ABSTRACT

Title of Dissertation:     MINIMALITY AND TURKISH RELATIVE
                          CLAUSES

                          Ilhan Merih Cagri, Doctor of Philosophy, 2005

Directed By:               Professor Norbert Hornstein
                          Department of Linguistics

Turkish relative clauses display a subject/non-subject asymmetry.  The subject

relative (SR) is licensed for relativization from [Spec, TP].  Whereas the non-subject

relative (NSR) is never acceptable for subject relativization, the SR is licensed in

clauses where there is no external argument, and when relativizing a non-subject in

clauses where the subject is non-specific.  Within the framework of the Minimalist

Program, Turkish RCs are explained in terms of satisfaction of the EPP of T by a D

feature and Minimality effects.  As long as no nominal expression intervenes between

the relative head and [Spec, TP], the SR is licensed.  The SR, then, can be used as a

diagnostic for movement through TP.  Minimality effects are incurred when there is

an intervening nominal between T° and the RC head, and the SR becomes

unacceptable.  The proposal is that in Turkish, specific nominals, +human nominals,

and Experiencers of psych verbs all contain a DP projection.  Non-specifics are NPs

which cannot satisfy the EPP.  NP subjects cannot move to [Spec, TP], and thus

permit the SR form for relativization of non-subjects. NPs create intervention effects, as does PRO, with the exception of subject control PRO which is perhaps a trace of movement. Scrambling ameliorates intervention effects. Once scrambled, expressions are frozen but remain porous for movement of a subconstituent. Differences between inherent and structural Case are suggested with structural case assignment limited to DPs and in a Spec-Head configuration. Structurally case-marked DPs are barred from moving to case-assigning positions unless there is a morphological match. Further proposals include structures for verb classes, including Psych verbs, and structures for infinitivals and +human DPs. Contrastive focus is briefly addressed. Though superficially complex, relativization in Turkish can be accounted for with a minimum of technology. The suggestions here have implications for the theory of the EPP, Case, its assignment and interface conditions, feature satisfaction, and movement.

MINIMALITY AND TURKISH RELATIVE CLAUSES


By


Ilhan Merih Cagri




Dissertation submitted to the Faculty of the Graduate School of the
University of Maryland, College Park, in partial fulfillment
of the requirements for the degree of
Doctor of Philosophy
2005

Advisory Committee:
Professor Norbert Hornstein, Chair
Professor Howard Lasnik
Professor Paul Pietroski
Professor Amy Weinberg
Professor Christopher Cherniak

# Dedication

In memory of my parents.

Dedicated to Amina and Nadia.

# Acknowledgements

I have thought about what I would write in the acknowledgment section of my dissertation long before I wrote the dissertation--sort of like planning where to hang the pictures before you construct the wall. However, now that I am actually at this juncture, I find myself at a loss for words. Before I begin acknowledging a few of the people I feel grateful to, I must first thank God, the Creator, for blessing me with so many good things in life and for allowing me to experience and succeed in this wonderfully fulfilling endeavor.

This work is a testament to the strength and talent of my parents. My parents were immigrants of the old school. They were industrious, independent, humble, courageous and generous. I consider the noble character of my father and the adventurous spirit of my mother gifts that I hope will be passed on to their grandchildren and great-grandchildren. My mother did not live to see the completion of my studies, but not a day went by when she wouldn't ask, "So, my daughter, when are we going to see your doctorate?" My mother was one to shamelessly brag about her children. All aunts and uncles, all cousins, knew we were the special ones in the family. Colleagues, friends, neighbors, taxi drivers, and store clerks were all told how exceptional and how successful we were. I exaggerate not. To this day, I run into people who knew about my mother's children and grandchildren. People like taxi drivers in Washington, DC, or the movie theater manager in Bethesda, MD, or the hair dresser in Columbia, have asked me in detail about me, my siblings and our kids. So, it would be remiss of me if I did not brag about my mother here. My mother was born to Jewish parents in Ottoman Turkey. In two years of schooling,

she was already in the fourth grade, at which point her father withdrew her from school so that she could work in his laundry.  My mother was engaged to a nice Jewish boy by the time she was 17 but decided instead to run off with a very handsome ("just like Errol Flynn!") Muslim Turk 15 years her senior.  Well, of course, scandal ensued.  The fiance was immediately married off to my mother's young aunt, my mother's sister (believing the lament that the family was disgraced and the other girls would never marry) ran off to Israel, and my mother was banished from the family.  No one in the family was permitted to speak to my mother.  This didn't stop my grandfather from using her labor at his shop, however, and it was from the shop doorway that my mother watched her brother's Bar Mitzvah procession on its way to the reception from which she was excluded.  My mother and father moved to Ankara shortly thereafter.  Of my mother's exploits there, I know only that she enrolled in a school of French cuisine (she spoke French), worked as a nanny to an American diplomatic family (she had learned English), worked at the Mexican Embassy (she spoke Spanish), and entertained friends of different backgrounds (smattering of Greek and Italian).  My mother embroidered and knit beautifully, loved poetry and art, and appreciated all kinds of music, Turkish, European, classic and current.  In the U.S., my mother was as active and as creative.  Working in various positions in many different embassies in Washington DC, my mother made our house the scene of glittering soirees.  On one occasion, I remember diplomats gushing over the greasy jack my mother had found on the side of a road and placed on our credenza.  Needless to say, my father thought she was nuts.  My mother *lived* every day of her life.  Not one moment was wasted.  She hardly slept.  And in her

characteristic way, she worked full-time until three days before her death at age eighty. At her funeral, a Jewish cantor sang, Muslims, Christians, and Jews wearing Yarmulkas stood side-by-side as they said the Muslim Jenazeh prayer, and Rodrigo's Concierto de Aranjuez blared loudly as she was interred by her family.

I thank my father for teaching me about strength and courage. My father was a peaceful man of dignity and integrity. He hated to inconvenience anyone. Many will understand when I say that my father loved his family so much that his eyes teared as he gazed upon us. My father was a fixer. He taught me how to examine things carefully and to reason things through. Syntax is about problem solving, and this skill I learned from my father.

To my family, I owe my confidence. My aunts, Ida Dana, Meri Baruh, and Mati Revah, and uncles, Nesim Revah and Leon Dana, gave me healthy doses of love and encouragement. Their mantra was: "You can do anything!" I thank my sisters, Çaya and Beyhan and my brother Kemal for their love and support. I thank my brother-in-laws, Herb Conger and Bruce Trock for their encouragement. My children watched in awe and suffered with tolerance as I made this long journey. It was by loving them, and being loved by them, that I was able to keep my sanity. My daughter, Homeyra, was my standard bearer and shield. I cannot express how proud I am of her abilities and accomplishments. I am grateful to Zeki and Yahya for their forbearance, and for requiring so little of me being during this period. Idris is owed a special note of gratitude for maintaining his good-natured spirit in spite of quotidian bouts of poverty, chaos, and stress. No matter how unpredictable the disaster, Idris was there and willing to fix the problem. At different times, one or more of my

children would engage in discussions related to an area of interest to me. On one such occasion, I was inspired enough to produce a whole chapter of this thesis. I, therefore, dedicate Chapter 7 on Infinitivals to Haroon. My two daughters-in-law, Mariam and Fatimeh, spent many a day wondering just how mad their mother-in-law was, but to their credit, they never waivered in their support of me nor stinted in their kindness and generosity. (Conversation with Fatimeh: ME: I'm really sorry about the appalling way I acted yesterday. You must think I'm crazy! FATIMEH: (weakly) noooo.... not really....)

