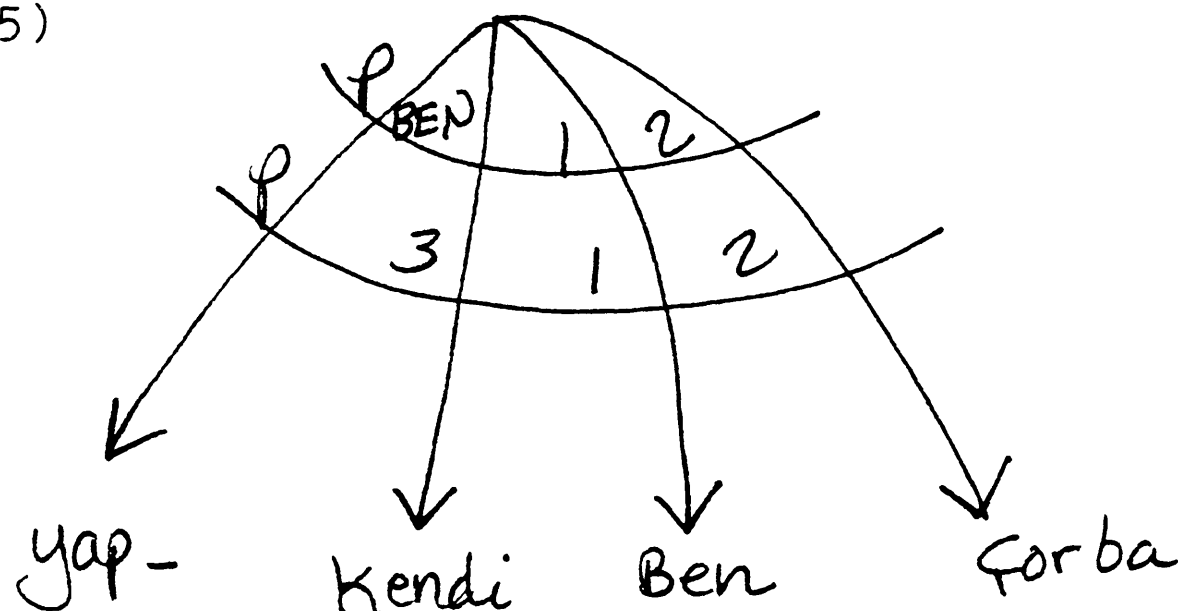


As noted before, such a device would have the sole purpose of saving the pronoun birth hypothesis. Crucially, however, it is clear that (63) could not be posited as an alternative to (62) since (63) is in violation of the Oblique Law. The

pronoun birth arc bears a noninitial benefactive relation. Also, the analysis in (64) assumes a Benefactive cancellation, analogous to object cancellation, which in Turkish has no independent motivation.

Now let us consider how (61) would be analyzed within the nonmultiattachment hypothesis.

(65)



In (64), kendi is the nominal which advances to 3 from Benefactive. Kendi bears an initial Benefactive relation as well as a 3 in the final stratum; thus, we can relate the two sentences in (61) by Benefactive to 3 advancement. Examples like (61) provide further evidence for the nonmultiattachment analysis in (42), where kendi bears an initial relation over the pronoun birth analysis in (39).

3.4.1.8 Causative

A final argument that the kendi construction has the nonmultiattachment structure in (42) is provided by the interaction of the causative construction, condition (68),

and the Reflexive Causee Constraint (RCC).²² Although the RCC has, to my knowledge, never before been proposed for Turkish, the constraint holds for many native speakers. The different behavior of the reflexive -(I)n and the reflexive kendi with respect to this constraint can be accounted for if different syntactic structures are assumed for each, namely, the nonmultiattached structure for kendi and the multiattached structure for -(I)n. If a multiattached structure were proposed for both the kendi and the reflexive -(I)n constructions, the facts below could only be accounted for in an ad hoc way.²³

Turcologists (e.g. Aissen and Hankamer 1980) have observed that causative union sentences like those in (66) are ungrammatical.

²² The name of this constraint is gleaned from Rosen (1981), who describes a somewhat similar constraint for Italian. I had independently observed that Turkish probably needed a similar constraint. Rosen's seminar at UCSD (1980), in which she discussed the Reflexive Causee Constraint in Italian, indicated that I was on the right track with my observation for Turkish.

²³ The grammatical relations found in (43) show only one possibility. The 2 may be replaced by other grammatical relations such as 3.

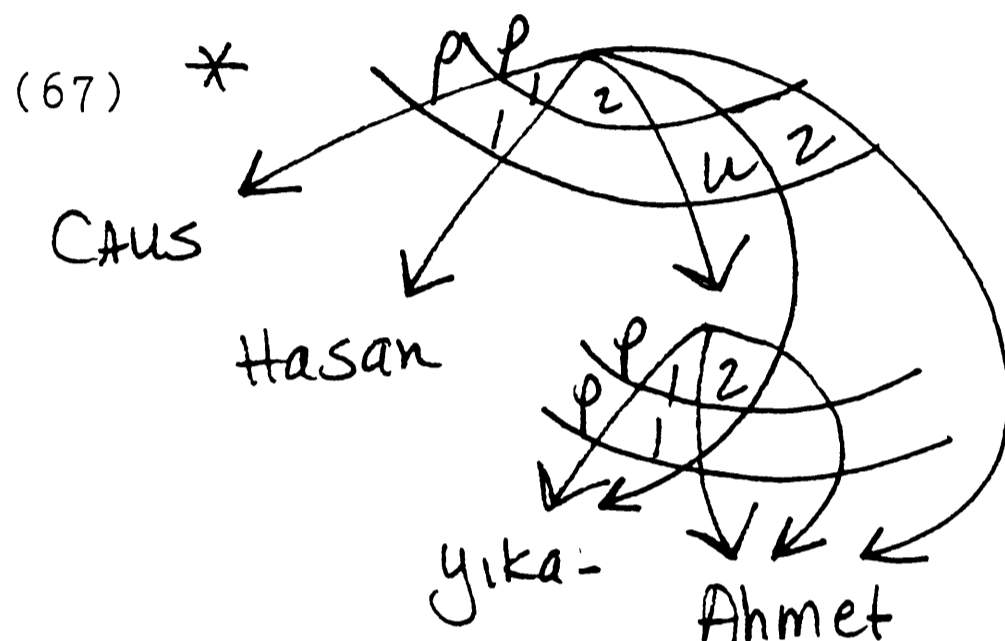
- (66) a. *Hasan Ahmet-i yıka-n -dir -di.
 -ACC wash-PASS-CAUS-PST

('Hasan made Ahmet wash himself.')

- b. *Hasan Ahmet-i öv -ün -dür -dü.
 -ACC praise-PASS-CAUS-PST

('Hasan made Ahmet praise himself.')

A stratal diagram of (66a) is presented in (67).



The complement clause in (67) undergoes object cancellation and is thus finally intransitive. The matrix clause is finally transitive since Ahmet in the complement bears a 2 relation in the matrix clause. (The laws which govern causative union structure are discussed in Chapter Four.)

Structures like (67), in which the complement clause has multiattachment, are always ill-formed. This ill-formedness is accounted for by the following condition in Turkish grammar.²⁴

²⁴ This condition on causative constructions in Turkish is strikingly similar to the condition proposed by Raposo (1979) on Clause Union and se-reflexive structures in Romance. The condition in Romance is stated

- (68) A nominal, a, cannot head 1 and 2-arcs having the same tail in the complement clause of Turkish causatives.

The relational network in (67) assumes the multiattached structure in (65) for the -(I)n reflexive. Because of multiattachment, a nominal in the complement clause heads arcs bearing the 1 and 2 relations, and is thus ruled ungrammatical by condition (68). Example (66b) is ungrammatical for the same reason.

The condition in (68) is further motivated by the interaction of passive and causatives. It is a well-known fact that passives cannot appear in the complement of a causative in Turkish.²⁵

below.

- (i) Condition on Clause Union and se-Reflexive Structures in Romance

A nominal, N, must be the head of an initial 2-arc and of a final 1-arc in the complement clause.

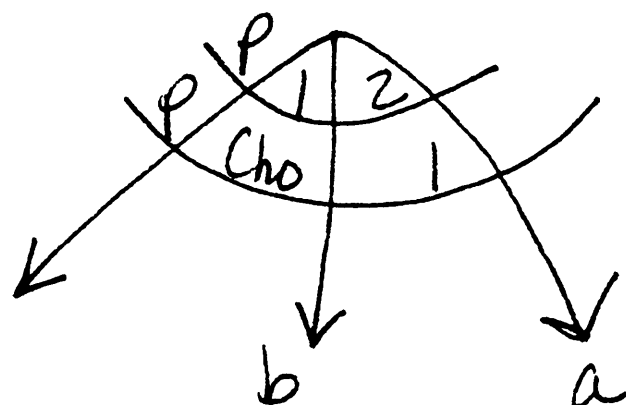
The similarity between the two conditions lies in the fact that reference is made to the existence of a nominal heading 1 and 2 arcs in the complement clause. The difference between them is that in Turkish, no such nominal can exist in the complement clause of a causative construction while in Romance, such a nominal must exist. Furthermore, the condition in Turkish restricts all causative constructions whereas the condition in Romance is only for Clause Union and se-reflexive structures.

²⁵ See Chapter Four for discussion of passive and causatives.

- (69) a. Top sokak -ta ez -il -di.
 ball street-LOC crush-PASS-PST
 'The ball was crushed in the street.'
- b. *Hasan top -u sokak -ta ez -il -dir -di.
 ball-ACC street-LOC crush-PASS-CAUS-PS
 ('Hasan caused the ball to be crushed in the street.')

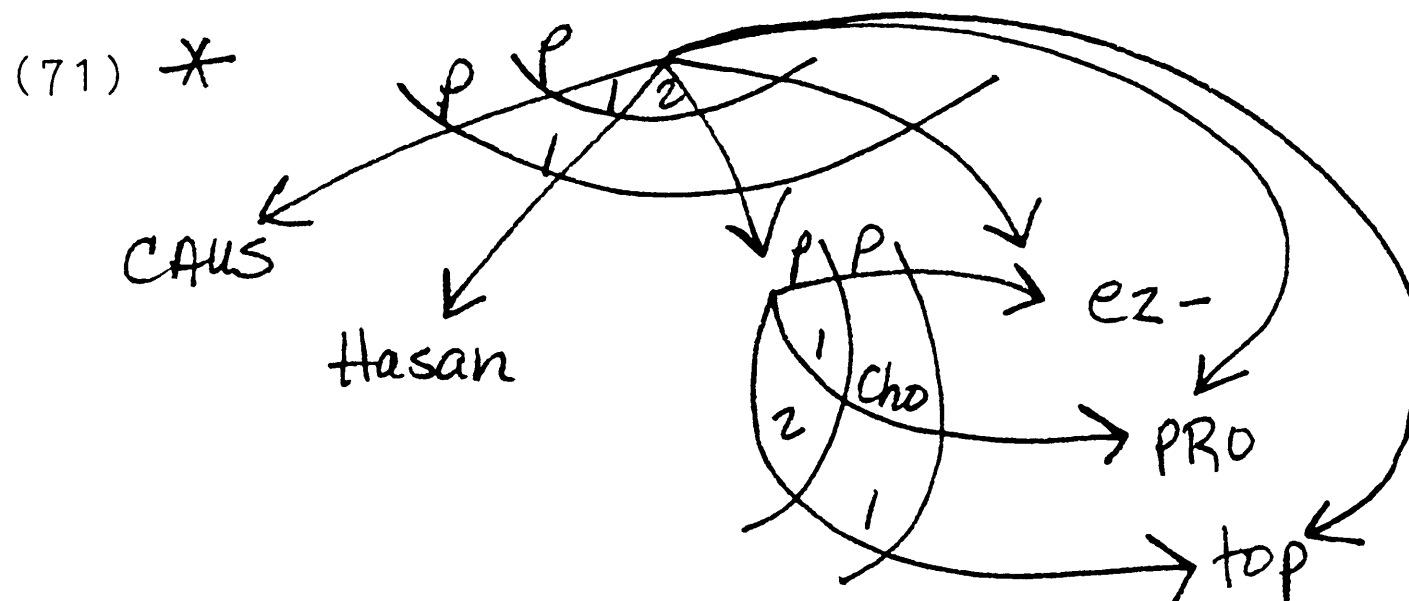
Passive, as universally characterized by Perlmutter and Postal (1983), detransitivizes a clause by advancing 2 to 1 and demoting 1 to chomeur, as shown in (70).

(70)



Note that in the passive structure (70), the nominal a heads an arc bearing the 1 and 2 relations. By virtue of this fact, condition (68) rules out the possibility of passive structures appearing as the complement of causative structures.

The ungrammatical (69b) is diagrammed in (71).

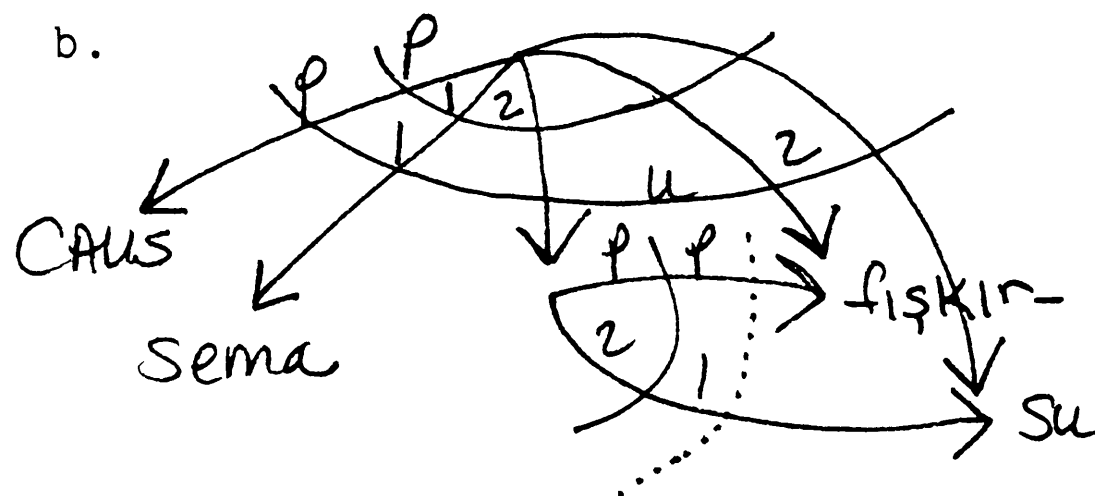


According to the condition in (68), structure (71) is ill-formed due to the fact that there is a nominal top heading an arc which bears the 1 and 2 relations.

The condition in (68) also predicts that 2 to 1 unaccusative advancement cannot occur in the complement clause of a causative union structure. See (72).

- (72) a. Sema su -yu fişkir-t -ti.
 water-ACC spurt -CAUS-PST

'Sema made the water spurt.'



It is true that unaccusatives in Turkish can occur in the complement clause of a causative. However, as can be seen in (72b), it is not crucial to the causative clause union

analysis that the nominal in an unaccusative complement (su in (72)) advance to 1 in the complement clause. Whether su advances to 1 or not, it will head a final 2-arc in the matrix clause. If su does not advance to 1, it will maintain its 2-hood in the matrix clause by virtue of the Inheritance Principle.²⁶ I therefore claim that condition (68) is consistent with the existence of causatives of unaccusatives, and so in all grammatical causative union structures of the type (72), unaccusative advancement has not occurred.

Thus, given condition (68), which is needed independently to rule out passive complement clauses of causative structures, we can predict the ungrammaticality of sentences like (66).

The kendi construction, on the other hand, can appear in the complement of causative constructions. This fact supports the claim that kendi constructions have a different structure from that of -(I)n constructions; namely, kendi constructions have the nonmultiattachment structure in (42) while reflexive -(I)n has the multiattachment structure in (43).

Consider the causative sentences with kendi in (73).

²⁶ See Özkaragöz and Gibson (1981) and Gibson (1980). The Inheritance Principle is discussed in Chapter Four.

(73) a. Hasan Ahmet-e kendisi-ni vur -dur -du.
 -DAT self -ACC shoot-CAUS-PST

'Hasan made Ahmet shoot himself.'²⁷

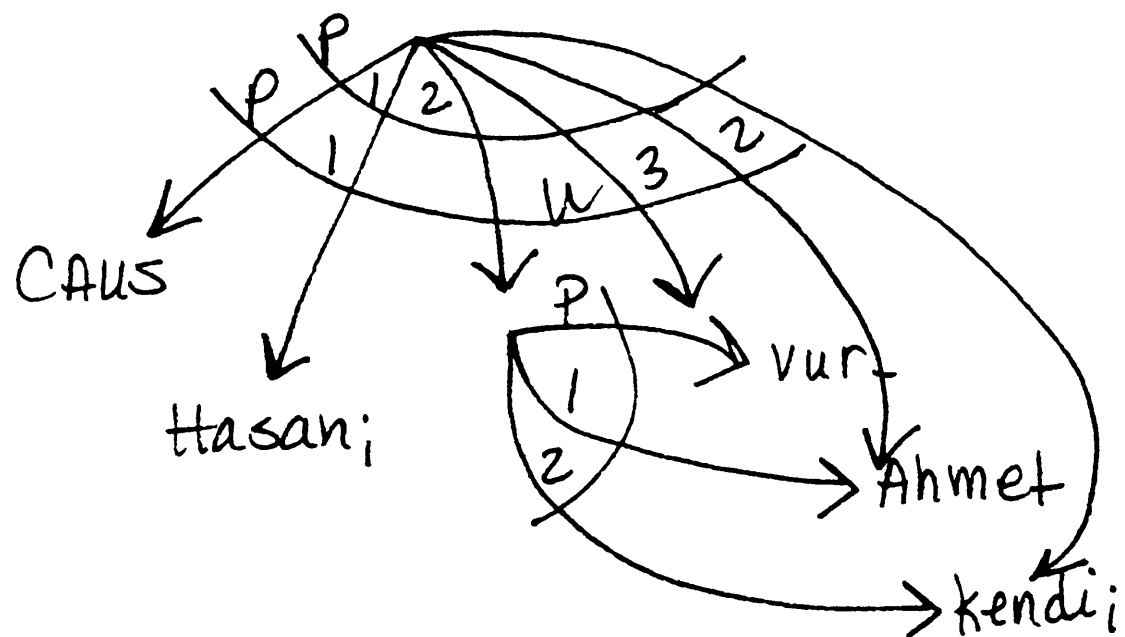
b. Ahmet-e kendi-m için ceket al -dır -dı -m.
 -DAT self -1POSS for jacket buy-CAUS-PST-1sg

'I made Ahmet buy a jacket for myself.'

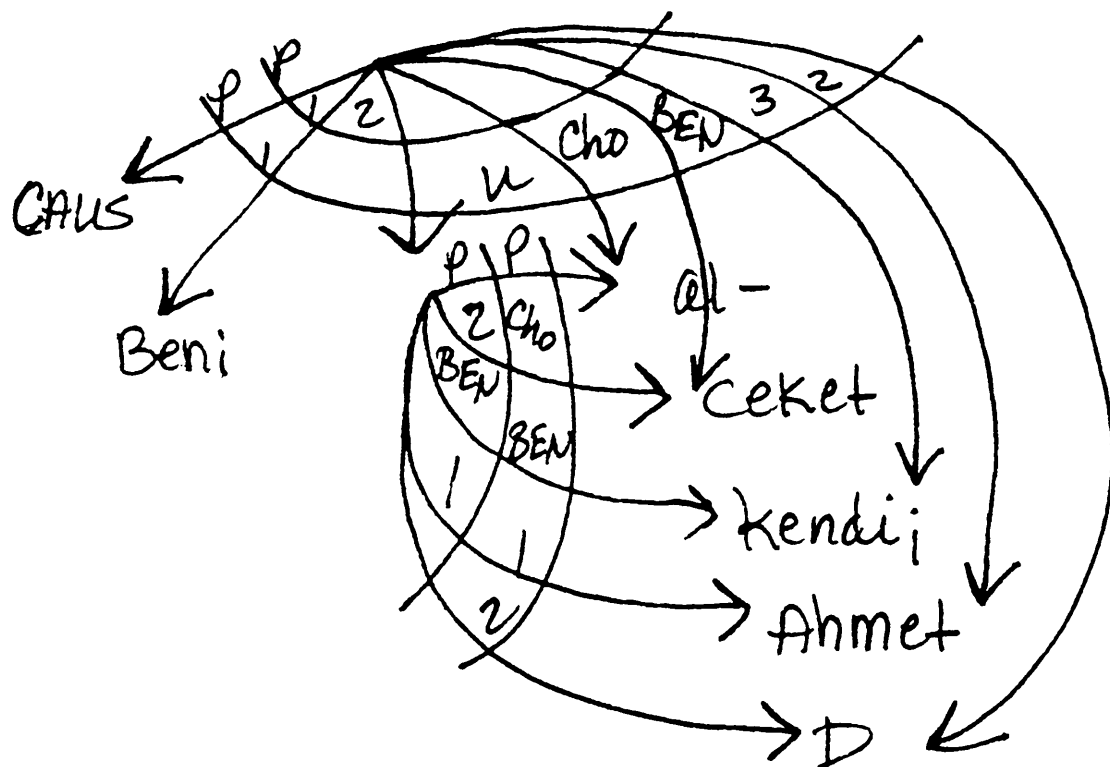
The relational networks for (73a) and (73b) are given respectively in (74).

²⁷ Some native speakers accept the reading where ken-di is coreferent with Ahmet as well. The ambiguity of the sentence is not relevant to the point being made.

(74) a.



b.



As examples (73a) and (73b) show, kendi can appear in the complement clause of a causative construction, unlike the -In reflexive, which cannot. Crucially, if we assume two separate analyses for -In and kendi, the condition in (68) does not rule the sentences in (73) as ungrammatical. However, if we assume a multiattachment analysis for both types of reflexives, condition (68) will predict incorrectly that

the sentences with kendi in (73) are ungrammatical because a kendi pronoun birth multiattachment analysis has a nominal heading 1 and 2-arcs.

Appendix: Reflexive Causee Constraint

We have seen in the above argument that if kendi is assumed to have a nonmultiattached structure, condition (68) correctly does not rule out the possibility of kendi occurring in the complement clause while ruling out the possibility of a multiattached -In reflexive. Although kendi can appear in the complement clause of causatives, it may not always do so. In particular, when the matrix initial 1 and the complement 1 are coreferent, employing kendi is ungrammatical, as shown in (75).

- (75) a. *(Ben) kendi-m -i yer -e otur-t -tu -m.
 I self -1sg-ACC floor-DAT sit -CAUS-PST-1sg
 ('I made myself sit on the floor.')
- b. *Kendi-m -e ders çalış-tır -di -m.
 self -1sg-DAT study -CAUS-PST-1sg
 ('I made myself study.')

We account for this phenomenon via the Reflexive Causee Constraint (RCC), stated in (76).

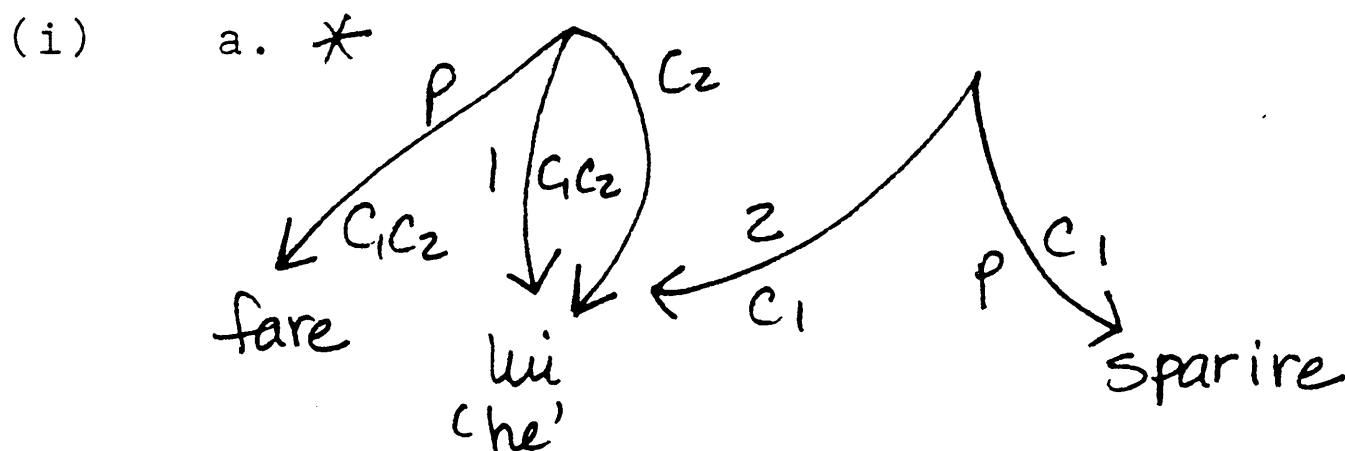
(76) Reflexive Causee Constraint (RCC)

A causative union structure is ill-formed if the nominal that heads the initial 1-arc of the causative predicate [-dIr] and the highest term arc of the complement, have the same referent.²⁸

The RCC makes reference to the highest term arc of the

²⁸ This RCC differs from the Italian RCC proposed by Rosen (1981) in that the Turkish constraint refers to referent and Italian refers to the same nominal headed by the initial 1-arc and the highest term arc of the complement. This difference is necessitated by the difference of facts with respect to reflexives in Turkish and Italian. The RCC in Italian is so formulated that it accounts for both se' stesso and si. That is, it accounts for the impossibility of si in the complement clause and for the possibility of se' stesso. Italian se' stesso, unlike kendi, can unconditionally appear in the complement clause of causatives. By referring to the same nominal in the RCC, rather than referent, Rosen underscores the fact that what creates an ill-formed structure is syntactic multiattachment in the complement clause, not semantic identity.

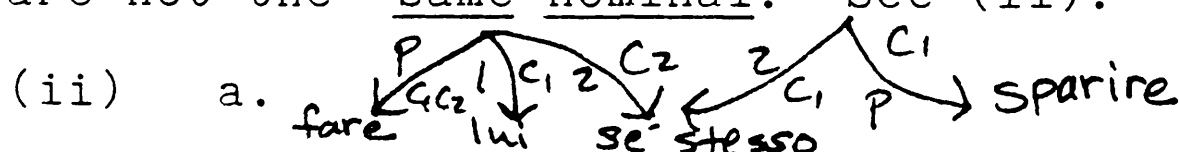
Se' stesso does not have multiattachment, thus, it is allowed. If si has multiattachment of the matrix initial 1-arc and the highest term arc in the complement, the head of the multiattachment is the same nominal



b. *Sara capace di farsi sparire?

('Can he make himself disappear?')

If se' stesso does not have multiattachment, as Rosen argues, the matrix initial 1-arc and the highest term arc of the complement can be coreferent because they are not the same nominal. See (ii).



complement, rather than to the 1 arc, because the predicate of the complement clause may be unaccusative. As argued above, unaccusative clauses which are complements of causative structures do not have unaccusative advancement. That is, the initial 2 does not advance to 1, as shown in (76). Furthermore, since passive 2 to 1 advancement also does not occur in the complement, and there are no other rules of grammar in Turkish which advance a term to 1, it is not necessary to specify the level of the highest term arc of the complement in stating the constraint in (76).

Thus, given the constraint in (76), we can account for the interaction of the kendi construction and causatives

b. Sara capace di far sparire se stesso?

'Can he make himself disappear?'

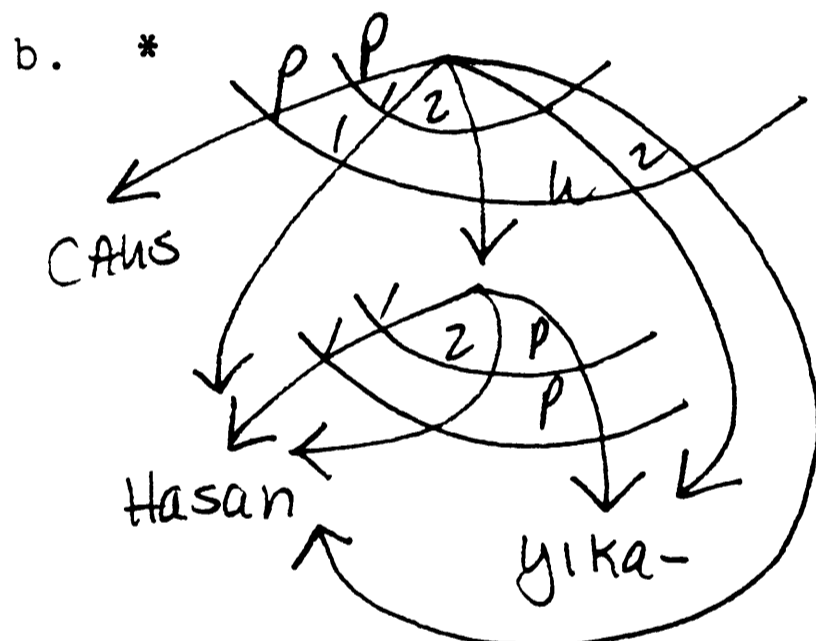
The matrix initial 1-arc is headed by lui and the highest term arc in the complement is headed by se stesso. Rosen, thus, shows, that the RCC refers not to the referent of the causee, but rather to the syntactic structure required by si, but not required by se stesso. That is, si has multiattachment and is therefore prohibited from appearing in the complement clause of causatives.

In Turkish, what the RCC prohibits in the complement clause is semantic identity since kendi cannot appear in the complement only when the initial 1-arc and the highest term arc have the same referent. This is the reason why the Turkish RCC does not refer to the 'same nominal' as Italian. Furthermore, the RCC refers only to kendi and not to -In. As discussed above, the RCC does not account for all the ungrammatical sentences with -In as in *Hasan Ayşe-yi yıka-n-dır-di, meaning ('Hasan made Ayşe wash herself.') The argument for different syntactic structures for -In and kendi comes from the fact that they require different conditions to account for their interaction with causatives. -In requires condition (72) and kendi require the RCC.

exemplified in (73b) and (75) in a straightforward manner.

When ungrammatical causatives with an embedded -In reflexive like those in (66) and the following are considered, it is noted that the RCC marks such sentences as ungrammatical. Thus, it may seem that condition (68) is not necessary.

- (77) a. *Hasan yika-n -dir -di.
 wash-PASS-CAUS-PST
 ('Hasan made (self) wash.')



In this example, the initial 1 of the matrix clause and the highest term of the complement have the same referent. Consequently, such sentences are ruled out by the RCC. This raises the question of why condition (68) is necessary if the RCC accounts for (77). Aside from the fact that (68) is posited to prevent passive in the complement clause, condition (68) is needed to account for the ungrammaticality of (78).

(78) * Hasan Ayşe-yi yıka-n-dır-dı.
 -ACC wash-PASS-CAUS-PST

('Hasan made Ayşe wash herself.')

In (78), the matrix 1 and the highest term of the complement are not coreferent, so the sentence is not ruled out by the RCC. What rules it out is condition (68), which marks it ungrammatical because the complement clause contains a nominal heading arcs bearing the 1 and 2 relations.

Consequently, the RCC is required to account for the interaction of kendi reflexivization and causatives while condition (68) accounts for -In reflexives and causatives.

Chapter Four

Causatives

4.1 Introduction

The lexical vs. syntactic character of causative clause union is a perennial issue in the study of syntax. In Shibatani (1976), irregular, nonproductive causative forms were claimed to be listed in the lexicon while productive forms were claimed to be derived syntactically from biclausal structures. However, in Jackendoff (1975) and Bresnan (1978), for example, devices for relating lexical items were made more explicit, thus, making it more feasible to account for productive processes, such as causative, in the lexicon.

Turkish causativization has in the past been viewed as a transformational, or syntactic, rule which applied to a biclausal structure to produce a monoclausal structure (see e.g. Aissen (1974a;1974b) and Zimmer (1976)). However, Aissen and Hankamer (1980), henceforth AH, recently proposed that Turkish causativization is a lexical rule. That is, Turkish causatives are not syntactically biclausal at any level. AH's proposal that Turkish causative formation is lexical was part of the growing trend of reanalyzing rules, heretofore analyzed as transformational or syntactic, as lexical in nature. (See Wasow (1977) and Bresnan (1978).)

The primary motivation for their hypothesis is that the syntactic rule of passive cannot occur in the embedded clause of causatives. In this chapter, I demonstrate that AH cannot use the lack of passive in the embedded clause of causatives as a valid argument for the lexical nature of causative formation. I propose that there is a condition in Turkish which prohibits the relational networks of both passive and -In reflexive in the embedded clause of causatives. If such a condition exists, then AH cannot use passive to argue for a lexical analysis of causative. There are indications that AH's lexical analysis of causatives is incorrect as it predicts that the -In reflexive should occur in the embedded clause, and it cannot.

Furthermore, I argue against Zimmer's (1976) contention that passive can occur in the embedded clause of causatives. In the course of the argument, I use the RCC proposed in the appendix of Chapter Three. I also posit the existence of no-revaluation unions in Turkish, thereby corroborating Rosen's (1983) claim that such unions exist in Romance languages.

4.2 Universal Causative Clause Union and Turkish Causatives

Causative constructions in Turkish are instantiated by the appearance of a causative suffix on the verbal stem.

The rules for the selection of the allomorphs of the causative suffix are stated as follows.¹ Lexically designated monosyllables (which are numbered to be approximately twenty) select [-Ir]; polysyllabic stems ending in a vowel or liquid select [-t]; [-Dir] appears elsewhere. Some examples are given in the (a) sentences below.

- (1) a. Ahç*ı*-ya patates-ler-i dođra -t -t*ı* -m.
cook-DAT potato -PL -ACC cut up-CAUS-PST-1sg

'I made the cook cut up the potatoes.'

- b. Ahç*ı* patates-ler-i dođra -d*ı*.
cook potato -PL -ACC cut up-PST

'The cook cut up the potatoes.'

- (2) a. Bebeđ*ı*-i gül -dür -d*ü* -m.
baby -ACC laugh-CAUS-PST-1sg

'I made the baby laugh.'

- b. Bebek gül -d*ü*.
baby laugh-PST

'The baby laughed.'

- (3) a. Vazo-yu düş -ür -d*ü* -m.
vase-ACC fall-CAUS-PST-1sg

'I caused the vase to fall.'²

- b. Vazo düş -t*ü*.
vase fall-PST

'The vase fell.'

¹ See Lewis (1967:144-145) who discusses causatives with idiosyncratic morphemes.

² This sentence can also mean 'I dropped the vase.', but this meaning is irrelevant to our study.

The causative sentences in (a) contain exactly one more argument than the (b) sentences. It has been claimed (Aissen 1974a and 1974b) that the (a) sentences are related to the (b) sentences by a rule of verb raising. Using syntactic diagnostics within a transformational framework, Aissen argued that causative constructions were underlyingly biclausal, and superficially monoclausal. The conclusion that causatives are superficially monoclausal is by now universally accepted; however, it is still a matter of some controversy whether they are biclausal at some level of syntactic representation.

Perlmutter and Postal (1974) proposed a universal account of causatives like those in (1)-(3) which attributes their properties to clause union. Clause union structures are biclausal structures in which the predicate of the complement clause (interchangeably called the downstairs clause) bears the grammatical relation "union" to the matrix clause (interchangeably called the upstairs clause) at a noninitial level.³ The arc relating the complement predicate to the matrix clause is labelled with the relational sign U (union). At the union stratum, and all subsequent strata,

³ Davies and Rosen (to appear) have recently proposed a monoclausal structure for clause union which has two predicate sectors, a notion which they introduce and develop in detail. However, computing the consequences of positing a monoclausal causative structure for Turkish is not within the scope of the present study.

the complement clause itself bears no grammatical relation to the matrix clause. The dependents of the complement clause, however, bear grammatical relations to the matrix clause from the union stratum on. Causative clause union, thus, is a structure which has arcs relating the dependents of the complement clause to the matrix clause at the union level.⁴

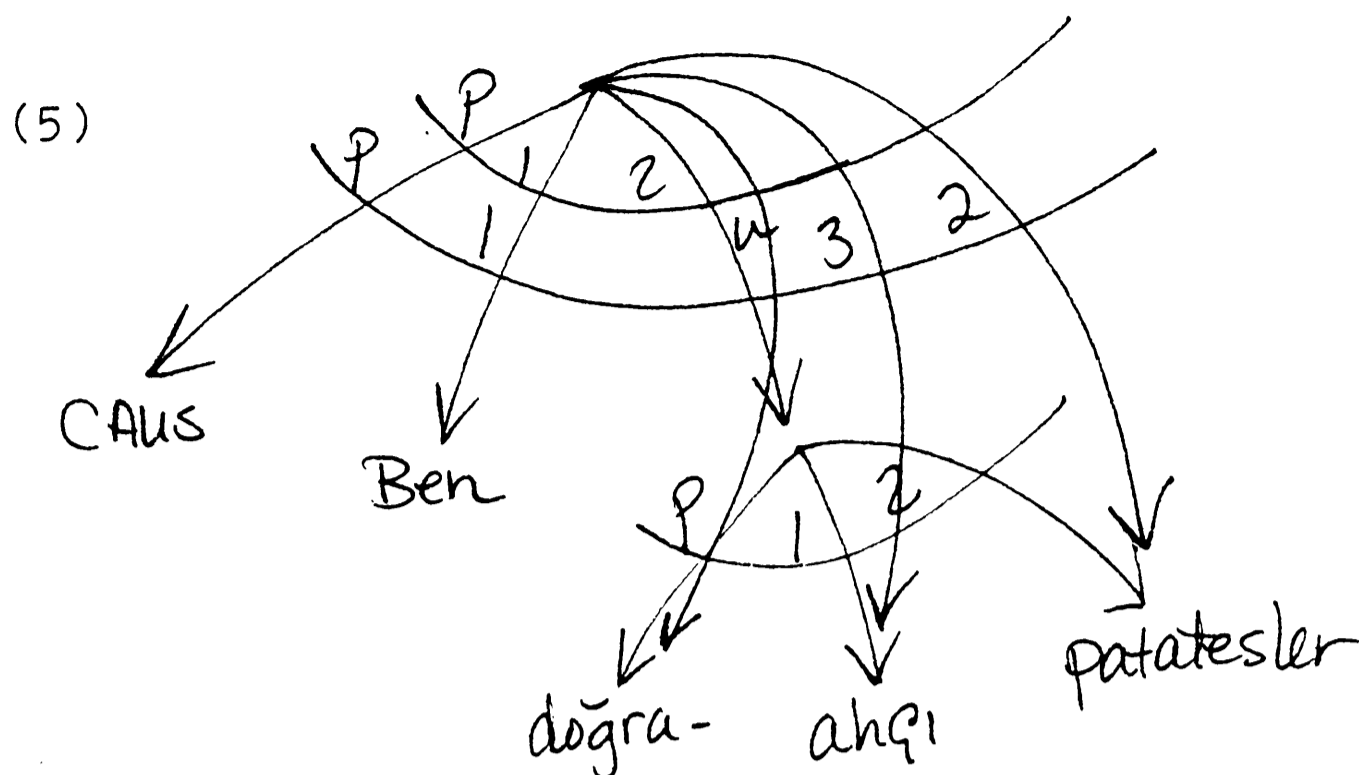
Perlmutter and Postal claimed that the relations that the dependents of the downstairs clause bear in the union stratum of the upstairs clause are determined by the following clause union rule:

(4) The Union Law

<u>Downstairs</u>		<u>Upstairs</u>
Abs	----->	2
Erg	----->	3

The RN of the causative sentence in (1a) is presented below.

⁴ Causatives are only one type of construction which has clause union. Other types of constructions having clause union are irrelevant to the present study.



The RN in (5) contains a matrix clause whose initial dependents include a predicate arc headed by a causative, a 1-arc headed by Ben 'I', and a 2-arc headed by a complement clause identical to the simple transitive sentence in (1b). The complement clause does not bear any relation to the matrix clause after the initial stratum. The complement predicate bears the union relation upstairs in a noninitial stratum. According to the Union Law in (4), the downstairs transitive 1 is an upstairs 3. According to the Inheritance Principle proposed by Gibson and Raposo (to appear), the downstairs 2 is an upstairs 2. Rosen's (1983) informal formulation of their principle is presented in (6).⁵

⁵ Gibson and Raposo's formulation of the Inheritance Principle is as follows:
 The Inheritance Principle
 If the Predicate arc in a complement clause b heads a Union arc in the main clause d, then a nominal heading a final GR_X-arc in the complement clause heads a GR_X-arc at the union stratum of the clause union construction.

⁶ The Motivated Chomage Law and the Stratal Uniqueness Law interact with the Inheritance Principle as

(6) The Inheritance Principle

Any nominal heading a downstairs final GR_x -arc ($GR_x \neq 1$) must head in the union stratum upstairs, either a GR_x -arc or a cho-arc.⁶

Similarly, the complement predicate of the causative sentence in (2a) bears a union relation upstairs. The downstairs intransitive 1, 'baby', according to the union law, bears the 2 relation upstairs. In (3a), the downstairs clause undergoes clause union and the unaccusative predicate 'to fall' is an upstairs U. The downstairs 2, 'vase', as specified by the union law, bears the 2 relation upstairs. The downstairs clause does not have unaccusative advancement, as is discussed later in this chapter.⁷

Although the Union Law in (4) holds for Turkish, Gibson (1980) has shown that it cannot be maintained as a universal in light of the causative facts in Chamorro. Gibson argues that the Union Law must be modified as follows.

(7) The Union Law II

	<u>Downstairs</u>	<u>Upstairs</u>
a.	Abs	-----> 2
	Erg	-----> 3
b.	Erg or	
	Abs	-----> 2

Gibson and Raposo (to appear) show.

⁷ Note that if the downstairs clause does not have unaccusative advancement, then it violates the Final 1 Law. This apparent violation of the Final 1 Law is one undesirable consequence of the biclausal analysis of Clause Union, as is pointed out by Davies and Rosen (to appear) and Rosen (1983).

Davies (1981) has also shown that causative facts from Choctaw argue for the existence of the Union Law in (7b). Thus, according to the Union Law in (7), languages have the option of governing their causative constructions either by (7a) or (7b). Since Turkish is governed by (7a), this will be the rule referred to when the Union Law is cited in this chapter.

Rosen (1983) takes the Inheritance Principle in (6) one step further and removes the stipulation that it applies only to non-1's. She claims that unions can also involve no revaluation of the downstairs 1 (such unions are referred to as no-revaluation unions). Thus, the downstairs 1 can be an upstairs cho placed en chomage by the upstairs initial 1. The union revaluation rules in (7) and the Inheritance Principle are disjunctively ordered. If the union rule does not apply to the downstairs 1 in some particular language, then the Inheritance Principle applies to the downstairs 1. Rosen, further, posits the Downstairs Freeze Principle in causative union.

- (8) Downstairs Freeze in Causative Unions
 If a nominal heads a 1-arc in the complement clause of a union, it heads an initial 1-arc in that clause.

Rosen argues for the possibility of no-revaluation unions and for the Downstairs Freeze in Romance languages such as Italian and French. One particular consequence of Rosen's proposal is that passive cannot occur in the embedded clause

of a causative in these languages. This is because the passive construction involves a non-initial 1. She further speculates that no-revaluation unions and the Downstairs Freeze may be present in the grammars of other languages. Positing these principles may account for syntactic phenomena heretofore unexplained in a particular language.

4.3 Passive and Causative

The problem of why passive cannot occur in the embedded clause of causatives has always been an issue for Turcologists. It was not explanatory simply to state that passive could not occur in embedded clauses of Turkish causatives. Thus, a primary motivation that led AH to posit causatives as a lexical rule was that, given passive as a transformational, or syntactic, rule, passive would not be expected to occur downstairs in causatives, because there would be no embedded clause for it to occur in.

Before reviewing AH's lexical analysis of causatives, I present evidence in this section that passive indeed cannot occur in the embedded clause. This evidence argues against Zimmer's (1976) claim that passive could occur in the embedded clause of causatives. In the course of the discussion, it will also be argued that no-revaluation unions exist in Turkish. The Downstairs Freeze in (8), however, does not need to be posited for Turkish, as it is encompassed by another condition.

Then, in section 4.4, I present AH's lexical analysis. In 4.5, I discuss the condition which prohibits passive and -In in the embedded clause of causatives and present data consistent with the condition. Section 4.6 is the conclusion.

4.3.1 Missing Subject Causatives

Zimmer (1976) argued that passive could occur in the embedded clause of causatives. He gave an account of the type of causative which Aissen (1974a) calls the "missing subject construction", which is exemplified in (9).

- (9) a. Hasan kutu-yu aç-tır-dı.
 box-ACC open-CAUS-PST
 'Hasan had the box opened.'
- b. Kadın et-i kes-tir-di.
 woman meat-ACC cut-CAUS-PST
 'The woman had the meat cut.'

In the above causatives, the 1 of the embedded clause is PRO, thus the label 'missing subject causative'. Zimmer, working within a transformational framework, proposes that the embedded clauses of these causatives contain passive. Thus, in relational terms, kutu, the initial 2, advances to 1 and PRO is placed en chomage in the embedded clause in (9a). By the union law, kutu is an upstairs 2 and PRO retains its cho-hood upstairs.

Zimmer's analysis of passive in missing subject causatives accounts for the ungrammaticality of the missing subject causative in (10), where the embedded verb takes an object which is an initial 3 instead of an initial 2.

- (10) * Şoför otobüs-ü bin -dir -di.
 chauffeur bus -ACC board-CAUS-PST
 ('The driver had the bus boarded.')

According to Zimmer, verbs which take an initial 3 or ablative generally do not allow their object to advance to 1, thus, missing subject causatives with such verbs are not expected to occur, as we do find. That is, the only way that otobüs can be a final 2 upstairs, as in (10), is if otobüs advances to 1 downstairs. However, 3's cannot advance to 1 in Turkish, as shown in Chapter Two.

- (11) a. * Otobüs bin -il -di.
 bus board-PASS-PST
 ('The bus was boarded.')
- b. Hasan otobüs-e bin -di.
 bus -DAT board-PST
 'Hasan boarded the bus.'

In the ungrammatical passive sentence in (11a), otobüs has illegally advanced to 1. Consequently, since otobüs cannot ever advance to 1 downstairs, it cannot be a final 2 upstairs, as (10) shows.