I have countless friends who carried me through this ordeal. My degree belongs to the sisterhood of these friends who were happy for me, prayed for me, encouraged me and uplifted me. This dissertation is in honor of the mothers and wives among my friends, to their collective wisdom and their often selfless aspirations.

I consider it an act of God's good Grace that I ended up in the Linguistics Department at UMCP. The professors here are truly dedicated to "teaching". As every student knows, it is not enough for an instructor to have made a name for himself in the field. I was fortunate to have been able to study syntax with Norbert Hornstein, Juan Uriagereka, David Lightfoot and Howard Lasnik. These scholars are tireless in their efforts to help students develop an understanding of the field and adopt sound research methods. Laura Benua taught phonology in such a way that even today years after I took her classes, I have a firm grasp of the issues if not the details. Stephen Crain and Rozz Thornton would give me a solid background in language acquisition. Rozz, especially helped me develop sound research

methodology.  Other professors to whom I am indebted for their teaching talent and erudition are Paul Pietroski, David Poeppel, Philip Resnik, and Amy Weinberg.

My studies in linguistics would have never gotten off the ground if it were not for Norbert Hornstein.  From my first syntax course, through years of painful highs and lows, Norbert inspired, prodded, yelled, praised, critiqued and criticized, and carried me through.  I cannot relay how deeply grateful I am to Norbert for his wisdom, and for always seeing the best in me.  Amy Weinberg provided cheer and counseling for the private troubles, and know-how and invaluable assistance in professional matters.  Paul Pietroski had faith in me when even I doubted myself. Howard Lasnik taught me how to think and write like a linguist.  The guidance of these individuals during the final period of my dissertation writing was invaluable.  It is still amazing to me how accessible these people were.  I am indebted to them for their patience, open-mindedness, and professionalism, and for sincerely wanting success for me.  I must also express heartfelt gratitude to Jacek Witkos who was the angel that pulled me out of a particularly barren trough.

The grad students during my tenure as a student were a gifted lot.  They provided the department an atmosphere of talent and intellectual stimulation.  Early on, I was encouraged by the special talents of people like Sachiko Aoshima, Cilene Rodrigues, Max Guimarães, Ana Gouvea, Hirohisa Kiguchi, Mitsue Motomura, Elixabete Murgia, Acrisio Pires, Itziar San Martin.  I am obliged to these people for their assistance and their example during the early years of my studies.  I owe thanks to Scott Fults, Ivan Ortega-Santos and Masaya Yoshida for providing inspiration in the latter years.  Especially helpful and generous with his time was Tomohiro Fujii.

# Table of Contents

# Chapter 1: Introduction

While this work centers on relative clause constructions in Turkish, it includes

research into several syntactic properties that have been attested cross-linguistically

and theories in generative grammar that have been proposed to explain them. By way

of introduction, I must clarify at the outset that the account presented here is solidly

within the Minimalist Program (mainly) of Chomsky (1995, 2000). Thus, it is

assumed outright that the reader agrees with the movement (or displacement) account

of syntactic derivations. An attempt has been made throughout to keep theory

internal assumptions to a minimum (modulo the initial assumptions regarding

movement (both A- and A-bar), X-bar structure and binary branching, theta-

assignment at first merge and structural case-assignment/checking by functional

heads and other basic hallmarks of generative linguistics), and, where applicable, to

point out areas that may be controversial or where an alternative account would work

just as well without distracting from the arguments being presented.

Much of this work, however, ends up being about subject-hood and the EPP,

specifically the EPP on T. Turkish has two relative clause (RC) strategies. The one

which is the topic of this dissertation is native to the language; the other is borrowed

from Persian. The native strategy is pre-nominal in the sense that the restricting

clause which contains a gap precedes the nominal that is the external head of the

clause. This is expected as Turkish is a consistently head-final language.[1] There is

no relative pronoun and an overt resumptive pronoun is not permitted in the gap site.

This contrasts with the form borrowed from Persian which is post-nominal (i.e. the

restricting clause follows the head) there is a relative pronoun, the Persian *ki*, and it

requires a resumptive pronoun when relativizing anything other than a subject or

direct object. This form also employs the verbal inflections of matrix sentences,

whereas the native Turkish RC employs non-finite or subordinate clause inflections.

Furthermore, what has not been noted in the literature, as far as I know, is that

whereas the native form is generally a restrictive relative[2], the borrowed Persian form

functions as an appositive in Turkish.[3] This work has nothing further to say regarding

the borrowed RC form.

The native RC itself has two forms, commonly identified (using a variety of

similarly mnemonic labels) as the Subject Relative (SR) clause form and the Non-

Subject Relative (NSR) clause form based on the grammatical function of the

expression that would have appeared in the clause internal gap position. It has been

noted that this description is not quite accurate in the sense that the SR form is

licensed in some circumstances where its function is something other than the subject

---

[1] For arguments against Kayne's (1994) LCA entailment that specifier-head-complement is the universal order see Kural (1997).

[2] As evaluated against the language relevant diagnostics in Del Gobbo (2003: pp. 152-162).

[3] A. Ince (p.c.) pointed out the non-restrictive interpretation of the *ki* RC form in Turkish. In sentence (i) containing the native RC (i), it cannot be true that the girl lost her bag if she did not buy the book, whereas in sentence (ii) with the *ki* RC, it can still be true that the girl lost her bag, even if she didn't buy the book (note the commas around the English equivalent).

> (i)     kitab-ı    al-an   kız çanta-sı-nı   kaybetti
>           book-ACC buy-SR girl bag-AGR-ACC lost
>           'The girl who bought the book lost her bag'
> (ii)    kız ki     kitab-ı    al-dı,   çanta-sı-nı   kaybetti
>           girl COMP book-ACC  buy-PST bag-AGR-ACC lost
>           'The girl, who bought the book, lost her bag'

of the RC.  Interestingly, whereas the SR is sometimes licensed for non-subjects, the NSR is never acceptable for relativization of the subject.

We will see in Chapter 2, that the SR is, in fact, licensed when the relativized expression moves to (and through) [Spec, TP].  The SR examples will include relativization of nominals bearing a variety of grammatical functions and theta roles. It turns out that under appropriate circumstances, the SR form is acceptable for relativization of all nominals except accusative direct objects.  This means that given the syntactically permissible conditions for the movement, any nominal may move to [Spec, TP], except one that is marked with accusative case.  This fact has theoretical implications.  As will be seen in later chapters, I conclude that Case is checked at PF, and it is the morpho-phonetic mismatch of structural case at PF that disallows movement of an accusative case-marked expression to the structural case-assigning position of [Spec, TP].