As discussed below, AH's lexical analysis of causatives claims that there is no passive in the embedded clause

of causatives. They point out three problems with Zimmer's analysis of missing subject constructions which Zimmer himself acknowledges. First, there is no passive suffix on the verb in missing subject causatives. Second, only personal passive and not impersonal passive may occur in the embedded clause. The examples in (12) show missing subject causatives with an embedded impersonal passive.

- (12) a. * Antrenör koş-tur-du.
 trainer run-CAUS-PST
 ('The trainer caused to run.')
- b. * Şoför otobüs-e bin-dir-di.
 chauffer bus-DAT board-CAUS-PST
 ('The chauffer had the bus boarded.')

Third, the embedded 1 must always be PRO. Recall that the embedded 1 is placed en chomage by passive 2 to 1 advancement. A passive 1-cho, if specified, appears in a tarafından phrase. Missing subject causatives with a tarafından phrase are, however, ungrammatical. Consequently, the embedded 1 must be PRO.

- (13) * Kadın et-i kasap tarafından kes-tir-di.
 woman meat-ACC butcher by cut-CAUS-PST
 ('The woman had the meat cut by the butcher.')

As stated in Chapter Six, the impersonal passive must always have PRO as an initial 1. Yet, paradoxically, it is precisely the impersonal passives which may not occur in the embedded clause.

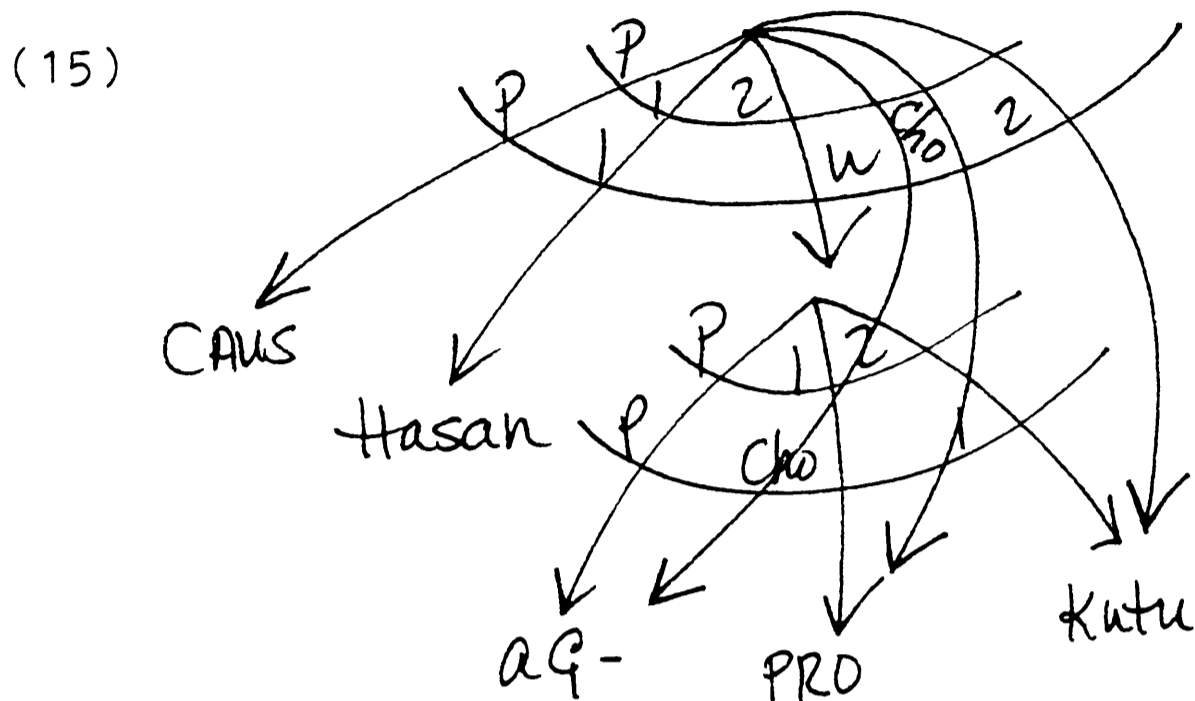
AH account for the ungrammaticality of impersonal passive downstairs in causatives by observing that all causative verbs in Turkish are transitive. As noted below, AH assume that the 1 is optional in the deep argument structure (i.e. the basic lexical entry) of every verb. In their formulation of the causative formation rule, causative verbs are strictly subcategorized for a deep 2. Thus, (9) is grammatical because the verb has a deep 2. The fact that there is no 1 in the subcategorization of the basic noncausative transitive verb is inconsequential because the 1 corresponds to the 3 in the derived lexical entry of the causative verb. In (12), however, the fact that there is no 1 in the basic lexical entry of the basic intransitive verb means that there is no corresponding 2 in the derived lexical entry of the causative verb. Thus, the requirement that the causative verb have a deep 2 is not satisfied.

A syntactic analysis of causatives that treats them as initially biclausal does not tolerate passive in the embedded clause either, but for a reason different from AH's. Passive involves a nominal heading an arc bearing the 1 and 2 relations. Such a construction is ruled out by the condition already posited for Turkish -In reflexives in Chapter Three. The condition is repeated below.

- (14) A nominal, a, cannot head 1 and 2-arcs having the same tail in the complement clause of Turkish causatives.

Consequently, missing subject causatives like those in (9)

cannot involve passive, contrary to what Zimmer claims. Sentence (9a) is diagrammed relationally in (15) with downstairs passive, according to Zimmer's view.

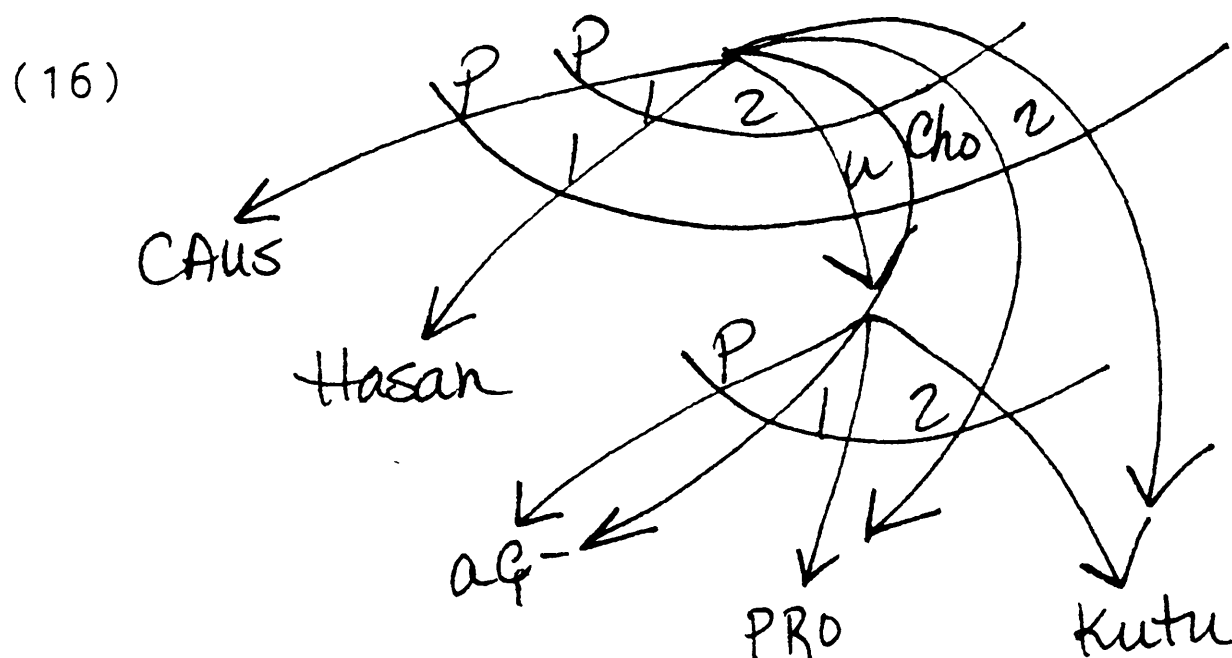


Aissen (1974a) suggested that missing subject causatives were related to passives; Zimmer claimed that they were derived from passives. AH claimed that the deep structure, i.e. the basic and derived lexical entries, of the causative verb of missing subject causatives were subcategorized for a 2. The presence of this deep 2 accounted for the grammaticality of (9) and the ungrammaticality of (12).

My analysis of missing subject causatives is closest to Aissen's (1974a) suggestion. I claim that missing subject causatives share a common feature with certain passives; namely, both contain a 1-choeur that is headed by PRO. Missing subject constructions thus correspond to the subclass of passive constructions which have PRO heading a

1-cho arc.

The question that arises next is how the downstairs 1 comes to bear the cho relation upstairs if there is no passive downstairs to place it en chomage. The answer seems to be that the downstairs 1 is not revalued by the Union law in (7a). In effect, it is not revalued at all and is placed en chomage upstairs by the initial matrix 1, so that the Stratal Uniqueness Law is not violated. The downstairs 2 is also an upstairs 2, as specified by the Inheritance Principle in (6). These type of no-revaluation unions were argued by Rosen (1983) to exist "at least in Romance languages". I claim that no-revaluation union constructions also exist in Turkish. The following RN shows the missing subject causative in (9) as a no-revaluation union.



The downstairs PRO is not revalued upstairs by the Union Law. Since it is not revalued upstairs, it is placed en chomage by the matrix 1, in order not to violate the SUL. Kutu is an upstairs 2 by virtue of the Inheritance

Principle. Note that the no-revaluation RN in (16) and the ill-formed downstairs passive analysis in (15) have identical union strata.

I adopt Rosen's assumption that the Union Law is disjunctively ordered with respect to the Inheritance Principle, so that the latter principle applies to the downstairs 1 only if it is not revalued. Thus, when the downstairs Ergative 1 is a PRO, PRO is not revalued and the Inheritance Principle applies.

In (16), if PRO, which is an ergative 1, were to be revalued by the Union Law as an upstairs 3, the RN would be ill-formed. As discussed in Chapter Two, Turkish has the following condition on PROs:⁸

(17) PRO cannot head a surface arc.

An RN containing a PRO heading a final arc that is not erased by, for example, a cho-arc or equi, is ill-formed. Recall that a surface arc is one that is not erased. If PRO is revalued via the Union Law to an upstairs final 3, no rule in the grammar could erase the 3-arc headed by PRO upstairs. That is, there is no equi rule which will erase the 3 arc headed by PRO, nor is there a rule which will place the 3 arc en chomage, thereby allowing the constraint

⁸ Note that the other condition on PRO discussed in Chapter Two, namely, that PRO must head a 1-arc, will be met since PRO heads a downstairs 1-arc.

on PRO to operate. The constraint on PRO, also discussed in Chapter Two, is repeated below for convenience.

- (18) If A is a final cho-arc headed by PRO, then A self-erases.

Since an unerased final 3-arc is a surface 3-arc, the constraint in (17) would be consequently violated.

In conclusion, the possibility of the embedded ergative 1 PRO being reevaluated by the Union Law is blocked by (17), an independently motivated condition on PRO. Instead, PRO is placed en chomage upstairs via the Inheritance Principle and Stratal Uniqueness Law, as (16) shows.⁹

⁹ When PRO is an embedded absolutive, unlike when PRO is an embedded ergative 1, PRO cannot be reevaluated by the Union Law nor can it be placed en chomage by the Inheritance Principle and Stratal Uniqueness Law.

- (i) a. * Şoför otobüs-e bin-dir-di.
 chauffeur bus-DAT board-CAUS-PST
 ('The chauffeur had the bus boarded.')
- b. *
-

The condition that rules (i) as ill-formed does not involve condition (17). In (ib), PRO heads a final cho-arc upstairs thereby allowing the surface constraint on PRO, (18), to operate; i.e. PRO does not head a surface arc. However, the structure in (i) violates another

The downstairs 1, however, does not have to be PRO for the causative, i.e. a missing subject causative construction, to have a no revaluation union. Consider the following.¹⁰

condition on causatives which is cited above for sentence (12). As AH posit, all Turkish causatives are transitive. In RG terminology, the sentence above has no 2 in the final stratum of the union clause, and is therefore intransitive and ungrammatical. Thus, given a no-revaluation union, the ungrammaticality of (i) is explained straightforwardly.

On the other hand, if the Union Law applied to the downstairs PRO in (ib) so that the downstairs PRO were an upstairs 2, then the RN would be ruled out by condition (17) because PRO would head a surface arc.

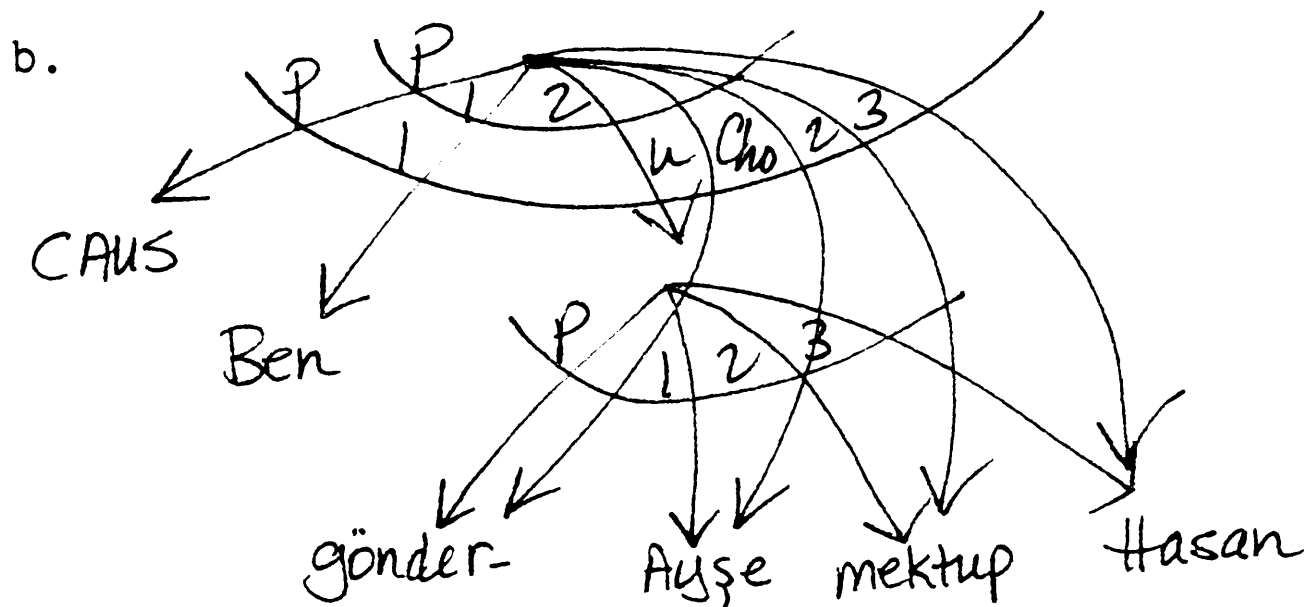
Since the ungrammatical sentence in (i) can be accounted for whether PRO undergoes revaluation or not, it is not clear which RN to posit for (i).

¹⁰ At first glance, it may seem that the sentence in (19) should be ungrammatical since the somewhat similar sentence, (13), is ungrammatical. However, recall that (13) is ungrammatical because passive has incorrectly applied downstairs placing the embedded initial 1, kasap, en chomage. Kasap is then a final cho in the matrix clause via the Inheritance Principle and appears on the surface within the tarafından phrase. This outcome, however, is incorrect. Since passive is claimed not to occur in the embedded clause of causatives, kasap, which is an embedded ergative, should be a matrix 3 according to the Union Law. In (19), passive has correctly not occurred in the embedded clause of the causative. The chomeur relation that Ayşe bears in the matrix clause is due to the interplay of both the Inheritance Principle and Stratal Uniqueness Law, not to passive downstairs. Consequently, (19) which has a tarafından phrase, is grammatical, while (13), which also has a tarafından phrase, is ungrammatical.

(19) a. Hasan-a mektub-u Ayşe tarafından
 -DAT letter-ACC by

gönder-t -ti -m.
 send -CAUS-PST-1sg

'I made Ayşe send the letter to Hasan.'



In (19), Ayşe, the downstairs 1, appears with the postposition tarafından, which is characteristic of passive 1-cho's.¹¹ According to my hypothesis, this nominal is not revalued by the Union Law. Instead, the Inheritance Principle applies and Ayşe is a 1-chomeur upstairs.

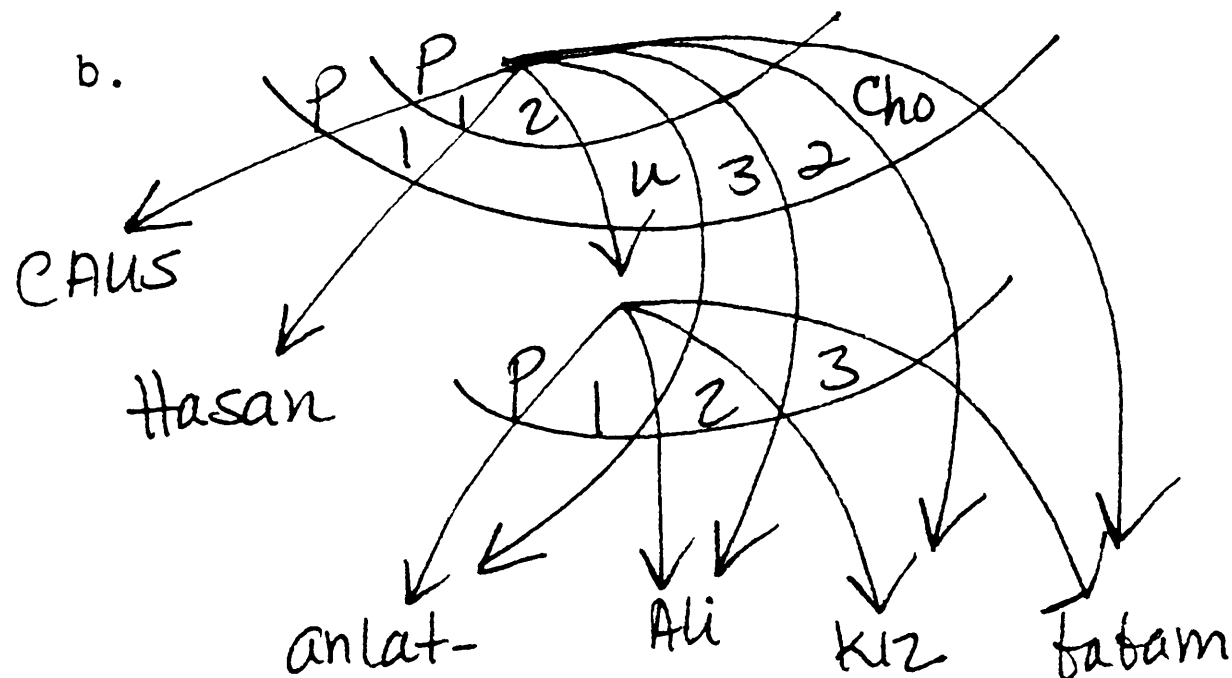
Aissen (1974a) notes a dialect where the following sentence with two dative marked nominals is acceptable.

¹¹ Although Zimmer (1976) translates (19) as 'I made Ayşe send the letter to Hasan.', my consultants preferred the translation 'I sent the letter to Hasan by means of Ayşe.' Further, my consultants preferred the postposition vasıtasiyle 'by means of' to tarafından. In the double causative construction, vasıtasiyle is preferred over tarafından. See Chapter Five.

(20) a. Hasan Ali-ye kız -i baba -m -a
 -DAT girl-ACC father-1POSS-DAT

anlat-tir-di.
 explain-CAUS-PST

'Hasan made Ali explain the girl to my father.'



Ali is the downstairs 1 and upstairs 3. Babama is the downstairs 3 and upstairs 3 chomeur. The nonambiguity of (20)-in particular, it cannot mean 'Hasan made my father explain the girl to Ali.' -- is accounted for by the stratal diagram and the word order template: (1) 3 2 (nonterm) V discussed in Chapter Two. Unlike (19b), the downstairs 1 is an upstairs 3 although the final stratum of the downstairs clause has a 3. The downstairs 3 is an upstairs cho. It appears that when the downstairs clause is ditransitive, the downstairs 1 has the option of either obeying the Union Law or else not undergoing revaluation, depending on the dialect.

There is a further argument that there is no passive in the embedded clause of a Turkish causative¹² and that certain causative constructions are no-revaluation unions in which the embedded 1 is an upstairs cho.

As discussed in the appendix of Chapter Three, Turkish has a constraint called the Reflexive Causee Constraint (RCC), which is repeated below.

(21) Reflexive Causee Constraint (RCC)

A causative union structure is ill-formed if the nominal that heads the initial 1-arc of the causative predicate [-dIr] and the highest term arc of the complement have the same referent.¹³

The RCC rules out ungrammatical sentences like the following.

¹² This argument is based entirely on Rosen's (1983) argument that there is no passive downstairs in causative structures for Italian. The Italian and Turkish data are parallel.

¹³ The complement clauses of causatives do not appear to abide by the Final 1 Law, as was brought out in footnote 7. Since it was claimed that unaccusative advancement was not necessary, the referent in the complement clause is referred to as the highest term arc rather than to the final 1 arc. See Rosen (1981).

- (22) a. * (Ben) kendi-mi yer -e otur-t -tu -m.
 I self -ACC floor-DAT sit -CAUS-PST-1sg
 ('I made myself sit on the floor.')
- b. * Kendi-me süt -ü iç -irt -ti -m.
 self -DAT milk-ACC drink-CAUS-PST-1sg
 ('I made myself drink the milk.')
- c. * Kendi-mi düş -ürt -tü -m.
 self -ACC fall-CAUS-PST-1sg
 ('I made myself fall.')

Note that the RCC refers to the highest term arc of the complement. The level in which the highest term arc bears its relation to the clause does not need to be specified. That is, the highest term arc can be either an initial or non-initial arc.

The sentence in (23) is analogous to the sentences in (9), which are missing subject causatives. Recall that Zimmer claims these type of sentences involve passive in the embedded clause.

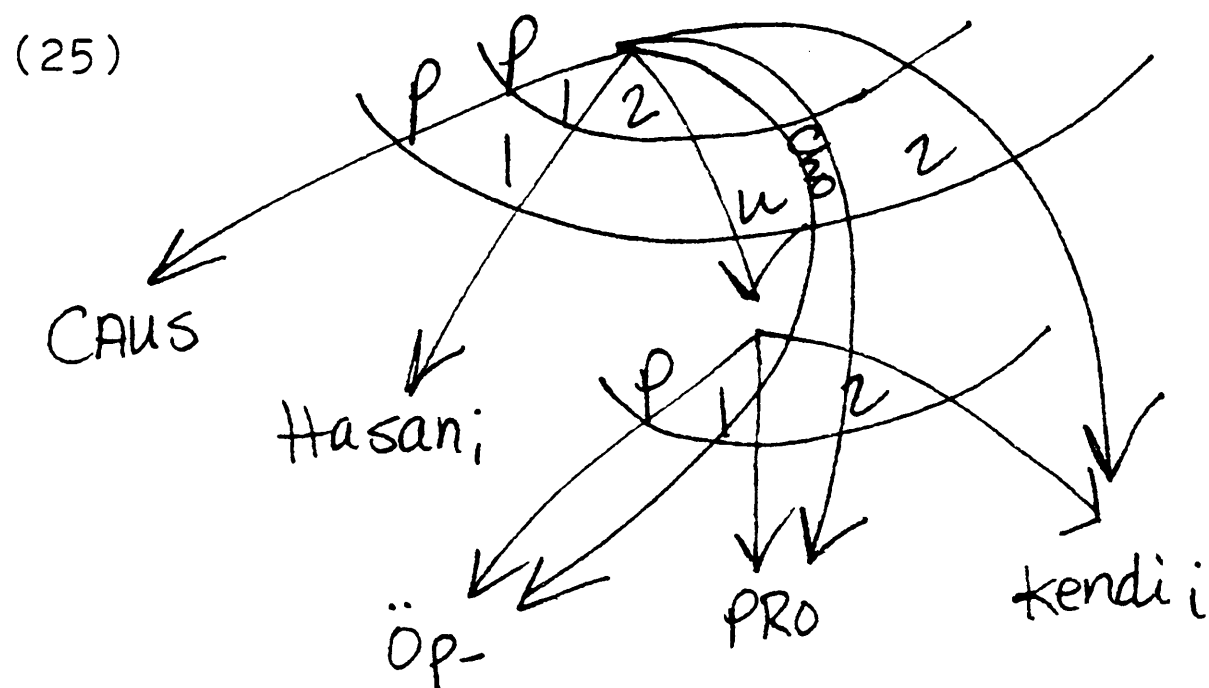
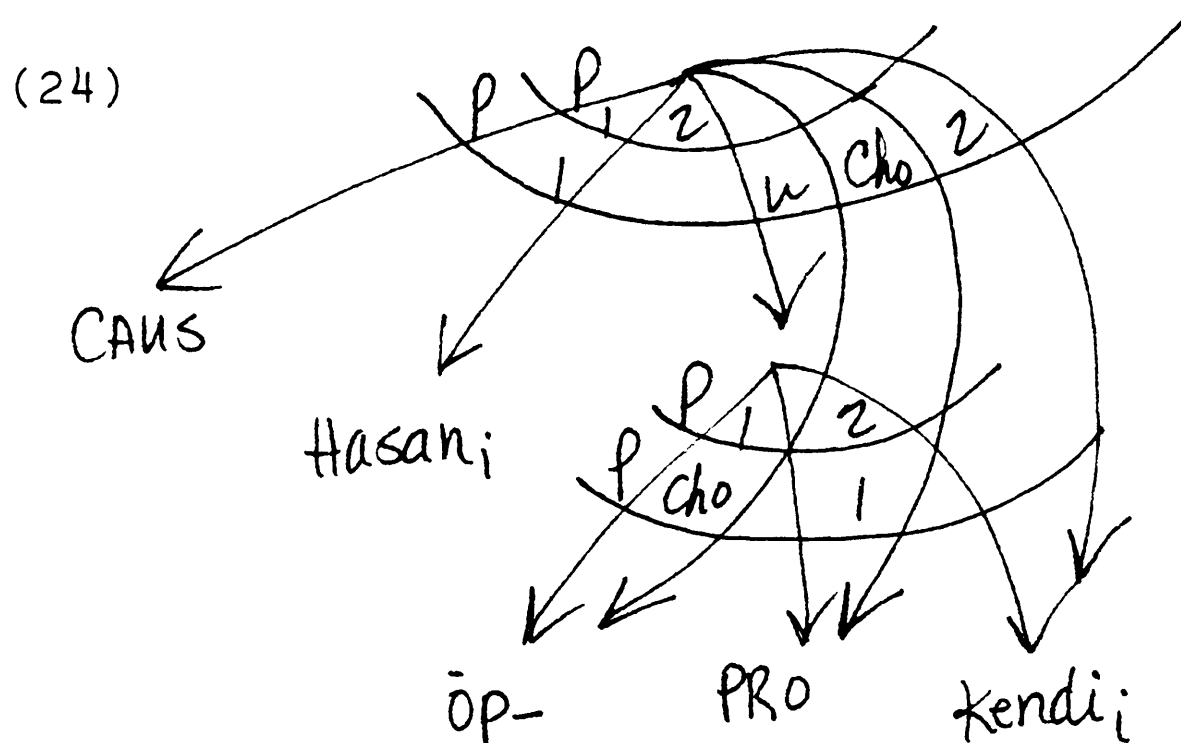
- (23) Hasan kendisi-ni öp -tūr -dü.
 self -ACC kiss-CAUS-PST

'Hasan had himself kissed.'

The RN for this sentence under Zimmer's analysis is shown in

¹⁴ (22c) is grammatical only with the meaning 'I made someone make me fall.' which is a double causative. Similarly, (22b) is grammatical with the meaning 'I made someone make me drink the milk.' Note that the ungrammaticality of the sentences is not due to semantic illformedness, since the meanings given in (22) can be expressed periphrastically.

(24). My analysis of no revaluation union is shown in (25).



In the downstairs clause of (24), kendi advances from 2 to 1 via passive and thus heads the highest term arc in the clause. Because kendi is coreferential with the nominal heading the initial 1-arc of the causative predicate, the RCC incorrectly predicts that (23) should be ungrammatical. The analysis in (25), however, correctly predicts that (23) is grammatical. The initial 1 upstairs, Hasan, and the highest term downstairs, PRO, are not coreferent; thus, the sentence is not predicted to be ill-formed.

In summary, we have shown above that passive cannot indeed occur in the embedded clause of causatives. Zimmer's hypothesis that missing subject causatives involved an embedded passive turned out to be incorrect. Instead, such constructions were found to be easily accountable by no-revaluation unions, which are needed for other types of causative constructions as well, and by the independently motivated condition on PROs.

It was also mentioned briefly that it is not necessary to posit a lexical analysis of causative in order to remove the possibility of passive occurring downstairs. Rather, an independently motivated condition which encompasses both -In reflexives and passives, posited in Chapter Three, prevents the occurrence of passive downstairs. This condition is discussed further in section 4.5.

4.4 Aissen and Hankamer's Lexical Approach

Aissen and Hankamer propose a generative word formation rule for Turkish which creates lexical entries for causative verbs. The kernel lexicon consists of a set of basic, independent lexical entries. A basic lexical entry for a verb includes a phonological representation, a semantic representation (abbreviated by a capitalized gloss), the grammatical category V, and grammatical relations which denote the argument structure of the verb in deep structure. Each item in a basic lexical entry is referred to as basic.

A basic lexical entry for kes, for example, is given in (26).

(26) [< (1), 2 >] kes
CUT

The obligatory 2 indicates that the verb is transitive. The fact that the 1 is optional is intended to encode the fact that Turkish allows an unspecified 1. By applying a lexical rule, such as the causative formation rule, derived lexical entries, such as (27), are created from basic lexical entries, such as (26).

(27) [< (1), (3), 2 >] kestir
MAKE CUT

AH claim that, in this way, the kernel lexicon is "extended". The derived lexical entry for the causative verb kestir contains one more argument than the basic lexical entry in (26): namely, the optional 3. It resembles the basic lexical entry in containing an obligatory 2.

AH's causative formation rule appears in (28):

(28) Causative Formation
[< (Erg), Abs, (Obl_i) > V] x
 ↓ ↓ ↓ X
[< (1), (3), 2, (Obl_i) > V] x+T
 X'

The first line of this rule contains the basic lexical entry. The derived lexical entry appears below it. "The variables x and X stand for the phonological and semantic representations respectively of the lexical entry; x+T and X' are the corresponding representations of the causative

verb, where T is the causative suffix morpheme..." (AH 1980:241). The terms "Erg" and "Abs" are used as cover terms and do not actually appear in the lexical entries. Erg denotes subject of transitive verbs and Abs denotes subject of intransitives or direct objects of transitives. Thus, the derived lexical entry in (27) is created by applying the causative formation rule to the basic lexical entry in (26). The optional basic 1 in (26), which is an Erg, becomes an optional derived 3 in (27). The basic 2, or Abs, maintains its relation and is a derived 2. In addition, the derived lexical entry contains an optional 1 which is not derived from the basic lexical entry. Both lexical entries, basic and derived, enter into deep structures with an obligatory 2. The causative verb kestir occurs in sentences like (29).

(29) Kadın kasab -a et -i kes-tir -di.
 woman butcher-DAT meat-ACC cut-CAUS-PST

'The woman had the butcher cut the meat.'

To account for the interaction between causative formation and other rules of grammar, AH assume a bifurcation of rules into lexical rules on the one hand, and transformational rules on the other. A particular rule is assigned to one of these categories depending on its interaction properties. If a rule can be fed by a transformational operation such as Raising, it is considered to be a transformational rule. If a rule cannot be fed by a

transformation, it is assumed to be lexical. Passive belongs to the former class whereas causative, AH argue, belongs to the latter. Further, Passive's failure to occur in the embedded clause of causatives is additional support for the claim that passive and causative formation belong to two different classes. Thus, examples like the following, in which passive occurs in the embedded clause of a causative, are ungrammatical.

(30) * Kadın et -i (kasap tarafından)
 woman meat-ACC butcher by

kes-il-dir-di.
 cut-PASS-CAUS-PST

('The woman had the meat cut (by the butcher).')

To account for further types of rule interactions, AH posit two types of syntactic, or transformational, rules: rules, like passive, which affect grammatical relations and those, like reflexivization and equi, which make reference to grammatical relations (called "control" rules). Control rules can make global reference to prelexical structure (i.e. basic and derived lexical entries) while rules that affect GRs are restricted to the syntax. The claim that control rules may refer to prelexical structure allows AH to account for the fact that several such rules appear to feed the lexical rule of causative formation. That is, if the controller of reflexivization must be a 1, as AH claim, the reflexive in (31) is not a counterexample to this condition.

Although the controller in (31) is a final 3, bana, it is a 1 in the basic lexical entry for 'wash'. Since reflexivization is a control rule, in AH's terms, global reference can be made to the basic lexical entry.

(31) Hasan ban-a kendi-mi yıka-t -t̄.
I -DAT self -ACC wash-CAUS-PST

'Hasan made me wash myself.'

Similarly, in causatives formed from equi constructions, like (32), AH claim that the condition on equi can make reference to the basic lexical entry of the predicate unutmak 'to forget' to ascertain that Hasana is a 1, thus satisfying the condition that controllers of equi must be 1s.

(32) Ben Hasan-a ekmek almağ-ı unut -tur -du -m.
I -DAT bread buy -ACC forget-CAUS-PST-1sg

'I made Hasan forget to buy bread.'

The lexical relationship between the 2 or 3 of a derived causative verb and the 1 of the basic verb is thus claimed to be sufficient to satisfy the condition that the controllers of reflexivization and of equi must be 1.¹⁵

Note that it is crucial for AH to posit the dichotomy of transformational rules above. Since AH define lexical vs. transformational rules on the basis of their rule

¹⁵ AH assume that the controller of reflexivization must be a 1. However, we have seen in Chapter Three, that it is, in general, possible for all terms, not just 1's, to be controllers under some conditions.

interaction properties, passive, which is fed by transformations, is regarded as transformational. However, causative, although not fed by passive, is also fed by rules classically viewed as transformational, namely reflexive and equi. Thus, causative could potentially be argued to be transformational and biclausal at some syntactic level, as indeed was argued originally by Aissen (1974a and 1974b). However, by redefining reflexive and equi as control rules, AH avoid drawing this conclusion.

4.5 Counterproposal to AH's Lexical Analysis

In this section, I show that AH do not have strong support for their claim that causative formation is a lexical rule.¹⁶ As explained above, AH's hypothesis that

¹⁶ Knecht (1986) claims that clause reduction can occur in the embedded clause of causatives. Knecht concludes from this that causatives are syntactically biclausal structures, thus abandoning her previous (1982) concurrence with AH that causative formation is lexical. Her argument is as follows. "If Clause Reduction can apply before causative formation, then a sentence such as [i] below is predicted to have two related causatives."

- (i) Çocuk bu kitab-ı oku -mağ-a çalış-tı.
 child this book -ACC read-INF-DAT try -PST

'The child tried to read this book.'

Çalış 'to try' triggers Equi and optional Clause Reduction. The infinitival complement is a 3. Thus, if there is no clause reduction, çocuk should be a 2 in the matrix clause of a causative construction according to the Union Law. Knecht identifies the following causative sentence, which does not have clause reduction, as grammatical.

(ii) Çocuğ-u bu kitab-ı oku -mağ-a çalış-tır -di -m.
 child-ACC this book -ACC read-INF-DAT try -CAUS-PST-1sg

'I made the child try to read this book.'

Here çocuk is a final 2, as indicated by its accusative case. Knecht further cites the causative sentence below, which does have clause reduction in the embedded clause.

(iii) Çocuğ-a bu kitab-ı oku-mağ-a çalış-tır-di-m.
 child-DAT this book-ACC read-INF-DAT try-CAUS-PST-1sg

'I made the child try to read this book.'

Çocuk in this case is a final 3, as indicated by dative marking. It is assumed that clause reduction occurs in the embedded clause; thus the boundaries of the clause bu kitabı okumağa are eliminated, and it is no longer a nominal complement bearing the 3 relation. With the boundaries eliminated, çocuk bears a matrix 3 relation since the embedded clause contains a final 2, kitabı.

Although Knecht appears to present excellent evidence for a biclausal analysis of causatives, my consultants did not concur with the data above. They agreed that (ii) was grammatical but they unanimously gave it a different reading.

(iv) 'I tried to make the child read this book.'

One consultant who did not accept (ii) as grammatical suggested that çalıştırmak be changed to the noncausative verb zorlamak 'to force'. They rated sentence (iii) as ungrammatical or, at best, awkward with the intended meaning. (iii) could be acceptable with the meaning

(v) 'I taught the child (how) to read the book.'

I suspect that (ii) and (iii) have the unexpected interpretations in (iv) and (v) because çalıştırmak has become a lexicalized causative verb. It is defined in the dictionary as 'to set someone to work' or 'to employ'.

In the face of the disagreement of interpreting the above data, I will not use clause reduction as an argument against AH's lexical analysis.

causative formation is a lexical rule led them to posit a dichotomy of transformational rules, rules which make reference to grammatical relations and rules (control rules) which make global reference to prelexical structure. Equi and kendi reflexivization were categorized as control rules. However, as AH acknowledge, they could not account for the fact that -In reflexives (-In middles in their terminology) could not cooccur with causatives. According to their analysis, -In reflexivization is a lexical rule, since transformational rules such as raising do not feed it. A lexical rule such as -In reflexivization should, however, be able to feed the purported lexical causative rule.¹⁷ This prediction, however, does not hold:

(33) * Mehmet Hasan-ı yıkan-dır-di.
-ACC wash-CAUS-PST

('Mehmet made Hasan wash.')

AH do not have an explanation for the ungrammaticality of causatives to -In reflexives.¹⁸

In the discussion below, I point out that Turkish grammar has a condition which prohibits both passive and the -In reflexive from occurring in the embedded clause of

¹⁷ AH show that other lexical rules such as the causative rule (Turkish has double causatives) and reciprocal formation can feed the causative rule.

¹⁸ AH conjecture that "it may be that there is simply a condition on middles that the initial syntactic subject must be both agent and undergoer of the action; which would be incompatible with causativization."

causatives. Consequently, it is not necessary to posit causative as a lexical rule which, on the one hand, accounts for the lack of passive in the embedded clause but, on the other hand, allows -In to occur in the embedded clause ungrammatically. Nor is it necessary to posit a class of control rules which have global reference to lexical entries, which AH's lexical analysis of causatives forces them to do.

4.5.1 The Causative Condition

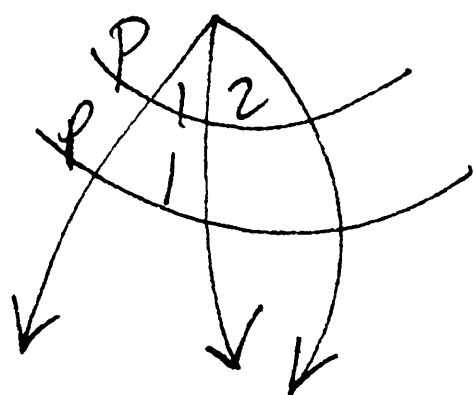
The condition which prohibits -In reflexives has been discussed in Chapter Three and in section 4.3.1. It is repeated below.¹⁹

- (34) A nominal, a, cannot head 1 and 2-arcs having the same tail in the complement clause of Turkish causatives.

Reflexives with -In morphology, unlike kendi reflexives, were argued to have a multiattached structure.

¹⁹ Although Turkish has the RCC and no-revaluation unions like Italian (Rosen 1983), Turkish does not provide motivation for the Downstairs Freeze that Italian and other Romance languages need. Condition (34) above and the Nuclear Dummy Law adequately account for the consequences of the Downstairs Freeze (cited in (8)) in Turkish.

(35)



In (36), for example, Hasan has an initially transitive stratum but a final intransitive stratum.

(36) Hasan *yika-n-iyor*.
wash-REFL-PROG

'Hasan is washing (himself).'

The final stratum has object cancellation. Since Hasan heads a 1 and 2 arc at some level, (34) predicts that (36) cannot be embedded in a causative construction. This is true, as was shown in (33) above.

As discussed in Chapter Three, condition (34) also predicts that 2 to 1 unaccusative advancement cannot occur in the complement clause of a causative union structure. Although unaccusatives in Turkish can occur in the complement clause of causatives, it is not crucial to the causative clause union analysis that the initial 2 advance to 1.

It was also brought out in Chapter Three that condition (34) was further supported by the fact that passive 2 to 1 advancement could not occur in the embedded clause of causatives.

(37) * Kadın et -i kasap tarafından
 woman meat-ACC butcher by

kes-il -dir -di.
 cut-PASS-CAUS-PST

('The woman had the meat be cut by the butcher.')

Although condition (34) does not explain why Turkish causatives should disallow passive and -In reflexives in the embedded clause, it is clear that some such condition is necessary to account for the observed facts.

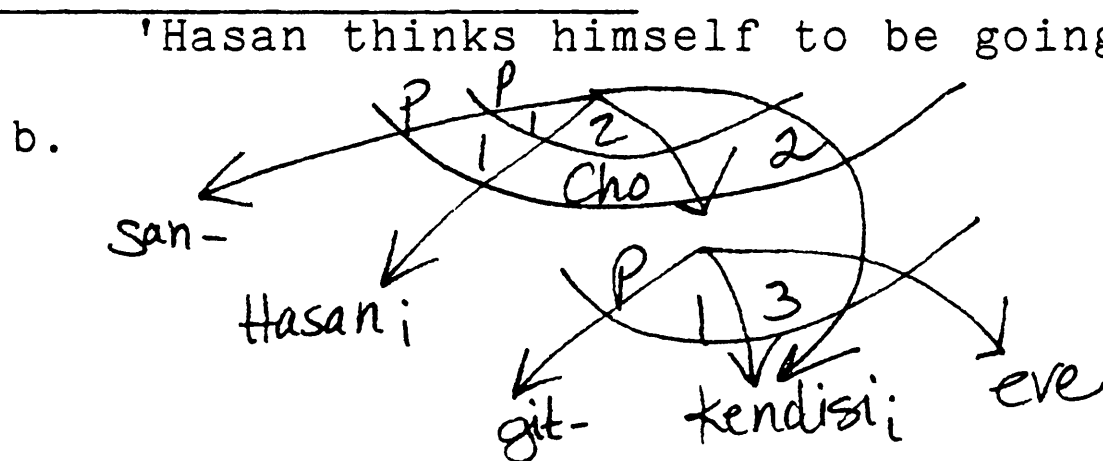
Positing condition (34) in the grammar removes the motivation for AH's lexical analysis of causatives. That is, since condition (34) accounts for the lack of passive and -In in the embedded clause of causatives, there is no particular reason to posit that causative formation is a lexical rule. Further, a syntactic analysis of causatives that incorporates condition (34) is superior to a lexical rule of causative since the lexical rule provides no account of why causatives formed from -In reflexives are ungrammatical.

4.5.2 Further Support for Condition (34)²⁰

²⁰ Condition (34) predicts that Subject to Object Raising (SOR) cannot occur in the embedded clause of causatives. The SOR verb in Turkish is sanmak 'to think'.

(i) a. Hasan kendisi-ni ev -e gid-iyor san -ıyor.
 self -ACC home-DAT go -PROG think-PROG

As discussed in Chapter Two, there are other syntactic rules besides passive in Turkish. Some of these rules and their interaction with causatives are discussed below. The fact that these syntactic rules can apply in the embedded clause of causatives provides additional support for the causative condition in (34). That is, condition (34) correctly rules out the possibility of passive and -In reflexive in the embedded clause while allowing other rules



In (i), the embedded 1 is an upstairs 2. The matrix 2 is placed en chomage. If the ascension structure in (ib) is embedded in a causative structure, the result is ungrammatical.

- (ii) *Ben Hasan-a kendisi-ni ev -e gid-iyor
 I -DAT self -ACC home-DAT go -PROG

san-dır-di-m.
 think-CAUS-PST-1sg

('I made Hasan think he is going home.')

Note that (ib) has a nominal which heads arcs bearing the 1 and 2 relations. Condition (34) rules such embedded structures as ungrammatical, and the prediction is borne out. However, although the interaction of SOR and Causatives is consistent with the predictions of condition (34), it may be that (ii) is ungrammatical for semantic reasons as Knecht (1986:184) points out. Knecht notes that sanmak is ungrammatical when embedded in a causative, whether or not there is ascension. Thus, SOR cannot be used reliably as support for condition (34).

like Benefactive to 3 advancement to occur in the embedded clause.

4.5.2.1 The Auxiliary Olmak

In Chapter Five, I claim that a clause whose predicate consists of a loanword and the auxiliary olmak is initially unaccusative, while a clause whose predicate consists of a loanword and the auxiliary etmek is initially unergative. The following condition was placed on clauses whose predicate consists of a loanword and auxiliary.

(38) Clauses with Predicate Consisting of a Loanword and Auxiliary

If the clause contains unaccusative 2 to 1 advancement, olmak 'to be' is the auxiliary which appears. Otherwise, etmek 'to do' appears.

Some examples of this use of the auxiliaries are given below.

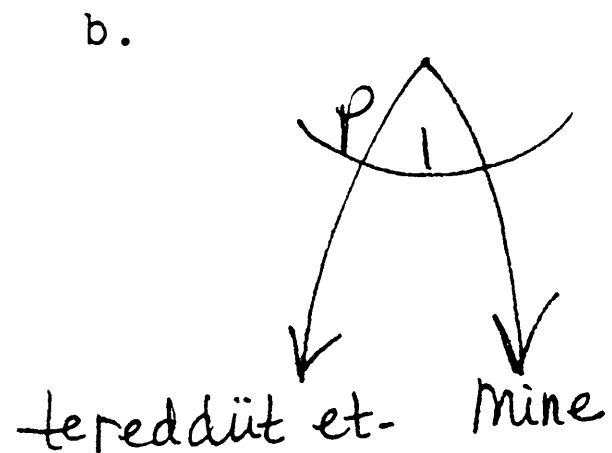
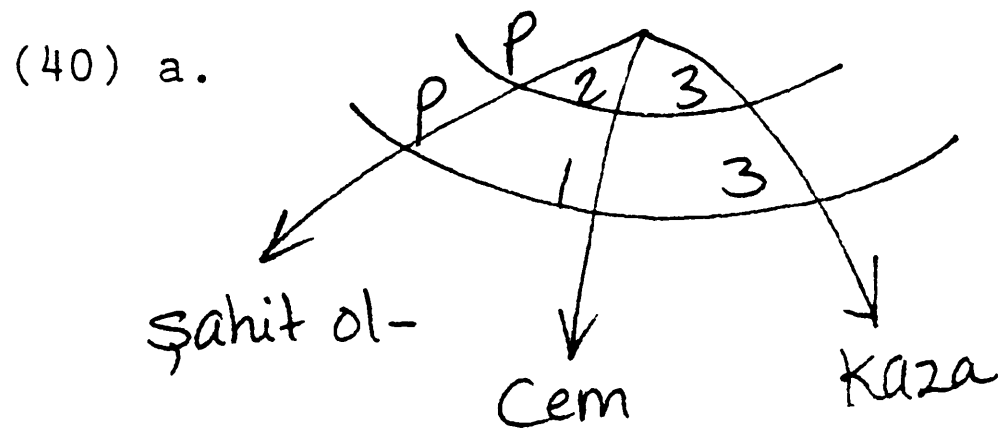
(39) a. Cem kaza -ya şahit ol -du.
 accident-DAT witness AUX-PST

'Cem witnessed the accident.'

b. Mine tereddüt et -ti.
 hesitate AUX-PST

'Mine hesitated.'

The RN's for these sentences are in (40).



Given that (40a) contains a clause with 2 to 1 advancement, condition (34) predicts that a causative structure incorporating (40a) as the embedded clause will be ungrammatical. This is what we do find.

(41) * Ahmet Cem-i kaza -ya şahit ol -dur -du.
 -ACC accident-DAT witness AUX-CAUS-PST

('Ahmet made Cem witness the accident.')

On the other hand, (40b) is grammatical in a causative structure.

(42) Zafer Mine-yi tereddüt et -tir -di.
 -ACC hesitate AUX-CAUS-PST

'Zafer made Mine hesitate.'

Loanwords with olmak evidently differ from other unaccusatives in that the former must always have

unaccusative 2 to 1 advancement.²¹ As was noted earlier, the complement clause of causative structures does not have to obey the Final 1 Law. Thus, if (40a) is the embedded clause of a causative as in (40a), the Final 1 Law does not force the initial 2 to advance to 1. However, if the initial 2 does not advance to 1, the auxiliary olmak is not assigned to the clause by condition (38). The outcome is the occurrence of şahit with etmek, which is ill-formed. It is assumed that predicates consisting of loanwords and auxiliaries have an exception feature stating that if unaccusative 2 to 1 advancement can apply, it must apply. The interaction of this exception feature with conditions (34) and (38) accounts for sentences (41) and (42).

4.5.2.2 2 to 3 Retreat

In Chapter Two, it was claimed that Turkish has a syntactic rule of 2 to 3 retreat. The basis for classifying Turkish 2 to 3 retreat as a syntactic, rather than a lexical rule, is based on its interaction with the -ArAk construction and 2 to 1 passive advancement.²² The condition which

²¹ Recall from the section on double causatives that causatives formed from unaccusative predicates, in general, do not have unaccusative 2 to 1 advancement downstairs. In fact, a lack of unaccusative 2 to 1 advancement in the embedded clause of causatives is consistent with condition (34).

²² In a paper supporting AH's proposal that causative formation is lexical, Knecht (1982) claims that 2 to 3 retreat is in fact a lexical rule. No syntactic rules feed 2 to 3 retreat and it is idiosyncratic in that

controls the surface form of clauses containing a 2 to 3 retreat verb in Turkish is repeated below.

- (43) The initial 2 of a 2 to 3 retreat clause cannot be a surface 2 of that clause.²³

Thus, in monoclausal constructions, the initial 2 must either retreat to 3 or advance to 1. The rule of 2 to 3 retreat, however, is optional in the embedded clause of causative constructions. Consider the examples below.

- (44) a. Selim-i ayna -ya hohla -t -t_i -m.
-ACC mirror-DAT blow on-CAUS-PST-1sg

'I made Selim blow on the mirror.'

- b. Ayna -y_i Selim-e hohla -t -t_i -m.
mirror-ACC -DAT blow on-CAUS-PST-1sg

'I made Selim blow on the mirror.'

The downstairs clause of (44a) has 2 to 3 retreat. Since the downstairs clause is finally intransitive, the downstairs 1 is an upstairs 2. The downstairs clause of (44b), on the other hand, does not have 2 to 3 retreat and is therefore finally transitive. The downstairs 1 is an upstairs 3. The structure in (44b) is sanctioned by the condition in (43) because the initial 2 of the downstairs clause is not the surface 2 of the simple verb hohlamak.

verbs must be marked in the lexicon as to whether they govern it. These arguments, however, do not tip the balance in favor of a lexical 2 to 3 retreat rule.

²³ As noted in Chapter Two, the condition in (43) refers to 'surface' rather than final because a 2 to 3 retreat clause can have a final 2 in the complement clause of causative constructions.

Rather, it is the surface 2 of the causative verb hohlatmak.

Assuming that 2 to 3 retreat is a syntactic rule, the fact that it can occur in the downstairs clause of causative constructions is consistent with the condition in (34). A complement clause which has 2 to 3 retreat does not have a nominal heading arcs bearing the 2 and 1 relations, so condition (34) does not rule it out.

4.5.2.3 Benefactive to 3 Advancement

Another syntactic rule which can occur in the embedded clause of causatives is Benefactive to 3 advancement. This fact supports two hypotheses: First, the causative condition in (34) is supported because while it correctly rules out the possibility of passive and -In reflexive in the embedded clause, it does not rule out the possibility of Benefactive to 3 advancement occurring there. Secondly, if causative clause union is syntactic, then it is predicted that other syntactic rules, like Benefactive to 3 advancement, can occur downstairs. The fact that Benefactive to 3 advancement can occur downstairs does not unambiguously support the syntactic nature of causatives because of the possibility of Benefactive to 3 advancement alternatively occurring upstairs, but it does not contradict the prediction of a causative syntactic rule either.

As discussed in Chapter Two, the rule of benefactive to 3 advancement in Turkish allows an initial Benefactive to surface as a 3 marked with Dative case under some conditions. Consider the following.

- (45) a. Selim ben-im için yemek yap -tî.
I -1POSS for meal make-PST

'Selim made a meal for me.'

- b. Selim ban-a yemek yap -tî.
I -DAT meal make-PST

'Selim made a meal for me.'

(45b) contains an instance of Benefactive to 3 advancement. Now consider the following causative sentences, which are related by Benefactive to 3 advancement.

- (46) a. Asaf için et -i kadın-a kes-tir -di -m.
for meat-ACC woman-DAT cut-CAUS-PST-1sg

'I made the woman cut the meat for Asaf.'

- b. Asaf-a et -i kadın-a kes-tir -di -m.
-DAT meat-ACC woman-DAT cut-CAUS-PST-1sg

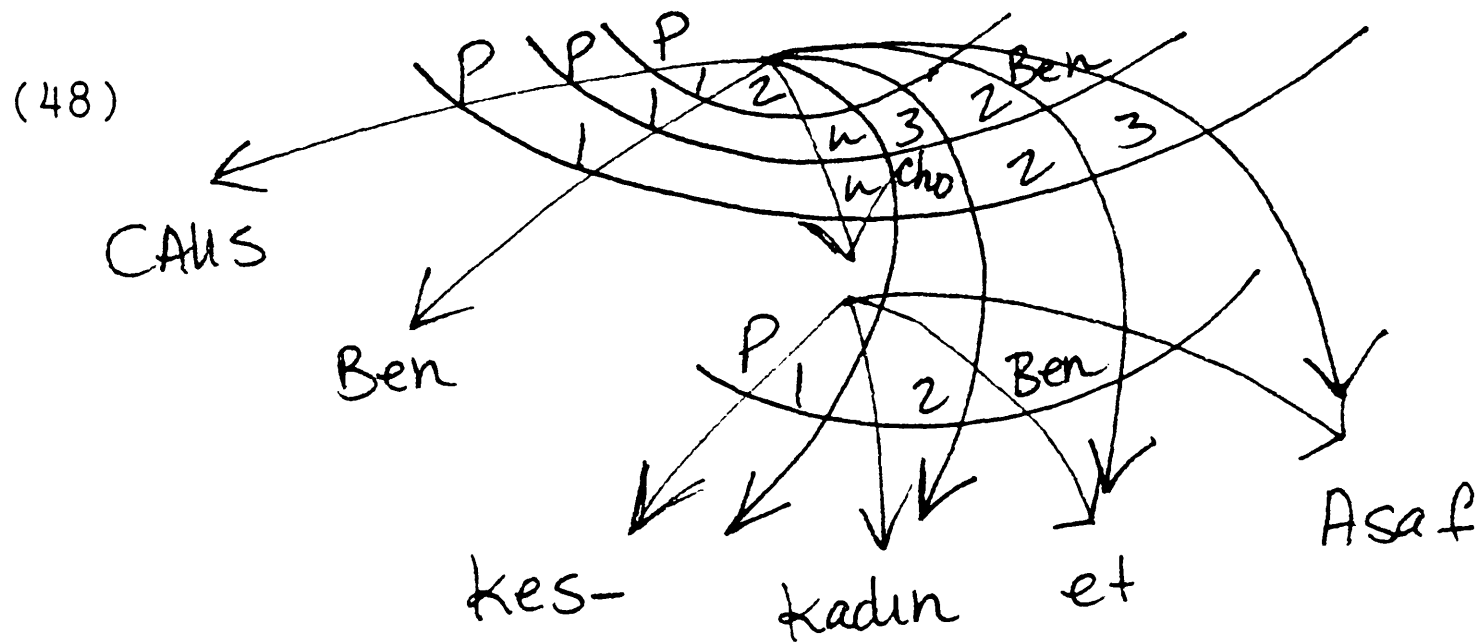
'I made the woman cut the meat for Asaf.'

The sentence in (46b), which displays Benefactive to 3 advancement, has only the meaning noted and cannot be glossed alternatively as 'I made Asaf cut the meat for the woman.' Given that the unmarked word order of nominals in a simple Turkish clause is as in (47) (c.f. Chapter Two),

- (47) (1) 3 2 (nonterm) V

it can be deduced that the first dative-marked nominal in (46b), Asafa, is a 3 whereas the second dative-marked

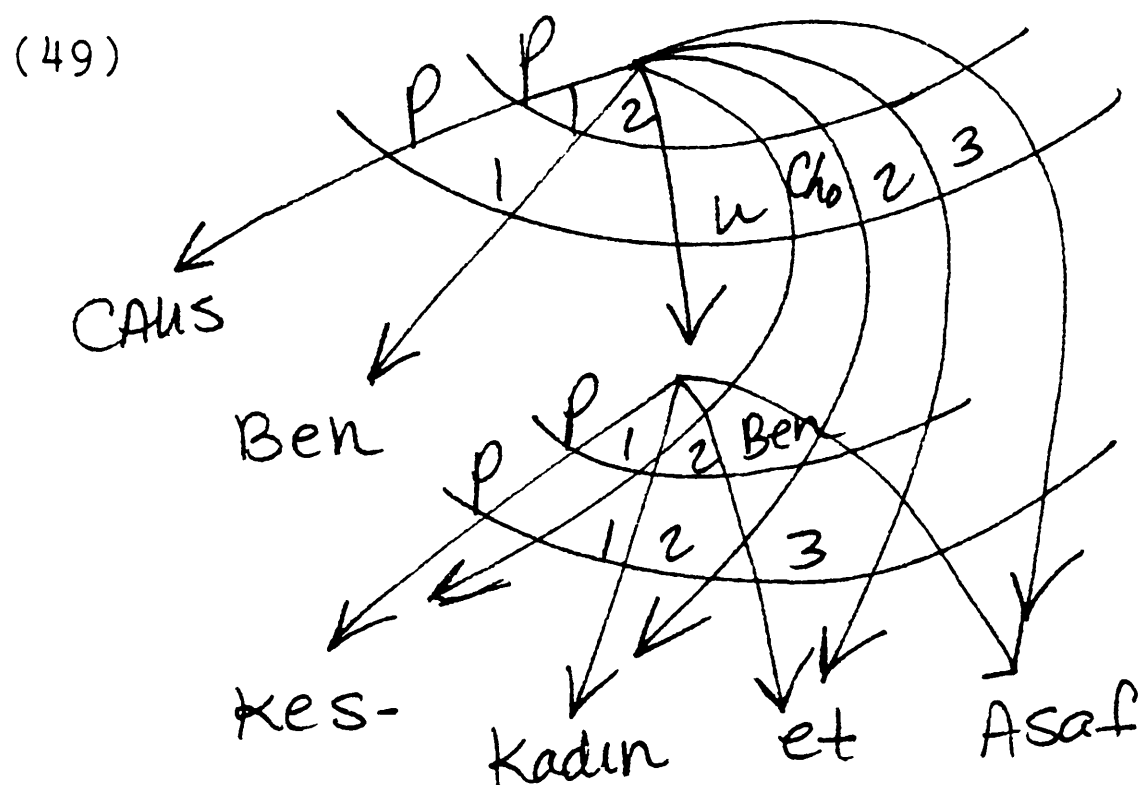
nominal, kadina, is a 3 chomeur. The sentence is diagrammed relationally below.



Following the Union Law, the downstairs Ergative 1 is an upstairs 3. The Inheritance Principle stipulates that the downstairs 2 and Benefactive are upstairs 2 and Benefactive, respectively. Note further that if Benefactive had advanced to 3 downstairs, the sentence in (46b) would not be produced. The downstairs 1 would be an upstairs 3, and the downstairs 3 (advanced from Benefactive) would be an upstairs chomeur.

However, as proposed above, no-revaluation unions exist in Turkish. It is therefore possible that Benefactive could advance to 3 downstairs and the downstairs 1 in (46b) would not be revalued by the Union Law. Not being revalued by the Union Law, the downstairs 1 would be subject to the Inheritance Principle. The Motivated Chomage Law and the Stratal Uniqueness Law would account for the chomage of the

downstairs 1.



The Inheritance Principle would also account for the upstairs 2 and 3-hood of the downstairs 2 and 3, respectively. Thus, it may well be that Benefactive to 3 advancement can occur downstairs. Like 2 to 3 retreat, the fact that Benefactive to 3 advancement can occur downstairs is consistent with condition (34), since Benefactive to 3 advancement does not involve a 1 or 2-arc. In addition, the possibility of a syntactic rule like Benefactive to 3 advancement occurring downstairs is consistent with the hypothesis that causative clause union is syntactic, rather than lexical.

4.5.2.4 Object Incorporation

Object incorporation is another syntactic rule which can occur in the embedded clause of causatives. Like Benefactive to 3 advancement, the possibility of object

incorporation is consistent with a syntactic analysis of causative though it does not unambiguously support it, since object incorporation might alternatively occur in the upstairs clause. The possibility of object incorporation occurring downstairs is also consistent with the causative condition in (34); condition (34) does not predict the impossibility of object incorporation downstairs.

In Özkaragöz (1980b and 1982), it is assumed that incorporation in Turkish involves a Dummy which places a non-specific nuclear term en chomage.²⁴ The chomeur is incorporated onto the verb.²⁵ There are several reasons why it is assumed that a nonspecific nuclear term is placed en chomage by a Dummy. First, nonspecific nuclear terms do not behave like final nuclear terms. They must appear immediately before the verb, and --if 2's-- they cannot appear with the accusative casemarking which is indicative of final 2's. Secondly, in RG, a grammatical relation cannot spontaneously demote to chomeur. Spontaneous demotion would violate the Motivated Chomage Law.

²⁴ Knecht (1982) proposes incorporation in Turkish involves spontaneous demotion rather than a D. Since her analysis has no bearing on the point of this section, I do not discuss it further.

²⁵ See Hankamer and Knecht (1976), who discuss Turkish incorporation in a transformational framework. Also Tura (1973) gives a detailed discussion of generic objects in Turkish.

Examples of object incorporation are given below.

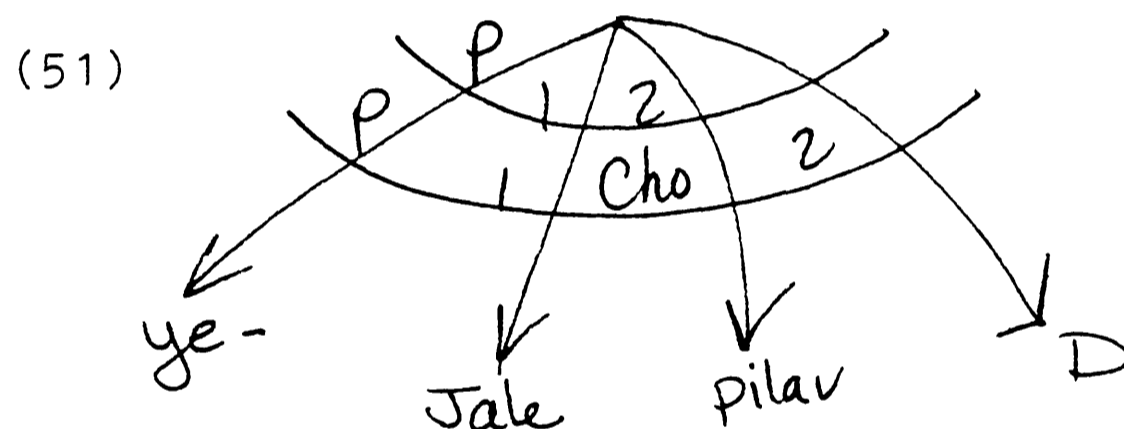
- (50) a. Jale pilav ye -di.
 rice eat-PST

'Jale ate rice.'

- b. Emre duvar-a oyuncak at -t̄.
 wall-DAT toy throw-PST

'Emre threw a toy at the wall.'

In the RN below, the Dummy enters as a 2, placing the initial 2 en chomage. Thus, although the initial 2 is placed en chomage, the clause is still finally transitive because the Dummy bears the final 2 relation.



Object incorporation can occur in the embedded clause of causatives.

- (52) a. Jale Emre-ye pilav ye -dir -di.
 -DAT rice eat-CAUS-PST

'Jale made Emre eat rice.'²⁶

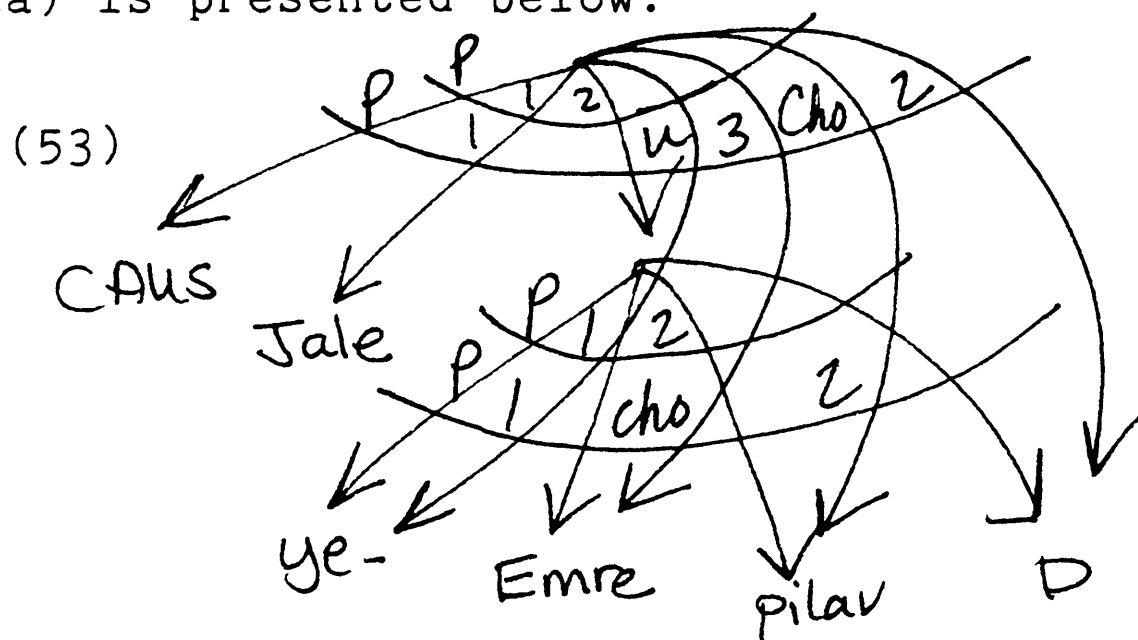
- b. *Jale Emre-yi pilav ye -dir -di.
 -ACC rice eat-CAUS-PST

('Jale made Emre eat rice.')

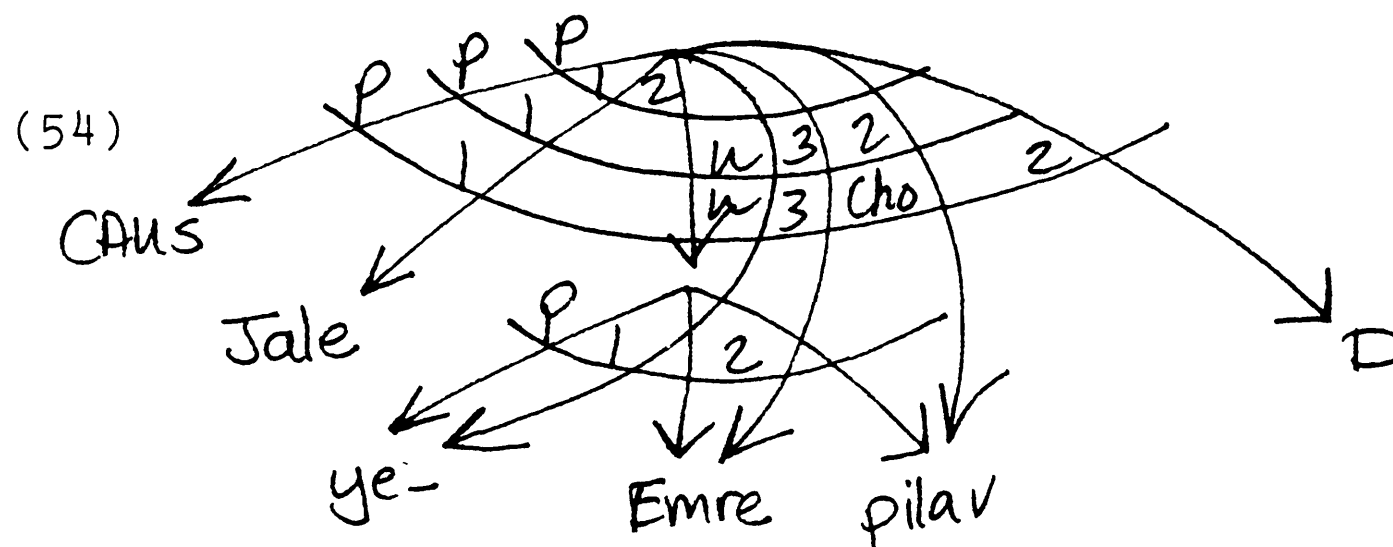
Since the embedded clause is finally transitive, the Union

²⁶ This can also mean 'Jale fed Emre rice.', but this meaning is irrelevant here.

Law predicts that the downstairs 1 is an upstairs 3, which is correct. Note that when the downstairs 1 is an upstairs 2 as in (52b), the sentence is ungrammatical. The RN for (52a) is presented below.



The presence of the Dummy bearing the 2 relation downstairs allows the Union Law to make the correct prediction that Emre is an upstairs 3. Alternatively, incorporation could occur in the union clause.



The Dummy enters upstairs as a 2 and places pilav en chomage.

The possibility of object incorporation occurring in the embedded clause is consistent with condition (34), for object incorporation does not involve a nominal heading both a 1 and 2-arc in the embedded clause. Furthermore, as with

Benefactive to 3 advancement, the possibility of object incorporation occurring in the embedded clause of causatives supports the hypothesis that causative clause union is syntactic, rather than lexical.

4.6 Conclusion

Using the causative condition in (34), I argued against Zimmer's (1976) proposal that passive does occur in the embedded clause of causatives. I further proposed that missing subject causatives, a construction which Zimmer claimed could be accounted for by allowing passive in its embedded clause, should instead be accounted for by a no-revaluation union. The interaction of Passive with the RCC and causative presented more evidence against the possibility of passive in the embedded clause.

One of AH's primary motivations for positing causative as a lexical rule was that their analysis could account for the fact that passive could not occur in the embedded clause of causatives. However, as we have seen, condition (34), which is needed independently to block the occurrence of -In reflexives in the embedded clause, also accounts for the nonoccurrence of passive there. In addition, although a lexical analysis of causative accounts for the lack of passive in the embedded clause, it does not provide an explanation as to why -In reflexive cannot occur in the embedded clause. -In reflexive, a lexical rule under AH's analysis,

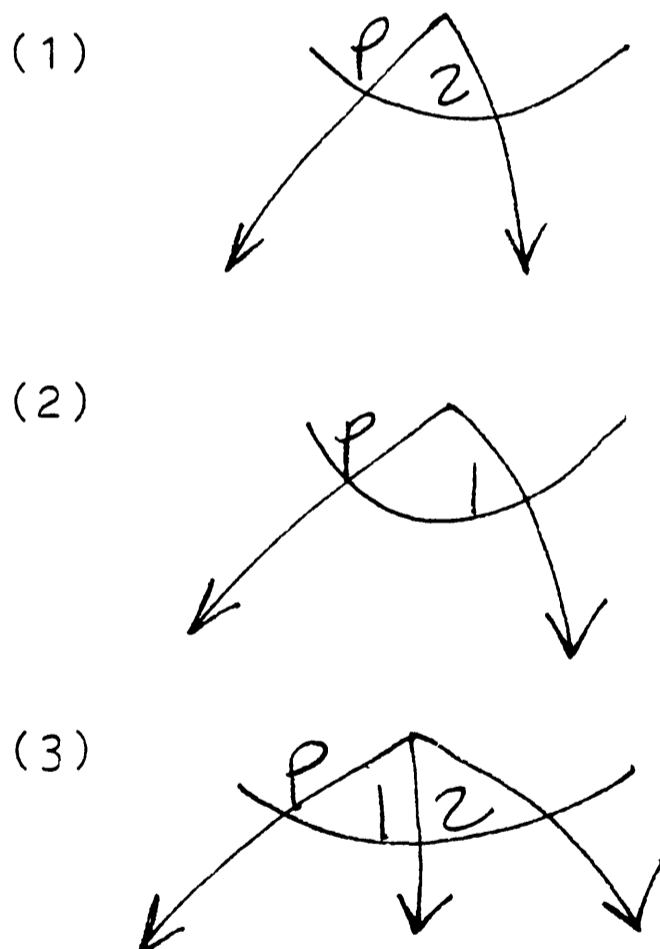
should be able to feed the lexical causative rule, but it does not. Furthermore, under a syntactic analysis of causative, it is not necessary to posit a dichotomy of transformational rules: a class of control rules which refer to prelexical structure and another class of rules which affect grammatical relations.

Chapter Five

The Unaccusative Hypothesis in Turkish

5.1 Introduction

The Unaccusative Hypothesis, proposed by Perlmutter (1978) as a linguistic universal, makes the claim that there are two types of intransitive strata: the unaccusative stratum, which contains a 2-arc and no 1-arc, as shown in (1), and the unergative stratum, which contains a 1-arc and no 2-arc, as shown in (2).¹



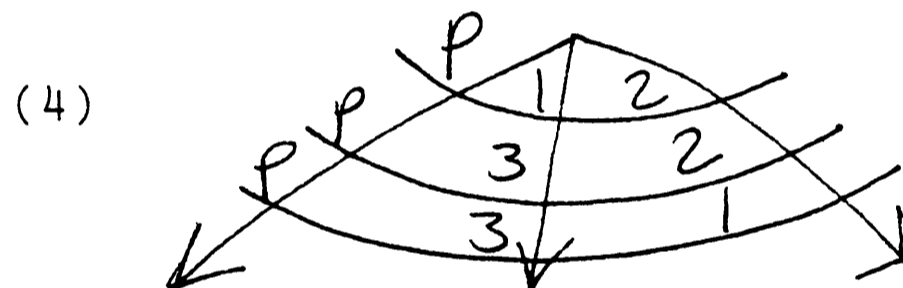
These intransitive type of strata contrast with transitive strata, which must contain both a 1- and 2-arc, as in (3). The diagrams in (1) and (2) show initially intransitive

¹ For more discussion on the Unaccusative Hypothesis, see Perlmutter and Postal 1984b.

clauses which are unaccusative and unergative, respectively. Diagram (3) shows an initially transitive clause.

As it stands, (1) violates the Final 1 Law.² RG recognizes a number of ways in which a RN that includes the stratum in (1) can satisfy the Final 1 Law. A final 1 can be created by unaccusative advancement, which advances the 2 to 1. Or, a dummy could head a final 1-arc. Another possibility is that an initial oblique could advance to 1.

Unaccusative strata need not always be initial, as the following structure for an inversion clause shows.



The intermediate stratum in (4) is unaccusative. The present study deals with only initially unaccusative strata, since we know of no clear cases of noninitial unaccusative strata in Turkish.

The Unaccusative Hypothesis raises the question of how initially intransitive clauses are determined to be

² The relational network in (1) is not allowed to violate the Final 1 Law as it is not a complement clause. In Chapter Four, we see that the Final 1 Law can be violated in the complement clause of causative constructions. This is true not only of Turkish but other languages as well, as Davies and Rosen (to appear) note.

unaccusative or unergative. In effect, this question is part of the larger question of how initial grammatical relations are determined in general. Semantic roles, such as cognizer, agent, etc., are assumed to be distinct from initial grammatical relations, but do the former have a role in determining the latter? Thus, the questions that need to be asked are the following.

- (5) a. Does a relationship exist between semantic or thematic roles on the one hand, and with initial grammatical relations on the other?
- b. If so, what are the principles that link semantic roles to initial grammatical relations? If not, what determines the initial grammatical relations borne by nominals in a clause?

In Perlmutter and Postal (1984b), the Universal Alignment Hypothesis (UAH) is proposed as a first step in answering these questions. The hypothesis is stated in (6).³

- (6) There exist principles of universal grammar which predict the initial relation borne by each nominal in a given clause from the meaning of the clause.

The Universal Alignment Hypothesis makes a strong but empirically testable claim. If (6) is correct, it will follow that universal semantic principles distinguish initially unergative from initially unaccusative clauses. In an

³ This is stated in Perlmutter and Postal (1984b:81-125).

attempt to make (6) more precise, Perlmutter and Postal (1984b) give a list of semantic categories which seem to determine initial unaccusativity vs. initial unergativity. These semantic categories are given below.

Initially unergative clauses seem to be determined by predicates denoting 'activity'. Some examples are listed in (7).⁴

- (7) a. Willed or volitional acts: work, play, speak, smile, grin, frown, grimace, think, laugh, dance, etc. Manner of speaking verbs: whisper, shout, mumble, grumble, growl, etc. Sounds made by animals: bark, neigh, whinny, quack, roar, chirp, oink, etc.
- b. Certain involuntary bodily processes: cough, sneeze, hiccough, belch, vomit, defecate, urinate, sleep, cry, breathe, etc.

Predicates determining initially unaccusative clauses constitute a larger class. They include:

⁴ These examples are taken from Perlmutter and Postal (1984b:98).

- (8) a. Predicates expressed by adjectives in English: predicates describing sizes, shapes, weights, colors, smells, states of mind, etc.
- b. Predicates whose initial nuclear term is semantically a Patient: burn, fall, drop, sink, float, slide, slip, glide, soar, flow, drown, stumble, etc. Class of inchoatives: melt, freeze, evaporate, vaporize, redden, rot, grow, choke, suffocate, blush, disappear, etc.
- c. Predicates of existing and happening: exist, happen, transpire, occur, etc. Inchoatives: arise, ensue, show up, disappear, vanish, etc.
- d. Involuntary emission of stimuli that impinge on the senses (light, noise, smell, etc.): shine, sparkle, glitter, glisten, glow, jingle, snap, crackle, pop, stink, etc.
- e. Aspectual predicates: begin, start, stop, cease, continue, end, etc.
- f. Duratives: last, remain, stay, survive, etc.

Thus, the predicates in (7) are claimed to have an initially unergative stratum and the predicates in (8), an initially unaccusative stratum.

There are three syntactic diagnostics in Turkish for distinguishing initially unergative clauses from initially unaccusative ones. The data corroborates the Unaccusative Hypothesis, for no such diagnostics could be discovered for any language if the Unaccusative Hypothesis was false. The syntactic demarcation of unergative and unaccusatives, according to the diagnostics, is very similar to the semantic classes posited in (7) and (8). However, they are not the same. This type of data, therefore, argues that the semantic Universal Alignment Hypothesis is untenable, and

that language-specific syntactic diagnostics are crucial in determining initial grammatical relations. Collating the results of other people's work, Rosen (1984) provides cross-linguistic arguments to refute the UAH and argue for the existence of initial grammatical relations independent of their semantic roles. By using syntactic diagnostics drawn from studies on languages such as Italian, Choctaw, Dutch, and Turkish, Rosen argues that although semantic roles appear to be related to initial grammatical relations in a nonrandom way cross-linguistically, there is no reliable homomorphism. For example, 'bleed' can be syntactically argued to be an unaccusative in Turkish, while it can be argued to be an unergative in Italian.

The remainder of the chapter is a composite of Turkish-internal evidence for the Unaccusative Hypothesis. The subsection in 5.2.1 discusses the gerund suffix -ArAk. The gerund construction is argued to distinguish between initially unaccusative and initially unergative predicates. In 5.2.2, predicates which consist of a loanword and an auxiliary, either olmak or etmek, are discussed. It is argued that predicates with olmak are initially unaccusative, while predicates with etmek are initially unergative. In the last subsection, 5.2.3, double causatives are presented. I argue that double causatives can be used as a diagnostic to distinguish between initial unergatives and initial unaccusatives.

5.2 Turkish-internal Evidence for the Unaccusative Hypothesis

5.2.1 The Gerund Suffix -ArAk

One piece of Turkish evidence for the Unaccusative Hypothesis is provided by a gerund construction in which the embedded verb exhibits the suffix -ArAk.

-ArAk is a productive verbal suffix that can be used to convey three different meanings. It can be used to denote simultaneous action, as in (9); consecutive action, as in (10); or it can mean 'as' or 'for' when suffixed to the verb stem ol- 'to be', as in (11).

- (9) Ayşe [ağla-y-arak] gel -di.⁵
 cry -Y-ArAk come-PST

'Ayşe, while crying, came.'

- (10) [Biz-i gör-erek] onlar da gel -di.
 us -ACC see-ArAk they too come-PST

'Seeing us, they came, too.'

- (11) [İlk defa ol-arak] karşılas-tı -lar.
 first time be-ArAk meet -PST-PL

'For the first time, they met.'

I will be concerned here only with the first of these

⁵ When the vowel-initial suffix -ArAk is attached to a vowel-final stem, the epenthetic segment 'y' appears intervocally.

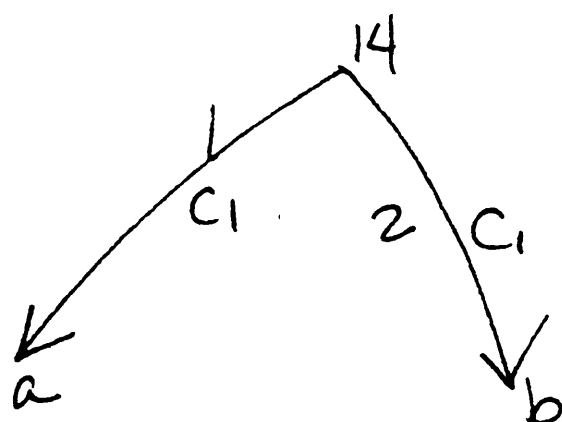
meanings. As can be seen from example (9), the embedded clause containing the -ArAk suffix (which is bracketed in the examples) appears directly after the matrix 1 in surface structure; the embedded clause cannot have a 1 on the surface. It is claimed that Equi is responsible for the lack of a surface embedded 1.

Equi, in RG, is characterized by cross-clausal multiattachment. The relational networks of Equi structures involve a nominal heading at least two overlapping arcs. Some RG definitions are given in (12) which clarify the possible relationships an arc can bear to another arc.

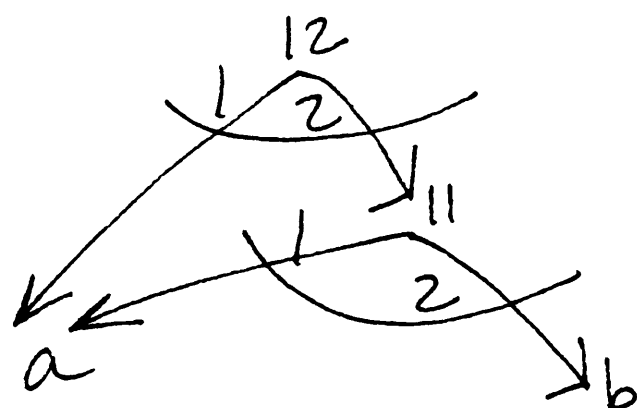
- (12) a. Two arcs are neighbors if and only if they have the same tail node.
- b. Two arcs overlap if and only if they have the same head node.
- c. Two arcs are parallel if and only if they are neighbors and overlap.

A relational network exhibiting neighboring 1 and 2-arcs is shown in (13a). They have the same tail node, 14. In (13b), nominal a heads two overlapping arcs, which have the same head node, a. RN (13c) shows nominal a heading two parallel arcs, which have the same head node, a, and the same tail node, 9.

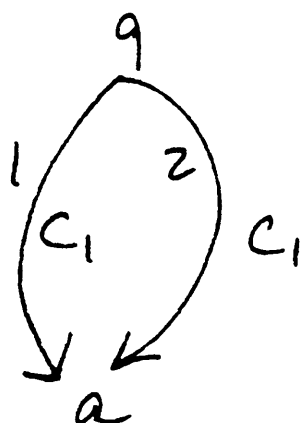
(13) a.



b.



c.



The notions of overlap and parallel lead to two types of multiattachment in RG: cross-clausal multiattachment, of which Equi is an instantiation, and clause-internal multiattachment, or reflexive. The definitions of these two types of multiattachment, according to Berinstitute (1984:113), are given in (14).

(14) a. Cross-clausal (or 'general') multiattachment:

Two or more overlapping arcs with distinct tails are headed by the same nominal.

b. Clause-internal (or 'reflexive') multiattachment:
Two or more parallel arcs sharing a coordinate are headed by the same nominal.

As Berinstitute points out, 'general' and 'reflexive'

multiattachment differ in two ways. First, in general multiattachment, the arcs have distinct tails, whereas in reflexive multiattachment, the arcs have the same tail. Secondly, in general multiattachment, the arcs do not have to share a coordinate, whereas in reflexive multiattachment, the arcs must share a coordinate.⁶

As stated above, Equi involves cross-clausal multiattachment. Equi in the -ArAk construction is obligatory in the sense that the cross-clausal multiattached structure must be present. The controller of Equi is the final 1 in the matrix clause; the target of Equi is the final 1 of the embedded clause. Examples (15) and (16) show that it is impossible for the embedded clause of an -ArAk construction to have its final 1 realized on the surface.

(15) * Ayşe [Ayşe ağla-y-arak] gel -di.
 cry -Y-ArAk come-PST

(16) * Ben (ben ağla-y-arak) gel -di -m.
 I I cry -Y-ArAk come-PST-1sg

Johnson and Postal's (1980) notion of the erase relation between arcs was discussed in Chapter One. With respect to multiattachment in equi, I adopt their notion of erase. An arc that is erased does not appear in the surface graph and is thus not a surface arc. In cross-clausal

⁶ Clause-internal or reflexive multiattachment is discussed in Chapter Three.

multiattachment, the target is erased by the controller arc. Consequently, the embedded final 1s in (15) and (16) are not expected to appear as surface 1s because they have been erased. Sentences which do not have multiattached 1's and thus do not have an Equi structure are ungrammatical, as shown in (17).

(17) * Ayse [Ahmet ağla-y-arak] gel-di.

I will show below that besides cross-clausal multiattachment, a set of conditions must hold for a sentence containing the -ArAk suffix to be grammatical.

5.2.1.1 Conditions for Grammaticality

In addition to cross-clausal multiattachment, the following conditions must be met for an -ArAk construction to be grammatical.

- (18) i. The controller and the target of Equi must bear the same initial grammatical relation.
- ii. The controller and the target of Equi must be final 1's.

Reviewing sentence (9), we see that these two conditions are met. The controller Ayse and the target Ayse are both initial 1's and final 1's.

The following discussion gives arguments that the conditions in (18) must hold. For sake of clarity, I have organized the initial and final grammatical relations of the controller and target of equi in tables, as in (19b),

instead of the usual stratal diagrams.

In sentence (19), both matrix and embedded clauses are active transitive structures, and both of the conditions listed in (18) are met: the controller, cocuk, and the target are both initial and final 1's.

- (19) a. Çocuk [sakız çiğne-yerek] anne -si -ni
 child gum chew -ArAk mother-POSS-ACC
 öp -tü.
 kiss-PST

'The child, while chewing gum, kissed his mother.'

b.		Controller	Target
	Initial	1	1
	Final	1	1

In (20) and (21), however, the matrix and complement predicates are alternately passive. That is, the matrix predicate is passive in (20), whereas the complement predicate in (21) is passive. These combinations of passive and active do not yield grammatical results, as demonstrated below. In (20), condition (18i) is not met, because the target is an initial 1, whereas the controller is an initial 2.

- (20) a. * Çocuk (sakız çiğne-y-erek) öp -ül -dü.
 -ArAk kiss-PASS-PST

('The child, while chewing gum, was kissed.')

b.	*	Controller	Target
		Initial	2
		Final	1
		Initial	1
		Final	1

In (21), condition (18ii) is not met, because the controller is the final 1, whereas the target is a final 1-cho.

(24) * Ben (gül-erek) Ayşe tarafından
 -ArAk by

öp -ül -dü -m.
 kiss-PASS-PST-1sg

('I, laughing, by Ayşe was kissed.')

This is a predicted consequence, since in (24), condition (18i) is not met. The controller and target do not bear the same initial grammatical relation. 'I' in the matrix clause is an initial 2 whereas the target 'I' is an initial 1.

When both the matrix and complement verbs are initially transitive and passive, the -ArAk construction is grammatical. In (25), both the matrix and embedded clauses are passive structures. The controller and target bear the same initial grammatical relation--namely, 2--and both are final 1's.

(25) a. Gazete [anlaş -ıl -arak] oku -n -du.
 newspaper understand-PASS-ArAk read-PASS-PST

'The newspaper, while being understood, was read.'

b.		Controller	Target
	Initial	2	2
	Final	1	1

However, when the matrix and complement predicates are alternately passive, as in (26-27), the result is ungrammatical. In (26), the controller and the target are both initial 2's, but only the controller is final 1; the target is a final 2. In (27), the final relations are reversed: both

same.

controller and target are initial 2's, but the target is a final 1, while the controller is a final 2.

- (26) a. * Gazete [anlaş -arak] oku -n -du.
 understand-ArAk read-PASS-PST
 ('The newspaper, while (PRO) understanding (it),
 was read.')

b.	*		Controller	Target
		Initial	2	2
		Final	1	2

- (27) a. * Gazete [anlaş -ıl -arak] oku -du.
 understand-PASS-ArAk read-PST
 ('The newspaper, while being understood, (PRO)
 read (it).')

b.	*		Controller	Target
		Initial	2	2
		Final	2	1

(26) and (27) do not meet condition (18ii) for the -ArAk construction, and are thus ungrammatical.

5.2.1.2 Semantic Accounts of the -ArAk Construction

In the above discussion, we have argued that the -ArAk construction obeys the two conditions posited in (18). Each of these conditions refers to a different syntactic level of representation. It is worth pausing to consider whether reference to two levels of syntactic representation, initial and final, is necessary. As an alternative, it might be proposed that condition (18i), which refers to initial GRs, might be replaced by a condition stated in terms of semantic roles, such as (28).

(28) i. The controller and target of Equi must bear the same semantic role, e.g. they must both be agents.

ii. The controller and target must be final 1's.

The conditions in (28) assume a monostratal framework in which there is no distinction between initial and final grammatical relations.

(28), however, does not account for examples like the following, in which the embedded final 1 is a semantic agent and the matrix final 1 is a semantic non-agent.

(29) Hasan Las Vegas-ta [hem ağla-y-arak
-LOC both cry -ArAk

hem gül -erek] para kaybet-ti.
laugh-ArAk money lose -PST

'Hasan, while both crying and laughing,
lost money in Las Vegas.'

A framework that incorporates the notion of initial grammatical relations, such as Relational Grammar, can account for the grammaticality of (29). The initial grammatical relation of both the controller Hasan and the target Hasan is 1. In addition, there is independent evidence that kaybetmek 'to lose' appears in an initially unergative clause. As discussed below, the form of the auxiliary selected by certain loan words clearly identifies them as initial unaccusatives or initial unergatives. Kaybetmek, which consists of the Arabic loanword kayb and the auxiliary etmek, is an unergative according to this diagnostic.

Another semantic alternative is offered by Knecht and Levin (1984), in a paper one of whose goals is to attempt to refute condition (18i) for the -ArAk construction.⁸ Instead of claiming that the controller and target must bear the same specific semantic role, as was suggested in (28i), Knecht and Levin claim that the semantic roles of controller and target must simply not be too different. For example, if the controller is an agent, experiencer, or cognizer, the target may not be a theme (or patient), or vice versa. Similarly, Marantz (p.c. 2-28-82) suggests that (18i) be replaced by a semantic condition that refers to notions like "volitionality" or "actor", in a broad sense, rather than to specific semantic roles like "agent". I deduce from Marantz' suggestion that he might support a condition that states, for example, that if the controller is volitional in nature, the target must be volitional also.

Some immediate counterexamples to these two proposals are given below.

(30) Hasan kavga ed-erek para -s_i -n_i kaybet-ti.
 fight -ArAk money-POSS-ACC lose -PST

'Hasan, (while) fighting, lost his money.'

⁸ Although I did not hear the talk, Laura Knecht (p.c. 9-5-84) gave me a synopsis of the paper.

- (31) Amca -s_i öl -dük-ten sonra, Ayşe,
uncle-POSS die-NOM-ABL after

vahlan -arak mirasa kon-du.
(to say) Alas!-ArAk inherit -PST
What a pity!

'After her uncle died, Ayşe, while crying "alas!
what a pity!", inherited (his money).'

- (32) Çember nokta -y_i ihtiva ed-erek kelime-nin son
circle period-ACC contain -ArAk word -GEN last

harf-_i-na dokun-uyor.
letter-POSS touch-PROG

'The circle, containing the period, is touching
the last letter of the word.'