Svenonius (2002) notes that the notion of subject is "no more than a descriptive label for an epiphenomenal collection of properties" (p.3).  Although the Turkish Subject Relative can be used when relativizing expressions bearing a variety of theta roles, it is licensed only when that expression has passed through the case-assigning position for the canonical subject.  Put simply, there are three components to "subject-hood": thematic (the most prominent argument of a predicate), syntactic (identified by case or agreement), and discourse-informational (the topic of a proposition) (Svenonius 2002).  This gives us another way of viewing the Subject Relative; that is, it is licensed when syntactic and discourse prominence converges. To put it another way, if we think of the relativized expression as the topic within the

clause, and if we agree that [Spec, TP] is the most prominent position in the morpho-syntactic arena of case and agreement, then it is when the clausal "topic" is also the clausal "subject" (i.e. occupies the canonical subject case and agreement position of [Spec, TP]) that the SR form is licensed. The only aspect of subject-hood missing in the definition of Subject Relative is that the relativized expression does not have to be the most prominent in the thematic hierarchy of the predicate. It is too early here to discuss these issues in greater detail. In fact, we will readdress them at the conclusion of this work when the reader has many more facts under his belt. I mention them here to point out that although much of what follows is centered on Turkish, the reader is urged to consider throughout the larger issues and to test their applicability to his own research interests.

# 1 Background[4]

A few facts about Turkish: Turkish is a head-final agglutinative SOV language. There is no overt Wh-movement, nor any complementizers in the trivial sense. It exhibits both subject and object drop, and indeed subjects and objects appear only for contrast, emphasis, or other marked discourse purposes. To be more precise, overt pronouns are unacceptable unless they signal a change of topic or contrast, as in (1).

---

[4] Abbreviations used: ABL (ablative), ACC (accusative), AGR (agreement) AOR (aorist), DAT (dative), GEN (genitive), INF (infinitive), INST (instrumental), LOC (locative), NOM (nominative), NPI (negative polarity item), NSR (non-subject relative), NoEA (no external argument), PASS (passive), POSS (possessive agreement), PST (past), RC (relative clause), SR (subject relative).

1) Ahmet oda-ya     gir-di.   (*O)   sandalye-ye otur-du.
   Ahmet room-DAT enter-PST. (*He) chair-DAT     sit-PST
   'Ahmet entered the room. He sat down in a/the chair.'

Turkish exhibits rich morphology, and is regular in the stacking of its case and inflectional morphemes which are generally suffixival.  There is only subject agreement, no object agreement.[5]  What makes Turkish useful for research is that, unlike synthetic languages where several inflectional elements can be fused into one morpheme, there is generally a one-to-one mapping between function and morpheme in Turkish which yields more transparency in the syntax.

As noted above, Turkish relative clauses demonstrate a subject/non-subject asymmetry.  There are two verbal suffixes which mark relative clauses in Turkish, -An and -DIK[6], the choice of which is generally determined by whether the clause internal gap site is the subject of the relative, the SR -An form as in (2)a, or a non-subject, the NSR -DIK form as in (3)a.  The -An verbal form bears no agreement morphology.  The -DIK suffix, on the other hand, is followed by possessive morphology which shows agreement with the subject, which, when overt, bears genitive case morphology.  Because the morpho-phonological processes on the verbal morphemes are rather complex, I will denote the Subject Relative /-An/ form as SR and the Non-Subject Relative /-DIK/ form as NSR.

---

[5] Although it will be argued in Chapter 5 on human DPs that the assumption regarding subject agreement is not straightforward.
[6] The capital letters indicate positions that undergo vowel harmony and consonantal assimilation.  I will use Turkish spelling throughout and not convert the Turkish examples to the IPA.  The –An form can appear as '-an', '-en' and the -DIK form can appear as '-dik', '-diğ', '-tik', '-tiğ', '-dık', '-dığ', '-tık', -tığ', '-duk', '-duğ', '-tuk', '-tuğ', '-dük', '-düğ', '-tük' and '-tüğ' as a result of phonological processes.

2) a.  [Ø$_i$ divan-da otur-**an**]  bayan$_i$
       Ø sofa-LOC sit-**SR**   lady
       'the lady who is sitting on the sofa'

   b.  *[Ø$_i$ divan-da otur-**duğ**-u] bayan$_i$
       Ø   sofa-LOC sit-**NSR**-3s lady

3) a.  [bayan-ın Ø$_i$ otur-**duğ**-u ] divan$_i$
        lady-GEN Ø  sit-**NSR**-3s sofa
       'the sofa that the lady is sitting on'

   b.  *[Ø$_i$ divan-da otur-**an**]    bayan$_i$
       Ø   sofa-LOC sit-**SR**-3s lady

Kornfilt (1997a) (among others[7]) describes the asymmetry by postulating that the

NSR form is the elsewhere case.  It is used for subordination structures in general.

On the other hand, the SR form is the marked option used in relative clauses when:

   a.  the gap site is a subject or part of a larger subject

   b.  the gap site is a non-subject in a construction where there is no surface subject

       bearing a thematic role, as in impersonal passives and existentials.

The relative clauses in (4)[8] exemplify part (b) of Kornfilt's generalization.  These

phrases contain no external argument (NoEA), and the gap site is the (oblique) object

of an impersonal passive construction.  Note that only the SR form is acceptable.

4) a.  [Ø$_i$ Ankara otobüs-ün-e   bin-il-en ]       durak$_i$
       Ø Ankara  bus-CM-DAT board-PASS-**SR**  stop[9]
       'the stop where the Ankara bus is boarded'

---

[7] The first modern analysis, based on Chomsky (1965), is attributed to Underhill (1972) by Hankamer and Knecht (1976) whose own explanation of the asymmetry is based on grammatical relations such as subject and object.  Csató's (1985) analysis was along the lines of Chomsky (1981).
[8] Examples from Kornfilt 1997.
[9] I use Kornfilt's gloss. She refers to one of the nominal morphemes as a compound marker (CM).

b. *[Ø<sub>i</sub> Ankara otobüs-ün-e  bin-il-diğ-i ]       durak<sub>i</sub>
  Ø  Ankara  bus-CM-DAT  board-PASS-**NSR** stop
  'the stop where the Ankara bus is boarded'

c. [Ø<sub>i</sub> bu  durak-tan  bin-il-en]        otobüs<sub>i</sub>
  Ø  this  stop-ABL   board-PASS-**SR** bus
  'the bus which is boarded from this stop'

d. *[Ø<sub>i</sub> bu  durak-tan  bin-il-diğ-i]        otobüs<sub>i</sub>
  Ø  this  stop-ABL    board-PASS-**NSR** bus
  'the bus which is boarded from this stop'


What is interesting, however, is that the SR form also appears in phrases such as

those in (5)a where the gap site is <u>not</u> the subject.  This sentence contains an overt

clause-internal subject, *ship*.  As shown in (5)b, the relativized expression, *harbor*,

bears dative case clause-internally and can in no way be identified as a subject.  The

example in (5)c[10] demonstrates that, as expected, the NSR form is also possible.