- (33) Bebek cıyakla-yarak doğ -du.
baby scream -ArAk born-PST

'The baby, screaming, was born.'

(30), (31), and (33) are counterexamples to Marantz' proposal. In (30), Hasan may volitionally or nonvolitionally fight, but he can only lose his money nonvolitionally. If he were to lose his money volitionally, he would actually be throwing away his money, in which case a different verb would be required. To underscore the nonvolitionality of to lose, Jackendoff (1972) showed that purposive constructions like so that could not appear with it. Consider (34a).

- (34) a. ?John lost the money so that he could
get sympathy.
b. John gave the money away so that he
could win his friends' admiration.

(34b) shows that so that can appear with volitional verbs like to give. In (31), although Ayşe can volitionally say

"alas!", she cannot volitionally inherit the money. Likewise, in (33), although the child can volitionally scream while being born, s/he cannot volitionally be born.

(33) is also a counterexample to Knecht and Levin's proposal. The controller bebek is a theme or patient, while the target bebek is an agent. Assumedly, agent and theme are dissimilar roles and so, according to Knecht and Levin, (33) should be ungrammatical.

Although it appears that Knecht and Levin's proposal might account for examples like (39) and (31), since in these examples, the controllers and targets have semantic roles which are not "too different", we can reject their proposal on the grounds of precision. A syntactic account of (30) would simply state that the grammatical relation of the controller and target is an initial and final 1, while Knecht and Levin must assume that the role of experiencer (controller) and agent (target) share certain properties which experiencer and, say, theme, do not. Similarly, in (31), the assumption would have to be made that the controller, which is a nonagent (possibly recipient), is more similar to the thematic role of agent, which is borne by the target, than to the thematic relation of theme or patient. Furthermore, in some cases as in example (32), it is not even clear which semantic role a nominal has, much less a precise definition of the semantic role. The target çember is location (its object nokta is theme) while the semantic

role of the controller çember is not clear.⁹ Until an explicit analysis of internal structure of semantic roles is made, assumptions of this sort are too vague to be taken as a serious counterproposal to the syntactic solution. In

⁹ Knecht (1986) offers a somewhat revised semantic account of the Knecht and Levin (1984) proposal for the -ArAk construction. I regret that Knecht (1986) did not come to my attention until this chapter and most of my dissertation was almost completed. However, I briefly comment on Knecht's (1986) proposal below.

Like Knecht and Levin (1984), Knecht rejects the hypothesis that the -ArAk construction distinguishes between initial unaccusativity and unergativity. According to Knecht, Equi in the -ArAk construction is sensitive to semantic roles rather than to initial grammatical relations. Thus, she posits the following conditions for -ArAk Equi.

- (i) a. If the controller is a semantic agent, the victim cannot be a semantic patient, or vice versa.
- b. When the -YErEK clause is active and the matrix clause is passive, or vice versa, then the nominals involved in Equi must be the highest ranking nominals in their respective clauses on the thematic hierarchy.

On the hierarchy of thematic roles, agent outranks both goal and patient.

Condition (ia), on the whole, accounts for a great deal of the examples of -ArAk Equi. It does not, however, account for examples like (ii), which has already been cited in (33).

- (ii) Bebek cıyakla-y-arak dog-du.
baby scream-Y-ArAk born-PST

'The baby, while screaming, was born.'

In (ii), the controller is a patient and the target is an agent.

While (ib) accounts for sentences like (iii), it does not account for (iv).

- (iii) Sayıkla-y-arak öl -ün -ür.
talk in delirium-Y-ArAk die-PASS-AOR

effect, any type of semantic account will be inadequate since there are no precise definitions or diagnostics for the semantic roles of agent, patient, cognizer, etc....

A framework such as RG, which incorporates the notion of initial GR's, accounts for (30)-(33) straightforwardly. In all these examples, the initial grammatical relation of the controllers and targets happens to be 1. Thus, condition (18i) is met, as is (18ii), which has the result that the sentences in (30)-(33) should be grammatical, and they are.

'It is died while raving.'

(iv) Hasta baygın ol-arak getir-il -di.
 patient faint be-ArAk bring-PASS-PST

'The patient, while faint, was brought.'

The controller and target of Equi in (iii), which are PRO, are presumably patients. They are the highest ranking nominals in their respective clauses, as (ib) requires. In (iv), however, although the controller and target are patients, the controller hasta is not the highest ranking nominal in the matrix clause. Rather, PRO, which is an agent, is the highest ranking nominal in the controlling clause. (The target hasta is the highest ranking nominal in the complement clause, thus, it is not a problem.) Consequently, example (iv) constitutes a counterexample to condition (ib).

Knecht claims that except for examples like (iii), in which the controller and target are PRO's, a matrix clause cannot be passive while the controlled clause is active, or vice versa. While it is true that examples such as (iv) are relatively few in number, they do exist and must be accounted for. Not every unaccusative verb can appear with a passive verb in an -ArAk construction, but, crucially, an unergative verb can never appear with a passive.

I conclude from this discussion that (18i) should be stated in terms of initial grammatical relations and not in terms of thematic relations. This conclusion is consistent with the claim that the Universal Alignment Hypothesis is untenable. That is, semantic roles are not interchangeable with initial grammatical relations; otherwise, the -ArAk Equi condition in (18i), for example, could be written in terms of semantic roles. As noted above, Rosen (1984) gives cross-linguistic evidence for the untenability of the Universal Alignment Hypothesis. Her findings are discussed briefly below.

Using the Unaccusative Hypothesis, Rosen shows that the UAH, stated in (6), is untenable. That is, there is no set of semantic categories such that each one is equivalent to an initial GR. The study of the Unaccusative Hypothesis is a testing ground for the UAH since the Unaccusative Hypothesis makes the claim that intransitive verbs have a nominal which is either an initial 1 or 2. Rosen concludes that although Perlmutter and Postal's delineation of the semantic categories in (7) and (8) above does show attested cross-linguistic tendencies to correlate with initial unergativity and initial unaccusativity, counterexamples can be cited. Thus, a semantically equivalent intransitive verb may have its nominal map onto an initial 1 in one language and an initial 2 in another. For example, some languages have a tendency to categorize intransitive verbs as

unergative if they have protagonist control or animacy. However, it is a language-specific issue whether the distinction between initial unaccusativity vs. initial unergativity is sensitive to, for example, protagonist control or animacy. As Rosen points out, there are languages, like Choctaw (Davies 1981), for which protagonist control is irrelevant for the initial unaccusative vs. unergative distinction. For Turkish and Dutch, however, protagonist control is a very relevant factor for this distinction. Since protagonist control is important in Turkish for the distinction of intransitive clauses as unaccusative vs. unergative, one can see why linguists have attempted to write a semantic condition for the -ArAk construction. However, as seen in the above counterexamples (and examples to be given below), protagonist control is not the only factor which determines initial unaccusativity vs. unergativity in Turkish. Furthermore, Rosen showed that just because the semantic role of a particular verb is the same in two different languages does not entail that the particular verb behaves syntactically the same.

- (35) a. Choctaw (2)
 Sa-laksha
 1st sweat
 ACC
 'I sweated.'

- (36) b. Italian (1)
Ho sudato

'I sweated.'

The final subjects of the above examples have the same semantic role, yet the verb 'sweat' in Choctaw is an unaccusative, while in Italian, it is an unergative. Thus, there is also cross-linguistic evidence that semantic roles cannot predict syntactic behavior. Syntactic diagnostics which determine initial unaccusativity vs. unergativity, on the other hand, can predict syntactic behavior.

5.2.1.3 Evidence from -ArAk for the Unaccusative Hypothesis

Having established the conditions of grammaticality for sentences containing the -ArAk suffix, let us now see how they interact with the Unaccusative Hypothesis. The following three sentences present a passivized matrix verb and an embedded unaccusative verb.

- (37) Ütü hâle [kızgın olarak] tamir ed-il-di.
iron still hot be-ArAk repair -PASS-PST

'The iron, while it was still hot, was repaired.'

- (38) Ahmet [ağz-ı kana-y-arak] nakavt ed -il -di.
mouth-POSS bleed-GL-ArAk knock out -PASS-PST

'Ahmet, while his mouth was bleeding, was knocked out.'

In footnote 8 of Chapter Three, it was claimed that possessor ascension is possible in Turkish. For example, in (37)

and (38), it is assumed that the embedded clauses have possessor ascension. In (38), Ahmet ascends from the possessor clause Ahmetin ağzi and is thus the final 1 of the embedded clause. It is erased by cross-clausal multiattachment, i.e. equi, by the controller Ahmet.¹⁰

Thus, in the above three sentences, the conditions for the -ArAk construction are met because, assuming

¹⁰ As is clear from the possessor ascension examples in Chapter Three, possessor ascension is not limited to unaccusative clauses. In (i), the possessor ascends from a nominal which is a final Ergative, Ayşenin babası.

(i) Ayşe-nin; baba -sı kendisi-ne; para yoll-uyor.
 -GEN father-POSS self -DAT money send-PROG

'Ayşe's father sends money to her.'

The claim that Ayşe is an ascendea is consistent with the fact that it is the antecedent of the object, kendi.

It appears, however, that within the scope of the -ArAk construction, possessor ascension can occur only out of nominals which are arguments of unaccusative predicates. The reason for this seems to be that possessor ascension is allowed only when the head of the possessor nominal is a body part, as in (38). In general, a body part in Turkish can only have an unaccusative predicate such as 'to bleed'. Consider the following ungrammatical sentence, in which the matrix and embedded predicates are unergative and the embedded head is not a body part. The possessor kadın has ascended in the target clause and undergone equi.

(ii) * Kadın hizmetçi-si konuş-arak koş-tu.
 woman servant -POSS talk -ArAk run-PST

('The woman ran while her maid talked.')

As an aside, sentence (ii) is grammatical when the -ArAk suffix is replaced with -ken, which does not have the conditions -ArAk has.

unaccusative advancement has occurred in the embedded clause, both the controller and target are initial 2's and final 1's.

Examples in which the controller and target are both unaccusative are given in (39)-(42).

- (39) Hasan [kol-u kana -y -arak] aci çek -ti.
arm-POSS bleed-GL-ArAk suffer -PST

'Hasan, while his arm bled, suffered.'

- (40) [Sayıkla -y-arak] uyku -dan ayıl -dı.
talk in delirium-Y-ArAk sleep-ABL wake up-PST

'He woke up while talking in a delirium.'

- (41) Hasan [aniden düş -erek] orta -ya
suddenly fall-ArAk middle-DAT

çık -ıyor.
come out-PROG

'Hasan, while suddenly falling, appears (out of nowhere). (As on a stage.)'

- (42) Sarhoş [yalpala -y -arak] kay -dı.
sway about-GL-ArAk slip-PST

'The drunk, while swaying about, slipped.'

In examples (39)-(42), the controller and target of equi are animate, while the controller and target in examples (43)-(47) are inanimate.

- (43) Deniz [köpür-erek] çekil-di.
sea foam-ArAk pull back-PST

'The sea, while foaming, pulled back.'

(44) Işı̇k [parla -y -arak] sön -dü.
light sparkle-GL-ArAk go out-PST

'The light, while sparkling, went out.'

(45) Dolu gök-ten [eri -y -erek] yer -e
sleet sky-ABL melt-GL-ArAk ground-DAT

düş -er.
fall-AOR

'The sleet, while melting, falls to the ground from the sky.'

(46) Güneş [kızır -arak] bat-tı.
sun turn red-ArAk set-PST

'The sun, while turning red, set.'

(47) Buz [eri -y -erek] küçül -dü.
ice melt-GL-ArAk get small-PST

'The ice, while melting, got small.'

The sentences in (39)-(47) are grammatical because the controllers and targets have the same initial grammatical relation-- namely, 2--and are final 1's. Thus, the conditions in (18) are met.

Now consider (48), in which the embedded verb is an unergative and the matrix verb is a passive.

(48) * Öğrenci [bağır-arak] döv -ül -dü.
student shout-ArAk beat-PASS-PST

('The student, while shouting,
was beaten.')

The sentence is ungrammatical according to condition (18i), because the controller is an initial 2 and the target is an initial 1. Compare the following, in which both the

controller and target are initial 2's and final 1's.¹¹

- (49) Hasan [bağır-ıl -arak] kov -ul -du.
 shout-PASS-ArAk chase-PASS-PST

'Hasan, while being shouted at,
 was chased away.'

As in (48) above, the following sentence is ungrammatical because the controller is an initial 2, whereas the target is an initial 1. Unlike (48), however, neither the matrix nor the complement verb is passive. The embedded verb is unergative and the matrix verb is unaccusative.

- (50) * Kız [(top) oyna-y -arak] kay -dı.
 girl ball play-GL-ArAk slip-PST

('The girl, while playing (ball),
 slipped.')

When the unaccusative verb in the matrix clause is replaced by an unergative, the sentence satisfies condition (18i) and so is grammatical.

- (51) Kız [(top) oyna-y -arak] şarkı
 girl ball play-GL-ArAk sing

söyle-di.
 -PST

'The girl, while playing (ball), sang.'

In (51) above, both the controller and target are initial and final 1's.

¹¹ See Özkaragöz (1980b) where 2 to 3 retreat verbs such as 'to shout at' are analyzed.

More examples that are ungrammatical according to (18i), because the controller and the target have different initial GR's, are given below. The initial GR's do not match because the matrix verb is an unaccusative while the embedded verb is an unergative.

- (52) * Kız [kayak kay-arak] düş-tü.
 girl ski-ArAk fall-PST
 ('The girl, while skiing, fell.')
- (53) * Adam [yüz-erek] boğul-du.
 man swim-ArAk drown-PST
 ('The man, while swimming, drowned.')
- (54) * Adam [konuş-arak] öl-dü.
 man talk-ArAk die-PST
 ('The man, while talking, died.')
- (55) * Adam [çalış-arak] hastalan-dı.
 man work-ArAk get sick-PST
 ('The man, while working, got sick.')

The above discussion on the -ArAk construction supports the viability of the Unaccusative Hypothesis for Turkish. The dichotomy of intransitive verbs which is imposed by the Unaccusative Hypothesis, provides an explanation as to why some intransitive verbs (i.e. unaccusative) can appear with passive verbs in the -ArAk construction, while other intransitive verbs (i.e. unergative) cannot. It also explains why certain intransitive verbs (i.e. unaccusative) cannot appear with certain other (i.e. unergative)

intransitive verbs in this construction. Thus, the Unaccusative Hypothesis provides us with a tool to formulate the conditions of grammaticality for the -ArAk construction; and, in turn, the -ArAk construction is a syntactic diagnostic for distinguishing between initial unaccusative vs. unergative predicates. As noted by Rosen above, the Universal Alignment Hypothesis is incorrect, which means that the initial unaccusativity vs. unergativity of an intransitive predicate is a language-specific issue and is not a cross-linguistically predictable phenomenon. From this perspective, syntactic diagnostics such as the -ArAk construction are very useful for distinguishing initial unaccusatives vs. unergatives in Turkish.

There are three classes of intransitive verbs, however, which do not allow themselves to be strictly categorized as initially unaccusative or unergative. Verbs that express states of mind such as 'to be afraid', certain involuntary bodily processes such as 'to cry', and voluntary bodily processes such as 'to laugh', are "flexible" in Turkish.¹² That is, they can be either unaccusative or unergative at the initial level. Some examples are given below.

¹² "Flexible" is the term Rosen (1984) uses to describe predicates in Choctaw which can be both unergative or unaccusative.

(56) [Kork -arak] sayıkla -dî.
afraid-ArAk talk in delirium-PST

'While afraid, he talked in a delirium.'

(57) [Kork -arak] kapî-yî aç -tî.
afraid-ArAk door-ACC open-PST

'While afraid, s/he opened the door.'

(58) Hasan [titre -y -erek] kız -dî.
tremble-GL-ArAk get angry-PST

'Hasan, while trembling, got angry.'

(59) Hasan [titre -y -erek] kapî-yî aç -tî.
tremble-GL-ArAk door-ACC open-PST

'Hasan, while trembling, opened the door.'

(60) [Terli-y -erek] öl -dü.
sweat -GL-ArAk die-PST

'While sweating, s/he died.'

(61) [Terli-y -erek] kapî-yî aç -tî.
sweat-GL-ArAk door-ACC open-PST

'While sweating, s/he opened the door.'

Flexibility with respect to the unergative vs. unaccusative distinction does not appear to be specific to Turkish. Choctaw (Davies, 1981) also has flexible intransitive verbs like 'to sneeze'. It is interesting to note that this Choctaw verb belongs to one of the same classes that the flexible verbs in Turkish belong to, namely, the involuntary bodily processes category.

5.2.1.4. The Interaction of PRO and -ArAk

In this section, I discuss the interaction of PRO, the unspecified, generic NP, and the -ArAk condition in (18ii).¹³ According to condition (18ii), non-PRO controllers and targets must be final 1s; the final relation of PRO controllers, however, must be final 1-chomeur and the final relation of PRO targets must be acting 1, i.e. either final 1 or final 1-chomeur. The fact that PRO imposes a set of special conditions on the -ArAk construction is of interest because it is another syntactic manifestation of how constructions containing PRO differ from constructions containing other nominals, whether these other nominals are phonetically null, like the Dummy in Turkish, or overt (c.f. Chapter Six).

The conditions for the -ArAk construction with PRO are stated in (62).¹⁴

- (62) If the controller and target of Equi are PROs in an -ArAk construction, then:
- a. The target PRO cannot be put en chomage by a dummy.¹⁵
 - b. The embedded 2 cannot be a surface 2.

Note that the conditions in (62) apply only to the embedded

¹³ The interaction of PRO and the -ArAk construction is previewed briefly in a footnote in Özkaragöz (1980a).

¹⁴ This formulation of the condition was suggested to me by Sandy Chung.

¹⁵ The condition in (62a) essentially states that impersonal passive cannot occur in the embedded clause.

clause containing the target PRO.

The matrix 1-arc headed by PRO, i.e. the controller PRO, is always erased by a passive chomeur-arc whether the matrix clause is initially transitive or initially intransitive. Consequently, the controller PRO is always a final chomeur. In this way, the controller PRO satisfies both of the conditions and the surface constraint on PRO, discussed in Chapter Two. They are repeated in (63) for convenience.

- (63) a. PRO must head a 1-arc.
 b. PRO cannot head a surface arc.
 c. If A is a final cho-arc headed by PRO, then A self-erases.

First, the controller PRO satisfies (63a) since it heads a 1-arc. Second, PRO heads a 1-arc which is erased by a final cho-arc via passive. Consequently, (63c) applies and the final cho-arc headed by controller PRO self-erases. Since PRO does not head a surface arc, (63b) is satisfied.

The embedded 1-arc headed by PRO, i.e. the target PRO, is erased either via equi or by a passive chomeur-arc. The conditions and constraint in (63) are met if the target PRO is erased via equi because (i) the target PRO heads a 1-arc, (ii) PRO does not head a surface arc. If the target PRO is erased via a passive cho-arc, the condition in (63b)

On the other hand, personal passive is allowed. I am not aware of any other construction in Turkish which specifies this type of asymmetry. Causatives, for example, do not allow either impersonal or personal passive in the complement clause.

- (65) * Düşün-ul-erek çalış-il-ır.
 think-PASS-ArAk work-PASS-AOR

('It is thought while working.')

The condition in (62a) is violated and the sentence in (65) is ill-formed. The impersonal passivization of the embedded clause involves a dummy entering as a 2 and advancing to 1, thus placing PRO, the initial 1, en chomage.

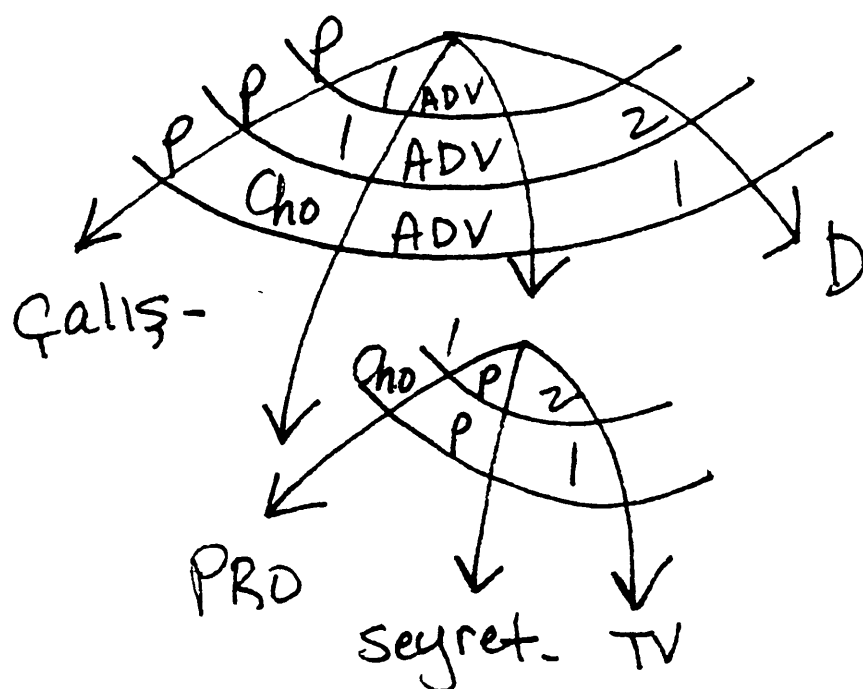
(66) is an example of an -ArAk construction in which the matrix clause is initially intransitive and the embedded clause is initially transitive.

- (66) Her akşam televizyon seyred-il-erek
 each evening TV watch-PASS-ArAk

çalış-il-abil-ir.
 work-PASS-ABIL-AOR

'It is possible to work while watching
 TV each evening.'

(67)



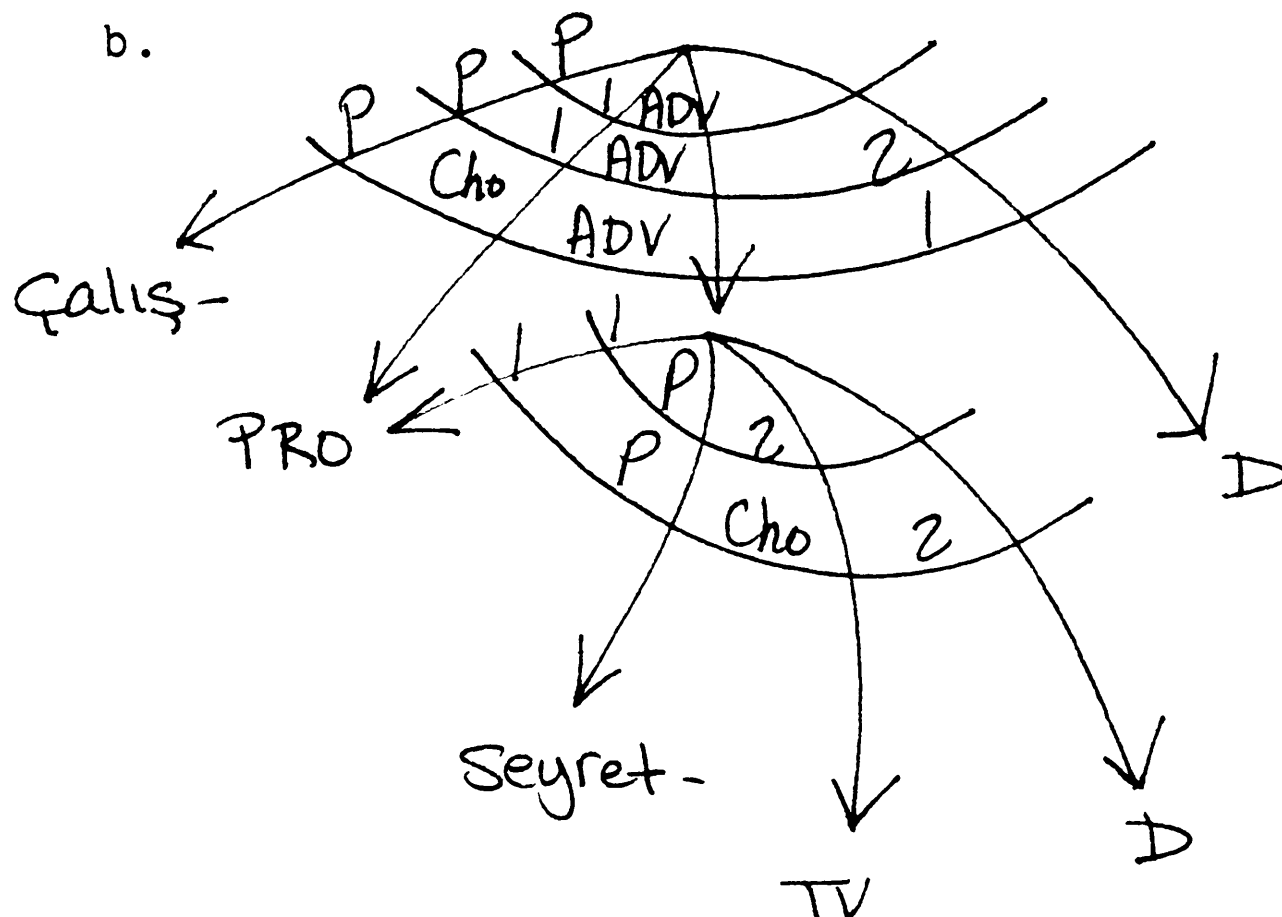
Like example (64), the matrix clause involves passive so

that constraint (63c) can apply to satisfy the condition (63b). Thus, the matrix 1-arc is erased by the passive chomeur-arc and the cho-arc self-erases. The embedded clause optionally has personal passive. PRO, the embedded 1, is erased by the passive chomeur-arc, allowing (63c) to apply to satisfy (63b). The -ArAk condition in (62a) is met since the embedded PRO is placed en chomage by a nominal other than a dummy.

The embedded clause in (66), however, does not have to involve passive, as (68) illustrates.

- (68) a. Televizyon seyred-erek çalış-ıl -abil-ir.
 TV watch -ArAk work'-PASS-ABIL-AOR

'It is possible to work while watching TV.'



Object incorporation occurs in the embedded clause in place of passive. The initial 2 is placed en chomage by a dummy bearing the 2 relation. Only chomeurs can incorporate in Turkish, as discussed in Chapter Two. Condition (64a) is met since the embedded PRO is not placed en chomage by the dummy; rather, the embedded initial 2 is placed en chomage.

The examples in (66) and (68) also abide by one other condition, namely, condition (62b). The embedded initial 2 in both (66) and (68) does not surface a 2. In (66), the initial 2, televizyon, advances to 1 via passive. In

(68), the initial 2 is placed en chomage by a dummy. Consider the ungrammatical sentence in (69), in which the embedded 2 has surfaced as a 2.

(69) * Televizyon-u seyred-erek çalış-ı-l -abil-ir.
 TV -ACC watch -ArAk work -PASS-ABIL-AOR

('It is possible to work while watching the TV.')

Note that in (69), conditions (63a) and (63b). The ungrammaticality is due strictly to the violation on (62b).

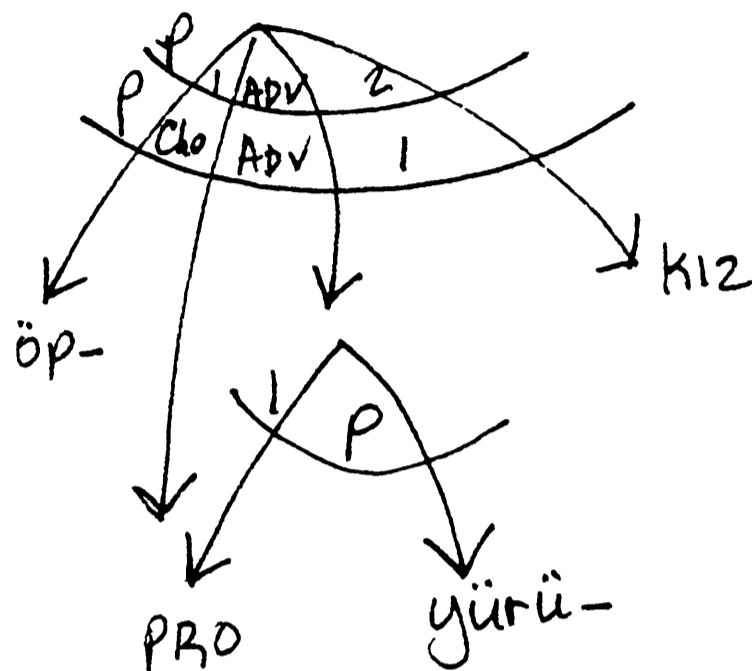
The examples in (64)-(69) involve a matrix clause which is initially intransitive. Example (70) contains an initially transitive predicate.¹⁶

¹⁶ Note that (70) cannot have the meaning 'The girl is kissed (by one) while the girl is walking.' because PRO is the initial 1 of both the matrix and the embedded clause. In this ungrammatical case, the controller, kız, 'girl', would be an initial 2 while the target, 'girl', would be an initial 1. This would violate condition (18i) for non-PRO controllers and targets.

(70) a. Kız yürü-yerek öp-ül-ür.
girl walk-ARAK kiss-PASS-AOR

'The girl is kissed (by one) while one is walking.'

b.



First of all, we note that condition (63b) is satisfied since the matrix 1-arc is erased by the passive chomeur-arc which subsequently self-erases via (63c), and the embedded 1-arc is erased via equi. Secondly, condition (63a) is met since the PRO controller is a final 1-chomeur and the PRO target is a final 1. (The conditions in (62b) and (62c) are irrelevant to (70).)

Consequently, even if the matrix clause is initially transitive, passive must occur in order to erase the 1-arc headed by PRO so that the constraint rule in (63c) can apply. For this reason, as already noted above, the

controller PRO will always be a final 1-chomeur while the target PRO will be either a final 1-chomeur or a final 1, depending on the initial transitivity of the embedded clause.

In summary, we have seen that the version of the -ArAk construction involving PRO has its own set of conditions, specified in (62). The fact that the -ArAk construction with PRO obeys a different set of syntactic conditions from -ArAk constructions with other nominals accentuates the differences between PRO and other nominals. (c.f. Chapter Six for further differences.) In addition, the independently motivated conditions and surface constraint on PROs in (63) ensure that the matrix 1-arc does not surface.

5.2.2. Predicates Consisting of Loanwords and the Auxiliaries etmek and olmak

In addition to the -ArAk gerund construction, Turkish provides another piece of evidence for the Unaccusative Hypothesis. This second piece of evidence involves the use of the auxiliaries etmek 'to do' and olmak 'to be'.

According to Lewis (1967), there are a few predicates which are composed of a Turkish noun and the verb etmek, as in the following.¹⁷

¹⁷ See Lewis (1967:154-157).

- (71) yardım etmek 'to help'
 alay etmek 'to mock'

In (72), we see some examples of predicates with an Arabic verbal noun which were formed by analogy with the Turkish verbs in (71). Verbs formed in this way from loanwords belong to a large class.

- (72) kabul etmek 'to accept'
 mukayese etmek 'to compare'

This process of creating new predicates from loanwords by combining them with an auxiliary is still productive today. Arabic, Persian, and other foreign words combine with etmek to form the following.

- (73) dezenfekte etmek 'to disinfect'
 izole etmek 'to isolate'
 nakavt etmek 'to knock out'
 protesto etmek 'to protest'

According to Lewis (1967:156), the auxiliary olmak 'to be' is claimed to have two functions. First, it is claimed to be an irregular passive form of etmek. The regular passive form of etmek contains the passive marker -Il, edilmek. Second, olmak is used to mean 'undergo' or 'be subjected to'. See the examples in (74).

- (74) mahkûm olmak 'to be condemned'
 kaybolmak 'to be missing'
 tifo olmak 'to catch typhoid'
 ameliyat olmak 'to undergo an operation'

In this discussion of auxiliaries, we are concerned with olmak and etmek only in their ability to create

entirely new verbs by combining with (often foreign) nouns, adjectives, and past participles.¹⁸

The following question will be addressed in this section: What determines whether olmak or etmek will be selected to create new verbs with borrowed words?

Following the lead of other traditional grammarians, Banguoğlu (1940:227) claims that etmek creates transitive, active verbs and olmak creates intransitive, stative (manner of being) verbs. Some examples of transitive predicates created with etmek are given below.

¹⁸ As discussed in the introduction, olmak, in the present tense, appears as a copula (personal) suffix.

- (i) Talebe -y-im.
 student-Y-1sg
 'I am a student.'

Further, as Underhill (1976:149-150) points out, olmak can also be used to mean 'to become', in any tense or construction, or 'to happen'.

- (ii) Kız -im doktor ol-acak.
 daughter-1POSS doctor be-FUT
 'My daughter will be a doctor.'
- (iii) Şimdi ne ol-acak?
 now what be-FUT
 'What will happen now?'

These uses of olmak do not fit the scope of our discussion and thus will not be discussed here.

- (75) a. Çember nokta -yî ihtiva ed-er.
circle period-ACC contain -AOR
'The circle contains the period.'
- b. Postacı mektub-u müdür -e teslim et -ti.
postman letter-ACC manager-DAT hand over-PST
'The postman handed over the letter to the manager.'
- c. Ahmet komşu -su -nu ziyaret ed-iyor.
neighbor-POSS-ACC visit -PROG
'Ahmet is visiting his neighbor.'
- d. Abbas Cem-i nakavt et-ti.
-ACC knock out-PST
'Abbas knocked out Cem.'

The claim of the traditional grammarians, however, is incorrect. Etmek creates intransitive as well as transitive verbs. Examples are given below.

(76) dans etmek	'to dance'
dua etmek	'to pray'
haraket etmek	'to move'
ihtiraz etmek	'to guard against, avoid'
avdet etmek	'to return'
tefekür etmek	'to cogitate'
kavga etmek	'to fight'
tevali etmek	'to follow (in an uninterrupted fashion)'
tevakküf etmek	'to stop, stay'
islik etmek	'to whistle'
terennüm etmek	'to sing, warble, hum'
tereddüt etmek	'to hesitate'
teybis etmek	'to dry, dessicate'
teverrüm etmek	'to become consumptive'

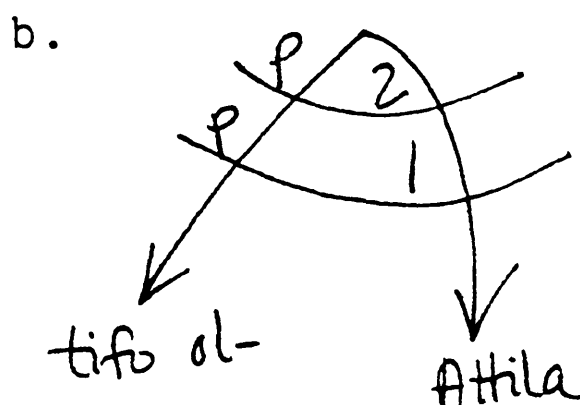
Contrasting with the intransitive verbs above in (76), which take the auxiliary etmek, intransitive verbs appearing with the auxiliary olmak are instantiated below. Verbs formed with olmak are always finally intransitive, unlike verbs formed with etmek, which are sometimes finally transitive, as seen above.

(77) arız olmak	'to befall'
ameliyat olmak	'to undergo an operation'
teslim olmak	'to surrender'
öksürük olmak	'to catch a cough'
tifo olmak	'to catch typhoid'
sünnet olmak	'to undergo circumcision'
peyda olmak	'to come into being, appear'
mülhem olmak	'to be inspired by'
şahit olmak	'to witness'
alabura olmak	'to capsize'

I claim that predicates which consist of a loanword and olmak are unaccusative predicates and those which consist of a loanword and etmek are unergative. (78) exemplifies an unaccusative construction and (79), an unergative one.

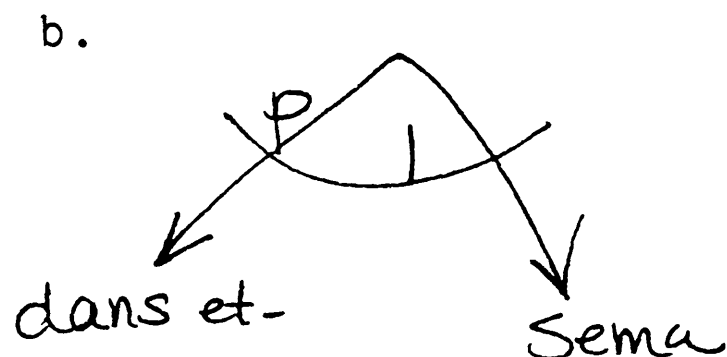
- (78) a. Attila tifo ol -du.
get typhoid-PST

'Attila got typhoid.'



- (79) a. Sema dans et-ti.
dance -PST

'Sema danced.'



It appears that the two lists of verbs in (76) and (77) do not divide on purely semantic grounds. Although the olmak

verbs seem to denote mainly 'to undergo' or 'be subjected to', there are also some etmek verbs with similar denotations. Consider tevellüd etmek 'to be born'; teverrüm etmek 'to become consumptive'; teybis etmek 'to dessicate'. An account of auxiliary selection based purely on semantic considerations would thus be inferior to one that involves the unaccusative vs. unergative distinction.

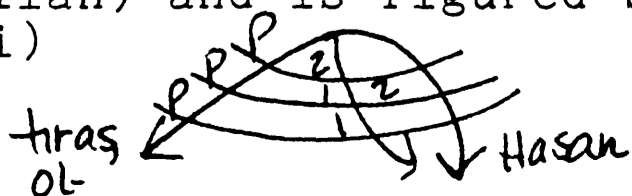
I propose the following rule to account for the distribution of auxiliaries in these examples.¹⁹

¹⁹ See Rosen (1981:68) who discusses a somewhat similar rule for Italian called Aux Selection. It is formulated as follows: Select essere 'be' in any clause that contains a 1-arc and an object-arc with the same head. Otherwise, select avere 'have'. One difference between the Turkish and Italian auxiliary rules is that Turkish auxiliaries are used only with loanwords; thus, they do not usually appear in multiattached structures, as do auxiliaries in Italian. Recall from Chapter Three that multiattached structures in Turkish involve the -In reflexive marker. I have found only one Turkish predicate consisting of an auxiliary which evidently involves a multiattached structure: tıraş olmak, which means either 'to shave (oneself)' or 'to be shaved'.

- (i) Hasan tıraş ol-du.
 shave -PST
 'Hasan shaved (himself).' or
 'Hasan got shaved.'

In the latter meaning, 'to be shaved', this verb fits in with the other unaccusative olmak predicates discussed above in (77). It involves simple unaccusative 2 to 1 advancement; thus, the presence of olmak as opposed to etmek according to rule (80). The reflexive meaning, on the other hand, is accountable by positing a multiattached structure not posited for Turkish heretofore. The multiattached structure contains retroherent unaccusative advancement (which Rosen posits for Italian) and is figured below.

(ii)



(80) Clauses Whose Predicate is a Loanword and Auxiliary

If a clause which has a predicate consisting of a loanword and auxiliary contains unaccusative 2 to 1 advancement, olmak 'to be' is the auxiliary which appears. Otherwise, etmek 'to do' appears.

Like other rules of grammar, this rule is a condition on the well-formedness of RNs. If an RN containing a loanword and auxiliary has unaccusative 2 to 1 advancement, and the auxiliary is etmek, then the RN is ill-formed.

The formulation in (80) is based on the following facts. First, rule (80) accounts for the choice of auxiliaries in both transitive and intransitive clauses. Finally transitive clauses, as in (75), and finally intransitive

The claim is that there are two lexical entries for tıraş olmak in Turkish; these two lexical entries have the meanings given in (i), respectively. The first entry is a typical initial unaccusative and the second has the multiattached structure marked [+Retro]. Positing the retroherent multiattached structure accounts straightforwardly for the following.

- (1) The RN is initially unaccusative and has unaccusative advancement, which unites the construction with the other olmak predicates in (77).
- (2) The RN contains multiattachment, which unites it with other reflexive structures like yıkandı, 'He washed (himself)'. Recall from Chapter Three that -In reflexives like yıkamak have initially multiattached structures. The fact that tıraş olmak has multiattachment at an intermediate level, and not at the initial level like yıkamak, accounts for the lack of the -In reflexive morphology. (This distinction between initial multiattachments and intermediate multiattachments is also necessary for Italian since Italian also has retroherent unaccusative advancement.)

clauses which are initially unergative, are predicted to take the auxiliary etmek. On the other hand, finally intransitive clauses which have an initially unaccusative stratum will take olmak. Second, the formulation of (80) is consistent with a constraint on the Turkish causative construction. A clause containing a predicate consisting of a loanword and olmak cannot be the complement clause of a causative construction. Consider (81)-(83).

- (81) a. *Hasan- $\dot{\text{i}}$ nakavt ol-dur-du-m.
 -ACC knock out-CAUS-PST-1sg
 ('I made someone knock out Hasan.')
- b. Hasan- $\dot{\text{i}}$ nakavt et-tir-di-m.
 -ACC knock out-CAUS-PST-1sg
 'I made someone knock out Hasan.'
- (82) a. *Çocuğ-u-nu sünnet ol-dur-du.
 child-POSS-ACC circumcise-CAUS-PST
 ('He made someone circumcise his child.')
- b. Çocuğ-u-nu sünnet et-tir-di.
 child-POSS-ACC circumcise-CAUS-PST
 'He made someone circumcise his child.' or
 'He had his child circumcised.'
- (83) a. *Mehmet-i mahkûm ol-dur-du-m.
 -ACC sentence-CAUS-PST-1sg
 ('I made someone sentence Mehmet.') or
 ('I had Mehmet sentenced.')
- b. Mehmet-i mahkûm et-tir-di-m.
 -ACC sentence-CAUS-PST-1sg
 'I made someone sentence Mehmet.' or
 'I had Mehmet sentenced.'

The (a) sentences above show that olmak cannot be

causativized, while the (b) sentences with etmek can. The bifurcation of grammaticality between causativized olmak and etmek predicates can be accounted for by an independently motivated principle. This principle is discussed in the following section on double causatives, as well as in Chapters Three and Six. It is cited below for convenience.

- (84) A nominal, a, cannot head 1 and 2-arcs having the same tail in the complement clause of Turkish causatives.

The principle in (80) rules out the possibility of olmak in the complement clause, assuming a clause containing olmak has a nominal heading an arc bearing the 2 and 1 relations. Thus, the above independently motivated principle disallows causatives of olmak constructions.

Third, rule (80) states that the 2 to 1 advancement must be unaccusative. This is stipulated because passive also has 2 to 1 advancement, yet does not sanction the use of olmak. Passive 2 to 1 advancement, which has a transitive departure stratum, allows the auxiliary etmek. Consider the following examples:

- (85) a. Ayşe (doktor tarafından) ameliyat ed-il -di.
 doctor by operate -PASS-PST

'Ayşe was operated on by the doctor.'

- b. Ayşe ameliyat ol-du.
 operate -PST

'Ayşe got operated.'

- c. ?/* Ayşe doktor tarafından ameliyat ol-du.
 doctor by operate -PST

('Ayşe was operated on by the doctor.')

- (86) a. Ayşe (Hasan tarafından) nakavt ed-il -di.
 by knock out-PASS-PST

'Ayşe was knocked out (by Hasan.)'

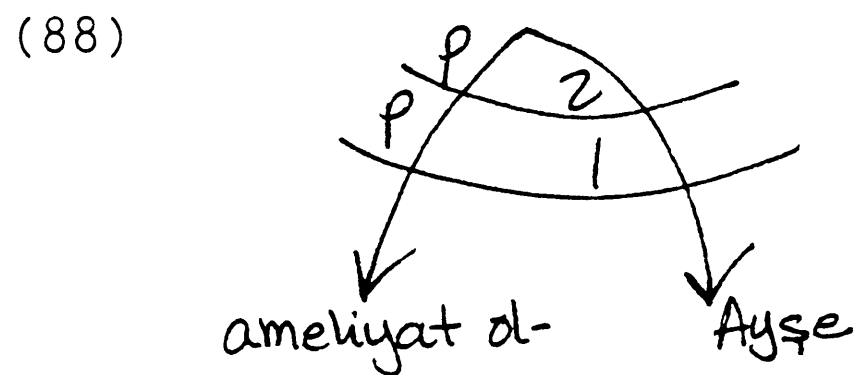
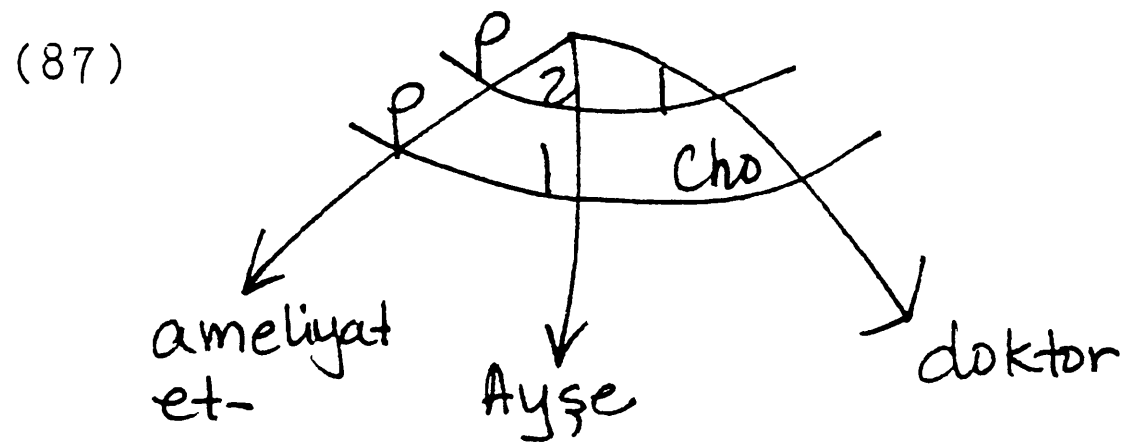
- b. Ayşe nakavt ol-du.
 knock out-PST

'Ayşe was knocked out.'

- c. ?/* Ayşe Hasan tarafından nakavt ol-du.
 by knock out-PST

('Ayşe was knocked out by Hasan.')

The (a) sentences have passive 2 to 1 advancement, not unaccusative advancement, and thus must appear with the auxiliary etmek. The (b) sentences have unaccusative 2 to 1 advancement, and must appear with the auxiliary olmak. The (a) and the (c) sentences further show that passive and unaccusative clauses differ in their ability to contain a tarafından phrase: the tarafından phrase can appear optionally with passive 2 to 1 advancement, but is ungrammatical with unaccusative 2 to 1 advancement. The RNs for the passive constructions in (85a)-(86a) and the olmak construction in (85b)-(86b) are given below.



Thus, although both (87) and (88) have 2 to 1 advancement, only (88) has unaccusative 2 to 1 advancement, which sanctions the auxiliary olmak. The fact that (88) does not have an initial 1 which is a subsequent final 1-chomeur, accounts for the fact that olmak constructions cannot have a tarafından phrase.

The rule in (80) is further supported by examples of the following type, which involve impersonal passive of an unaccusative predicate:20

olmak predicates are initially unaccusative while etmek predicates are initially unergative.

- (90) a. * Hasan tifo ol-arak dersi -ne çalış-tı.
 typhoid-ArAk lesson-DAT work -PST
 ('Hasan, while having typhoid, studied.')
- b. Tifo ol-arak öl-dü.
 typhoid-ArAk die-PST
 'S/he died while having typhoid.'

For example, the fact that tifo olmak cannot appear with the initially unergative predicate 'to study' in an -ArAk construction in (90a), but can appear with the initially unaccusative predicate 'to die', shown in (90b), indicates that tifo olmak is initially unaccusative. In effect, the controller, Hasan, in (90a), is an initial 1 but the target is an initial 2. The -ArAk condition (18i) predicts that this sentence should be ungrammatical and it is. In (90b), the controller, Hasan, is an initial 2, and the target is also an initial 2. The sentence is grammatical and the outcome is consistent with the auxiliary rule in (80). The auxiliary rule claims that tifo olmak is an unaccusative because of the presence of olmak. In this way, the targets Hasan and s/he, in (90a) and (90b), respectively, are predicted to be initial 2's. Thus, the -ArAk construction and the auxiliary rule are consistent in their classification of intransitive predicates as initially unaccusative or unergative.

- (91) a. * Ahmet ağz-ı kana-y-arak Hasan-ı nakavt et-ti.
 mouth-POSS bleed-GL-ArAk -ACC knock out-PST
 ('Ahmet, while his mouth was bleeding,
 knocked out Hasan.')
- b. Ahmet ağz-ı kana-y-arak nakavt ol-du.
 mouth-POSS bleed-GL-ArAk knock out-PST
 'Ahmet was knocked out while his mouth was
 bleeding.'
- c. + Ahmet ağz-ı kana-y-arak nakavt ed-il-di.
 mouth-POSS bleed-GL-ArAk knock out-PASS-PST
 'Ahmet, while his mouth was bleeding, was knocked
 out.'

Similarly, the ungrammatical -ArAk construction in (91a) predicts that nakavt etmek is initially an unergative. Assuming that the controller, Ahmet, is an initial 1 while the target is an initial 2, the ungrammaticality is accounted for by -ArAk condition in (18i). Likewise, the auxiliary rule in (80) predicts that nakavt etmek is initially unergative. Example (91c) shows that a passive version of nakavt etmek can appear with an initially unaccusative predicate in an -ArAk construction. In (91c), the controller Ahmet and target Ahmet are both initial 2's. In (91b), the presence of olmak in nakavt olmak, indicates that this is an initially unaccusative predicate. The target of equi in this example is an initial 2; consequently, the controller must also be an initial 2 since the sentence is grammatical.

- (92) Vapur alabura ol-arak bat -tî.
 ship capsize -ArAk sink-PST
 'The ship, while capsized on its side, sank.'
- (93) Ayşe acî çek-erek ameliyat ol-du.
 suffer -ArAk operate -PST
 'Ayşe, while suffering, was operated on.'
- (94) Dua ed-erek ev -e hızlı yürü-dü.
 pray -ArAk house-DAT fast walk-PST
 'While praying, he walked home quickly.'
- (95) Amca -sî öl -dük-ten sonra, Sema vahlan-arak,
 uncle-POSS die-NOM-ABL after to say 'what a pity!'-ArAk
 bir milyon dolar -a tevarüs et-ti.
 a million dollars-DAT inherit -PST
 'After her uncle died, Sema, while crying 'what a pity!',
 inherited a million dollars.'

More examples of the same type are given in (92)-(95), in which unaccusative and unergative predicates are matched with their own kind. (92)-(93) contain initial unaccusative predicates and (94)-(95) contain initial unergative predicates. In these cases, as in the examples above, the predictions of the auxiliary rule in (80) and the -ArAk diagnostic, are consistent. I will not discuss these examples further.

In summary, we have established that intransitive predicates consisting of loanwords and the auxiliary olmak are unaccusative and those appearing with etmek are unergative. Along with the -ArAk construction above, the

auxiliary rule is an effective diagnostic for distinguishing between initially unaccusative and unergative predicates.

5.2.3. Double Causatives

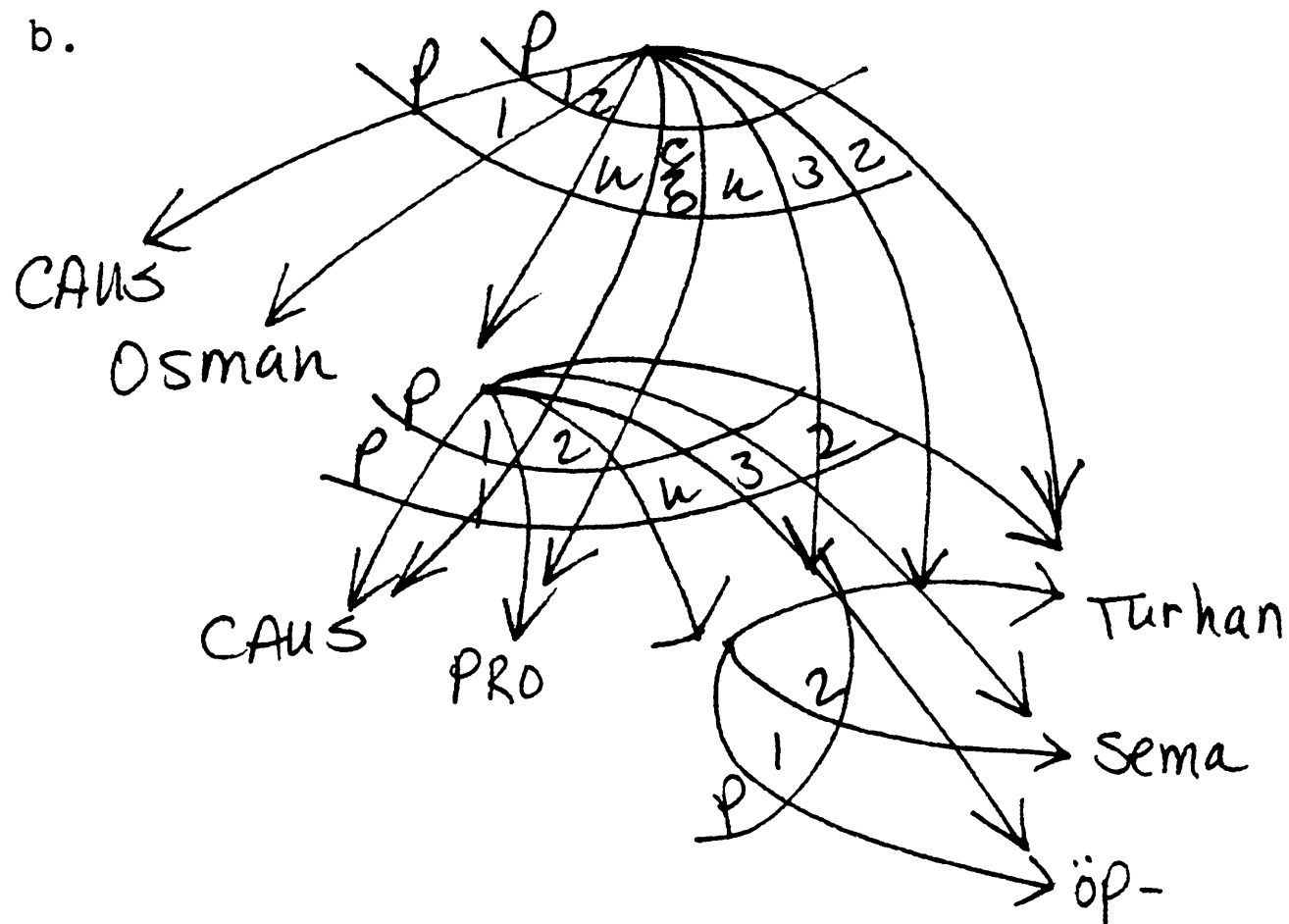
The double causative is a third construction which supports the Unaccusative Hypothesis. The causative construction is discussed in detail in section 4.2 of Chapter Four. The double causative construction is identical to the single causative construction except for the fact that the double causative has three clauses and two clause unions, instead of two clauses and one clause union. Two consecutive instances of causative morphology appear on the predicate. Consider the examples (96)-(97).

(96) a. Osman Sema-ya Turhan-ı
 -DAT -ACC

öp -tür -t -tü.
 kiss-CAUS-CAUS-PST

'Osman had someone make Sema kiss Turhan.'

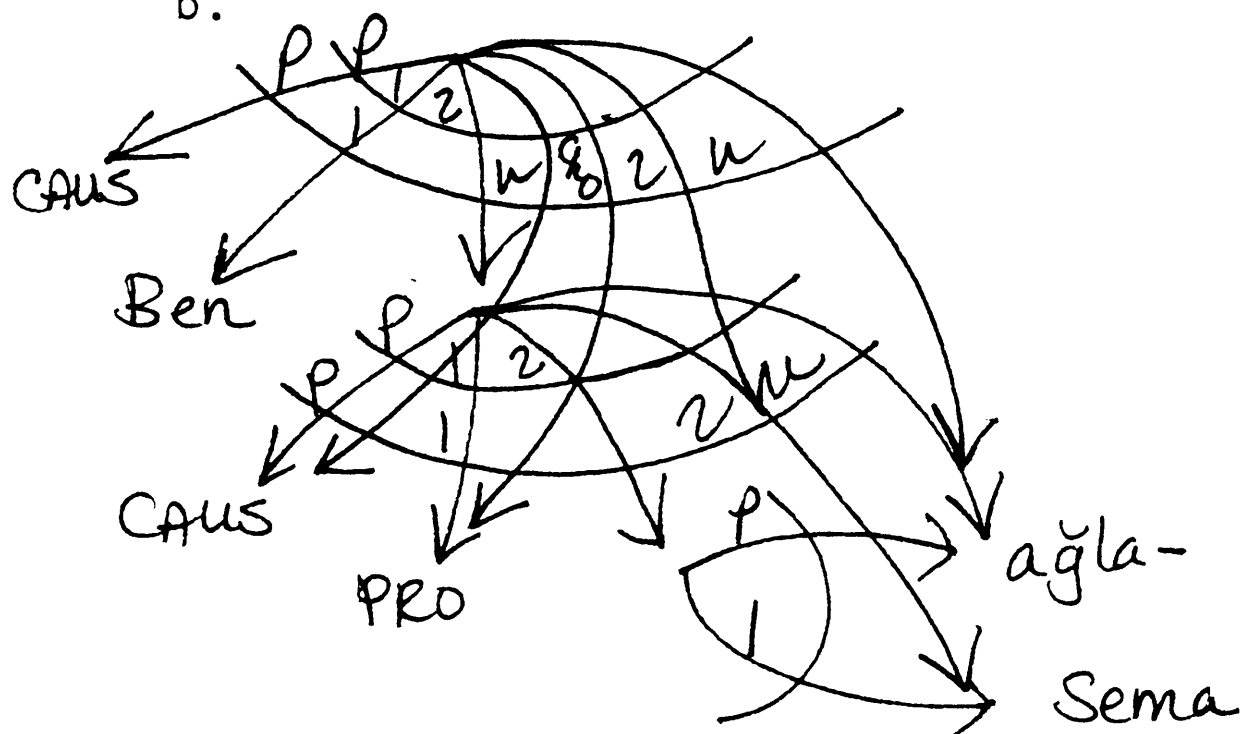
b.



(97) a. (Ben) Sema-yı ağla-t -tır -dı -m.
 I -ACC cry -CAUS-CAUS-PST-1sg

'I made someone make Sema cry.'

b.



Double causatives are constructions in which the initial 1 of the highest clause is making, or causing, the initial 1

of the intermediate clause to make or cause the final 1 of the lowest clause to do something. In (96), the lowest clause is collapsed with the intermediate clause, so that the dependents of the lowest clause come to bear relations to the intermediate clause. The relations are determined by the union revaluation rule and the Inheritance Principle, as explained in Chapter Four. The nominal Sema is the final 1 of the lowest clause, which is finally transitive. Consequently, the union revaluation rule predicts that Sema is a 3 in the union stratum of the intermediate clause. Turhan, the final 2 of the lowest clause, is a 2 in the union stratum of the intermediate clause, due to the Inheritance Principle. The intermediate clause is then collapsed with the topmost clause. The dependents of the intermediate clause which head final 2, 3, and union arcs, bear the same relations in the topmost clause via the Inheritance Principle. The 1-arc, however, which is headed by PRO, cannot be revaluated by the union revaluation rule.²¹ If the union revaluation rule were to apply to the embedded PRO, PRO would head either a final 2 or 3 arc in the union clause. Since these arcs are not erased, they would be surface arcs. Consequently, the RN that results would be ill-formed as it

²¹ In Chapter Four, I show that Turkish, like Romance languages, have no-revaluation unions in which the downstairs 1 is neither a 2 nor a 3 in the union stratum, but a 1-chomeur as stipulated by the interaction of the Inheritance Principle, the Stratal Uniqueness Law, and the Motivated Chomage Law.

would violate one of the conditions on PRO discussed in Chapter Two: PRO cannot head a surface arc. Thus, by the Inheritance Principle, PRO bears the Cho relation in the union stratum of the topmost clause.

In (97), as in (96), the lowest clause is collapsed with the intermediate clause via clause union. The final unergative 1 is a 2 in the union stratum by the union revaluation rule. This "collapsed" structure then collapses with the topmost causative clause. The relations of the dependents in the union stratum of the topmost clause are determined by the Inheritance Principle. Again, the final 1-arc headed by PRO in the intermediate clause is a 1-cho in the union stratum.

The following two sets of conditions for double causatives distinguish initial unergatives from unaccusatives.²² These conditions assume the conditions and the

²² It was Zimmer (1976:410) who first noticed that "[s]ome characterization of the role of the subject of the lowest sentence (or, alternatively, of the nature of the verb, e.g., action versus process) is ... necessary in order to distinguish fully viable double causatives with a dative NP ... from marginal or unacceptable ones...." He attributed the differences in grammaticality, however, to the semantic role of the 1 of the lowest clause. If the 1 of the lowest clause is a patient, then the intermediate 1 can bear dative case. If the 1 of the lowest clause is an agent, then an unacceptable double causative sentence results when the intermediate 1 bears dative case. I claim that the final relation the intermediate 1 bears in a double causative construction is based on the syntactic distinction of initial unaccusativity vs. unergativity of the lowest predicate for the following reasons. The

surface constraint on PRO discussed in Chapter Two and in section 5.2.1.4, and the disjunctive ordering of the union revaluation rule and the Inheritance Principle.²³

- (98) When the initial stratum of the lowest clause is unergative or transitive, the union revaluation rule does not apply in the intermediate clause.

previous two sections have shown that the Unaccusative Hypothesis finds motivation in Turkish. The predicates that allow the intermediate 1 to bear the dative case in double causatives can be shown to be unaccusative by, for example, the -ArAk diagnostic. Thus, it appears not unreasonable nor unexpedient to refer to such predicates by their syntactic categories, rather than to refer to the semantic roles borne by the subjects of the predicates. Still, a more convincing argument against Zimmer's position would be to find examples of double causatives in which the subject of the lowest predicate was not either a patient or an agent; this would indicate that Zimmer would have to expand his list of semantic roles that the subject of the lowest predicate could bear. It could then be shown that a simpler solution could be devised if the unaccusativity vs. the unergativity of the lowest predicate were referred to, rather than to semantic roles. It is difficult to find such examples, however. For example, it is not possible to causativize predicates such as 'to inherit' or 'to lose'. The semantic roles of the subjects of these predicates are neither patients nor agents. It is probable that for pragmatic reasons, only patients and agents allow double causatives. Indeed, it is difficult to find single causatives of such predicates.

²³ These conditions are for speakers of Dialect A. There are some speakers of Dialect B who allow the union revaluation rule to govern the intermediate 1 when the final stratum of the lowermost clause is unergative or transitive. Also, see Zimmer (1976) who discusses the dialectal preferences for the final relations of double causatives and intermediate 1's. Aissen (1974a) also acknowledges two groups of speakers: one which accepts sentences with two datives, the other which does not.

Similarly, when the PRO nominal in (97) is replaced by Turhan as the intermediate 1, the double causative is awkward at best if Turhan is revalued by the Union Law and is a final 3 marked with dative case in the union clause. See (101b).

(101) a. Ben Sema-y \ddot{i} Turhan vas \ddot{i} tasiyle
I -ACC by means of

ağla-t -t \ddot{i} r -d \ddot{i} -m.
cry -CAUS-CAUS-PST-1sg

'I made Sema cry by means of Turhan.'
or 'I made Turhan make Sema cry.'

b. */? Ben Turhan-a Sema-y \ddot{i}
I -DAT -ACC

ağla-t -t \ddot{i} r -d \ddot{i} -m.
cry -CAUS-CAUS-PST-1sg

('I made Turhan make Sema cry.')

The double causative is grammatical, however, if the intermediate 1 is placed en chomage by the Inheritance Principle and the Stratal Uniqueness Law. Because the intermediate 1 is a final chomeur, it appears with the postposition meaning 'by the means of', vas \ddot{i} tasiyle. Vas \ddot{i} tasiyle results because the lowest clause is initially unergative, according to (98). Thus, as predicted by the condition in (98), the intermediate 1's, ben, and Turhan, appear with a postposition indicative of its chomage shown in (100a) and (101a). It is a final chomeur because the Inheritance Principle and the Stratal Uniqueness Law governs its relation, and not the union revaluation rule.

Condition (99) states, on the other hand, that if the initial stratum of the lowermost complement clause of double causatives is unaccusative, the intermediate 1 may be optionally governed by the union law. Consequently, when the intermediate 1 is governed by the union law, it is a final 3 marked by dative. When the intermediate 1 is subject to the Inheritance Principle and the Stratal Uniqueness Law, it is a final chomeur marked by vasitasiyle. As with the initially transitive and initially unergative cases above, when the intermediate 1 is PRO, it cannot be revalued by the union law, as this would ultimately violate one of the conditions on PRO; namely, that PRO cannot head a surface arc. A final 2 or 3-arc headed by PRO which is not erased by, for example, *equi*, will head a surface arc. Rather, the intermediate 1 PRO is placed en chomage in the topmost clause by the Inheritance Principle and the Stratal Uniqueness Law. Since PRO is then a cho-arc, there is no danger of it being a surface arc; the surface constraint in (63c) will ensure that the final cho-arc headed by PRO will self-erase. thus, the surface constraint on PROs is met. Consider the following double causatives, which have an initially unaccusative predicate in the lowermost clause.

- (102) a. Sema su-yu musluk-tan ak-~~i~~t-~~t~~i~~r~~-~~d~~i.
 -ACC faucet-ABL flow-CAUS-CAUS-PST
 'Sema made someone make the water flow from
 the faucet.'
- b. Sema su-yu Turhan-a musluk-tan ak-~~i~~t-~~t~~i~~r~~-~~d~~i.
 -ACC -DAT faucet-ABL flow-CAUS-CAUS-PST
 'Sema made Turhan cause the water to flow from
 the faucet.'
- c. Sema su-yu Turhan vasit~~i~~yasiyle musluk-tan
 -ACC by the means of faucet-ABL
 ak-~~i~~t-~~t~~i~~r~~-~~d~~i.
 flow-CAUS-CAUS-PST
 'Sema made the water flow from the faucet
 by means of Turhan.'

Sentence (102a) shows that the intermediate 1 can be PRO. PRO is claimed to be a final cho in the topmost clause. As noted earlier, some speakers accept (102c), in which the specified intermediate 1 is a final cho and appears within a postpositional phrase. In both of these sentences, the union revaluation rule has failed to govern the intermediate 1 in its union clause. Rather, the Inheritance Principle governs the intermediate 1's final relation. In sentence (103b), the final relation of the intermediate 1 is governed by the union revaluation rule, and is thus a final 3 in its union clause.

More examples of double causatives of unaccusatives and unergatives are given below.

(103) Unaccusatives

- a. Sema Turhan-a kız-ı kay-dır-t-ti.
-DAT girl-ACC slip-CAUS-CAUS-PST
'Sema made Turhan cause the girl to slip.'
- b. Sema Turhan-a çiçeğ-i sol-dur-t-tu.
-DAT flower-ACC fade-CAUS-CAUS-PST
'Sema made Turhan cause the flower to fade.'
- c. Doktor anne-ye çocuğ-u doğ-ur-t-tu.
doctor mother-DAT child-ACC born-CAUS-CAUS-PST
'The doctor caused the mother to cause the child to be born.'
- d. Sema Turhan-a su-yu fışkır-t-ır-di.
-DAT water-ACC spurt-CAUS-CAUS-PST
'Sema made Turhan cause the water to spurt.'

(104) Unergatives

- a. * Ben Turhan-a Sema-yı kayak kay-dır-t-im.
I -DAT -ACC ski-CAUS-CAUS-PST-1sg
'I made Turhan make Sema ski.'
- b. * Ben Turhan-a Sema-yı koş-tur-t-t-um.
I -DAT -ACC Run-CAUS-CAUS-PST-1sg
'I made Turhan make Sema run.'

Like (102), the examples in (103) allow their intermediate specified 1 to bear the final 3 relation, as indicated by dative case. The unergative examples in (104), on the other hand, do not allow their intermediate specified 1 to be a final 3; thus, dative case marking is not allowed. As expected, the unergative examples above are more acceptable if the intermediate 1 is either a PRO or is a final 1-cho appearing with vasıtasiyle.

(105) a. Ben Sema-y_i Turhan vası̇tasiyle kayak kay-
 -ACC by the means of ski

d_ir -t -t_i -m.
 CAUS -CAUS-PST-1sg

'I made Turhan make Sema ski.' or
 'I made Sema ski by
 means of Turhan.'

b. Ben Sema-y_i Turhan vası̇tasiyle
 I -ACC by the means of

koş-tur -t -tu -m.
 run-CAUS-CAUS-PST-1sg

'I made Turhan make Sema run.' or
 'I made Sema run
 by means of Turhan.'

Double causatives can thus be employed as a diagnostic to distinguish between initially unergative and unaccusative predicates in Turkish. The chart below sums up the correspondence between the final relation an intermediate 1 bears in the topmost clause, and the unaccusativity vs. unergativity of the predicate of the lowermost clause.

(106)

	<u>PRO</u>	<u>Specified</u>
Transitive	cho	cho
Unergative	cho	cho
Unaccusative	cho	3/cho

A question that arises next is why the conditions in (98) and (99) work the way they do. It is clear that when the intermediate 1 is PRO, the union law cannot apply, since this would lead to a violation of the one of the conditions on PRO, namely that PRO cannot head a surface arc. It is not clear, however, why the specified intermediate 1 can be

either a final 3 or cho when the lowermost clause is initially unaccusative. That is, why can't the facts in (106) be the opposite of the way they are? For example, when the lowermost clause is initially transitive or unergative, the intermediate could be either a final 3 or cho; and when the lowermost clause is initially unaccusative, the intermediate 1 could only be a final cho. Unfortunately, the investigation of possible answers to these questions is beyond the scope of this chapter.

Chapter Six

Impersonal Passives of Intransitive Predicates

6.1 Introduction

It has been a matter of some controversy (Comrie 1977; Perlmutter 1978; Perlmutter and Postal 1984a; Perlmutter and Postal 1984b) as to whether constructions traditionally labelled impersonal passives in many languages are bona fide passives. And if so, should they be universally characterized with the same structure as personal passives? Perlmutter and Postal (1977) answer 'yes' to both of these questions and provide a universal characterization of passives which shows impersonal passives sharing a common feature with personal passives. This feature involves 2 to 1 advancement from a transitive stratum. The factor that differentiates the two types of passive is that the nominal advancing in impersonal passives is a dummy, whereas the advancing nominal in personal passives is a nondummy.

In this chapter, I discuss two types of impersonal passive constructions in Turkish: the impersonal passive of unaccusatives and the impersonal passive of personal passives. Both of these constructions are predicted to be impossible by the interaction of the 1AEX Law and the universal characterization of passive stated above, henceforth, the advancement analysis of passive. Perlmutter (1978) argues that since initial unaccusatives cannot

passivize, impersonal passivization can be used as a diagnostic to distinguish between initial unaccusatives and initial unergatives. We have just seen in Chapter Five, however, that there are three known diagnostics in Turkish for initial unaccusativity vs. initial unergativity. The impersonal passive construction is not one of them. Furthermore, Perlmutter and Postal (1984a) explicitly argue against the possibility of impersonal passives of personal passives, providing examples from Welsh. They claim that although impersonal passives of initially transitive predicates are possible, these constructions are not impersonal passives of personal passives. I argue, however, that both of the above constructions exist in Turkish, and therefore either the 1AEX or the advancement analysis of passive must be abandoned as a universal. Since both the 1AEX and the advancement analysis of passive are major assumptions in RG, I consider alternative analyses which posit nonpassive structures for the apparent impersonal passives. Although these analyses do not violate the 1AEX, they are shown to be inadequate in other ways, and thus to be inferior to the structures which counterexemplify the 1AEX.

Another point of interest in the chapter concerns the notion of the dummy. Dummies and PRO are phonologically null entities in Turkish. As we will see in section 6.3, if we assume the existence of the dummy in impersonal constructions, we can syntactically differentiate between

constructions which have a dummy and which do not. In this way, the theoretical construct of dummy finds motivation in Turkish.

The chapter is organized as follows. In section 6.2, I will argue against Perlmutter's claim that impersonal passive is universally unavailable for unaccusative predicates, by citing counterexamples from Turkish. The fact that Turkish allows impersonal passives of unaccusatives argues that either the 1AEX Law or else the advancement analysis of impersonal passives should be abandoned. I will then examine the language-particular conditions that govern when impersonal passives in Turkish can occur. I suggest that the crucial factor governing impersonal passivization in Turkish is not the unaccusative vs. unergative distinction, but rather the presence of a PRO heading a 1-arc.

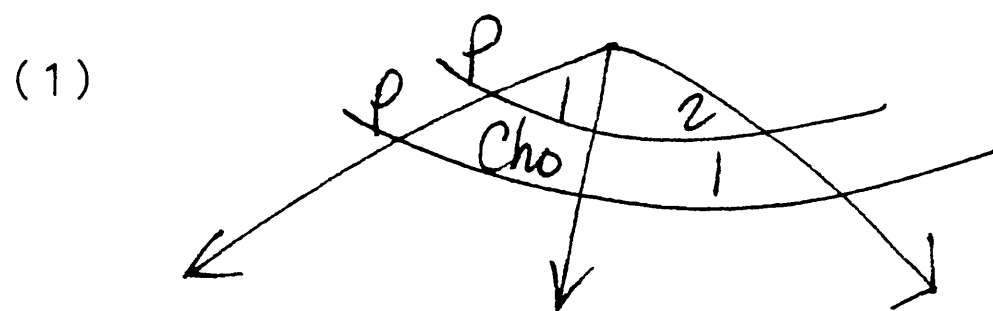
Section 6.3 discusses Turkish monoclausal double passives; this construction involves the impersonal passive of a personal passive. A construction of this sort is predicted not to exist by Perlmutter and Postal (1984a). Like the impersonal passive of unaccusative predicates, the monoclausal double passive also provides evidence against either the 1AEX or the advancement analysis of impersonal passives. Furthermore, I show that monoclausal double passives further resemble impersonal passives of intransitive verbs, in requiring a PRO which heads a 1-arc.

In section 6.4, I present three alternatives to my analysis of impersonal passives of unaccusatives and of personal passives. The common goal of the three analyses is to prevent the 1AEX from being violated; consequently, all three claim that Turkish has no true impersonal passives. As I show, however, their analyses cause complications elsewhere in the grammar of Turkish, and thus the Turkish counterexamples to the 1AEX must stand as presented in 6.2 and 6.3.

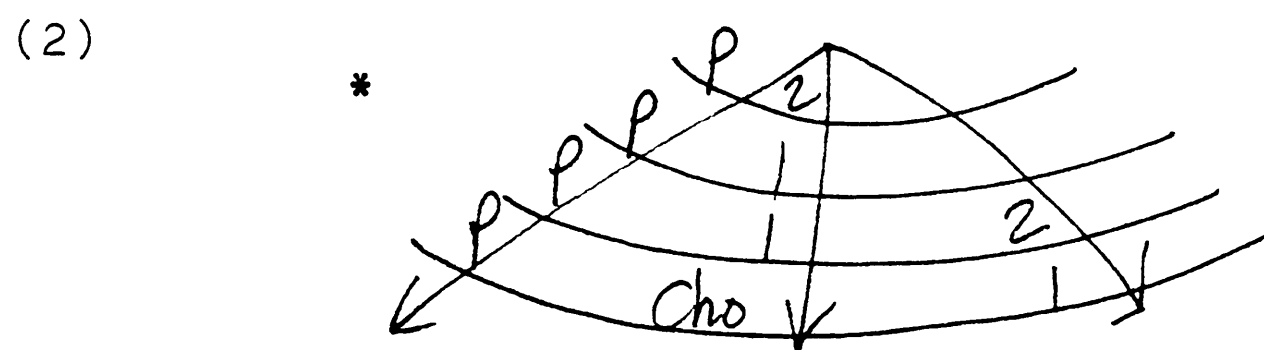
6.2 Impersonal Passives of Unaccusatives

In a paper designed to argue that passive involves the advancement of a 2 to 1, and that the Motivated Chomage Law is valid, Perlmutter (1978) claims that impersonal passives of unaccusative predicates are not possible, citing examples from Dutch and Turkish.¹ His claim stems from the interaction of several principles of grammar proposed as linguistic universals in RG: the 1AEX, 2 to 1 advancement analysis of passive, and the Unaccusative Hypothesis. Before illustrating how these interact, recall that passive, both personal and impersonal, is universally characterized by Perlmutter and Postal (1977) as involving the relational subnetwork (1).

¹ Examples from only Dutch are presented in Perlmutter and Postal 1984b, a paper which incorporates the Perlmutter (1978) article.

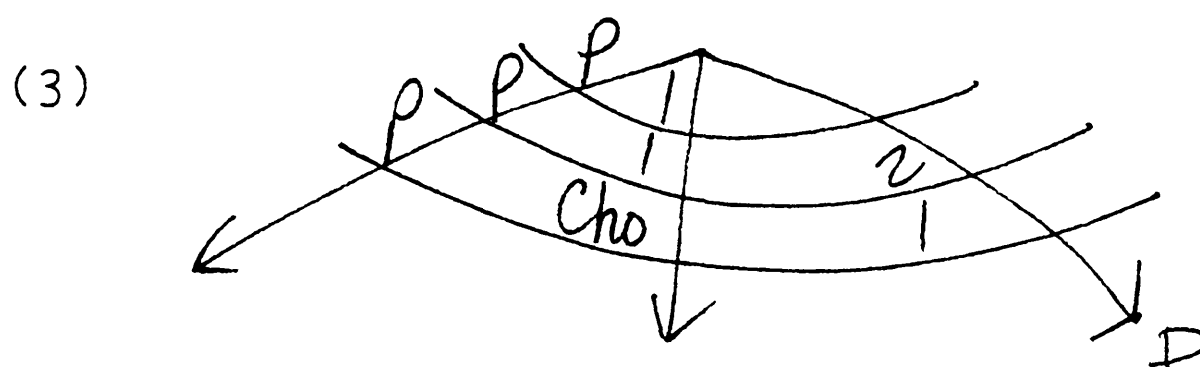


This RN includes a transitive departure stratum; that is, the stratum in which the 1-advanee bears the 2 relation also includes a nominal bearing the 1 relation. The 2 advances to 1 in the next stratum. The following ill-formed relational network of an initially unaccusative clause shows how the above rules interact.



The initial 2 of the unaccusative stratum advances to 1. A dummy enters the subsequent stratum as a 2 creating the requisite transitive stratum for passive. From this intermediate transitive stratum, passive advancement occurs: the dummy 2 advances to 1, placing the 1-advanee en chomage. The relational network in (2) is ill-formed because there are two advancements to 1, violating the 1AEX.

The RN of an initially unergative clause which involves passive, however, is a well-formed relational network.



As in (2), the dummy enters the intermediate level as a 2, creating a transitive stratum from which there is passive 2 to 1 advancement. Unlike the initially unaccusative clause in (2), the initially unergative clause in (3) can have 2 to 1 passive advancement because there is no other 2 to 1 advancement, such as unaccusative advancement.

The fact that the above principles interact to predict the ill-formed RN in (2), and the well-formed RN in (3), (and the impersonal passive data from languages such as Dutch) led Perlmutter to claim that impersonal passives of initially unaccusative clauses are impossible. Consequently, impersonal passives could theoretically be used as a syntactic test to distinguish between initial unaccusatives vs. initial unergatives. If an intransitive predicate is initially unaccusative, it will not allow impersonal passivization; if it is initially unergative, impersonal passivization will be allowed.

For example, the Turkish impersonal passives in (4) are ungrammatical. According to Perlmutter's claim above, the predicates are predicted to be initially unaccusative.

- (4) a. * Burada sol -un -ur.
 here fade-PASS-AOR
 ('Here it is faded.')
- b. * Burada fişkir-ıl -ır.
 here spurt -PASS-AOR
 ('Here it is spurted.')
- c. * Burada kuru-n -ur.
 here dry -PASS-AOR
 ('Here it is dried.')

The impersonal passives in (5), on the other hand, are predicted to be initially unergative because they are grammatical.

- (5) a. Burada dans ed-il -ir.
 here dance -PASS-AOR
 'Here it is danced.'
- b. Burada kavga ed-il -ir.
 here fight -PASS-AOR
 'Here it is fought.'
- c. Burada çalış-il -ir.
 here work -PASS-AOR
 'Here it is worked.'

In Chapter Four, three syntactic tests in Turkish were proposed for initial unaccusativity vs. initial unergativity. They involved the -ArAk construction, predicates consisting of loanwords and auxiliaries, and double causatives. If impersonal passives can also be employed as a diagnostic, then impersonal passives should select as unaccusative the same predicates that are selected by the other

three syntactic tests. That is, all the test results should be the same with respect to initial unaccusativity vs. initial unergativity. The impersonal passive test for unaccusativity, however, classes the following examples as initially unergative clauses while other syntactic tests for unaccusativity, such as the -ArAk construction and double causatives, class them as initially unaccusative.

- (6) a. Burada kay-~~ı~~l-~~ı~~r.
 here slip-PASS-AOR
 'Here it is slipped.'
- b. Burada düş-ül-ür.
 here fall-PASS-AOR
 'Here it is fallen.'
- c. Bu göl-de boğul-un-ur.
 this lake-LOC drown-PASS-AOR
 'It is drowned in this lake.'
- d. En çok Mart ay-~~ı~~n-da öl-ün-ür.
 most March month-POSS-LOC die-PASS-AOR
 'It is died most in the month of March.'
- e. Hastalan-~~ı~~l-~~ı~~r.
 get sick-PASS-AOR
 'It is become sick.'
- f. Bu yetimhane-de çabuk büyü-n-ür.
 this orphanage-LOC fast grow-PASS-AOR
 'It is grown quickly in this orphanage.'
- g. Yan-an ev-de yan-~~ı~~l-~~ı~~r.
 burn-REL house-LOC burn-PASS-AOR
 'It is burned in a burning house.'

The impersonal passives in (6) are predicted to have initially unergative predicates by the impersonal passive test.

The -ArAk construction test, however, predicts that they are initially unaccusative. Consider the following -ArAk constructions, which contain some of the predicates above.

- (7) a. Sarhoş [yalpala -y-arak] kay -dı.
drunkard sway about-Y-ArAk slip-PST
'The drunkard, while swaying about, slipped.'
- b. Ahmet, [kana -y-arak] yer -e düş -tü.
bleed-Y-ArAk ground-DAT fall-PST
'Ahmet, while bleeding, fell to the ground.'
- c. Ahmet, [işkence gör-erek], öl -dü.
torture see-ArAk die-PST
'Ahmet, while undergoing torture, died.'
- d. Ahmet, [su -y-un altın-da kal -arak],
water-Y-GEN under-LOC stay-ArAk
boğul-du.
drown-PST
'Ahmet, while staying under water (involuntarily), drowned.'
- e. Ahmet, [soğuk-ta kal -arak] hastala -n -dı.
cold -LOC stay-ArAk get sick-PASS-PST
'Ahmet, while staying in the cold (involuntarily), got sick.'
- f. Ahmet, [iyi eğitim gör-erek] büyü-dü.
good education see-ArAk grow-PST
'Ahmet, while going through a good education, grew up.'

The fact that the predicates in (6) can occur in either the matrix or embedded clause of an -ArAk construction with other unaccusative predicates indicates that these predicates are initially unaccusative. (Recall from Chapter Four that the -ArAk construction requires that the initial

relation of the final 1 in the matrix and embedded clauses be the same.) Furthermore, if the predicates in (6) are initially unaccusative, as the -ArAk data in (7) indicate, they should not be able to occur in either the matrix or embedded clause with an initially unergative predicate in the -ArAk construction. This prediction is borne out in (8).

- (8) * Kız [(top) oyna-y-arak] kay -dı.
 girl ball play-Y-ArAk slip-PST
 ('The girl, while playing (ball), slipped.')
- (9) * Kız [kayak kay-arak] düş -tü.
 girl ski -ArAk fall-PST
 ('The girl, while skiing, fell.')
- (10) * Adam [konuş-arak] öl -dü.
 man talk -ArAk die-PST
 ('The man, while talking, died.')
- (11) * Adam [yüz -erek] boğul-du.
 man swim-ArAk drown-PST
 ('The man, while swimming, drowned.')
- (12) * Adam [çalış-arak] hastalan-dı.²
 man work -ArAk get sick-PST
 ('The man, while working, got sick.')

Thus, the impersonal passive diagnostic predicts that the predicates in (6) are unergative whereas the -ArAk

² This sentence can be grammatical on the reading that the man got sick as a consequence of working, but not with the intended meaning that the man gets sick while working, i.e. simultaneously.

construction test predicts that they are unaccusative.

Another diagnostic which distinguishes initial unaccusatives from initial unergatives is the double causative construction. This diagnostic, like the -ArAk construction test, also predicts the predicates in (6) to be initially unaccusative. First recall from section 4.2.3 in Chapter Four that the double causative constructions obeys the following conditions;

- (13) When the initial stratum of the lowest clause is unergative or transitive, the union revaluation rule does not apply in the intermediate clause.
- (14) When the initial stratum of the lowest clause is unaccusative, either the union revaluation rule or the Inheritance Principle may apply in the intermediate clause. (The application of the union revaluation rule is more acceptable.)

The above conditions interact with another condition posited for Turkish causatives in this chapter and in Chapter Four. In Chapter Four the union revaluation rule and the Inheritance Principle are disjunctively ordered. The Inheritance Principle applies in constructions in which the union revaluation rule is blocked from applying. The chart below, cited in Chapter Four, shows the correspondence between the final relation an intermediate 1 bears in the topmost clause, and the unaccusativity vs. unergativity of the predicate of the lowermost clause.

(15) Predicate of lowermost clause	Intermediate 1	
	PRO	Specified
Transitive	cho	cho
Unergative	cho	cho
Unaccusative	cho	3/cho

Thus, according to (15), if a predicate is initially unaccusative, it can occur in the lowermost clause of a double causative construction whose intermediate 1 is a final 3. The possibility of the intermediate 1 occurring as a final 3 is a diagnostic for initial unaccusativity vs. initial unergativity.

Returning to the predicates in (6), if they are initially unaccusative, they should allow the intermediate 1 to bear the final 3 relation. This prediction is borne out as we see below.

(16) Sema Turhan-a çiçeğ -i sol -dur -t -tu.
-DAT flower-ACC fade-CAUS-CAUS-PST

'Sema made Turhan cause the flower to fade.'

(17) Sema Turhan-a su -y-u fişkir-tir -t -ti.
-DAT water-Y-ACC spurt -CAUS-CAUS-PST

'Sema made Turhan cause the water to spurt.'

(18) Sema Turhan-a kız -ı kay -dır -t -ti.
-DAT girl-ACC slip-CAUS-CAUS-PST

'Sema made Turhan cause the girl to slip'

(19) Haydut adam-a çocuđ-u öl -dür -t -tü.
 brigand man -DAT child-ACC die-CAUS-CAUS-PST

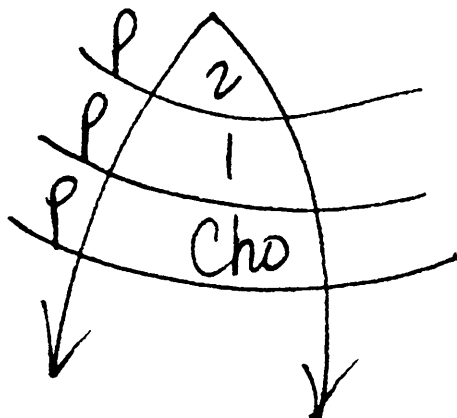
'The brigand made the man make the child die
 (killed the child).'

Thus, both of the syntactic diagnostics, the -ArAk construction test and the double causative construction test, indicate that the predicates in (6) must be initially unaccusative. As noted above, however, the impersonal passive test suggests that these same predicates must be initial unergatives. Since all of the diagnostics for initial unaccusativity should make a uniform prediction, I conclude that the impersonal passive test is incorrect. That is, an impersonal passive of an initial unaccusative is possible.

This conclusion seriously questions the validity of either the 1AEX or the advancement analysis of passive. The impersonal passive of unaccusatives involve two advancements to 1, violating the 1AEX. There are two advancements to 1, because there is both unaccusative advancement and 2 to 1 impersonal passive advancement of a dummy. If there was no passive advancement and the 1-advanee demoted to 1-chomeur spontaneously, the 1AEX would not be violated, as in (20).³

³ Comrie (1977) proposed that impersonal passives do not involve an advancement from 2 to 1; rather, they involve the spontaneous demotion of the 1 to chomeur. See section 6.3.1 for further discussion of the spontaneous demotion analysis.

(20)



The relational network in (20), however, violates the Motivated Chomage Law . That is, the 1 has demoted to chomeur in a stratum in which there is no other 1. Consequently, if one attempted to save the 1AEX by allowing spontaneous demotion, then the Motivated Chomage Law would be called into question. If spontaneous demotion is prohibited, then the 1AEX is violated. If impersonal passives of initial unaccusatives can occur, as I claim they can, then one of these laws must be abandoned. To determine which law should be abandoned requires further cross-linguistic research. Even when further cross-linguistic data is available, however, it is imperative to recognize the overall consequences of the abandonment of one or the other law for the grammar of the individual language and for the theory. For example, how will the abandonment of the 1AEX affect the grammar of Turkish? Turkish provides no evidence for the 1AEX, so conversely, the 1AEX does no "work" for the grammar of Turkish. Abandoning the 1AEX would not affect the individual grammar of Turkish. Abandoning the Motivated Chomage Law, and consequently, the advancement analysis of passive, however, would significantly affect the grammar of Turkish.

For example, if impersonal passives did not involve the advancement of a dummy from 2 to 1, the following condition on causative would not prevent impersonal passives from occurring in the complement clause of a causative.

(21) A nominal, a, cannot head 1 and 2 arcs having the same tail in the complement clause of Turkish causatives.

Condition (21) would effectively block personal passive and (reflexive) multiattachment from occurring in the complement clause, but another seemingly ad hoc condition would be required to prevent impersonal passive from occurring.⁴ Furthermore, by abandoning the Motivated Chomage Law and allowing spontaneous demotion, a host of ungrammatical constructions in Turkish would be allowed. There would be no principled way to regulate demotion in RNs; thus many structures which do not exist in Turkish would be predicted to occur. These ungrammatical and nonexistent constructions in turn would require conditions and constraints to prevent them from occurring. If the goal of linguistics for the study of an individual language is to identify and constrain the number of possible constructions in the language, then abandoning the 1AEX, rather than the Motivated Chomage Law, is more desirable. This conclusion also holds for the

⁴ More to the point, an ad hoc condition preventing impersonal passives of unergative would be needed since impersonal passives of unaccusatives would have unaccusative 2 to 1 advancement, thus satisfying condition (21).

following question: What are the consequences of the abandonment of the 1AEX vs. the abandonment of the Motivated Chomage Law for the class of languages? Consequently, if we must decide whether the 1AEX or the Motivated Chomage Law should be abandoned, abandoning the 1AEX as a universal appears to cause fewer problems. Individual languages which need the 1AEX to constrain their structures, however, could posit the 1AEX as a language-particular constraint.

Returning to the impersonal passive data above, what accounts for the grammatical impersonal passives in (5) and (6) and the ungrammatical impersonal passives in (4) if, as claimed above, the initial unaccusative vs. initial unergative distinction is not relevant? It has been proposed by L. Knecht (personal communication) that the impersonal passive facts in (4), (5), and (6) can be made to follow from the following descriptive generalization about Turkish.

- (22) Intransitive verbs that have (unspecified) human subjects may appear in an impersonal passive construction.

Thus, in her view, the predicates in (5) and (6) passivize because they have (non-overt) human subjects, while those in (4) do not passivize because they do not have human subjects. Unlike impersonal passives in some languages, Turkish impersonal passives do not allow an overt passive 1-chomeur. Thus, the (impersonal) passive chomeur must always be PRO, as seen in (5) and (6). I adopt Knecht's generalization in (22) to account for the impersonal passive facts in

(4), (5), and (6). However, it is worth noting that (22) is only a necessary and not a sufficient condition for impersonal passivization, as noted by the wording may in (22), rather than must. It is not true that every clause with an intransitive predicate and PRO must be an impersonal passive. The generalization in (22) is in conformity with the following condition for PROs in Turkish, cited in Chapter Two and repeated here for convenience.⁵

(23) PRO cannot head a surface arc.