5) a.  [gemi yanaş-an] liman
      ship  sidle-**SR** harbor
      'the harbor that a ship is sidling up to'

   b)  Liman-a      gemi   yanaş-ıyor.
      harbor-DAT ship    sidle-pres.prog.-3s
      'A ship is sidling up to the harbor'

   c)  [gemi-nin yanaş-tığ-ı] liman
      ship-GEN sidle-**NSR**  harbor
      'the harbor that the ship is sidling up to'


Furthermore, as pointed out by Barker, Hankamer, & Moore (1990), in one common

dialect there seems to be some "optionality" in the choice of verbal forms particularly

---

[10] As the glosses indicate, there is a difference in interpretation based on whether the SR or the NSR form is used: in 5)a), the subject, *ship*, is non-specific, whereas in 5)c), *ship* is specific, and the NSR form is required.  This difference will later be addressed.

when relativizing from within a complex argument. The pairs in (6) and (7) are examples of extraction from within a subject and which, according to the generalization, should not allow the NSR form. But these phrases do, in fact, permit the NSR form as in (6)b and (7)b.[11]

6)  a.  [[Ø₁ kız-ı]        kitab-ı    getir-en] adam₁
         Ø  girl-POSS-3s book-ACC bring-**SR**  man
         'the man whose daughter brought the book'

    b.  [[Ø₁ kız-ı]-nın          kitab-ı   getir-diğ-i]    adam₁
         Ø  girl-POSS-3s-GEN book-ACC  bring-**NSR**-3s  man
         'the man whose daughter brought the book'

7)  a.  [[Ø₁ biz-e   güven-eceğ-i]          şüpheli ol-an] adam₁
         Ø  1p-DAT  trust-FUT-COMP-POSS-3s doubtful be-**SR** man
         'the man who that (he) will trust us is doubtful'

    b.  [[Ø₁ biz-e  güven-eceğ-i]-nin           şüpheli ol-duğ-u]      adam₁
         Ø  1p-DAT trust-FUT-COMP-POSS-3s-GEN doubtful be-**NSR**-POSS-3s man
         'the man who that (he) will trust us is doubtful'

In sum, what we have in Turkish RC's is two verbal suffixival elements, the choice of which is based on whether the gap site is a subject or non-subject, and which can sometimes be violated in simple relatives, but which permit a wider (although not completely free) optionality of choice in complex relatives.

Turkish is a Wh-in-situ language. The only way to track A-bar movement is with relative clause constructions.[12] There are no internally-headed relatives in Turkish, and resumptive pronouns are also banned in simple relatives. Thus, we can assume that Turkish RCs operate within the hallmarks of classic RCs: there is an

---

[11] Examples from Barker, et.al. (1990).
[12] I exclude Topic and Sluicing here.

obligatory gap in the (case) position of the RC head internal to the RC which is co-referenced with the nominal expression (the external head) which the RC is the complement of. Turkish being a head-final language, the structure of an RC, then, is as in (8) where $X_1$ is the N° head and the CP its complement. The resulting structure, [$_{NP}$ [$_{CP}$ . . .] N°], may optionally merge with D° giving us the DP shown in (8).

8)      [$_{DP}$ [$_{NP}$ [$_{CP}$ . . . [gap]$_1$ . . . ] $X_1$ ] D°]

I assume, and the evidence indicates, that the internal gap site (sometimes referred to as the focus) of the RC is a +Wh-expression (or Operator) that undergoes A-bar movement at least to the CP projection. I argue throughout this work that the SR relative clause form is indicative of the Wh-expression, i.e. the relative head, having moved to (and then out of) [Spec, TP]. If this is correct, it provides us with a diagnostic for A-movement to [Spec, TP]. The diagnostic works like this: Given a phrase with several nominals, one can formulate a RC targeting any one of those nominals as the head of the RC. It turns out that of the two RC forms, only one will be acceptable. The SR form will be required when the relative head A-bar moves from [Spec, TP] to [Spec, CP], and the NSR form will be required otherwise.[13] For example, in the phrase in (9), there are three DPs that can potentially be targetted for relativization, the subject, the direct object and the locative. Assuming that the subject-DP must first A-move to [Spec, TP] for case, after which it A-bar moves to

---

[13] There is an apparent exception in extraction from sentential subjects as in (6) and (7), but it will be shown that even here the generalization holds.

[Spec, CP], we predict that extraction of DP1-subject will trigger the SR form, as in (10)a and disallow the NSR form, as in (10)b.

9)     [DP1-subject  DP2-direct object  DP3-locative  Verb]

10) a.  [$_{CP}$ Ø$_1$ [$_{TP}$ Ø$_1$(+case) [$_{vP}$ DP2-DO-(ACC)  Ø$_1$(+theta)  DP3-locative **Verb-SR**]] ] DP1$_1$

   b.  *[CP Ø$_1$ [$_{TP}$ . . . DP2-direct object  DP3-locative **Verb-NSR**]] DP1$_1$

Extraction of DP2, the direct object, on the other hand, should require the NSR form and prohibit the SR form because the non-Wh-subject (DP1) must move to [Spec, TP] to be assigned case (to avoid a Case Filter Violation).  In (11), the NSR form is obligatory.

11)     [$_{CP}$ Ø$_1$ [$_{TP}$ DP1-Subj+case [$_{vP}$ Ø$_1$+ACC [$_{VP}$ Ø$_1$+θ DP3-Loc **Verb-NSR**]]]] DP2$_1$

In (12), the focus is now a dative object, and again the NSR form is required because the subject must move to [Spec, TP] for case.  Any time [Spec, TP] is occupied by a subject that is non-Wh, the NSR form is required and the SR form barred.

12) [$_{CP}$ Ø$_1$ [$_{TP}$ DP1-Subj+case [$_{vP}$ DP1-Subj [$_{VP}$ Ø$_1$+DAT DP3-Loc **Verb-NSR**]]] ] DP2$_1$

But, we will see that there are occasions where the subject does not raise for case. In this case, if we target either the dative DP2 (or the locative DP3) as the relativized expression, we can assume that <u>if the SR form is acceptable</u>, then the dative must have moved through [Spec, TP], as shown in (13). On the other hand, if the SR form is bad, and the NSR form is required, as in (12), then the dative did not move through [Spec, TP]; this can be either because [Spec, TP] was occupied (by the subject) or an intervening element blocked the movement.

13)    [$_{CP}$ $\emptyset_1$ [$_{TP}$ $\emptyset_1$+DAT  [$_{VP}$ $\emptyset_1$+DAT DP3-Loc NP1-Subj **Verb-SR**]]]] DP2$_1$

This then, in a nutshell, is the diagnostic that will be used throughout this work to tease apart movement. If one wants to see if an expression can move to [Spec, TP] one simply targets that expression as the relative head, and sees if the SR form will be acceptable or not. As will be seen, much of this unacceptability will be due to effects similar to what we saw in (11) and (12), where the subject occupies [Spec, TP], or to intervention effects created by the presence of a nominal between [Spec, TP] and the relativized Wh-expression. The workhorse in this thesis is the latter, what is termed Minimality effects, constraints on (A-)movement of a DP induced by the presence of intervening expressions.

As the details in this work are laid out, we see that there is a correlation between specificity and case, and specificity and movement. In addition, contra

11

Chomsky's assumption even as recently as 2005,[14] we will see evidence that

structurally case-marked expressions are not "frozen" for further movement but are

simply barred from moving to another structural case-assigning position.[15]  Because

this work is mainly about movement of DPs, the controversial issue of the EPP is

addressed early.  Initially I assume outright a definition of the EPP as a feature on a

functional head which forces movement of a DP to its Spec.  As we encounter more

and more Turkish data, we will revisit the EPP and will be led to conclude that, call it

what you like, something along the lines of the EPP as a feature that needs to be

checked seems to be working in Turkish.  Although scrambling is not a topic per se in

this work, the effects of scrambling and constraints on scrambling are discussed when

they become germane.

The bulk of the findings in this project leads to one conclusion: that the SR

form is an instantiation of movement to [Spec, TP].  Chapter 2 is dedicated to

explaining why this conclusion is viable.  Chapter 3 is a continuation of the argument

in the sense that assumptions made in Chapter 2 about specificity and the nature of

NPs and DPs are worked out in more detail, and hopefully presented in a manner that

is more compelling.  Chapter 4 argues for the EPP as a formative feature.  Here we

also examine the structural hierarchy of various verb classes finding support for

Perlmutter's (1978) "Unaccusative Hypothesis" and Burzio's (1986) similar findings

regarding predicate structure in Italian.  In Chapter 5, we see evidence that Turkish is

---

[14] In lectures delivered at LSA Summer Institute, MIT, 2005, in addition to works outlining the Minimalist Program.

[15] Actually, even this is not quite accurate.  The evidence seems to suggest that a structurally case-marked expression is barred from moving to a case position where it will be assigned a case with a different morphological form than the one it already bears.  This restriction does not hold for inherent case-marked expressions.

sensitive to, not animacy, but human vs. nonhuman features.  Rather than being

merely a semantic notion, the facts in Chapter 5 make the case that these features play

a role in the syntax.  Also in Chapter 5, the effects of contrastive focus on movement

and case-marking are demonstrated.  In Chapter 6, we look at similar effects with

psych verbs.  In both these chapters, syntactic referentiality, i.e. a D feature, is

imposed on human subjects and on Experiencers of psych verbs with consequences in

terms of movement and intervention effects.  In Chapter 7, we look at relativization

out of infinitival clauses, both inflected and uninflected.  The controversy regarding

control PRO (movement or not) emerges because it seems that other than subject

control PRO, all other control PRO positions serve as interveners for movement.

Does this mean that subject control PRO is a trace of movement as proposed by

Hornstein (1999).  The facts lead to this conclusion by the end of Chapter 7.

The final Chapter of this research project is a compendium of issues that have

been visited in this work and that are relevant cross-linguistically.  Many of the

observations made in the course of this research are useful in presenting a different

perspective with which to view phenomena in other languages, and indeed are

remarkable because they seem to reemerge in language after language.  In Chapter 8,

I review conclusions that I have reached and point to theoretical questions that this

work highlights.

# Chapter 2: Explaining Turkish Relative Clauses

## 1 A little Turkish grammar

### *1.1 Background*

The subject non-subject asymmetry in Turkish relative clauses has been of interest to many linguists: Underhill (1972), Hankamer and Knecht (1976), and Knecht (1985), as well as others, have attempted to provide an account. More recently, Kornfilt (1984, 1988, 1991, 1997b) and Barker, Hankamer, and Moore (BHM) (1990) have provided analyses under a Government and Binding framework.

Let's briefly look at Kornfilt's (1997b) proposal. Recall that the NSR -DIK form bears agreement with the RC subject. Using this fact as an indication of a strong AGR, Kornfilt assumes that the NSR -DIK form is not licensed in subject gap RC's because the strong AGR of this form would, and indeed, must license *pro* in subject position. This *pro* would be (A-bar) bound by an Operator in [Spec,CP] violating the A′-disjointedness Requirement (Aoun and Li 1989[16]), (1)b. Conversely, the SR form does not bear any agreement, and according to Kornfilt, the weak AGR of the SR -An verbal form cannot license *pro*. The unavailability of *pro* in the subject position permits a non-pronominal empty category at the subject gap, as in (1)a.

---

[16] "The A'-disjointedness Requirement: A pronoun must be (A'-)free in the smallest Complete Functional Complex (CFC)", i.e. its Governing Category which in this case is the CP. The A'-disjointedness Requirement is a sub-clause of a generalized version of Condition B and was argued for in Aoun & Li (1989), Borer (1984), Kornfilt (1984, 1991), McCloskey (1990), and Ouhalla (1993).

1) a. [[ e$_i$ okul-a      gid-en] Op$_i$ ] adam$_i$
       school-DAT go-**SR**     man
    'the man who goes/went to school'

  b. *[[*pro*$_i$ okul-a     git-tiğ-i] Op$_i$ ]    adam$_i$
     *pro* school-DAT go-**NSR**-poss3s   man
    Intended: 'the man who goes/went to school'

## 1.2  Overview

Let us first be clear about the logical possibilities for Turkish relatives, and which

forms appear in the grammar. Table 1 demonstrates that of the four possible

combinations with external arguments, the NSR form in sentences which contain a

subject gap (item 3) is the only form not found in the grammar. Of the two possible

combinations in sentences with "No External Argument" (NoEA), only the SR form

(item 5) is licensed despite the fact that these sentences have no canonical subject to

extract.

|  |  | GAP SITE | **RC** STRATEGY | EXAMPLE |
|---|---|---|---|---|
| 1- | ✔ | Subject | -An (SR) | (2)a |
| 2- | ✔ | non-subject | -DIK (NSR) | (3)a |
| 3- | * | Subject | -DIK (NSR) | (2)b |
| 4- | ✔ | non-subject | -An (SR) | (5) |
| 5- | ✔ | NoEA | -An (SR) | (4)a |
| 6- | * | NoEA | -DIK (NSR) | (4)b |

Table 1: Acceptability of possible strategies

2) a. [Ø$_i$ divan-da otur-**an**] bayan$_i$
    Ø sofa-LOC sit-**SR**   lady
    'the lady who is sitting on the sofa'

  b. *[Ø$_i$  divan-da otur-**duğ**-u] bayan$_i$
     Ø   sofa-LOC sit-**NSR**-3s lady

3) a. [bayan-ın Ø$_i$ otur-**duğ**-u ] divan$_i$
      lady-GEN Ø  sit-**NSR**-3s sofa
      'the sofa that the lady is sitting on'

   b. *[Ø$_i$ divan-da otur-**an**]   bayan$_i$
       Ø   sofa-LOC sit-**SR**-3s lady


4) a. [Ø$_i$ bu  durak-tan bin-il-en]       otobüs$_i$
       Ø this  stop-ABL  board-PASS-**SR** bus
      'the bus which is boarded from this stop'

   b. *[Ø$_i$ bu  durak-tan bin-il-diğ-i]       otobüs$_i$
        Ø this stop-ABL   board-PASS-**NSR**  bus
      'the bus which is boarded from this stop'


5)    [gemi yanaş-an] liman
       ship   sidle-**SR** harbor
      'the harbor that a ship is sidling (or, that ships sidle) up to'


## 1.3   A look at Turkish nominals: specificity effects

Arguments do not always bear overt case morphology in Turkish.  In addition, case-marked expressions are in a different structural position than their bare counterparts. This is demonstrated for the direct object in (6).[17]  Assuming that Turkish adverbs of manner mark the edge of the VP,[18] sentence (6)c shows that a case-marked object cannot remain inside the VP, while an object without overt case must remain inside the VP as in (6)a-b.[19]

---

[17] Examples from Tosun (1999).
[18] See Kural (1992).
[19] The interaction between specificity and (especially accusative) Case has been noted by modern (e.g. Dede (1986), Enç (1991), Erdal (1981), Erguvanlı-Taylan (1984), Kornfilt (1997), Nilsson (1986), Tura (1986)) and traditional grammarians.  Kornfilt (2004) shows that the correlation between specificity and overt case holds for all structural cases, which she identifies as nominative, genitive (of subordinate clause subjects), and accusative.  Kornfilt claims that inherently case-marked nominals are ambiguous in their specificity as these expressions enter a derivation already case-marked.