As we have already seen in Chapter Five, there are other constructions in which RNs with PRO can satisfy (23). In particular, in section 6.2.1.4, the interaction of RNs with PRO and cross-clausal multiattachment showed PRO as an Equi victim; thus, (23) was met. In section 6.3 which contains monoclausal double passives, we will see (23) being met in another construction, relativization. Thus, passive

⁵ Turkish does not have a lexical realization for PRO as, for example, the French on. Passive is one way of ensuring that PRO will not head a surface arc because the passive cho-arc will self-erase via the surface constraint discussed in Chapter Two. Passive chomeurs are optionally null in Turkish, as shown in the personal passive:

(i) Yemek yap-ı1-dı.
meal make-PASS-PST

'The meal has been made.'
Personal passive chomeurs are the only nominals that have the option of not being overt. Impersonal passive chomeurs appear to be an extension of the option of being null as they are never overt.

is not the only means to satisfy (23), but in monoclausal structures as in (5) and (6), there is no other means.

There is a common property shared by all of the constructions with PRO discussed thus far, and those to be discussed in section 6.3; that is the property that PRO must head a 1-arc. It is through this property of PRO heading a 1-arc, that the different strategies (i.e. constructions) can be employed to satisfy (23). Impersonal Passives of initially unergative predicates have a PRO that heads a 1-arc. Impersonal passives of initially unaccusative predicates have a PRO heading a 1-arc, because PRO undergoes unaccusative advancement. In Equi constructions, discussed in Chapter Five, PRO must head a 1-arc to undergo Equi. And, as we will see in the following section, PRO can be the head of a relative clause only if the relative NP is a final 1. Furthermore, the monoclausal double passive construction for which I argue for in section 6.3, involves two PROs, both of which must head 1-arcs. The two PROs are both involved in passive advancement. Consequently, since PRO must head a 1-arc in all these different types of constructions, the following condition on PROs was posited in Chapter Two.

(24) PRO must head a 1-arc.

6.3 Impersonal Passives of Personal Passives: Monoclausal Double Passives

In this section, another type of impersonal passive is discussed: the monoclausal double passive. Like the impersonal passive of unaccusatives, the monoclausal double passives, which are impersonal passives of personal passives, provide evidence against either the 1AEX Law or the advancement analysis of impersonal passive.

6.3.1 Introduction

There is a class of constructions in Turkish which allows two passive suffixes attached to a transitive stem. Some examples are given in (25).

- (25) a. Bu şato -da boğ -ul -un -ur.
 this chateau-LOC strangle-PASS-PASS-AOR
 'One is strangled (by one) in this chateau. or
 'It is strangled in this chateau.'
- b. Bu oda -da döv -ül -ün -ür.
 this room-LOC beat-PASS-PASS-AOR
 'One is beaten (by one) in this room.' or
 'It is beaten in this room.'
- c. Harp-te vur-ul-un-ur.
 war-LOC shoot-PASS-PASS-AOR
 'One is shot (by one) in war.' or
 'It is shot in war.'

The process of double passivization appears to be a relatively productive one (see Sebuktekin 1971, who also notes this type of double passive).⁶ Double passives exhibit the

⁶ The consultants I conferred with consider double passives acceptable in general, but it is not the preferred way of stating the sentence. Speakers prefer to

following properties: (i) they are always assigned a semantic interpretation in which the initial subject and initial object are PRO, where PRO designates the generic, unspecified NP, (ii) the tense must be aorist, (iii) two passive suffixes appear attached to the transitive verb stem.

The double passives given in (25) differ from two other types of verbal constructions in Turkish which optionally allow two or more passive suffixes to be attached to the verb stem. These are discussed briefly immediately below.

In the first of these other constructions, the verb stem may be transitive or intransitive but is always vowel final. Unlike the first passive suffix, the second passive suffix has no syntactic consequence in this type of construction. In general, the choice of the Turkish passive suffix is phonologically conditioned as follows: [-In] following laterals, [-n] after vowel-final stems, and [-Il] elsewhere. Illustrations are given in (26).

paraphrase rather than use double passives.

(i) Bu şato-da insan boğ-ul-ur.
 this chateau-LOC one strangle-PASS-AOR

'One is strangled in this chateau.'

(ii) Harp-te insan vur-ul-ur.
 war-LOC one shoot-PASS-AOR

'One is shot in war.'

The more a reasonable context can be provided for the double passive, the more readily it is accepted by the native speaker.

- (26) a. Adam döv -ül -dü.
 man beat-PASS-PST
 'The man was beaten.'
- b. Yemek ye -n -di.
 meal eat-PASS-PST
 'The meal was eaten.'
- c. Öl -ün -ür.
 die-PASS-AOR
 'It is died.'

When the [-n] or [-In] passive allomorph is selected, the passive allomorph [-Il] can optionally follow. For example, consider (27a) and (27b), which correspond to (26b) and (26c) respectively.

- (27) a. Yemek ye -n -il -di.
 meal eat-PASS-PASS-PST
 'The meal was eaten.'
- b. Öl -ün -ül -ür.
 die-PASS-PASS-AOR
 'It is died.'

The appearance of the second passive suffix appears to be stylistically conditioned, in that it serves to intensify or emphasize the passive quality of the verb. In addition, the second passive suffix serves to disambiguate the passive from homophonous verb forms which could be interpreted as reflexive. As noted in Chapter Three, the reflexive morpheme is [-(I)n]. The [-n] allomorph is selected by vowel-final verb stems, and [-In] appears elsewhere. These two reflexive allomorphs are identical to the passive allomorphs [-n]

and [-In]. The passive [-n] allomorph is phonologically conditioned in the same way as the reflexive [-n] allomorph, appearing after vowel-final stems. The passive [-In] allomorph, however, appears only after lateral-final stems while the reflexive [-In] allomorph appears after all non-vocalic final stems. Thus, the sentence in (28) is ambiguous between a reflexive reading and a passive reading.

(28) Mehmet yika-n-di.
wash-PASS/REFL-PST

'Mehmet washed himself.'
'Mehmet was washed.'

When a second passive suffix is added in (28), the sentence carries only the passive reading.

(29) Mehmet yika-n -i1 -di.
wash-PASS-PASS-PST

'Mehmet was washed.'

The type of double passive construction in (29), which I call the passive intensifier, is clearly distinct from the construction in (25). The construction in (25) must have a transitive stem; the passive intensifier has no such requirement, as can be seen from (27b). The examples in (25) must be in the aorist tense; (27a) and (29) show that this is not true for the passive intensifier. The examples in (25) never allow a surface 1; as seen in (27a) and (29), this is not true for the passive intensifier.

In the second of the other constructions which allow two passive suffixes, a passive suffix both precedes and

follows the abilitative modal auxiliary suffix [-abil-]. An example taken from George and Kornfilt (1977) is presented in (30).

(30) Bu mesele halled-il -ebil-in -ir.
 this matter solve -PASS-abil-PASS-AOR

'This problem can be solved.'

George and Kornfilt argue that this is a case of reduplication triggered by the auxiliary. That is, the second passive suffix is produced by a morphological rule and therefore has no syntactic consequences. In (30), reduplication of the passive suffix has affected a regular personal passive. In (31), it has affected an impersonal passive:

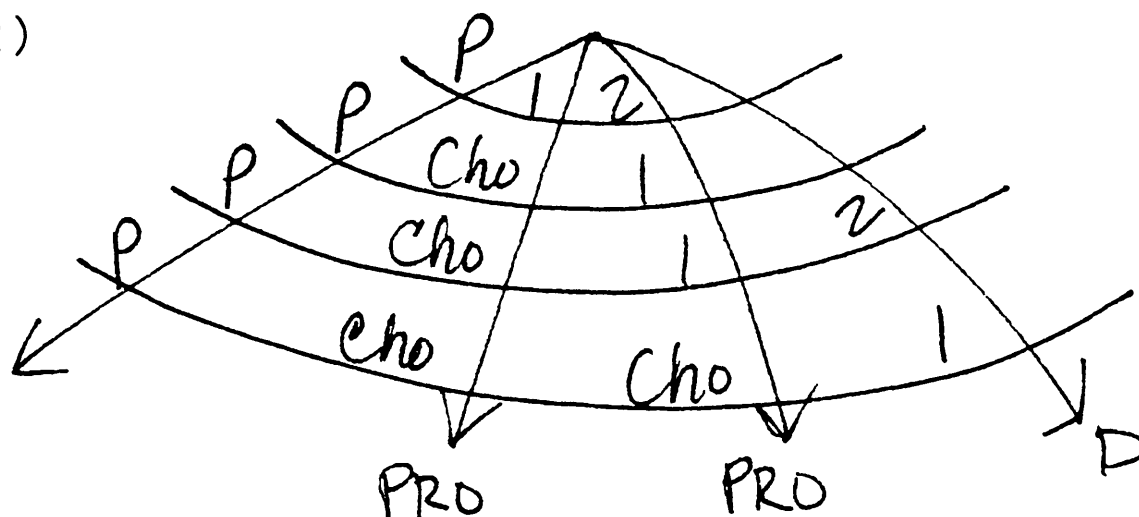
(31) Burada çalış-il -abil-in -ir.
 here work -PASS-ABIL-PASS-AOR

'Here it is worked.'

The fact that the reduplicated double passive occurs only in the environment of the auxiliary -abil-, allows a surface subject, and occurs with both transitive and intransitive stems, sets it apart from the construction in (25).

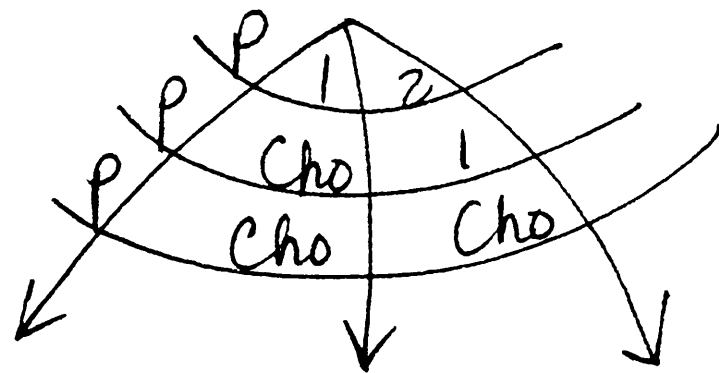
The purpose of the remainder of this section is to argue that the construction in (25) involves the impersonal passive of a personal passive. The RN that is proposed for (25) is presented below.

(32)

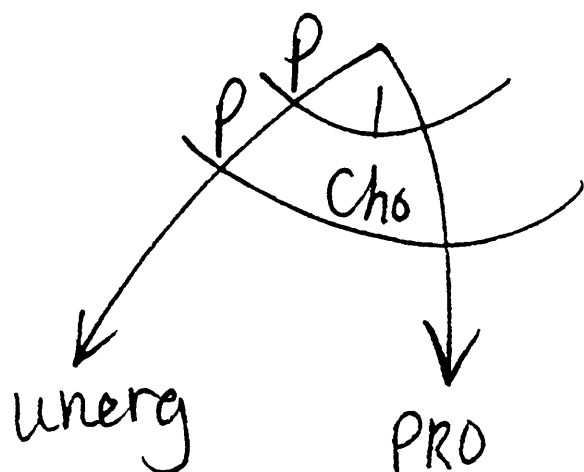


Each passive suffix in sentences like (25a) is claimed to signal a separate 2 to 1 advancement in the relational network. The existence of constructions like (25) are counterexamples either to the 1AEX Law or to the advancement analysis of impersonal passives, both of which have been major assumptions in Relational Grammar. The structure in (32) violates the 1AEX because there are two advancements to 1: there is personal passive advancement from the initial stratum and impersonal passive advancement from the stratum the dummy enters as a 2. Alternatively, if impersonal passives do not involve advancement, then the 1AEX will not be violated. Consider a spontaneous chomage analysis in (33)-(34).

(33)



(34)



Although (33) contains personal passive advancement, in which the initial 1 is put into motivated chomage, the 1-advancee demotes to chomeur spontaneously in the third stratum. Consequently, there is no impersonal passive 2 to 1 advancement of the dummy. Thus, the grammar would need a statement to the effect that while personal passive adheres to the MCL, impersonal passive does not. While this in itself is an ad hoc solution, structures like (33) for the construction in (25) and structures like (34) for impersonal passives of unergatives cause complications elsewhere in the grammar of Turkish. In particular, it is not clear how the rule for the distribution of passive -Il morphology should be stated, given the fact that incorporated 1s in Turkish are also final 1-chomeurs. Furthermore, it is also not clear how the rule prohibiting impersonal and personal passives from the complement clause of causatives should be stated, in view of the fact that -In reflexives with 1-2 multiattachment must also be prohibited. Although a spontaneous demotion analysis is not considered further in this chapter, the issues that such an analysis raises are also raised by other, more current alternative analyses in

section 6.4. These issues are dealt with in more depth in the aforementioned section.

As discussed in section 6.2, it appears that abandoning the 1AEX involves fewer complications for Turkish grammar than abandoning the advancement analysis of passive. I will assume in this section as well that the construction in (25) violates the 1AEX rather than the advancement analysis of passive; hence, the 1AEX should be abandoned.

Thus, if the analysis in (32) is correct, it provides another piece of evidence against the 1AEX. Section 6.2 demonstrated that unaccusative predicates could impersonally passivize, violating the 1AEX. It appears then that Turkish consistently allows impersonal passives of any type of superficially intransitive clause.⁷ That is, impersonal passives of personal passives can occur in Turkish because personal passives are not treated differently from other types of (superficially) intransitive clauses with respect to impersonal passivization.

⁷ If an impersonal passive is not allowed, it is for other reasons such as pragmatics, non-human subjects, etc. Further, given that Turkish unaccusatives can passivize, Sandy Chung points out that the simplest hypothesis for Turkish would be that superficially intransitive personal passives work the same way as intransitive predicates with respect to impersonal passivization.

Further, if the analysis in (32) is correct, a natural question to ask is why some languages like Welsh do not allow impersonal passives of personal passives, while other languages like Turkish and Lithuanian (Timberlake 1982) allow such constructions.⁸ More research in other languages is required before an answer can be provided. The 1AEX may be a language-specific law which holds for Welsh but not for Turkish, allowing impersonal passives of unaccusatives and personal passives in the latter.

In the above discussion, I have proposed that each 2 to 1 advancement in the RN in (32) triggers a concomitant passive suffix in sentences like (25a). It is generally assumed that morphology does not necessarily have a one-to-

⁸ See Timberlake (1982) who, on the basis of Lithuanian, arrives at the conclusion that the advancement analysis of passive must be abandoned. Also, Perlmutter (class, 1984) proposes the Noninitial Demotion Ban (NDB) which is stated as follows:

If an RN contains an arc A of the form $[\text{Term}_x(a,b) < C_z C_i >]$ and an arc B of the form $[\text{Term}_x(a,b) < C_{i+1}, <w>]$, where $\text{Term}_x > \text{Term}_y$ on the hierarchy of GR's, then Arc A has the coordinate C_1 .

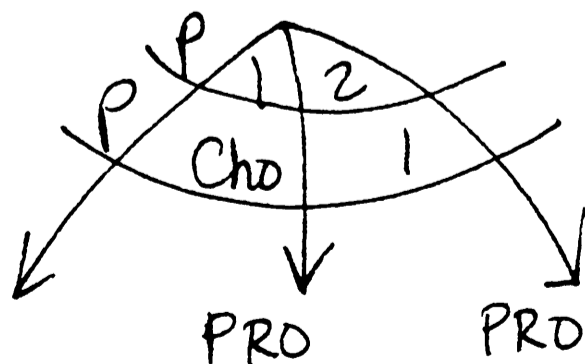
The NDB does not rule out the possibility of impersonal passives of unaccusatives or impersonal passives of personal passives, since it refers only to terms and not chomeurs. Although further research is required, Perlmutter (class, 1984) suggests that rules such as the NDB may ultimately supercede the 1AEX Law. That is to say, although the 1AEX Law itself may become obsolete, its ramifications will be embodied in some other law (of the NDB type). Thus, impersonal passives of unaccusatives and personal passives which violate the 1AEX Law will violate this yet to be discovered law.

one correspondence with relational structure; consequently, verbal morphology cannot be used as the sole criterion for positing a certain type of clausal analysis. In reviewing the two types of verbal constructions above that I have separated from the class of true double passives in (25), we see that they are instantiations of the reasons why it cannot be assumed that morphology necessarily corresponds to relational structure. Morphology resulting from stylistics or emphasis cannot be reasonably argued to be reflected in relational structure. However, I claim that in (25) the double passive morphology exhibited on the verb does indeed register two syntactic 2 to 1 advancements. The remainder of this section gives syntactic arguments, primarily based on Relativization, to support this claim.

6.3.2 Alternative Analysis

I argue below that the relational network for the construction in (25) is the one in (32). In the argumentation, I contrast (32) with the alternative analysis in (35).

(35)



The relational network in (35) is a personal passive construction, in which the initial 1 and 2 are PRO, as in the RN in (32). In the discussion in 6.3.1, it was made clear

that this condition must hold of double passives. The RN in (35), unlike (32), however, does not violate the 1AEX and, consequently, neither the 1AEX nor the advancement analysis of passive is called into question.

On the basis of (35), it could be claimed that the first passive suffix in (25) was a consequence of the 2 to 1 advancement, whereas the second passive suffix signaled the fact that the final 1 was PRO. That is, Turkish could have a suffix homonymous with the passive suffix which appears on the verbal stem when the final 1 is PRO.

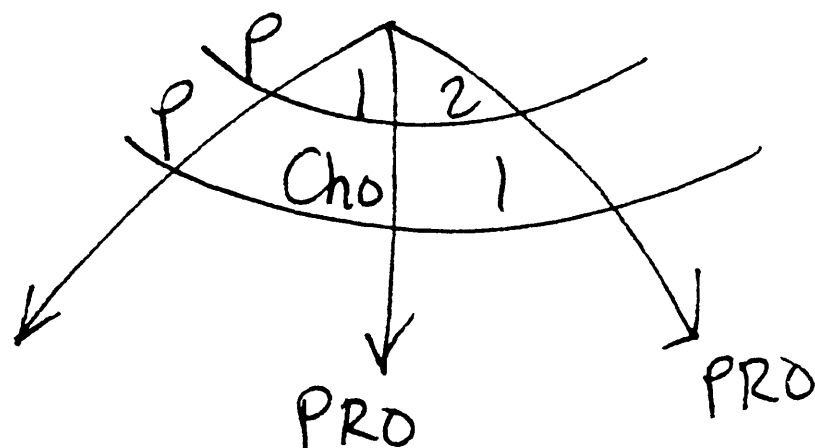
A crucial difference between this proposal and the analysis in (32) is that the final 1 in this proposal would be PRO while the final 1 in (32) is a dummy. Unlike some languages, such as English, in which dummies are overt, dummies in Turkish are phonologically null. Since dummies are silent in Turkish and PRO is a phonetically silent entity, it is difficult to distinguish between the two elements straightforwardly. In order to decide between the two analyses, we must look at the syntactic behavior of the constructions in (25) and compare it with other constructions which are argued to have a dummy as final 1. Before examining such data, however, I want to briefly consider three pieces of evidence which are consistent with the analysis in (32).

6.3.3 Three Pieces of Evidence Consistent with (32)

A. If the analysis in (32) is assumed to be correct, then we can claim that the passive suffix has as its only syntactic function the function of marking 2 to 1 advancement. It would not be necessary for the grammar to contain another stipulation stating that the passive suffix is also used when PRO is a final 1.

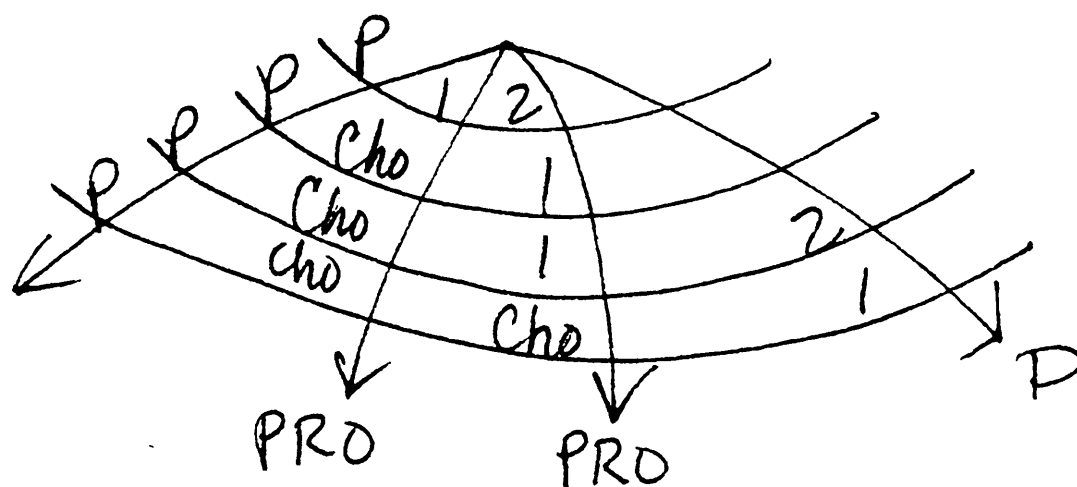
B. Secondly, if we adopt (32) as the correct analysis of the construction in (25), we can then motivate it in the following way. The following condition on PROs was posited in Chapter Two and in section 6.2 in (24): PRO must head a 1-arc. In addition, the following condition on PROs was posited in Chapter Two and in (23): PRO cannot head a surface arc. There are two PRO's in (32). One bears the initial 1 relation and the latter bears the initial 2 relation. Since (32) is monoclausal and the initial 1 would otherwise be an unerased final 1 (and thus a surface 1) if passive did not occur, 2 to 1 advancement occurs placing the initial 1 en chomage. The initial 1-arc is erased by the passive cho-arc, which in turn self-erases via the surface constraint, thus satisfying (23). See (36).

(36)



When passive 2 to 1 advancement occurs in (36), however, condition (24) is also met. When the initial 2 advances to 1, PRO heads a 1-arc as specified in (24). Now the PRO, which is an initial 2, is a 1-advanee. Again, to satisfy the condition in (23), another 2 to 1 advancement, this time impersonal passive, occurs, placing the 1-advanee en chomage. The chomeur-arc then self-erases according to the surface constraint discussed in Chapter Two. Consider the RN in (37).

(37)



Thus, the RN in (37), which is the monoclausal double passive in (32), satisfies the condition in (23). Simultaneously, the generalization in (22) is also met because (37) is an impersonal passive which has in its RN an intransitive

predicate (the personal passive) and a PRO 1.⁹ However, if the alternative analysis in (36) is adopted, the independently motivated generalization in (23) must be abandoned. The monoclausal analysis in (36) condones a structure with PRO headed by a final 1-arc. A final 1-arc headed by PRO cannot self-erase. Consequently, PRO which heads a final 1-arc will also head a surface arc. Once the constraint in (23) is abandoned, then the grammar can no longer rule as ungrammatical monoclausal structures like the following:

(38) * PRO git-ti.
 go-PST

('PRO went.')

The generalization regarding impersonal passives in (22) will not necessarily prevent the occurrence of (38), in which PRO heads a final 1-arc. The generalization states only that impersonal passives may occur in clauses containing PRO and an intransitive predicate, not that they must occur. Moreover, the generalization in (22) says nothing regarding personal passives with PRO. Consequently, without the constraint in (23), ungrammatical constructions like the

⁹ As stated in the text, dummies in Turkish, like PRO, are phonetically null. The following generalization is posited by Perlmutter (1978) for Turkish grammar.

(i) No dummies appear overtly in Turkish sentences. Turkish dummies, unlike Turkish PROs, can be final 1s in monoclausal constructions. This is in accordance with the Active Dummy Law, which states that a dummy may never be placed en chomage.

following would be allowed in the grammar.

- (39) * PRO kapı-yı aç-tı.
 door-ACC open-PST

('PRO opened the door.')

C. Finally, if we assume the analysis in (32) for (25), then either the 1AEX or the advancement analysis of impersonal passives will be violated. However, the construction in (25) is not the only Turkish construction which appears to counterexemplify one of these principles of RG. As illustrated in section 6.2, unaccusative predicates in Turkish allow impersonal passivization, as shown in (40) and (41).

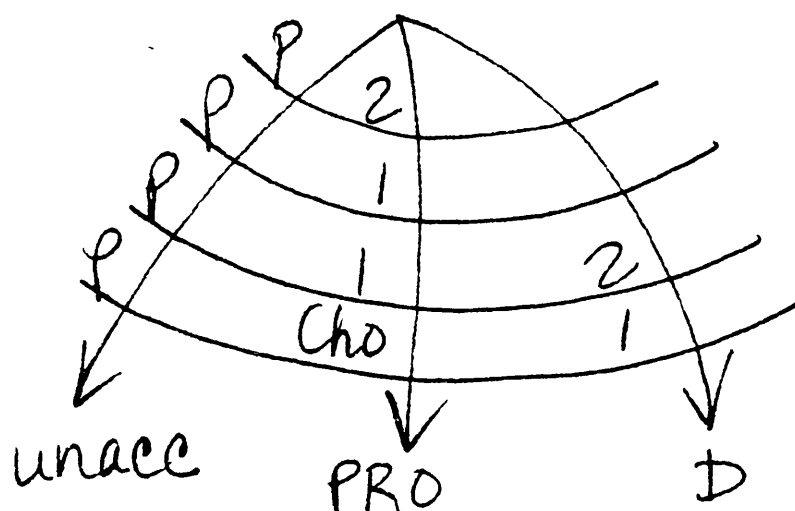
- (40) a. Burada düş-ül -ür.
 here fall-PASS-AOR

'Here it is fallen.'

- b. En çok Mart ay -in -da öl -ün -ür.
 most March month-POSS-LOC die-PASS-AOR

'It is died most in the month of March.'

(41)



(41) involves both unaccusative advancement and passive 2 to 1 advancement, violating the 1AEX. As discussed above in

section 6.2.1, however, the 1AEX can be maintained as a universal principle by instead abandoning the advancement analysis of passive, which would eliminate the advancement of the dummy from 2 to 1. Note that the problem of choosing which principle to abandon in Turkish is also present in the double passive analysis in (32). Now I will present arguments based on some relativization facts for the proposed analysis in (32).

6.3.4. Relativization

Hankamer and Knecht (1976), working within a transformational framework, propose the following conditions for relative participle selection. SP represents subject participle, OP, object participle.

- (42) a. Subjects relativize with the SP [-En] and non-subjects relativize with the OP [-DIk] regardless of case or position.
- b. The Mother Node Principle (MNP)
If a subconstituent of a major constituent of the RC is relativized, the participle is chosen which would be appropriate for relativization of the major constituent itself. [That is, for the simple cases, if the mother node dominating the target is the subject of the RC, the SP [-En] is chosen; otherwise, the OP [-DIk] is chosen.]
- c. The No-Subject Principle (NSP)
If there is no subject in the RC at the time of RC formation, the OP [-DIk] construction is impossible and only the SP [-En] construction is chosen.

In keeping with the RG framework, we can translate their conditions as follows:

- (43) Select -En if:
- (i) the final 1 in the relative clause is relativized
 - (ii) a nominal of a final 1 clause (i.e. the possessor of a possessive construction or a constituent of a sentential 1) in the relative clause is relativized
 - (iii) there is a dummy bearing the final 1 relation in the relative clause

Otherwise, select -DIk.

Condition (43iii) corresponds to Hankamer and Knecht's NSP in (42c); that is, if there is no nominal which can be argued to be a final 1 in the relative clause at the time of relativization, then the -En relative participle will be consistently chosen. In RG, every clause is claimed to have a final 1, even those clauses which Hankamer and Knecht claim are subjectless. Examples of clauses which are "subjectless" in Hankamer and Knecht's framework are impersonal passives or constructions in which the subject has been incorporated.

Some examples of relativization are given in (44)-(51). If the final 1 in the relative clause is relativized, as in (44), the -En participle is chosen, as predicted by (43i).

(44) a. Ban-a telefon ed-en adam
I -DAT telephone -En man

'The man who telephoned me'

b. Boğ -ul -an adam
strangle-PASS-En man

'The man who was strangled'

(44a) illustrates an initial and final 1 undergoing relativization, while (44b) presents an initial 2, but final 1, undergoing relativization. Thus, relativization in Turkish, like relativization in many languages, is sensitive to final grammatical relations.

(45) Tavşan-ın bahçe -de -ki çiçek -ler-i yiy-en
rabbit-POSS garden-LOC-PART flower-PL -ACC eat-En

komsu
neighbor

'The neighbor whose rabbit ate the flowers
in the garden'

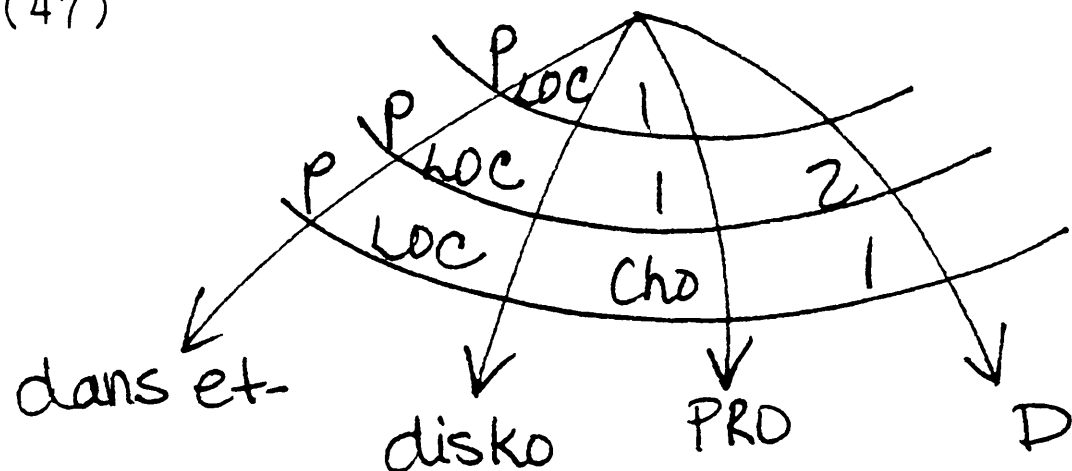
(45) is an example of a possessor of a possessive construction, which is the final 1 in the RC, undergoing relativization. As (43ii) predicts, the -En relative participle is selected.

(46) Dans ed-il -en disko
dance -PASS-En disco

'The disco where it is danced'

It has been argued (Perlmutter and Postal 1977) that impersonal passives like (46) contain a dummy which is a final 1, as in (47).

(47)



If the locative is relativized in such an impersonal passive, as in (47), the -En participle is chosen, just as predicted by (43iii).

(48) Çocuk uyu -yan oda¹⁰
 child sleep-En room

'The room in which a child/children is/are sleeping'

c.f. Oda-da çocuk uyu-yor.

room-LOC child sleep-PROG

'There is/are a child/children sleeping in the room.'

Incorporated nominals in Turkish are non-specific and appear immediately before the verb. In (48), çocuk has been incorporated and consequently the relative clause is subjectless in Hankamer and Knecht's framework.¹¹ In RG, we can assume that a dummy 1 has placed the incorporated 1 en chomage, and so the relative clause contains a dummy final 1. As condition (43iii) predicts, the -En participle is selected.

¹⁰ This example is taken from Dede (1978).

¹¹ The chomage of the incorporated 1, çocuk, is further corroborated by the unmarked word order schema presented in Gibson and Özkaragöz (1981): (1) 3 2 (nonterms) V. A nonterm includes the category of chomeur.

(49) Fare ol-an mutfak
 rat be-En kitchen

'The kitchen which has a rat/rats'

c.f. Mutfak -ta fare var.
 kitchen-LOC rat exist
 'There is/are a rat/rats in the kitchen.'

Similarly, (49) like (48), contains an incorporated 1, fare, which appears immediately before the verb. It is an existential construction whose verb is var; this verb is realized as ol- in relative clauses. Crucially, it is placed en chomage by a dummy which is the final 1. Thus, the -En participle, as predicted by (43iii), appears on the verb.

(50) Adam-ın telefon et-tiğ-i kız
 man -GEN telephone -DIk-POSS girl

'The girl the man telephoned'

In (50), kız is the head of the relative clause and the relative NP is a final 2. As predicted by the elsewhere condition in (43), the participle -DIk is selected.

6.3.4.1 Argument One: PRO and Chomeur

In this subsection, I argue for the analysis in (32), an impersonal passive of a personal passive, and against the alternative analysis in (35), a personal passive. A significant difference between these two RNs is that, in (32), both PROs are chomeurs and the dummy is the final 1, whereas in (35), one PRO is a chomeur while the

other PRO is the final 1.

The argument here is based on the following two facts: Turkish permits generic, unspecified PRO to be the head of a relative clause if the relative NP is a final 1; it does not, however, allow the relativization of chomeurs.

Consider first the following examples. PRO is the head of the relative clause and the relative NP is a final 1.¹²

- (51) Sınıf-ta kal -an ev -de azarla-n -ıyor.
class-LOC stay-En house-LOC scold -PASS-PROG

'The one/ones who flunked (his/her class) is/are being scolded at home.'

- (52) Döv -ül -en hastane -ye götür-ül -dü.
beat-PASS-En hospital-DAT take -PASS-PST

'The one who was beaten was taken to the hospital.'

In both of these examples, PRO is a final 1 in the relative clause, and the sentences are grammatical. In effect, PRO can be the head of a relative clause only if the relative NP is the final 1 of the relative clause.¹³

¹² See part (B) of section 6.3.3 as to why passivization does not have to apply to the relative clause in (51) even though PRO heads a 1-arc. That is, passive does not apply in the relative clause in (51) because PRO is relativized, hence, erased, in the relative clause. Condition (23) is met.

¹³ There are a few native speakers who consider sentences like (53) and (54) to be acceptable or awkward when the PRO is a final 2 and 3, respectively. When PRO is an oblique, however, as in (55), the sentence is always ungrammatical. Thus, for these speakers, PRO can be the head of the relative clause when the relative NP

- (53) * O-nun öp-tüğ-ü o-nu takip et-ti.
 s/he-GEN kiss-REL-POSS s/he-ACC follow-PST
 ('the (PRO) he kissed followed him.')
- (54) * Kız-ın hediye-yi ver-diğ-i ev-e git-ti.
 girl-GEN gift-ACC give-REL-POSS house-DAT go-PST
 ('the (PRO) the girl gave the gift to, went home.')
- (55) * Kız-ın hediye-yi al-diğ-i ev-e git-ti.
 girl-GEN gift-ACC receive-REL-POSS house-DAT go-PST
 ('the (PRO) the girl received the gift from, went home.')

The ungrammatical sentences in (53)-(55) all have a PRO that is the head of the relative clause. The relative NPs are respectively a final 2, a final 3, and a final oblique (ablative). It should be mentioned that (53)-(55) are grammatical if the head of the relative clause is an overt nominal.

Now, let us consider the examples in (56)-(57), in which a (non-PRO) chomeur is the relative NP.

- (56) Köpek adam tarafından it -il -di.
 dog man by push-PASS-PST

'The dog was pushed by the man.'

is a term. These facts do not alter the argument for the analysis in (32). As an aside, personal pronouns cannot be relativized in Turkish and the head of the relative clause must always be a 3rd person nominal. Since some PROs can relativize, it follows that PROs are 3rd person pronominals which belong to a different class from personal pronouns in Turkish.

(57) *Köpeğ-in it -il -diğ-i adam.
 dog -GEN push-PASS-DIk-POSS man

('The man by whom the dog was pushed.')

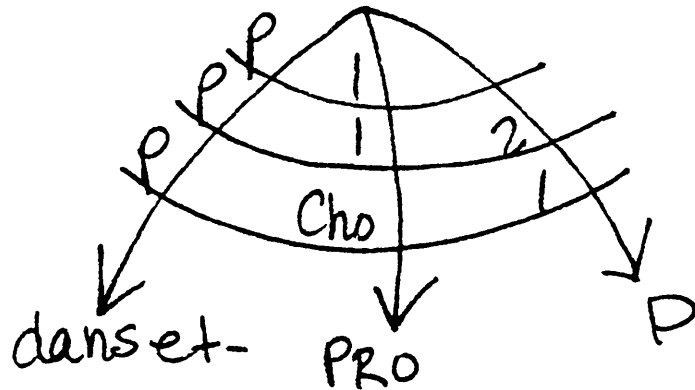
As (57) shows, chomeurs in Turkish cannot in general be relativized. The passive chomeur adam tarafından in (56) cannot be the relative NP in (57).¹⁴ Likewise, incorporated nominals like çocuk 'child' in (46) and fare 'rat' in (47), which are claimed to be final chomeurs, cannot be relativized.¹⁵

PROs that are final chomeurs in impersonal passives, such as (58a), cannot relativize either.

¹⁴ It should be noted however, that the postposition tarafından belongs to a class of postpositions which categorically do not allow relativization of their object (see the section on postpositions in Chapter Two). The significant point here is that the passive chomeur postposition was selected from a class which does not allow relativization. This is consistent with the claim that chomeurs in general do not permit relativization.

¹⁵ If a 'child' and 'rat' in (48) and (49) are relativized, the nominals no longer have a nondefinite/nonspecific meaning. They can only be interpreted as definite.

- (58) a. * Dans ed-il-en ev-e git-ti.
 dance-PASS-En house-DAT go-PST
 ('PRO that (it) is danced by went home.')
- b. Dans ed-il-ir.
 dance-PASS-AOR
 'It is danced.'



The subnetwork of the impersonal passive is shown in (58b). It is crucial to note that PRO in (58b) is a final chomeur. Chomeurs do not in general relativize in Turkish; thus, the ungrammaticality of (58a) is predicted.

Now, let us return to the double passive analysis in (32), in which both PROs are final chomeurs. Since chomeurs cannot be relativized, it is predicted that neither PRO can be the relative NP in a double passive construction such as bogulunur 'one is strangled by one'. This prediction is borne out, as illustrated in (59).

- (59) * Boğ-ul-un-an hastane-ye götür-ül-dü.
 strangle-PASS-PASS-En hospital-DAT take-PASS-PST
 ('PRO that was strangled by PRO was taken to the hospital.')

The alternative analysis in (35), which is the personal passive construction, has one PRO which is a final 1. Thus, it is predicted that this PRO can be relativized. The fact

that this prediction is not borne out is a major blow to the personal passive analysis.

6.3.4.2 Argument Two: The Dummy

A second argument in favor of the analysis in (32) and against the alternative analysis in (35) is based on condition (43iii). This condition states that if there is a dummy bearing the final 1 relation in the relative clause, the relative participle -En is chosen. Perlmutter (1983b) defines impersonal constructions as containing a dummy in their relational network.

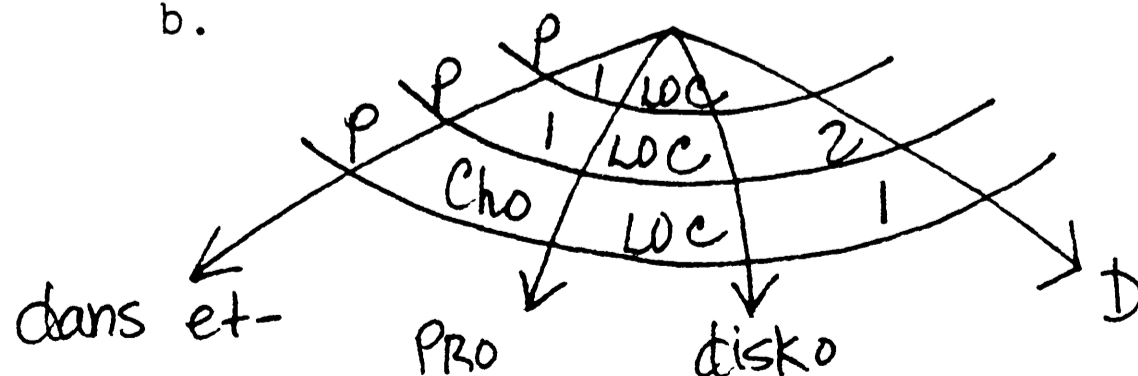
- (60) A clause is 'impersonal' if and only if its final stratum contains a 1-arc headed by a dummy.

Thus, if a relative clause involves an impersonal construction, the -En participle will appear on the verb no matter which nominal is relativized. For example, the impersonal passive in (61) contains an advancing dummy bearing the final 1 relation.

- (61) a. Disko-da dans ed-il-di.
disco-LOC dance-PASS-PST

'It was danced at the disco.'

b.



When disko is head of the relative clause, and the relative clause contains the final 1 dummy, condition (43iii)

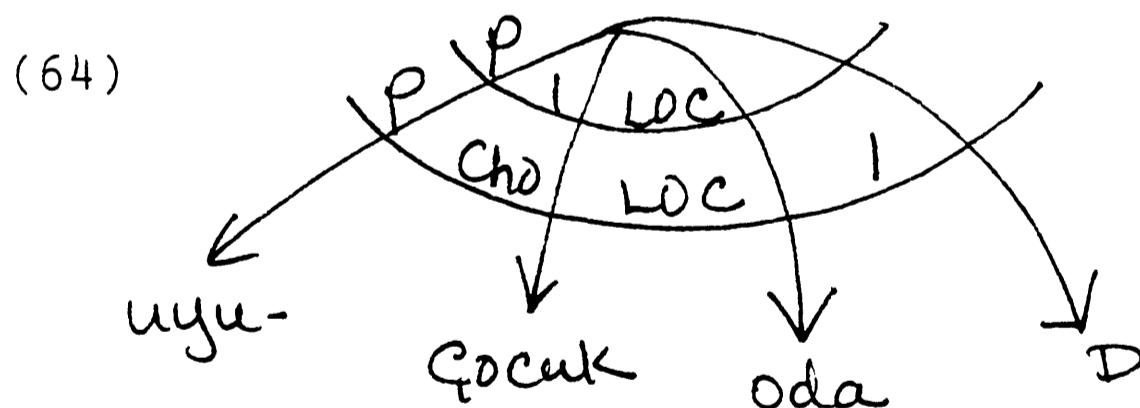
predicts that the participle -En will appear on the verb. This prediction is maintained, as (62) illustrates.

- (62) a. Dans ed-il-en disko
 dance-PASS-En disco
 'The disco where it was danced.'
- b. *Dans ed-il-diğ-i disko
 dance-PASS-DIK-POSS disco
 ('The disco where it was danced')

Another type of impersonal construction in Turkish involves incorporation, as in (63).

- (63) Oda-da çocuk uyu-yor.
 room-LOC child sleep-PROG
 'There is a child sleeping in the room.'

Recall that incorporation is claimed to have a dummy in its RN, shown in (64).



The dummy enters as a 1, placing the initial 1, çocuk, in chomage. If oda is relativized, (43iii) predicts -En as the relative participle.

- (65) a. Çocuk uyu-yan oda
 child sleep-En room
 'The room in which a child/children are sleeping'
- b. *Çocuk uyu-duğ-u oda
 child sleep-DIk-POSS room
 ('The room in which a child/children are sleeping')

In short, if a construction contains a final 1 dummy in its relational network, the -En relative participle will be selected, rather than -DIk.

Returning to the proposed analysis in (32) for monoclausal double passives in Turkish, we note that a dummy bearing the final 1 relation is present. Like the dummy in (61), the dummy in (32) advances from 2 to 1, creating an impersonal passive construction. Consequently, (43iii) predicts that any nominal in (25a) can be relativized and the -En participle will be suffixed on the verb. This prediction holds, as shown in (66).

- (66) a. Boğ-ul-un-an şato
 strangle-PASS-PASS-En chateau
 'The chateau where one is strangled by one'
- b. *Boğ-ul-un-duğ-u şato
 strangle-PASS-PASS-DIk-POSS chateau
 ('The chateau where one is strangled by one')

In (66a), the locative, şato, is the head of the relative clause. As predicted, the -En participle is selected. As (66b) shows, the verb cannot appear with the -DIk participle.

Crucially, the alternative analysis in (35) predicts that (66b) is grammatical and (66a) is ungrammatical. According to the analysis in (35), there is no dummy in the RN. Thus, when the locative, şato, is relativized, the elsewhere condition in (43) predicts the -DIk participle, an incorrect result.

6.3.5 Conclusion

In conclusion, I have presented different types of evidence which argue that the double passive analysis in (32) and not the personal passive analysis in (35) is the correct one for the construction in (25). In doing this, it was crucial for me to show through its syntactic behavior that boğulunur 'one is strangled by one' contained a final subject which was a dummy and not a PRO. In effect, differences in syntactic behavior were found which reflected the existence of two phonologically empty elements. The presence of a final 1 dummy in the relative clause triggered the -En participle; and unlike the dummy, PRO could be the head of the relative clause if the relative NP was a final 1. The fact that both PRO and the dummy are phonologically null helps to account for the paucity of arguments that have been found thus far which differentiate them from each other. Still, despite the difficulty of this task, some syntactic arguments have been found, as illustrated in the above sections; furthermore, the data judgments crucial to the

arguments appear to be remarkably uniform among the native speakers I have consulted with.

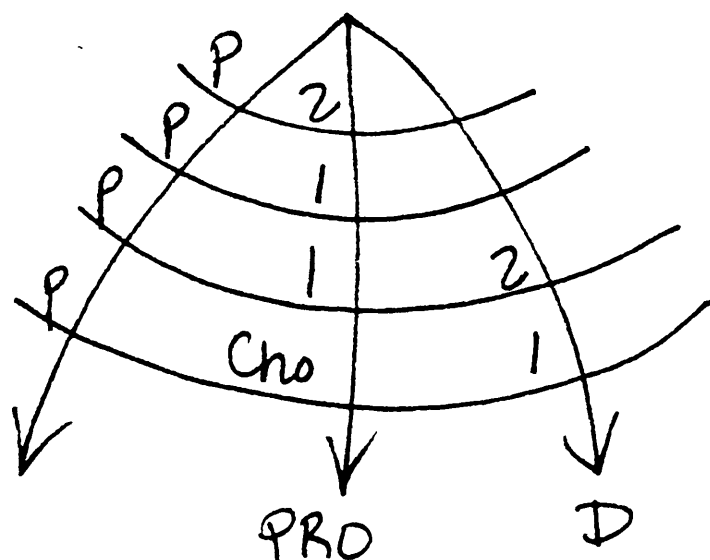
It was argued above that the construction in (25) is an impersonal passive of a personal passive. This constitutes a counterexample to either the 1AEX or the advancement analysis of passive. As discussed above, although it is not definitively clear which law should be abandoned or modified, it was argued that the 1AEX may be superfluous from the point of view of Turkish grammar. Regardless of which law is abandoned, however, the construction in (25) is permitted in Turkish grammar.

6.4 Further Alternative Analyses for Impersonal

Passives of Unaccusatives and of Personal Passives

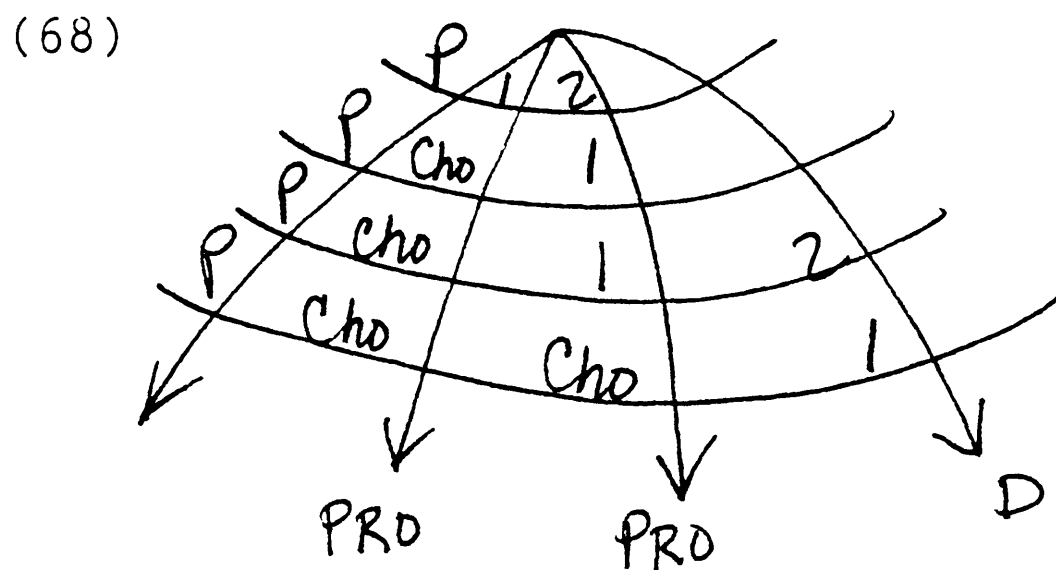
In sections 6.2 and 6.3, I argued for the existence of impersonal passives of unaccusatives and of personal passives. The RN for impersonal passives of unaccusatives is shown in (67):

(67)



The RN for impersonal passives of personal passives is shown

in (68):



Given the universal characterization of passive, which dictates that the stratum from which the 1 advances must be transitive, the initial 2 in (67) and (68) must advance to 1 and the Dummy enters as a 2; in this way, a transitive stratum is created. It was shown in the previous section that the final 1 in (67) must be a Dummy, not a PRO. The underlying assumption in the previous section is that impersonal passives of unaccusatives and of personal passives are indeed passives. That is, they conform to the universal characterization of passive. The main reasons that (67) and (68) are considered to be passives are that: (1) the passive marker -Il is present, (2) these constructions behave like (impersonal) passives in that, for example, they could not occur downstairs in a causative structure, (3) the tarafin-dan phrase is not allowed, as is typical of impersonal passives.

As noted in the previous section, however, the structures posited in (67) and (68) violate the 1AEX Law. There are two advancements to 1 within a single clause.

Since the 1AEX Law is a major universal assumption in RG which has been used to account for various phenomena in various languages, it would appear to be more advantageous to attempt to posit structures for passives of unaccusatives and passives of personal passives that would not violate the 1AEX. That is, it would seem preferable to posit nonpassive structures for these constructions, so as to eliminate the possibility of two advancements to 1.

I present three alternative analyses for the constructions that I have just argued to be impersonal passives of unaccusatives and of personal passives. According to the three analyses, the constructions in question are not true impersonal passives; that is, they do not involve a dummy advancing 2 to 1 from a transitive stratum. Consequently, these analyses do not violate the 1AEX. Some of the major problems that arise with these alternative analyses are: providing a correct statement of the distribution of passive morphology: and accounting for the interaction of nonpassive structures with other rules of Turkish grammar, such as incorporation, reflexivization, and causatives. Under the analysis that the constructions are indeed passive, the passive morphology is accounted for straightforwardly, as is the interaction with other rules. The alternative structures are rejected in the final analysis as inferior to (67) and (68).

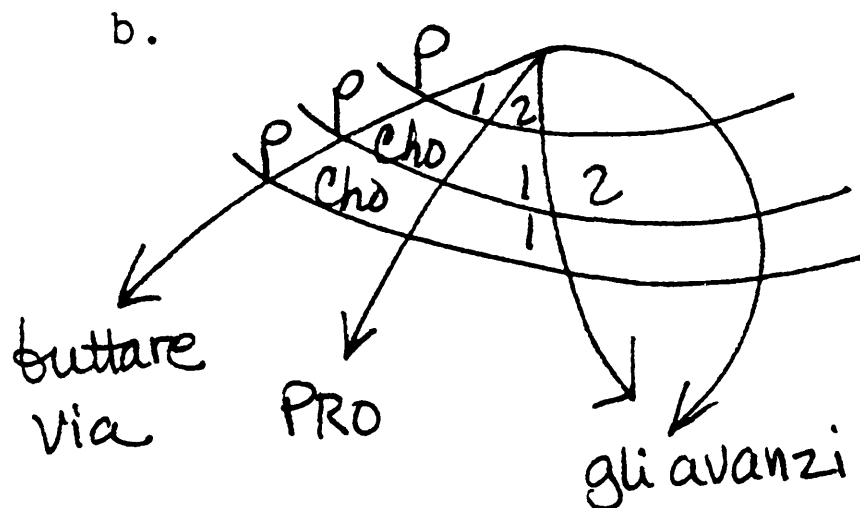
6.4.1 Double Dummy Birth (DDB)

In this subsection, I present Rosen's (1981) account of Italian Unspecified Human Subject constructions, which includes retroherent passive and double dummy birth (DDB) analyses. Rosen introduces DDB as a new structure in RG, so that certain Italian UHS constructions will not violate the 1AEX. I first present Rosen's UHS constructions in section 6.4.1.1; then in section 6.4.1.2, I attempt to apply the DDB structure to the Turkish impersonal passives which were presented in the previous two sections of this chapter, in order to avoid violating the 1AEX. As we will see, Turkish constructions with PRO are not as amenable to a DDB analysis.

6.4.1.1 Italian UHS Constructions

Rosen discusses at length the Italian UHS construction for which Perlmutter (1978) proposed a retroherent passive structure. An example is presented in (69).

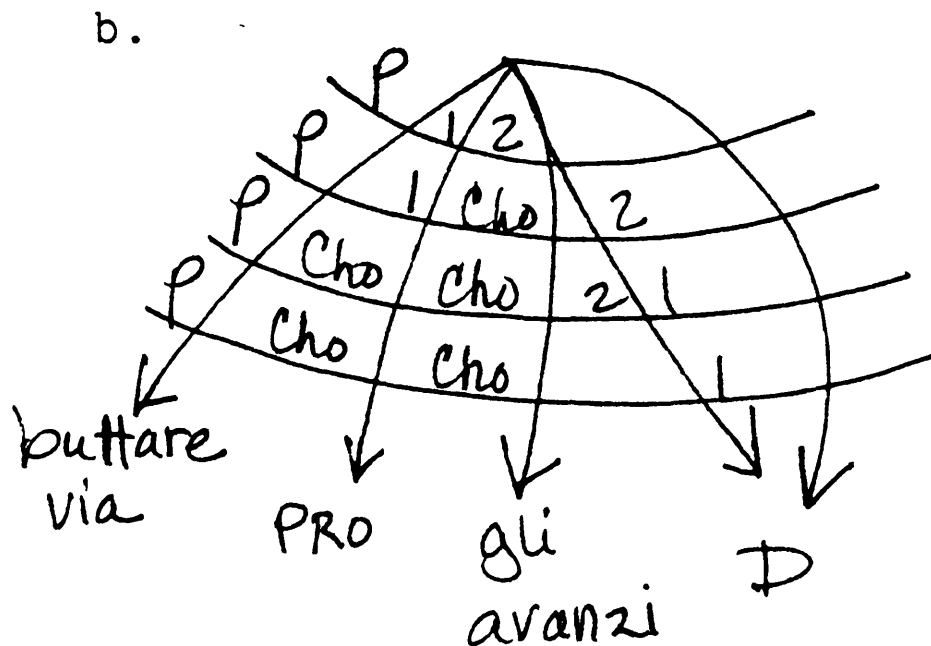
- (69) a. Gli avanzzi si buttano via.
 'The leftovers are thrown away.'
 'PRO throws the leftovers away.'



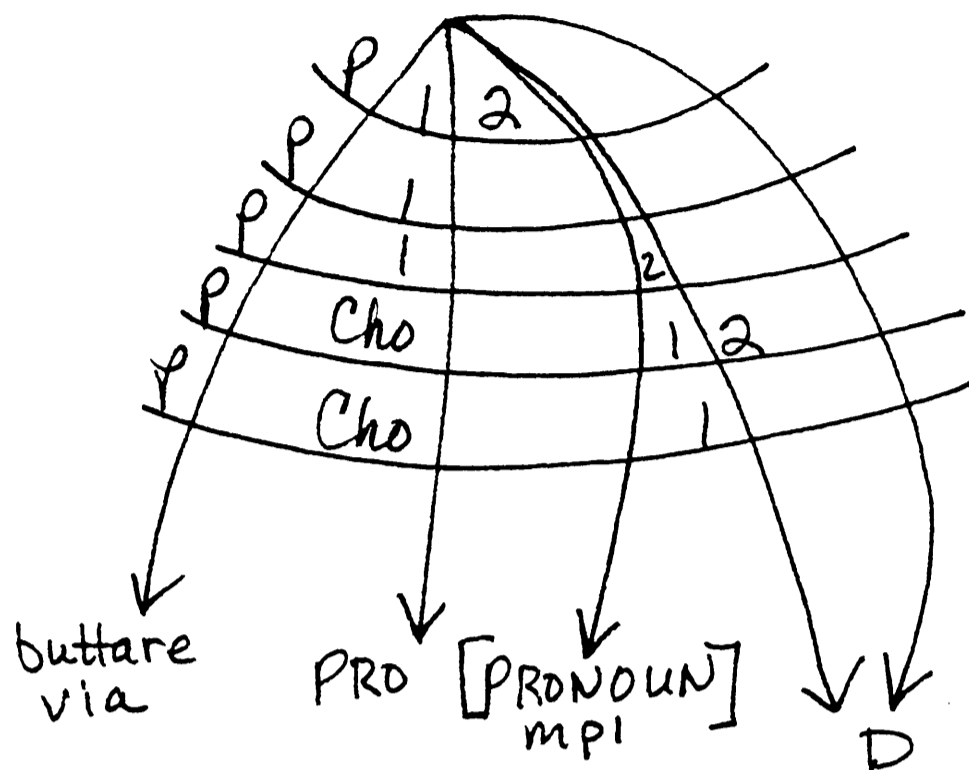
Retroherent, or retro, passive crucially has 2 to 1 advancement. In (69), gli avanzzi retroherently advances to 1, thereby retaining its 2-hood and creating multiattachment in the second stratum. The reflexive marker si is claimed to be associated with multiattachment in UHS constructions. Multiattachment is resolved by object cancellation.

A retro passive structure also accounts for the following Italian UHS constructions.

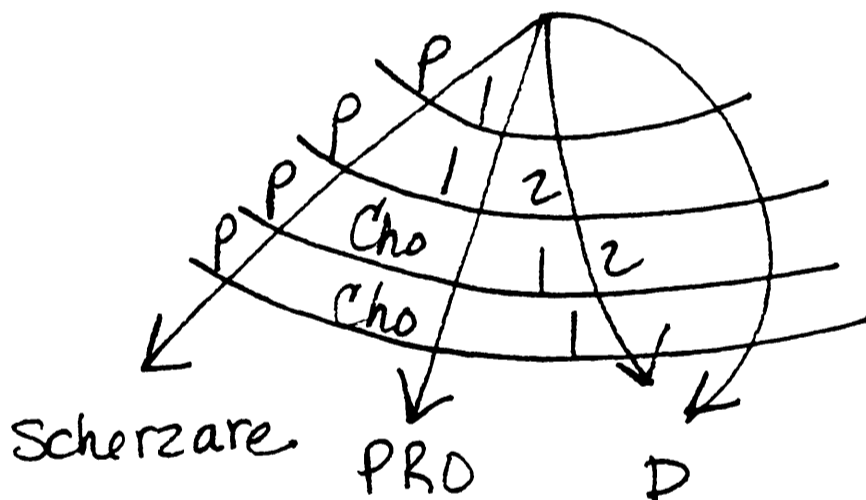
- (70) a. Si buttano via gli avanzzi.
 'The leftovers are thrown away.'
 'PRO throws the leftovers away.'



- (71) a. Li si butta via.
'PRO throws them away.'
b.



- (72) a. Non si scherza.
'PRO isn't kidding.'
b.

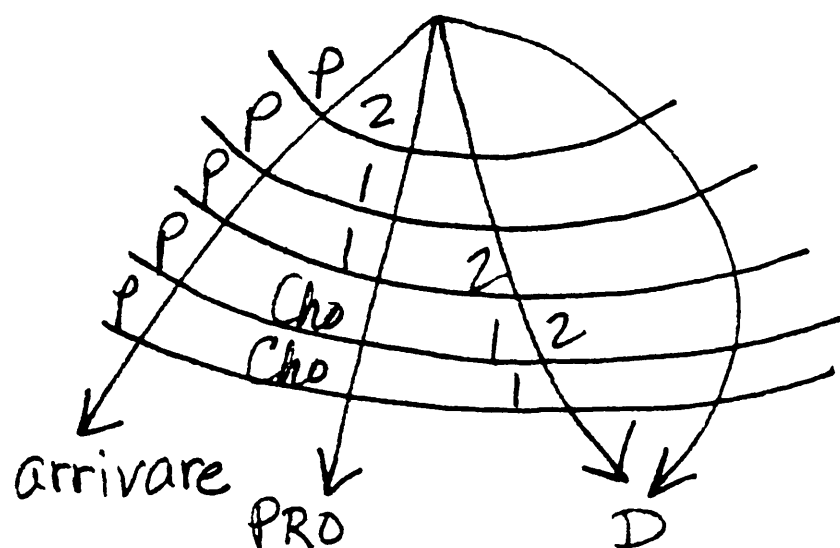


One common feature that (70)-(72) share is a dummy advancing retroherently. This feature sets these structures apart from the UHS construction in (69), which has a non-dummy advancing retroherently.

Given the four examples above, one could reasonably assume that all Italian UHS constructions are characterized by retropassive structures. Some have final 1s that are dummies, as in (70)-(72), and some do not, as in (69).

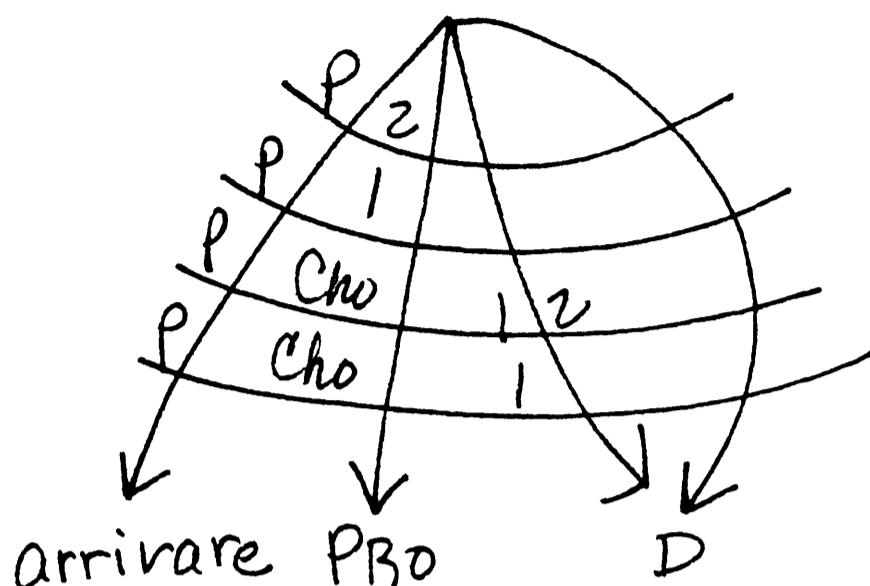
However, as Rosen points out, a retro passive analysis cannot be assigned to a UHS construction when its predicate is initially unaccusative. Retro passive advancement and unaccusative advancement within the same clause runs afoul of the 1AEX, as shown in (73).

- (73) a. Si arriva.
'PRO arrives.'
b.



An alternative analysis to (73) which would not be in violation of the 1AEX is to have the initial 2 go en chomage in the second stratum. Thus, there would only be retro passive advancement, and the 1AEX would not be violated. Although I will not present the arguments here, Rosen argues that unaccusative advancement must occur. Consequently, in order not to violate the 1AEX, Rosen abandons a retro passive advancement analysis for (73). She proposes in its stead double dummy birth (DDB). DDB allows a dummy to enter a stratum heading two birth-arcs bearing the nuclear relations, i.e. 1 and 2. In this way, DDB is a multiattached structure in the stratum that the dummy enters. Consider the initially unaccusative UHS construction in (74), which has DDB.

- (74) a. Si arriva.
 'PRO arrives.'
 b.



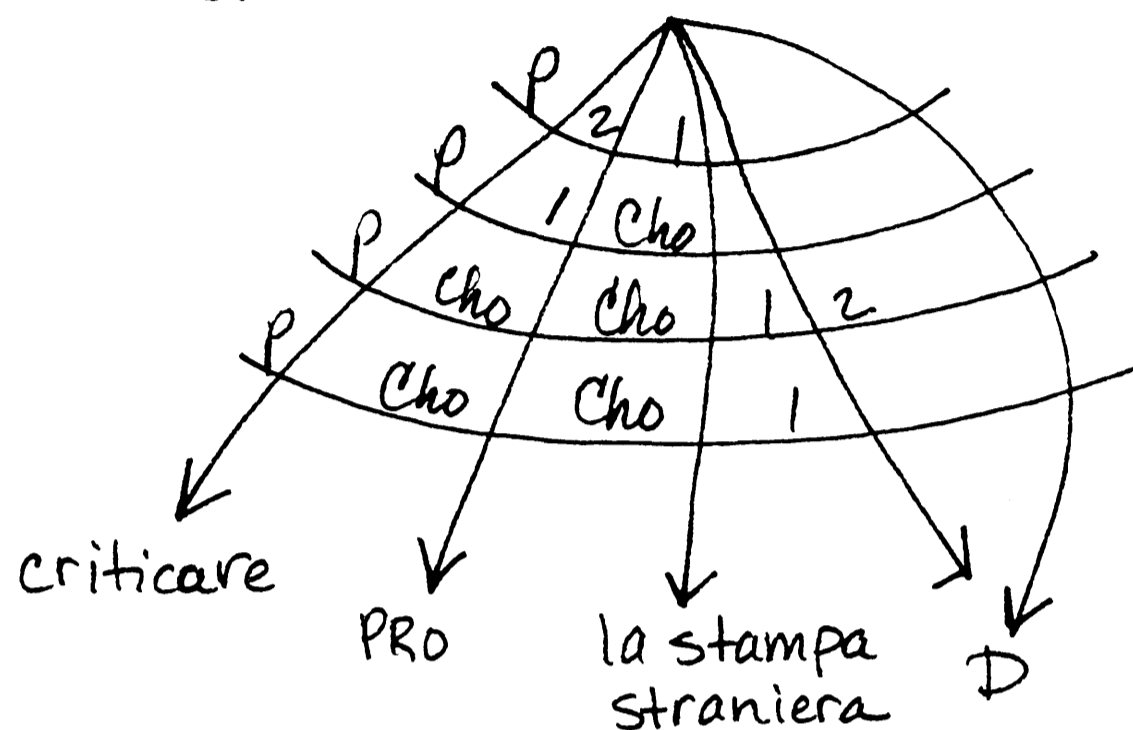
DDB multiattachment is resolved as it is in retro passive structures: object cancellation with the concomitant appearance of the reflexive si marker.

Rosen argues that DDB accounts for all of the Italian UHS constructions which have a final 1 dummy. Consequently, she reanalyzes the UHS constructions in (70)-(72) with DDB, rather than retro passive. An example of a UHS construction with plain passive and DDB is presented in (75).

- (75) a. Si e stati criticati anche dalla stampa straniera.

'PRO has been criticized even by the foreign press.'

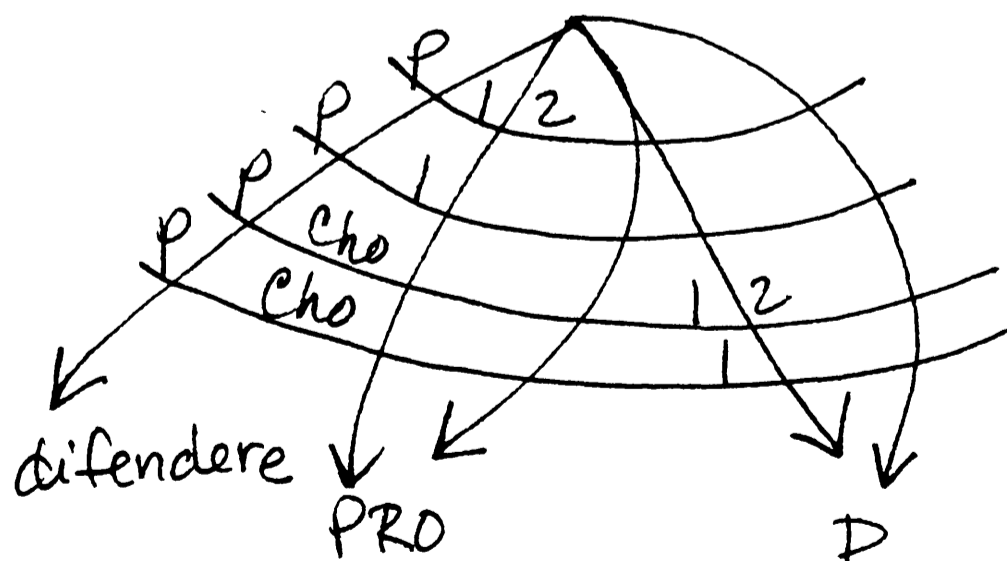
b.



Note that if retro passive were allowed in (75) instead of DDB, the 1AEX would be violated. There are also examples of Italian UHS constructions with DDB in which PRO heads a 1-2 multiattachment.

- (76) a. Ci si difende.
'PRO defends self.'

b.



The two multiattachments in (76) are reflected in the two reflexive markers, ci, si.

In summary, Rosen argues that an Italian UHS construction is not to be equated with a retro passive structure; rather, a UHS construction has two subtypes: the retro passive, as in (69), and DDB, as in (70)-(72). Her primary motivation for positing DDB was to prevent certain UHS structures from violating the 1AEX. By positing DDB, UHS constructions can have unaccusative advancement (as in (74)), and passive advancement, as in (75).

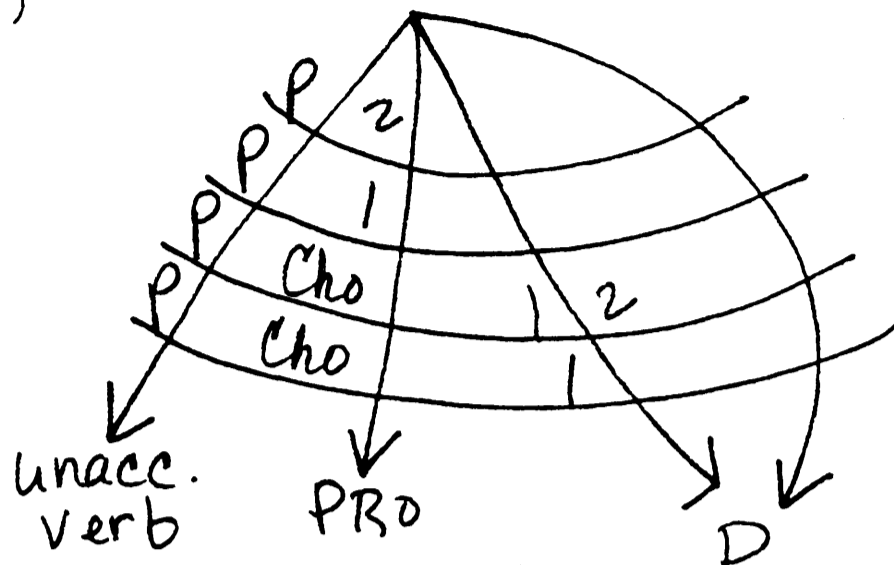
6.4.1.2 Turkish PRO Constructions

In this subsection, I attempt to analyze Turkish impersonal passives by positing DDB in their structure. The Italian UHS constructions presented above exhibit some similarities to Turkish impersonal passives. As we have seen in sections 6.2 and 6.3, Turkish impersonal passives involve PRO, and structures of the type (67) and (68) violate the 1AEX. By positing a DDB analysis for (67) and (68), the 1AEX would not be violated. However, there are also differences between the Turkish constructions with PRO and Italian UHS constructions which make the Turkish constructions less amenable to a DDB analysis.

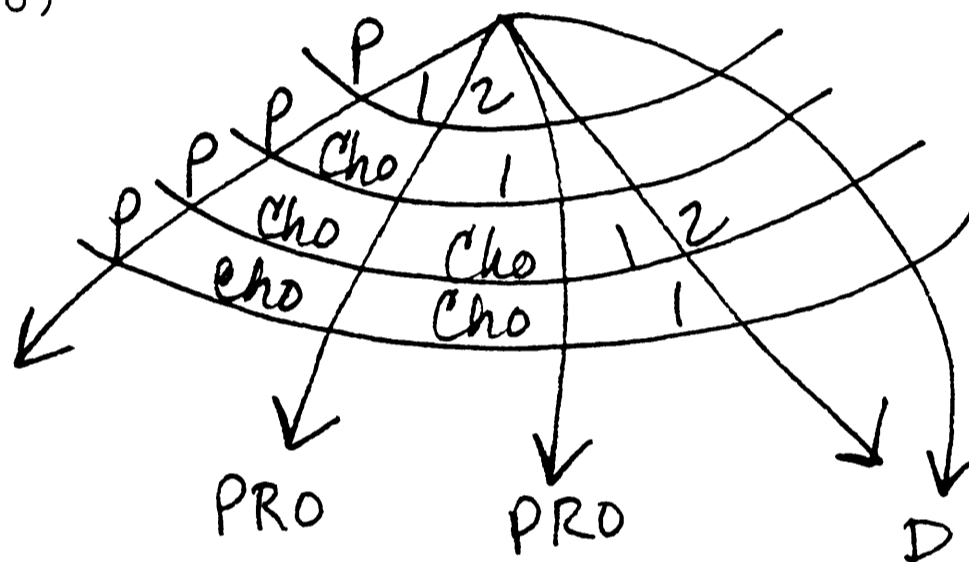
We now turn to the Turkish impersonal passive structures. (67) is an impersonal passive of an unaccusative and (68) is an impersonal passive of a personal passive. In order for these structures not to violate the 1AEX, one might posit the following alternative structures, which

incorporate DDB.

(77)



(78)



In both (77) and (78), DDB occurs in the third stratum, placing the 1-advanee en chomage. Unlike (67) and (68), (77) and (78) have only one advancement to 1, so the 1AEX is not violated; in (77), there is only unaccusative advancement and in (78), only passive advancement.

Although a DDB analysis of (67) and (68) rescues the 1AEX, such an analysis causes complications for Turkish grammar elsewhere. The most immediate consequence is that by positing (77), we are claiming that constructions such as (79) are not in fact impersonal passives.

(79) Burada düş-ül-ür.
 here fall-PASS-AOR

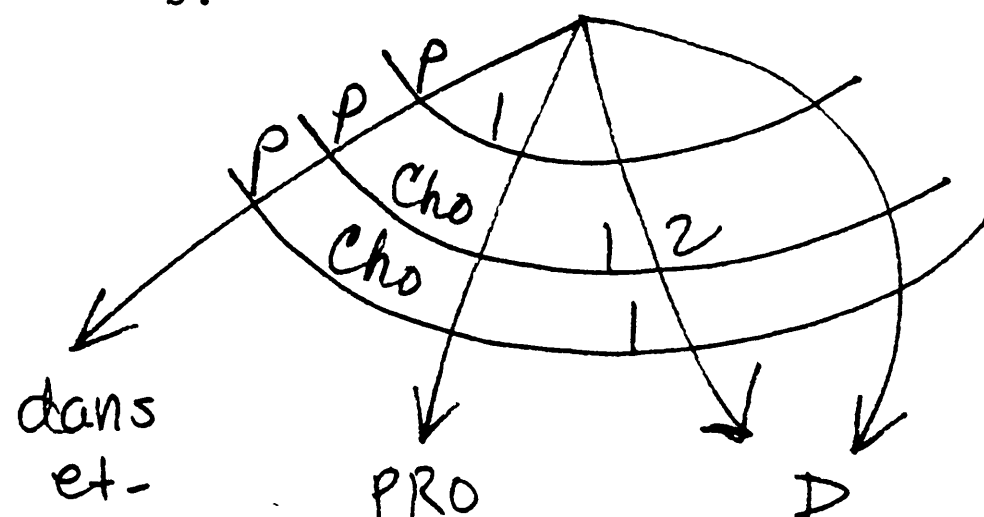
'Here it is fallen.'

The structure in (77) is not passive according to Perlmutter and Postal's universal characterization of passive; that is, there is no 2 to 1 advancement from a transitive stratum. Yet, (79) contains the -Il morpheme, which has traditionally been analyzed by Turcologists as a passive morpheme. Furthermore, if we posit structure (77) with DDB for constructions like (79), we must also posit a similar structure for initially unergative constructions like the following:

(80) a. Burada dans ed-il-ir.
 here dance-PASS-AOR

'Here it is danced.'

b.



DDB occurs in the second stratum, placing the PRO en chomage. Since there is no passive advancement, (80) is not an impersonal passive; it is only an impersonal construction. Consequently, we must claim that Turkish has no impersonal passives of intransitive predicates. Alternatively, we could claim that only impersonal passives of initially unergative predicates exist, while initially unaccusative

predicates have an impersonal construction of a different type, namely (77) with DDB.¹⁶ Similarly, by positing (78) for the impersonal passive of a personal passive in (68), we are in fact claiming that constructions like (25) are not impersonal passives. The structure in (78) depicts (25) as having personal passive, and it is an impersonal construction due to the final 1 dummy. It is not an impersonal passive, however, because the dummy does not advance from 2 to 1. But then how does one account for the passive -Il morpheme in these constructions? Furthermore, unlike (79) and (80), (25) has two passive morphemes that must be accounted for.

In an attempt to describe the presence of the passive -Il marker in the so-called impersonal passives in (79)-(80) and (25), we would have to claim the following.¹⁷

¹⁶ There is no evidence to decide whether impersonal passives of unaccusatives should be in a separate class from impersonal passives of unergatives (aside from the fact that the 1AEX treats them differently with respect to impersonal passives). Thus, impersonal passives of unergatives could have retroherent impersonal passive structures or DDB since both of these multiattached structures account for the -Il.

¹⁷ Rule (81) is due to a suggestion by S. Chung.

It is clear that we cannot state the condition for -Il as the following:

- (i) If a simple clause contains a nominal heading an arc (or arcs) bearing the 1 and 2 relations, the -Il morpheme must be present.

Condition (i) would predict incorrectly that all unaccusative sentences, not just impersonal passives, should have -Il. Furthermore, (i) would also predict

- (81) -Il appears on the predicate of a clause if the clause contains a nominal heading a 1-arc and a 2-arc, as well as a distinct nominal

that reflexive constructions have the -Il marker. Recall from Chapter Three that -In reflexive constructions have initial 1-2 multiattachment.

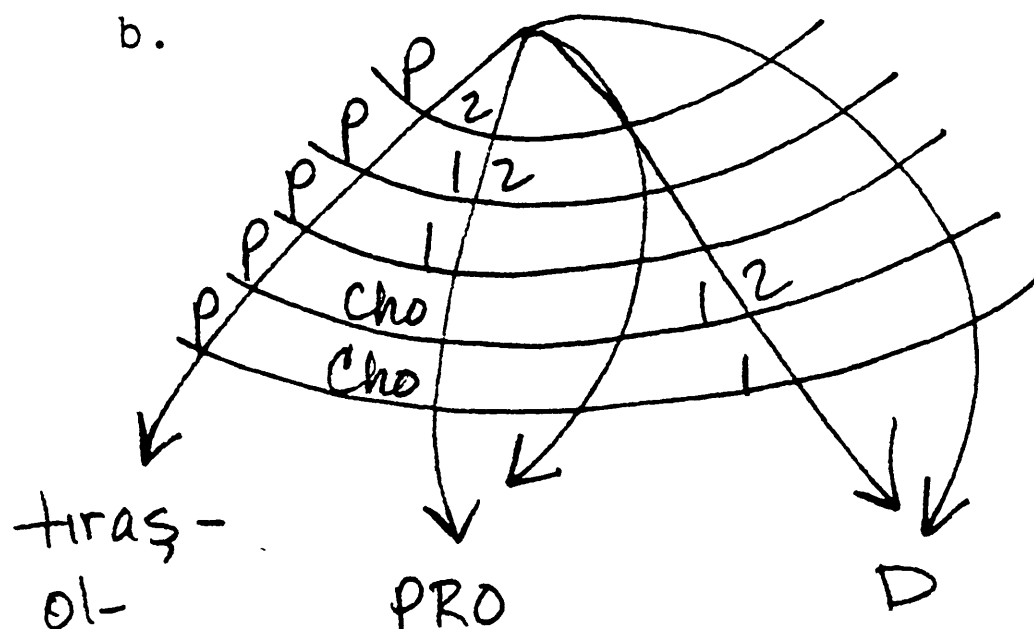
Another possibility as a condition for the presence of the -Il marker can be easily rejected. Consider (ii).

- (ii) A structure containing a nominal heading non-initially multiattached arcs bearing the 1 and 2 relations, triggers the -Il marker.

Although condition (ii) correctly predicts -Il on impersonal passive constructions since these constructions all have non-initially multiattached 1-2 arcs via DDB, condition (ii) incorrectly predicts that the following constructions should have two -Il markers.

- (iii) a. Burada tıraş ol-un-ur.
here shave-PASS-AOR

'It is shaved here (by oneself).'



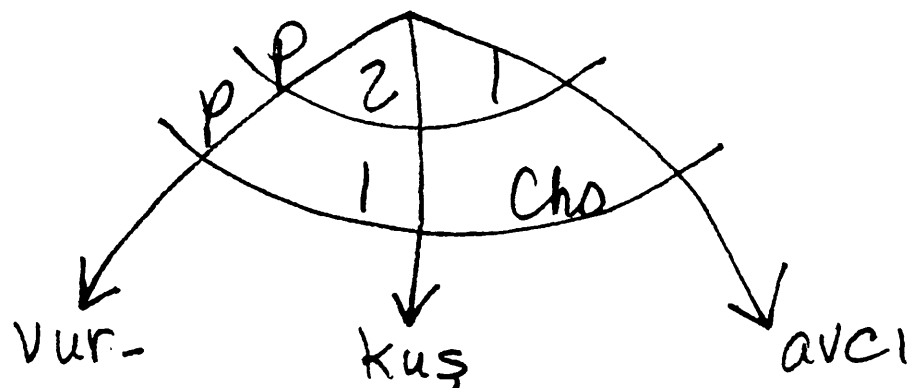
Recall from Chapter Five (footnote 19) that tıraş olmak is marked lexically as a [+Retro] unaccusative verb. Consequently, as shown in (iiib), the initial 2 advances retroherently creating multiattached 1-2 arcs in a non-initial stratum. Since (iiia) is a so-called impersonal passive, there is DDB which also creates a non-initial stratum. Thus, (iiib), according to condition (ii) should exhibit two -Il markers. This prediction is not borne out.

heading a 1-arc.

Rule (81) accounts for the -Il marker in (80a). As (80b) shows, the dummy heads 1 and 2-arcs and PRO, a distinct nominal, heads a 1-arc. The rule in (81) accounts for the two -Il markers in (25), in the following way. As structure (68) illustrates, there are two nominals, PRO and the dummy, heading 1 and 2-arcs. There is also a distinct nominal, PRO, heading a 1-arc. Thus, rule (81) is met. Similarly, rule (81) accounts for the -Il marker in (79), which has an initially unaccusative predicate. As structure (67) shows, PRO heads an arc bearing the 1 and 2 relations. There is a distinct nominal, the dummy, which heads a 1-arc. It is irrelevant that the dummy also heads a 2-arc. Alternatively, the dummy could be claimed as the nominal heading 1 and 2-arcs, and PRO could be the distinct nominal heading a 1-arc.

Rule (81) also accounts for the presence of the -Il marker in personal passives.

- (82) a. Kuş avcı tarafından vur-ul-du.
 bird hunter by shoot-PASS-PST
 'The bird was shot by the hunter.'
 b.

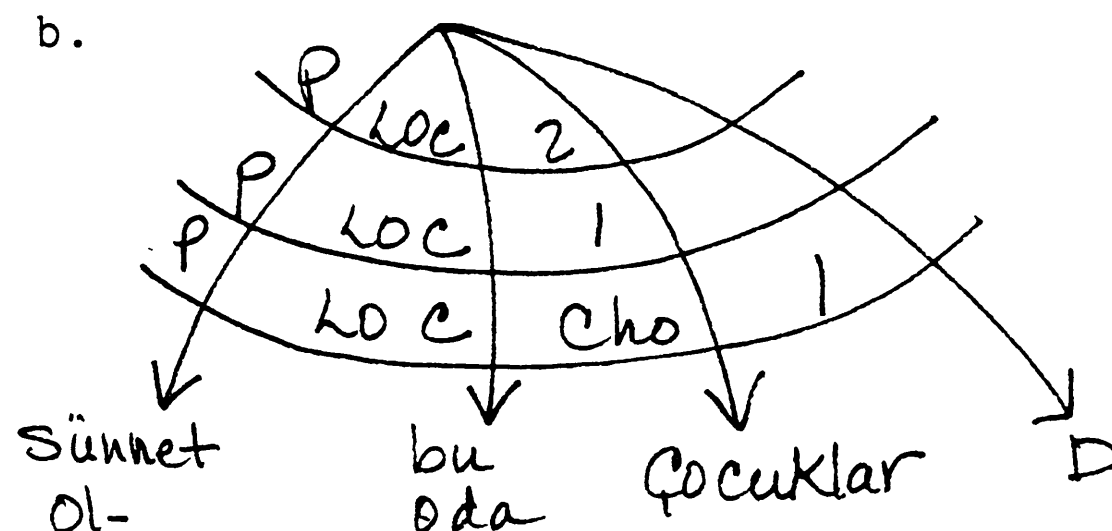


Note that in (82b), kuş heads a 1 and 2-arc, and avcı, a distinct nominal, heads a 1-arc.

In summary, it is possible to account for -I_l morphology if a DDB analysis is assumed for (67) and (69). However, rule (81) is considerably more complicated than the -I_l morphology rule would be under the analysis that (67) and (68) are impersonal passives. The cost of positing DDB and rule (81) in Turkish grammar is that impersonal passives in Turkish are obviated; -I_l is no longer equated with passive. Instead, -I_l marks personal passives and impersonal (nonpassive) constructions. The benefit of positing DDB is that the 1AEX is not violated.

Furthermore, there is a counterexample to rule (81). The example involves cases where the initial 2 incorporates, as in (83).

- (83) a. Bu oda -da çocuk-lar sünnet ol -ur.
 this room-LOC child-PL circumcise-AOR
 'Children are circumcised in this room.'



The predicate sünnet olmak consists of a loanword and auxiliary. As discussed in Chapter Five, clauses containing such predicates must have unaccusative advancement in order to be well-formed RNs. In (83b), the initial 2 advances to 1

via unaccusative advancement and is placed en chomage by the dummy. Nominals must be final chomeurs in order to incorporate in Turkish. Çocuklar,, the incorporated nominal, appears immediately before the verb. Çocuklar heads an arc bearing the 1 and 2 relations and a distinct nominal, the dummy, heads a 1-arc; thus, structure (83b) satisfies rule (81). Rule (81), then, incorrectly predicts that -Il should appear on the verb in (83a).

It appears that an alternative structure for (83a) could be posited which, in conjunction with rule (81), would correctly predict that no -Il morphology would appear on the verb. If a dummy entered as a 2, placed the initial 2 en chomage, and then advanced to 1, unaccusative advancement would still be present in the RN. In this case, the dummy would be involved in unaccusative advancement, whereas in (83b), the initial 2 was involved in unaccusative advancement. The loanword and auxiliary rule in Chapter Five (c.f. 5.2.2) does not specify that unaccusative advancement should occur from the initial stratum in order to sanction olmak. However, since no untoward consequences result by specifying initial unaccusative advancement, we will modify the original rule to the following:

(84) Clauses Whose Predicate is a Loanword and Auxiliary

If a clause which has a predicate consisting of a loanword and auxiliary contains initial unaccusative 2 to 1 advancement, olmak 'to be' is the auxiliary which appears. Otherwise, etmek 'to do' appears.

Consequently, under this modified version of the rule, the alternative analysis in which the dummy is involved in unaccusative advancement will incorrectly not sanction the use of olmak. Thus, example (83) stands as a counterexample to rule (81).

In addition to the counterexample discussed above, the ad hoc nature of rule (81) must be considered. More specifically, a DDB analysis for Turkish impersonal passives is more ad hoc than a DDB analysis is for Italian UHS constructions. The UHS construction in Italian is characterized by the reflexive si marker. DDB, which involves multiattachment, is appropriate because si is directly associated with multiattachment, not with advancement, elsewhere in the grammar of Italian. Rosen (1981:115) notes, if UHS clauses were marked by 2 to 1 advancement morphology instead of by si, then "a DDB analysis would be inappropriate, and an advancement analysis would impose itself." In Turkish, in contrast to Italian, the constructions with PRO are characterized by the -Il marker, which is directly associated with advancement--in particular, with passive. Thus, a DDB analysis would be inappropriate for impersonal passives of unaccusatives and of personal passives in Turkish. As it

stands now, positing rule (81) and a DDB analysis for constructions with PRO in Turkish, just to save the 1AEX as a universal, has the appearance of contrivance. It is a theoretical question worth raising just to what ad hoc lengths one should go in order to protect a universal from abandonment. The more ad hoc a solution is, the more it seems that we are losing touch with the empirical data at hand. In light of the counterexample cited above, and the ad hoc nature of a DDB analysis and rule (81) for Turkish, I conclude that the structures posited in (67) and (68) for impersonal passives of unaccusatives and personal passives must remain in serious consideration, even though they violate the 1AEX.

6.4.2 Postal's Account

In this subsection, I present Postal's (1986) alternative analysis to structures (67) and (68), which does not violate the 1AEX. As we will see below, however, Postal's analysis of these constructions creates complications elsewhere in the grammar of Turkish. His proposal is couched in Arc Pair Grammar (APG) terms. I will present his analysis in RG terminology as much as possible, in keeping with the framework employed in this study.

6.4.2.1 Impersonal Constructions

Postal rejects the assumption that true impersonal passives exist in Turkish. Indeed, this is what one must claim in order to maintain the 1AEX and the advancement analysis of passive as universals. The structures in (67) and (68) would not violate the 1AEX if the dummy did not advance from 2 to 1 in an impersonal passive construction. Thus, according to Postal, impersonal constructions in (5), (6), and (25) display the -Il marker for some reason other than that they are passives. Further, personal passives themselves do not exhibit an -Il marker because of passive 2 to 1 advancement, but rather, because they share the following property with the impersonal constructions: the first (free) 1 is not the final 1.¹⁸ First 1 denotes the first instance of a 1-arc within a stratum. Thus, whenever a clause contains an initial 1 which is not the final 1 of that clause, the -Il marker will appear on the predicate. Postal proposes the following to account for the -Il morphology:

- (85) The V of a Turkish clause node c contains one instance of the suffix PASS for each insecure 1 arc whose tail is c.

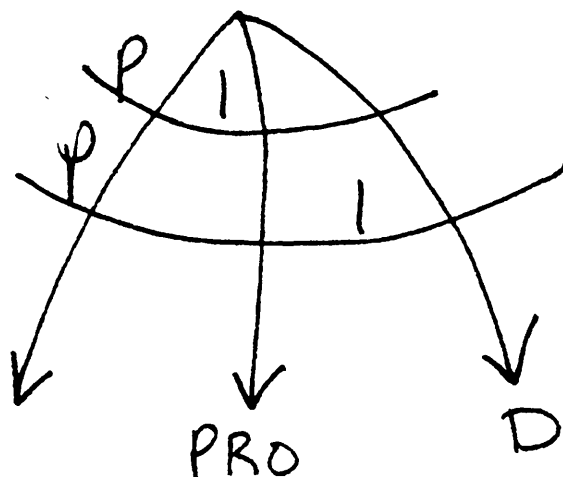
The term 'insecure' is defined as the following:

¹⁸ According to Postal (1986), the first free 1 arc is either the initial 1 arc or some anaphoric replacement of it.