6) a. Ben hızlı    kitap oku-r-um
      I    quickly book read-AOR-1sg
      'I read books quickly.'

   b. *Ben kitap hızlı    oku-r-um
       I    book quickly read- AOR -1sg

   c. *Ben hızlı    kitab-ı    oku-ru-m
       I    quickly book-ACC read- AOR -1sg
      'I read the book quickly.'

   d. Ben kitab-ı    hızlı    oku-ru-m
      I    book- ACC quickly read-aor-1sg
      'I'll read the book quickly.'

Enç (1991) notes that in Turkish, indefinite nominals in object position always

unambigously receive a specific or non-specific interpretation depending on whether

or not they bear overt case morphology.  The object in (7)a bearing accusative case

must be interpreted as a specific piano,[20] whereas the non-case-marked object in (7)b

must receive a non-specific reading.

7) a. Ali bir  piyano-yu  kirala-mak isti-yor.
      Ali one piano-ACC rent-INF     want-3s-PRES
      'Ali wants to rent a certain piano.'

   b. Ali bir  piyano kirala-mak isti-yor.
      Ali one piano   rent-INF     want-3s-PRES
      'Ali wants to rent a (non-specific) piano.'

So, for objects the facts are as follows:  a case-marked object must raise from its base

position and receive a specific interpretation and conversely, a bare object must

remain in-situ and be non-specific.  This means we have a diagnostic for raising for

objects; the presence of overt case.

---

[20] For example, 'specific' for *piano* in sentence (9a) means there is a certain piano such that Ali wants
to rent it.

The same correlation between specificity, overt case and raising can be seen for subjects in embedded environments. Whereas nominative case is the Ø or null morpheme in Turkish, embedded subjects receive genitive case, as in (8).

8) Ali-nin Ankara-ya  git-tiğ-i-ni      duy-du-lar
   Ali-GEN Ankara-DAT go-**NSR**-3s-ACC hear-PST-3p
   'They heard that Ali went to Ankara'

We know that subjects of existential constructions must be non-specific, and as expected, the subject of an embedded existential construction in Turkish does not bear overt case (9)a. Note the position of the embedded subject in (9)b, as well as its interpretation when the embedded subject is case-marked. This is consistent with what we have observed so far—that specifics must bear case. The case-marked specific subject must raise, as in (10). If it is correct that temporal adjuncts are generated high in the structure (adjoining perhaps to *v*P or TP), then the subject is required to raise above temporal adjuncts, as shown by the unacceptable (10)b.[21]

9) a. Yan-ın-da   bir kız ol-duğ-u-nu      gör-dü-ler.
      side-his-LOC one girl be-**NSR**-3s-ACC see-PAST-3p
      'They saw that there was a girl by his side.'

   b. Bir kız-ın    yan-ın-da    ol-duğ-u-nu      gör-dü-ler.
      one girl-GEN side-his-LOC be-**NSR**-3s-ACC see-PAST-3p
      'They saw that (of the salient girls) one (of them) was by his side.'

10) a. Ali-nin bu sabah    Ankara-ya git-tiğ-i-ni      duy-du-lar
       Ali-GEN this morning Ankara-DAT go-**NSR**-3s-ACC hear-PST-3p
       'They heard that Ali went to Ankara this morning'

---

[21] What is relevant for us, of course, is the unmarked and non-scrambled cases.

b. *bu  sabah    Ali-nin Ankara-ya git-tiğ-i-ni      duy-du-lar
   this morning Ali-GEN Ankara-DAT go-**NSR**-3s-ACC hear-PST-3p

Because case morphology and displacement seem to go hand in hand, we can
conclude that (at least in embedded environments) case marking on an argument—in
the form of genitive case on the subject and accusative case on the object—is
evidence of raising.  Furthermore, the facts show that only case-marked arguments
receive a specific interpretation; specifics must be case-marked, and non-specifics
cannot bear overt case.  The examples in 11) demonstrate that the correlation between
raising, case and specificity holds for objects in embedded environments.

11) a.  Ayşe-nin **pasta-yı** kaşık-la    /bahçe-de  /hızlı ye-diğ-i-ni       gör-dü-ler
        Ayşe-GEN cake-ACC spoon-INST/garden-LOC/fast  eat-NSR-3s-ACC saw-PST-3p
        'They saw that Ayşe ate the cake quickly/in thegarden/with a spoon'

   b.  *Ayşe-nin **pasta** kaşık-la    /bahçe-de  /hızlı ye-diğ-i-ni       gör-dü-ler
         Ayşe-GEN cake  spoon-INST/garden-LOC/fast   eat-NSR-3s-ACC saw-PST-3p

   c.  Ayşe-nin  kaşık-la    /bahçe-de  /hızlı **pasta** ye-diğ-i-ni       gör-dü-ler
        Ayşe-GEN spoon-INST/garden-LOC/fast cake   eat-NSR-3s-ACC saw-PST-3p
        'They saw that Ayşe ate (some) cake quickly/in thegarden/with a spoon'

   d.  *Ayşe-nin kaşık-la    /bahçe-de  /hızlı **pasta-yı** ye-diğ-i-ni       gör-dü-ler
         A.-GEN   spoon-INST/garden-LOC/fast cake-ACC eat-NSR-3s-ACC saw-PST-3p

## *1.4   The EPP*

I assume that in Turkish, functional heads have an EPP feature[22] and that all phrasal
movement is driven by the EPP.[23]  Thus T° (and *v*°) has an EPP feature that must be

---

[22] To be more specific, I assume that the EPP is a feature of the functional heads *v*°, T°, and C°.
Although the outcome is the same, this description of the EPP is different from the notion of the EPP
as a structural requirement of an occupied specifier.  At this point, I am not wedded to any particular
definition of the EPP; for me the "EPP" is merely a label for whatever it is that drives overt XP
movement.  A more detailed discussion of the EPP will follow in Chapter 4.

satisfied. This is supported by the pair of sentences in 12).[24] The subject in (12)a, is

non-specific and cannot raise. It is generally assumed in the literature that Turkish

locatives are generated in the VP (Kural 1992). By parity of reasoning from the

examples we saw above with respect to objects and embedded subjects, we can

assume that the locative expression has raised from VP to [Spec, TP] to satisfy the

EPP on T°. Compare (12)a with (12)b where the locative is lower than the specific

subject. Recall that nominative case is the Ø-morpheme, so the subject in (12)b is

presumably "overtly" case-marked and has raised to [Spec, TP]. We saw a similar

pair in (9). The embedded subject to the right of the locative in (9)a is non-specific

and bears no overt case. In (9)a, T's EPP feature is satisfied by the locative "at/by his

side" whereas in (9)b, the specific subject raised to T, and receives overt case (albeit

genitive[25]).


12) a.  Sokak-ta    köpek  havl-ıyor.
        street-LOC  dog      bark-PRES
        'A dog/dogs are barking in the street.'

    b.  Köpek  sokak-ta    havl-ıyor.
        dog      street-LOC  bark-PRES
        'The dog is barking in the street.'