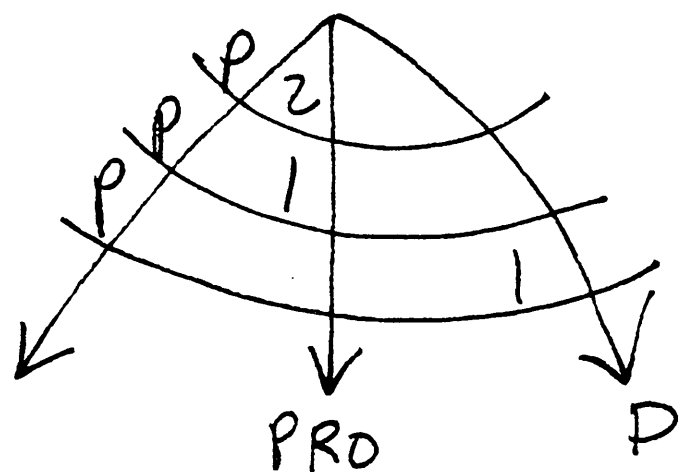
- (86) [Arc] A is insecure if and only if [arc] A is both free and overrun.¹⁹

Postal further proposes the following impersonal, but nonpassive, structures for what we have been calling impersonal passives of intransitive predicates.²⁰

(87)



(88)

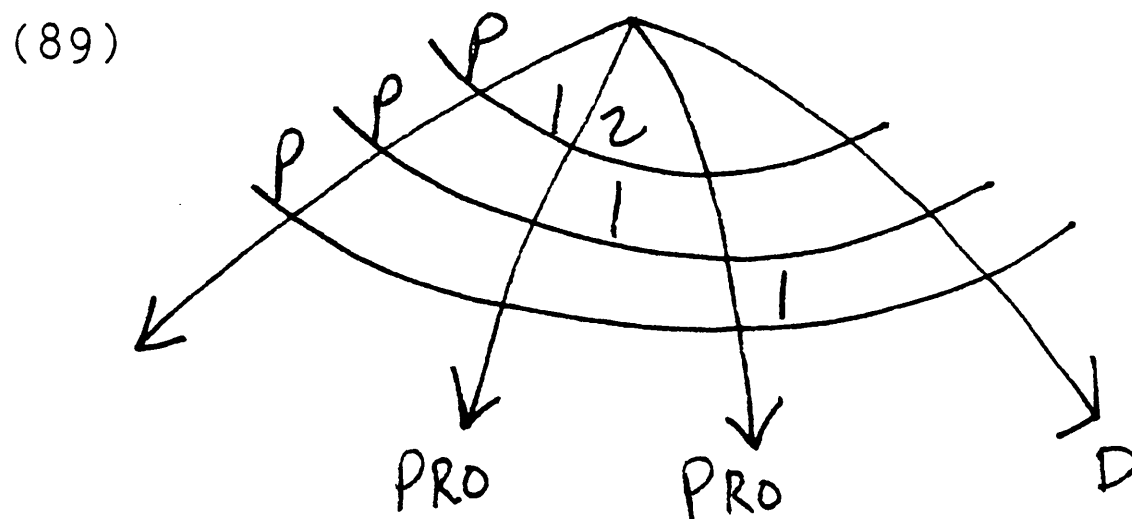


The structure in (87) is an initially unergative clause while (88) is initially unaccusative. The structure in (88)

¹⁹ A overruns B if and only if (i) they are neighbors, (ii) have the same R-sign and (iii) A's first coordinate index [is] 1 greater than B's last coordinate index.

²⁰ The RN structures in (87)-(89) adhere to RG principles rather than APG principles. I believe, however, that this translation of configurations does not detract from Postal's analysis. Under Postal's analysis, PRO is not a final chomeur. Rather, it is erased by the dummy it sponsors.

has unaccusative advancement. Crucially, though, (87) and (88) do not have a dummy which undergoes 2 to 1 advancement from a transitive stratum. Instead, the dummy enters as a (final) 1, placing the existing 1 en chomage. Similarly, Postal posits the following structure for what we have been calling impersonal passives of personal passives.



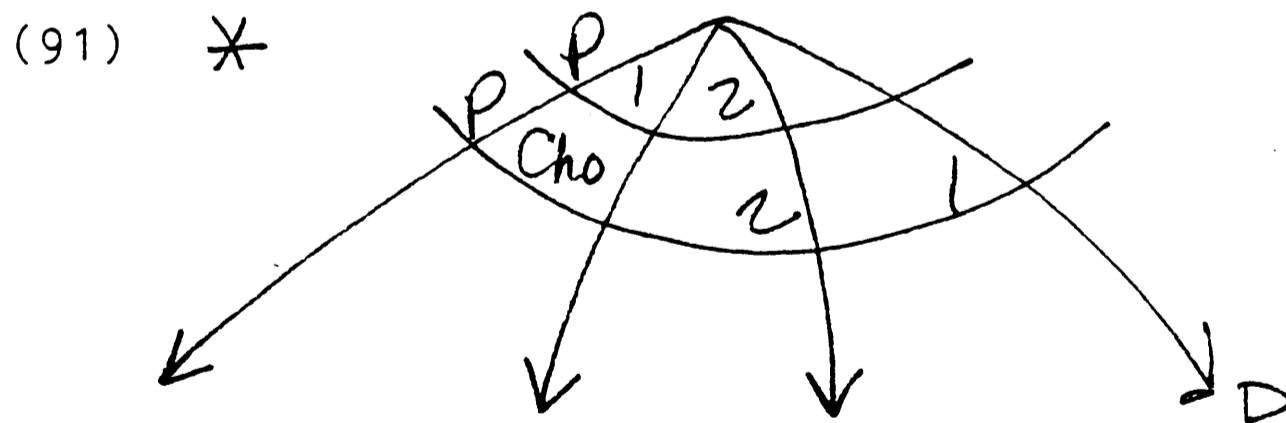
The structure in (89) has personal passive advancement from the initially transitive stratum, and the final 1 is a dummy. Crucially, though, the dummy in (89) simply enters as a 1. Postal therefore avoids violating the 1AEX in (88)-(89). Since the structures in (87)-(89) lack a dummy advancing 2 to 1 from a transitive stratum, they are not impersonal passives. Rather, (87)-(88) characterize nonpassive constructions which are impersonal; (89) involves personal passive but it, too, is impersonal as it contains a dummy heading the final 1-arc. Furthermore, (87) and (88) have an instance of a first 1 which is not the final 1, while (89) contains two instances of first 1s which are not final 1s. According to the condition in (85), then, the -Il marker should appear on the verb of the constructions characterized in (87) and (88); (85) predicts that the

construction characterized by (89) should have two -Il markers. These predictions are borne out.

Finally, Postal posits the following rule for Turkish impersonal constructions.

- (90) If A is a 1 arc local sponsor of a arc ghost B, then A's head is ON, B self-erases and erases A and A is absolutive in its final stratum.

(90) describes how the distribution of the dummy 1 construction (i.e. apparent impersonal passives) is to be regulated. According to (90), the dummy enters as a 1 only in an absolutive stratum in which PRO (i.e. ON) heads a 1-arc. The dummy self-erases and erases its sponsor, arc A, which is headed by PRO. These conditions are met in (87)-(89). Postal points out further that (90) does not allow the dummy to enter in clauses in which the initial 2 of a transitive stratum has not advanced to 1, as in the following:



The rule in (90) states that the 1-arc heading PRO must not share a final coordinate with a neighboring 2-arc. (91) is ill-formed because the final stratum in which PRO heads a 1-arc also contains a 2-arc.

In summary, Postal proposes that Turkish has no true impersonal passives. In their stead, he proposes that the apparent impersonal passives are actually just impersonal constructions in which the dummy enters as a 1. These impersonal constructions are regulated by rule (90). The consequence of his proposal is that the 1AEX is happily, not violated, and a new condition for the distribution of the -Il marker is posited; -Il no longer marks just passive sentences, personal and impersonal alike, but it marks personal passives and impersonal constructions which share the property in (85).

6.4.2.2 Arguments Against Postal's Analysis

Argument One

It is a well-known fact that passive cannot occur in the complement clause of causatives in Turkish. To account for this fact, Postal posits the following principle:

- (92) The complement clause [of causatives] cannot have an insecure 1 arc.²¹

Under Postal's view, an insecure 1 arc triggers -Il

²¹ Postal's causative rule for Turkish is similar, but not identical, to Rosen's Downstairs Freeze Principle, discussed in Chapter Four and cited below.

- (i) Downstairs Freeze in Causative Unions
If a nominal heads a 1-arc in the complement clause of a union, it heads an initial 1-arc in that clause.

morphology. Since (92) straightforwardly precludes constructions bearing -Il morphology from occurring in the complement clause of causatives, it appears that Postal's overall analysis does not lead to a more complicated treatment of causatives than an analysis which simply precludes passive from the complement clause. As Postal (1986:148) states, "...unless [92] can be overthrown, the causative constraint does not argue against the current analysis of apparent IPs [impersonal passives]."

However, as discussed in Chapters Three and Four, passive is not the only construction precluded from the complement clause of causatives. -In reflexive constructions cannot occur in the complement clause either. Under my analysis, since both impersonal and personal passives involve 2 to 1 advancement and -In reflexives have 1-2 mutltiattached arcs, the following condition was posited for Turkish causatives:

- (93) A nominal, a, cannot head 1 and 2 arcs having the same tail, in the complement clause of Turkish causatives.

Assuming that the sentences in (5) and (6) are true

One difference between the two principles is that (92) allows unaccusative advancement in the complement clause while (i) does not. Note that the 1 resulting from unaccusative advancement is not the initial 1, thus, (i) rules it out. On the other hand, since unaccusative advancement from the initial stratum does not involve an insecure 1 arc, (92) does not rule out its occurrence in the complement clause.

impersonal passives, (93) prohibits such constructions, as well as -In reflexives, from occurring in the complement clause of causatives.

The structure of -In reflexives does not contain an insecure 1 arc; hence principle (95) does not prohibit -In reflexives from occurring in the complement clause. Consequently, in addition to (92), another seemingly ad hoc constraint would have to be added to the grammar of Turkish in order to rule out -In reflexives.²² Note that Postal cannot simply adopt the constraint in (93) in lieu of (92) since impersonal constructions with unergatives do not have an arc bearing both the 1 and 2 relations (c.f. (87)).

Argument Two

²² Postal's causative rule also does not block constructions with olmak occurring in the complement clause which results in an ungrammatical sentence. Recall from Chapter Four that predicates consisting of a loanword and olmak always occur in clauses with unaccusative 2 to 1 advancement. Such clauses do not contain an insecure 1 arc, thus, there is no reason according to Postal's rule in (92) to prohibit them. As explained in the text, Postal cannot simply adopt my causative rule since his impersonal constructions with initially unergative predicates do not contain a nominal heading arcs bearing the 1 and 2 relations. That is, my causative rule would not prohibit his impersonal construction with unergatives. Consequently, he would have to maintain his causative rule in (92) while adding my causative rule in (93). Clearly, this is a ad hoc solution and thus, undesirable.

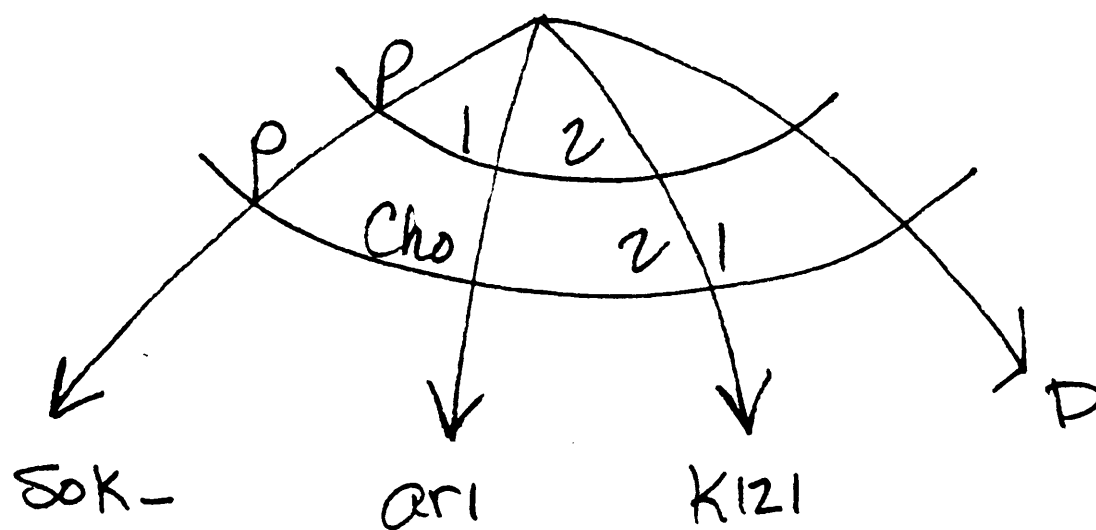
Postal's proposal for the distribution of -I1 makes the wrong prediction for constructions with an incorporated 1. As discussed in section 6.3.4, indefinite 1s can incorporate in the verb.

(94) Kiz-i ar-i sok-tu.
girl-ACC bee sting-PST

'A bee stung the girl.'

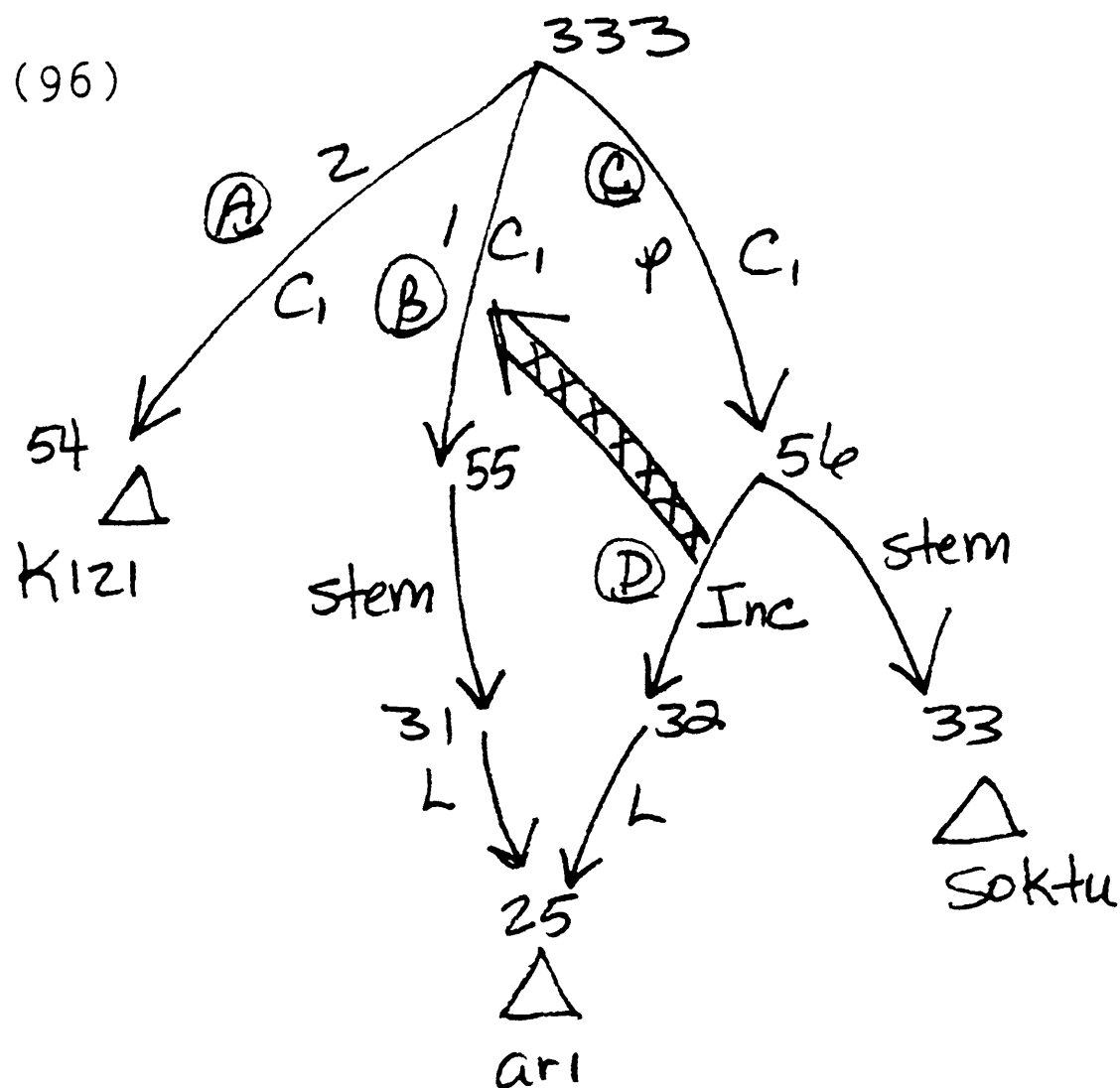
The indefinite 1 in (94), ar-i, must appear immediately before the verb. Further, ar-i does not behave as a final 1 with respect to scrambling, relativization, and raising. Within a transformational framework, Hankamer and Knecht suggest that the 1 has been demoted, thus it no longer behaves as a 1. Since RG does not allow spontaneous demotion, it is claimed here that a dummy enters as a 1, placing the initial 1, ar-i, en chomage, as in (95).

(95)



In (95), ar-i is a final chomeur. Crucially, the initial 1 is not the final 1; thus, the clause contains an insecure 1 arc. According to Postal's proposal in (85), the verb in (94) should exhibit the -I1 marker, but this prediction is not borne out.

In reply to the above, Postal claims that (85) can be maintained if we adopt the following APG analysis of incorporation. In a structure in which a 1 incorporates, as in (96), the relevant arc (B) sponsors an arc (D) bearing the Inc (incorporated) relation. The (B) arc, i.e. the 1 arc, is then erased by (D), the Inc arc.



The tail of the Inc arc heads the P arc. The Inc arc is a neighbor of the stem arc in clause 56 and is thus not a neighbor of the 1 arc in clause 333. (The L (Label) arcs are irrelevant here and will not be discussed.) Since the clause node of the Inc arc is 56 and the clause node of the 1 arc is 333, the Inc arc is a foreign eraser of the 1 arc. Since any foreign erased arc is final, the 1 arc in 333 is a final 1. Consequently, the incorporation structure in (96) contains no insecure 1 arc, and the principle in (85)

predicts no -Il morphology; this prediction is borne out.

As Postal points out, since the incorporated nominal is a final 1 in his analysis, syntactic phenomena which treats the incorporated nominal as if it were not a final 1 must be described in terms of surface 1hood or related notions. This consequence of his analysis will not be discussed further.

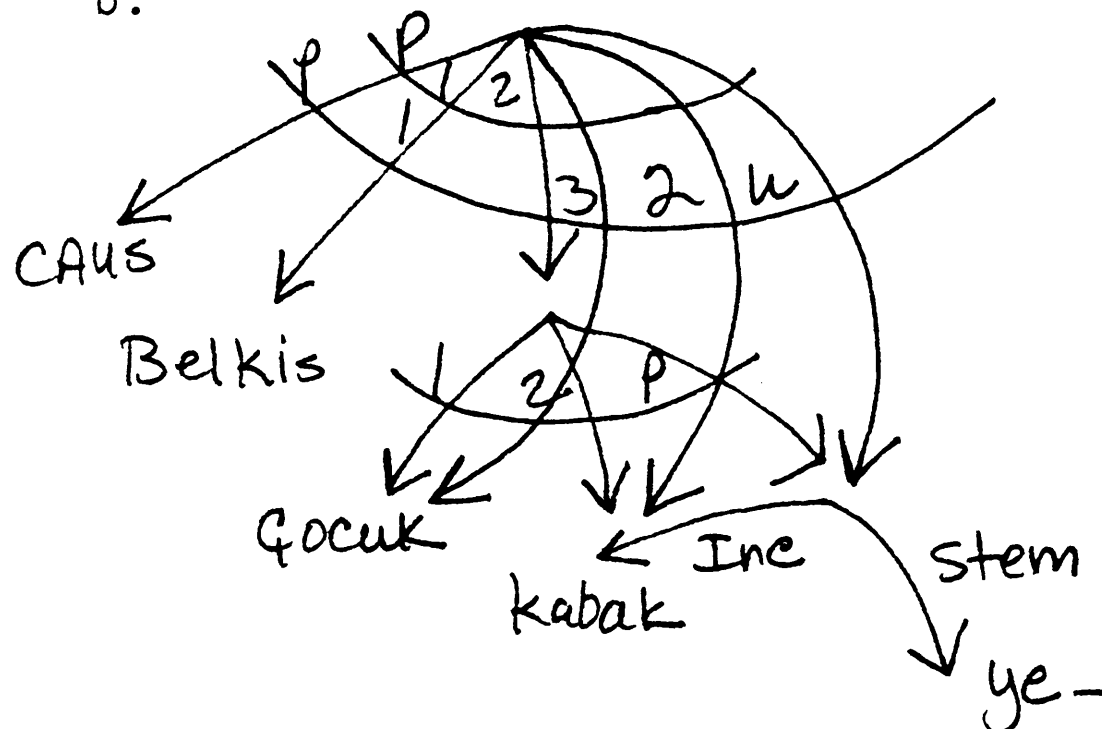
Recall that in the argument above, we concluded that Postal's analysis of the interaction of causatives and passives was inadequate because it required a separate statement for the interaction of causatives and -In reflexives. Postal's analysis of incorporation leads to another complication in stating what can occur in the complement clause of causatives in Turkish. As will be shown below (see also Chapter Four), incorporation can occur either in the complement clause of a causative structure or in the matrix clause after clause union to produce a well-formed sentence.. In my analysis, no special rule is required to regulate the interaction of incorporation and causatives. Under Postal's analysis, however, a separate statement would have to be posited to regulate incorporation in the complement clause of causative structures. In particular, it will be necessary to order incorporation after clause union. Thus, Postal will have to explain why a syntactic process, such as incorporation, cannot occur before causative formation, which is also a syntactic operation.

Consider the following causative structure, in which there is 2 incorporation in the complement clause.

- (97) a. Belkis $\check{\text{çocuğ-a}}$ kabak ye-dir-di.
 child-DAT squash eat-CAUS-PST

'Belkis made the child eat squash.'

b.



In (97), the incorporated nominal in the embedded clause, kabak, heads a final 2 arc and the Inc arc. The final 2 arc sponsors and is erased by the Inc arc. Since the 2 arc has a foreign eraser, it is a final 2 arc; thus, the final stratum of the embedded clause is transitive. According to the Clause Union Law and the Inheritance Principle cited below, the embedded final ergative 1 is a matrix 3 and the embedded final 2 is a matrix 2.²³

²³ The Clause Union Law and the Inheritance Principle are taken from Chapters Four and Six where they are discussed in more depth.

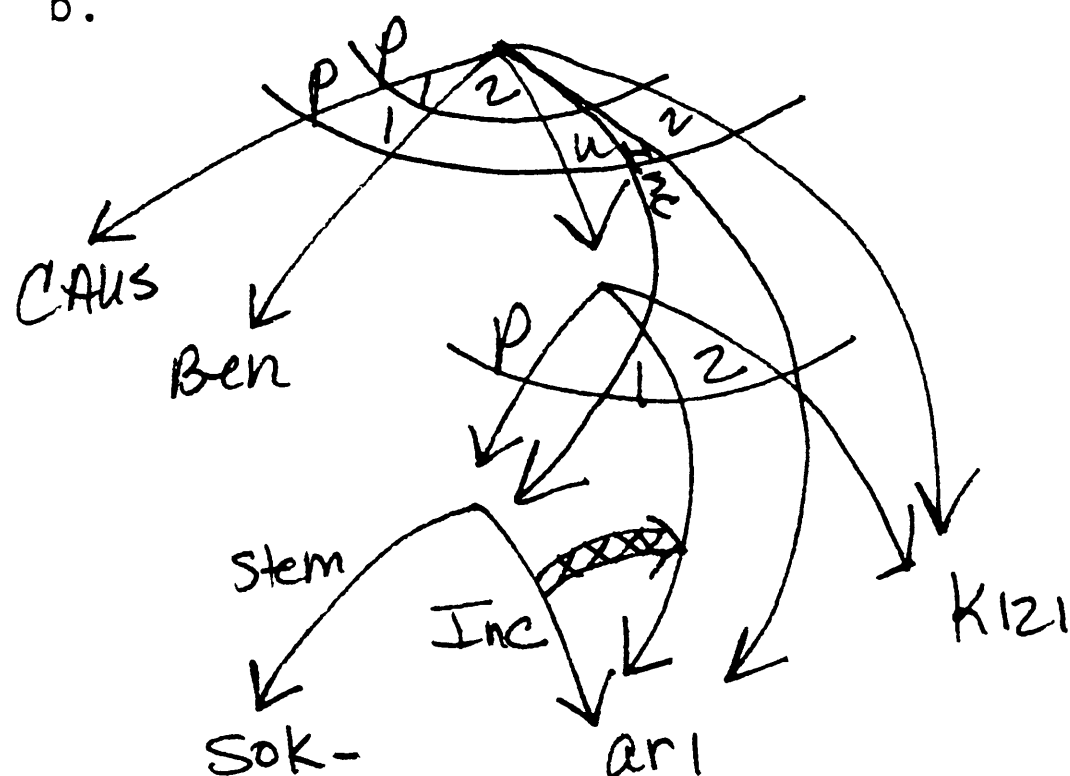
(102) Belkis çocuğ-a kabak ye-dir-di.
 child-DAT squash eat-CAUS-PST

'Belkis made the child eat squash.'

However, even with the modified version of the Inheritance Principle, Postal's analysis of incorporation makes the wrong prediction about the following causative sentence.

(103) a. * Kız-ı arı sok-tur-du-m.
 girl-ACC bee sting-CAUS-PST-1sg
 ('I made a bee/bees sting the girl.')

b.

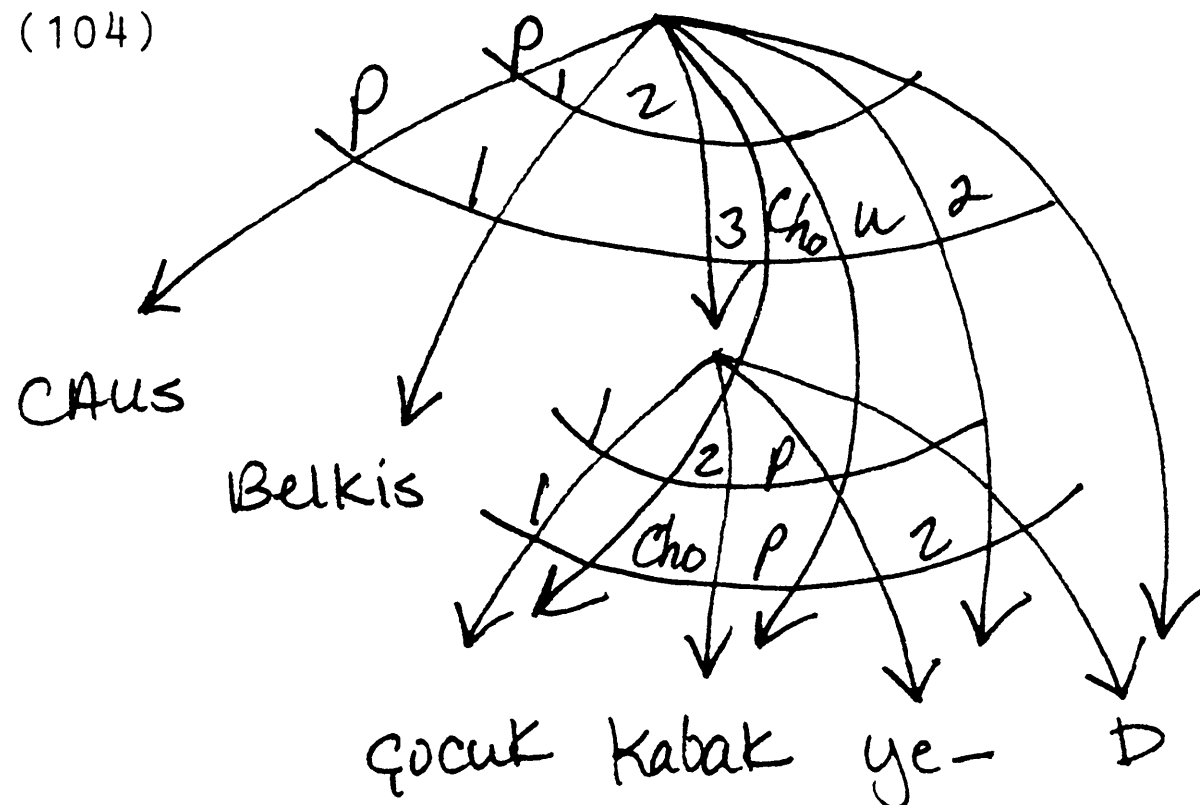


Here, the 1 has incorporated in the embedded clause of the causative structure. The Inc arc is sponsored by and erases the 1 arc headed by arı. The embedded 2 and the embedded Inc relations maintain their relations upstairs via the Inheritance Principle. Thus, according to Postal's analysis of incorporation, the causative sentence in (103a) should be grammatical, but it is not. (103a) is ungrammatical because what would have been an upstairs 3, arı, is incorporated.

Nominals bearing only nuclear term relations may incorporate in Turkish.

It appears, then, that if Postal's analysis is going to account for the interaction of incorporation with causatives, it will be necessary to order incorporation after clause union. Note that if the incorporation of the 2 occurs in the union bearing stratum in the matrix clause in (97b), the correct outcome is predicted in (97a) without the modification of the Inheritance Principle. The matrix final 2 would simply sponsor and be erased by an Inc arc. Similarly, if incorporation could apply only after clause union in (103b), the ungrammatical sentence in (103a) would be predicted because the embedded 1 would be an upstairs 3. Since 3's cannot incorporate in Turkish, the upstairs 3 arc would not sponsor an Inc arc.

Now let us assume a dummy analysis of incorporation, in which the dummy enters as a 1 or 2, placing the nominal to be incorporated en chomage. Under this analysis, the grammaticality of (97a) and the ungrammaticality of (103a) are straightforwardly predicted by existing RG principles. It is not necessary to modify any principles or order any rules. In (97a), incorporation can occur either in the embedded or matrix clause.



If 2 incorporation occurs in the embedded clause as in (104), the dummy enters as a 2, placing the initial 2 en chomage. The embedded 1 is an upstairs 3 via clause union and the remainder of the embedded nominals maintain their relations upstairs in the union stratum. Furthermore, incorporation could occur upstairs rather than downstairs. In that case, the dummy would enter as a 2 in the stratum following the union stratum in the matrix clause.

Now let us consider (103a). As we have just seen in the above example, incorporation can occur either in the matrix or embedded clause. Given the Nuclear Dummy Law, however, incorporation cannot occur either in the upstairs or downstairs clause of (103b). If incorporation occurred downstairs, the dummy would enter as a 1, placing the initial 1 en chomage. The dummy is then an ergative 1, and in clause union it would have to be a final 3 upstairs. Since dummies can only bear nuclear term relations in RG, the

structure would be ruled out as ill-formed. Thus, the ungrammatical sentence in (103a) would never surface. Similarly, if incorporation occurred upstairs after clause union, the dummy would have to enter as a 3 to place ari en chomage, since ari would be an upstairs 3 by the Clause Union Law. Again, the Nuclear Dummy Law would rule out the structure.

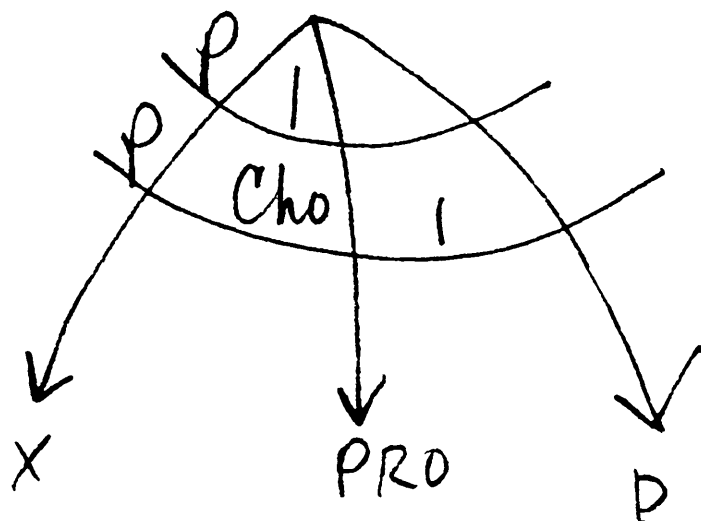
In summary, under my analysis, the interaction of causative structures and the dummy analysis of incorporation requires no ordering of rules or modification of existing RG principles. Postal's analysis of incorporation, however, involves considerable complication of the grammar. We conclude then that the dummy analysis of incorporation is superior. But this means that the incorporation structure contains an insecure 1 arc. Postal's rule for -Il morphology then predicts that incorporation structures should display Il; this prediction is not borne out. I conclude Postal's -Il morphology rule is incorrect; this in turn seriously questions the validity of the impersonal construction Postal characterized in (90). Postal's arguments that Turkish does not have true impersonal passives therefore do not hold.

6.4.3 Knecht's Account

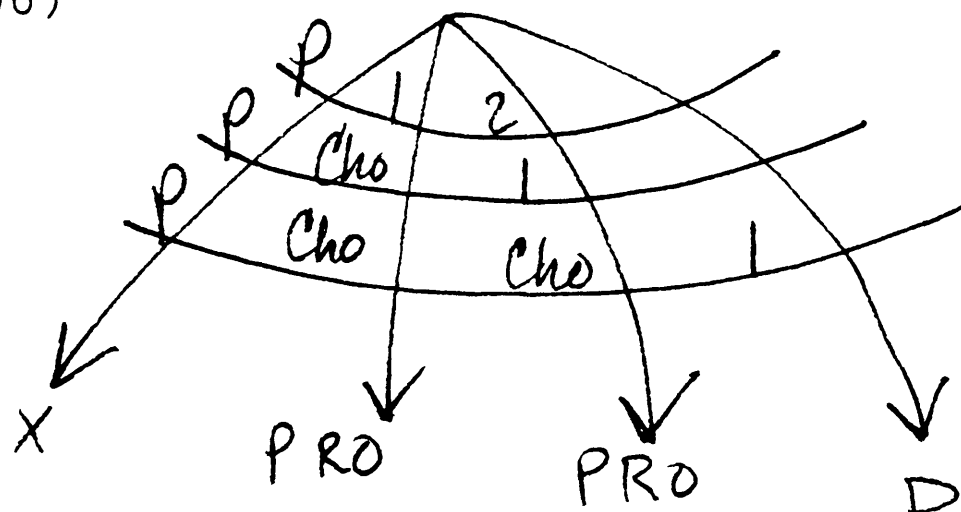
Like Postal (1986), Knecht (1986) offers an alternative analysis for (67) and (68) which does not violate the 1AEX. She claims that impersonal passives in Turkish are

not true impersonal passives because they do not involve a dummy advancing 2 to 1 from a transitive stratum. She proposes the following structures for so-called impersonal passives in place of (67) and (68).²⁴

(105)



(106)



The impersonal structure in (105) encompasses all Turkish intransitive predicates which are apparent impersonal passives. The central nominal is PRO bearing an initial relation. The dummy enters as 1, placing the initial 1 en chomage. The structure in (106) is an impersonal construction which is initially transitive. There is personal passive

²⁴ Knecht (1984;1986) claims that initially unaccusative clauses do not exist in Turkish. Consequently, for her, all initially intransitive predicates will be unergative.

advancement from the initial stratum which advances the 2 to 1 and places the initial 1 en chomage. The dummy enters in the subsequent stratum, placing the 1-advancee en chomage. Thus, both PRO's head cho-arcs.

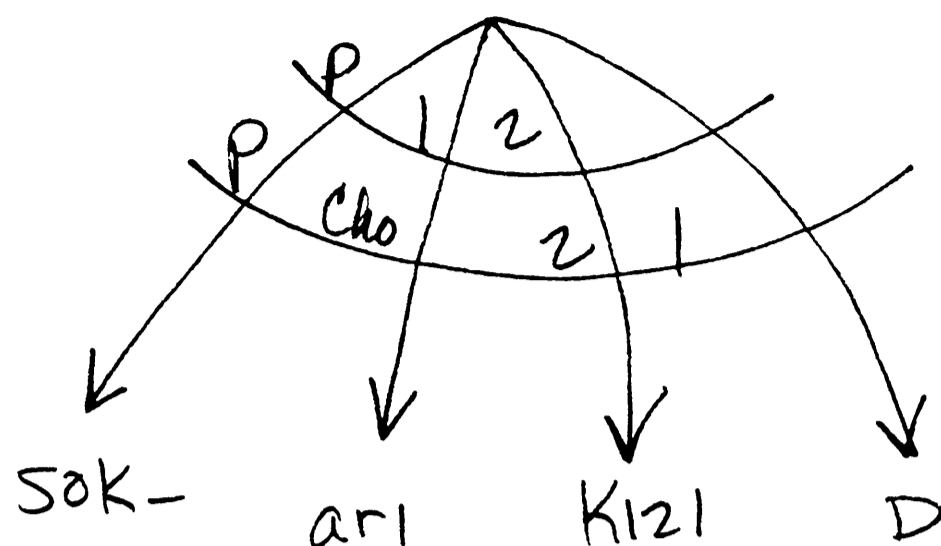
Note that the structures in (67)-(68) and (105)-(106) follow Perlmutter's (1983b) universal characterization of impersonal constructions:

(107) A clause is 'impersonal' if and only if its final stratum contains a 1-arc headed by a dummy.

The noted structures all have a dummy heading a 1-arc.

By denying the existence of true impersonal passives in Turkish, Knecht, like Postal in the previous section, must then provide an account of -Il morphology and incorporation in Turkish. Knecht proposes that -Il is not triggered by passive advancement but is a morphological reflex of subject demotion, a process which is present in both personal passives and apparent impersonal passives. This proposal is similar to Postal's proposal that -Il is triggered by each distinct insecure 1 arc. However, Knecht's proposal, like Postal's proposal, makes the wrong prediction for sentences with 1 incorporation. The incorporation structure in example (95) is cited below for convenience.

(108)

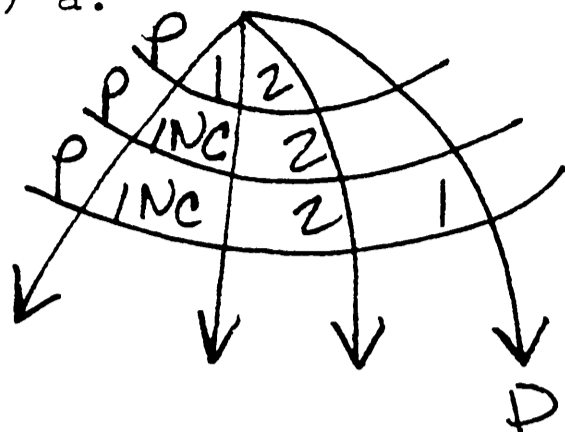


As I claimed in the previous section, 1 incorporation involves the dummy entering as a 1, placing the initial 1 en chomage. The 1 incorporation structure in (108) is incorrectly predicted by Knecht's proposal to trigger -Il morphology on the predicate.

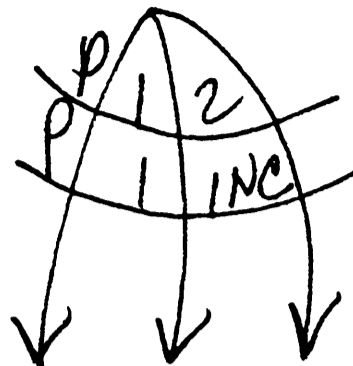
To deal with this, Knecht adopts a modified version of an Arc Pair Grammar analysis (Postal:1986) in which the 1 and 2 that incorporate bear the relation of Inc. She thus claims that the 1 is not demoted to chomeur in incorporation structures. Her proposal differs from Postal's in that the incorporated nominal bears the final Inc relation, not the final term relation.²⁵ Knecht's proposal is given below.

²⁵ Knecht (1986:107) claims that incorporated 1s are not final 1s because incorporated 1s can be extracted by comparative deletion. Final 1s in Turkish cannot be extracted. Although Knecht does not consider such a possibility, it is conceivable that the comparative deletion rule can be stated in terms of internal survivor 1 arc rather than final 1 arc in APG. If this is possible, then it is not clear that Knecht has an argument for positing Inc as the final relation for incorporated nominals, rather than final 1, as Postal does.

(109) a.



b.

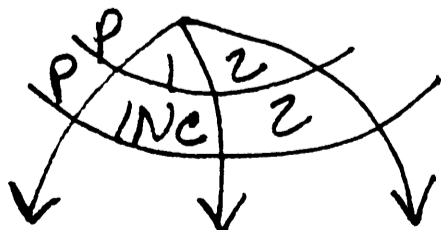


In (109a), the 1 incorporates by spontaneously becoming an Inc. The dummy enters in the final stratum to satisfy the Final 1 Law.²⁶ Similarly, the 2 incorporates in (109b) by spontaneously taking on the Inc relation. Crucially, neither (109a) nor (109b) contain a 1 that has been demoted to chomeur; thus, -I1 morphology is not expected to appear on the predicate according to Knecht's principle.

Knecht presents an indirect argument in favor of her analysis and against a motivated demotion analysis for incorporation. As I will show, however, her argument does not go through.

²⁶ Knecht (1986) alternatively offers the following analysis which has no final 1. She proposes that the Final 1 Law is, in fact, incorrect, thus the lack of a final 1 is not an issue for her analysis.

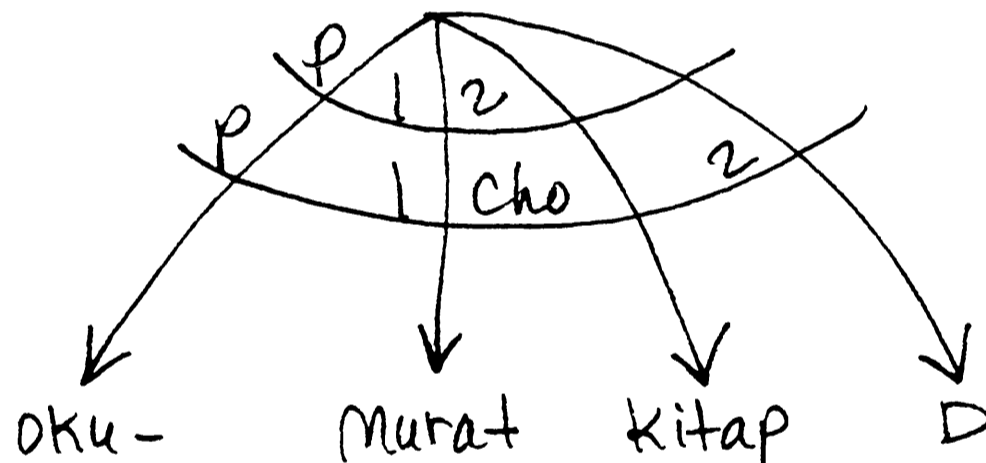
(i)



First, Knecht makes the assumption that it would be preferable to have a uniform account of both 1 and 2 incorporation. For example, if a 2 does not have to be a final chomeur to incorporate, then a 1 should not have to be a final chomeur either.

She then presents the motivated demotion structure below, in which the initial 2 is placed en chomage by a dummy bearing the 2 relation.

- (110) a. Murat kitap oku-du.
 book read-PST
 'Murat read a book/books.'
 b.

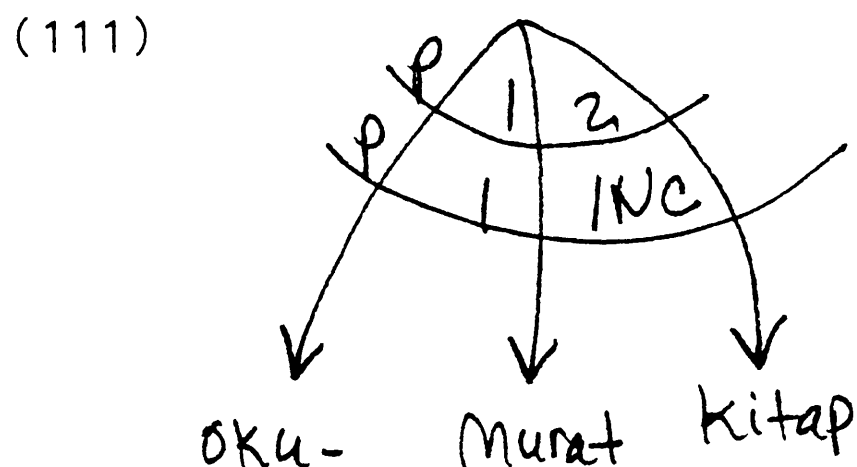


By showing that incorporated 2s could not be analyzed by motivated demotion, she hoped by extension to show that incorporated 1s could also not be analyzed by motivated demotion. This is a desirable outcome since then her -I1 morphology principle would hold. Knecht (1986:109) argues:

According to [110b], the first stratum that contains the demoted object is transitive. Given that the personal passive rule permits the 2 in a transitive stratum to advance to 1 in the immediately succeeding stratum, [110a] should have a related personal passive in which a dummy acts as final 1. Since tarafından phrases are permitted in personal passives but not in impersonal passives, the motivated

demotion analysis predicts that the following sentence is the passive version of [110a], i.e. that it is acceptable on the reading, 'A book/books were read by Murat.'

[A] Murat tarafından kitap oku-n-du.
But it is not acceptable on that reading; [A] can only mean, 'The book was read by Murat.' ...So, positing that a dummy 2 puts a caseless nondefinite (incorporated) object into chomage has the wrong result. However, the passive facts follow from the claim that incorporated nominals bear the final INC-relation. In the following representation of [110a] above, there is no stratum in which 1, 2, and INC co-occur, so personal passive is correctly predicted to be impossible.



I maintain that Knecht's argument against positing (110b) as the incorporation structure for (110a) is flawed in the following way. Knecht claims that personal passives can ensue in (110b) from the stratum in which the dummy enters as a 2 placing the initial 2 en chomage. This line of reasoning does not follow from RG principles, however. Personal passive is not expected to ensue from the second stratum in (110b) because the 2 is headed by the dummy. If the dummy 2 advances to 1 placing Murat en chomage, it would be impersonal passive advancement.²⁷ As noted above,

²⁷ Since Knecht claims that true impersonal passives in which the dummy advances from 2 to 1 do not exist in Turkish, she is left no choice but to claim that per-

Perlmutter characterizes impersonal constructions as having a final 1 arc headed by a dummy. Thus, it is incoherent to claim that (110b) should have a related personal passive in which the dummy is a final 1. Furthermore, given that impersonal passives in Turkish must always have a 1 arc headed by PRO, it is not possible for even impersonal advancement to ensue from the structure in (110b). Note that the 1 arc is headed by a non-PRO nominal, Murat.

Consequently, the motivated demotion analysis of incorporation does not predict that (A) is the passive version of (110). In fact, given the other relevant RG principles cited above, the motivated demotion analysis of incorporation correctly predicts that neither a personal nor impersonal passive can occur. My informants rate (A) ungrammatical, as predicted.

It was Knecht's goal to show that the motivated demotion analysis of incorporation in (110b) made an incorrect prediction, and thus to show such an analysis was not a viable account for Turkish incorporation of both 1s and 2s. If 1s do not demote to chomeur in incorporation structures, then Knecht's principle for -Il morphology would have stood uncontested. From this, it would have followed that the impersonal structures in (105) and (106) were sonal passive advancement can ensue from the second stratum in (110b). This is an incorrect assumption as I explain above.

serious alternatives to the structures in (67) and (68).

However, since Knecht did not succeed in showing that incorporation structures in Turkish are to be analyzed as (109a) and (109b), the structures in (67) and (68) stand as counterexamples to the 1AEX Law.

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