Another potential argument for an EPP feature on T° comes from the pair of

sentences below from Kural (1992). I assume that the unacceptability of the sentence

in (13)a is due to failure to satisfy the EPP of T. Compare with the minimally

---

[23] By movement, I exclude all scrambling-type movement as it is not germane. In later chapters I will
distinguish between feature driven movement, i.e. to satisfy the EPP, and scrambling, which is optional
and apparently costless.
[24] from Kelepir (2001).
[25] It is beyond the scope of this thesis to address how embedded subjects receive genitive rather than
nominative case. One approach is Hiraiwa (2001) which suggests that genitive case is assigned by a
*v*-T-C amalgam.

different acceptable sentences in (13)b which contains a locative expression.  A non-specific subject cannot satisfy the EPP, but a locative can raise to T and save the derivation.  Note that the word for 'here' in Turkish is a nominal expression with locative case, as demonstrated in (13)c.[26]

13) a.  *[Bir tavuk]   piş-iyor
      a   chicken cook-PRES-AGR
    'A chicken is cooking'

   b.  Burada [bir tavuk]    pişiyor
     here      a   chicken  is-cooking

   c.  bu-ra-da
     this-"place"-LOC
     'here' [Literally: 'at this place']

I will return to a lengthier discussion on the EPP in Chapter 4.  I include this much here to justify my assumption that in Turkish sentences, [Spec, TP] must be occupied, and in the absence of a specific subject, another nominal is required to move to that position.  I have encoded these facts by assuming that it is the EPP on T that must be satisfied or the derivation will crash.

---

[26] I take the expressions 'here' and 'there' in Turkish to be nominal because they can take a variety of cases, as shown in (i) and (ii).  Although *bu* and *o* can function as independent lexical items denoting 'this' and 'that', respectively, I do not know what -ra- is and assume it means something like 'place'.
    (i)  a.  bu-ra-dan                b.  o-ra-dan
             this-??-ABl                  that-??-ABL
             'from here'                  'from there'
    (ii)  a.  bu-ra-ya                 b.  o-ra-ya
             this-??-DAT                  that-??-DAT
             'to here'                   'to there'

## 1.5  NPs, DPs, Case and the EPP

In order to capture the complementarity between raising, overt case, and specificity on the one hand, and the fact that bare arguments in-situ must be non-specific, on the other, I will adopt an NP/DP distinction for Turkish.  That is, I assume that non-specific nominals are NPs and specific nominals are DPs.  I will discuss this assumption in more detail in the next chapter, but let's take it as reasonable and adopt it for now.  The facts about case morphology and displacement fall out if I further assume that only DP's need satisfy the Case Filter and that the EPP can only be satisfied by DP's.[27]  Neither of these assumptions seems far-fetched, and I will address the arguments behind these assumptions later as well.  In the next section, we will see how much mileage these assumptions buy us in formulating an account of Turkish relatives.

# 2  Returning to relative clauses: Generalizations

I have argued that, in Turkish, functional heads[28], T° and $v$°, have an EPP feature which must be satisfied by a DP, or a specific nominal.  I have also assumed that non-specifics are NPs which do not need to satisfy the Case Filter nor can they satisfy the EPP.  In order to account for the facts in relative clauses, I must further assume that

---

[27] In fact, Chomsky (1995) defines the EPP as a "strong D feature".
[28] I will not argue whether or not v° has an EPP feature.  The issue throughout this thesis is the EPP on T° (and on C°).  I mention $v$° merely for uniformity although the facts do show that accusative objects must raise.

Cº also has an EPP feature which attracts a +Wh DP to its specifier. With this much technology in hand, let's return to the facts in Table 1.

First, let's look at the NSR form, item 2 in Table 1. In sentence (14)a, the subject *lady*, being specific, is a DP. As the simplified derivation in (14)b shows, the EPP of Tº attracts the subject DP, *lady*, to [Spec, TP] in movement ①. The +Wh DP *sofa* moves to [Spec, CP] to satisfy the EPP on Cº in movement ②. We will not concern ourselves with whether this element further moves to a position external to the clause or whether some matching operation co-indexes it with an external head. At this point, we are only concerned with operations internal to the relative clause. I should mention that rather than Operator movement, I assume that the +Wh element itself moves all the way to [Spec, CP].[29]

14) a. [bayan-ın Ø$_i$ otur-duğ-u ] divan$_i$
       lady-GEN Ø sit-**NSR**-3s sofa
       'the sofa that the lady is sitting on'

   b.



---
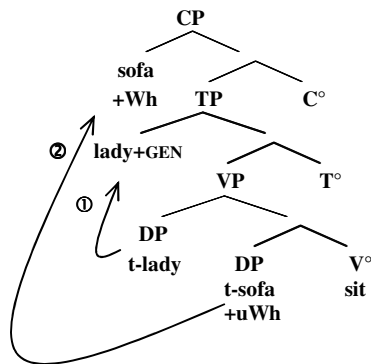
[29] Throughout this paper, I will be assuming the raising analysis (Brame 1968; Schachter 1973; Vergnaud 1974; Kayne 1994; Bianchi 1999) for relative clauses, although the matching analysis would also work for the issues being presented here, with modifications. Nothing being argued rests on a specific analysis for relative clauses.
.

Now, let's shift gears and look at all the RCs that require the SR form to see if we can find any commonality among them. Recall that when the subject is being relativized, the SR form must always be used, No.1 in Table 1. The SR form is also licensed when the subject is non-specific and a non-subject is being relativized, as noted in No. 4 in Table 1.

Let us begin with subject gap clauses as in sentence (15)a, the derivation of which appears in (15)b. (For simplicity, I have omitted details in the tree such as the *v*P projection and accusative case on the object.) As demonstrated in (15)b, T has an EPP feature which must be satisfied. The DP subject, *bee*, is attracted to [Spec, TP], movement ①. The subject is also the +Wh relative head. It is attracted by the EPP of Cº. So, in movement ②, the subject *bee* moves from [Spec, TP] to [Spec, CP].

15) a.  [[Ø₁ ] [ [kɪz-ɪ     sok-an ] ]  arɪ₁
         Ø      girl-ACC sting-**SR**   bee
        'the bee that stung the girl'

   b.
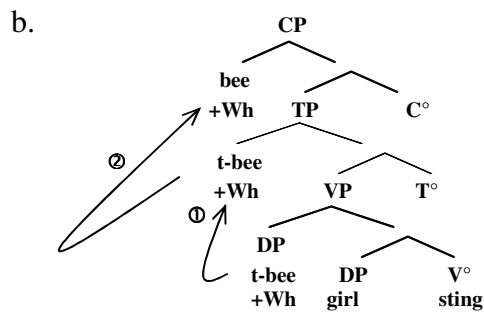


Let's turn now to clauses with non-specific subjects. Recall that the NSR form is obligatory (when relativizing a non-subject) when the subject is specific. In contrast to the example in (14) above, the SR form is licensed in the RC we saw in (5) (item 4 in Table 1), repeated as (16)a, precisely because the subject *ship* is non-specific. The

subject is an NP and cannot satisfy the EPP on a head. As demonstrated in the tree in

(16)b, *ship* cannot (and has not) raised from its base-generated position. The EPP of

Tº must be satisfied by another nominal. In this case it attracts the +Wh-DP, *harbor*,

movement ①. This +Wh-element in [Spec, TP] now moves to [Spec, CP], ②, to

satisfy the EPP features of Cº.

16) a.  gemi yanaş-an liman
ship   sidle-**SR** harbor
'the harbor that a ship is sidling up to'

b.
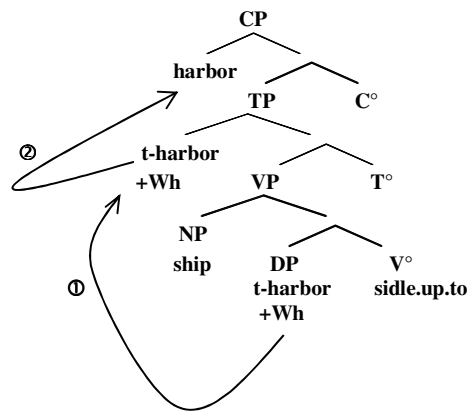


Notice that in the minimally different example (17)a, with derivation (17)c, the

subject *ship* is specific, and the NSR form is required. What is different between the

derivations of the RCs in (16)a and (17)a? Notice that in the tree in (17)c, [Spec, TP]

was occupied by a non-Wh element, the DP-subject, whereas in (16)b, the NP-subject

remained in-situ, leaving [Spec, TP] vacant for the +Wh-expression to move to.

17) a.  [gemi-nin yanaş-tığ-ı] liman
ship-GEN sidle-**NSR** harbor
'the harbor that the ship is sidling up to'

b.  *[gemi-nin yanaş-an] liman
ship-GEN sidle-**SR** harbor

c.

```
                        CP
                   ╱         ╲
              harbor
              +Wh    TP           C°
                   ╱      ╲
         ②  ╱ ship+GEN
              ╱              VP          T°
         ①  ╱          ╱      ╲
            ╱      DP
          t-ship        DP          V°
                    t-harbor+DAT   sidle.up.to
                        +Wh
```
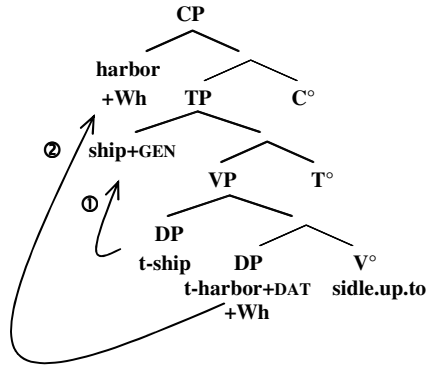
In fact, every time the specifier of T is occupied by a non-Wh expression, as in (14)

and (17), the NSR form is required.  This means that where the EPP of T is satisfied

by an expression that is also +Wh, the SR form is licensed.  I do not mean this to be

an explanation; at this stage, I am merely making an observation.

## 2.1   Clauses that lack external arguments: the SR form

Having formulated a generalization, we can now predict that phrases with no external

arguments will also require the SR form.  Because there is no "subject" to occupy it,

[Spec, TP] will be vacant for a +Wh non-subject to move to it to satisfy T's EPP

feature.  To demonstrate this idea, let's look at the clause (18)a, No. 5 in Table 1.  I

have included the sentence in (18)b to demonstrate that neither of the two nominal

expressions in the relative clause, "this stop" and "bus", requires structural case:  the

PP 'from this stop' is rendered in Turkish as the nominal *this stop* with ablative case,

and *bus* receives inherent dative case.  As the derivation in (19) shows, the +Wh DP

*bus* moves to [Spec, TP] to satisfy the EPP on T in ①.  This element then moves to

[Spec, CP] to check the EPP on C, ②. Again, we have a +Wh element in [Spec, TP] and the SR form is required.

18) a.  [Ø_i bu  durak-tan  bin-il-en]          otobüs_i
        Ø  this  stop-ABL  board-PASS-**SR** bus
        'the bus which is boarded from this stop'

   b.  Otobüs-e bu  durak-tan  bin-il-ir.
       bus-DAT  this  stop-ABL  board-PASS-AOR
       'The bus is boarded from this stop.'

19)
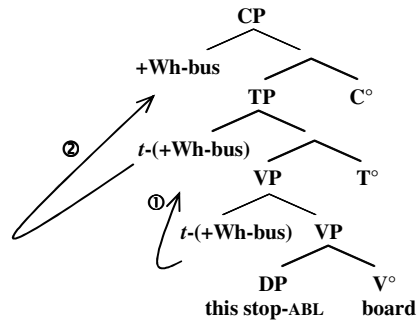
## 2.2   *More examples with the SR form: the possessor of a direct object*

Let us now look at the derivation of a sentence that is more complicated. In the SR example in (20)a, the subject is non-specific, and the relativized element originates <u>within</u> the accusative object. In this sentence, the subject, *bee,* is a non-specific NP which cannot satisfy the EPP. As illustrated in the derivation in (20)b, *bee* remains in its base-generated position. Because the object, *girl's leg*, is a DP, it is attracted by the EPP of *v*,[30] and receives accusative case, as in ①. In ②, the EPP of T attracts the

---

[30] I had up to now ignored the vP projection but must include it here to have the object raise above the subject so that we do not incur Minimality violations or intervention from the subject. We assume that there is a vP projection that assigns accusative case (in a [Spec-head] configuration) from sentences

possessor of the object, +Wh-*girl*, from the specifier of the object in [Spec, *v*P]. Of

course, *girl* raises again from [Spec, TP] to [Spec, CP] to satisfy the EPP on C.[31]

Again, the SR form is licensed when a +Wh element has moved to [Spec, TP].


20) a.   [[Ø₁ bacağ-ın-ı]    arı  sok-an]    kız₁
         Ø  leg-POSS-ACC bee sting-**SR**  girl
         'the girl whose leg a bee/some bees stung'

   b.
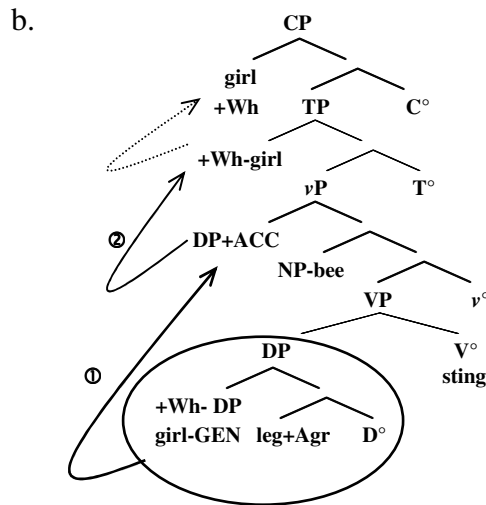


Notice in (20)b, that movement ② is of the +Wh element out of the now-accusative

object-DP in [Spec, *v*P]. The direct object has had its case checked/assigned, and

thus is frozen for movement into another case-checking (A-) position. However, it is

---

such as (i). Perhaps a more or more accurate interpretation for (i) is 'The road is blocked by a car'
where what is important in the utterance is not that *a car* has blocked the road, but rather that the road
is blocked, by some car or other. Compare (i) with (ii), where car must now receive a specific
interpretation, and where it has presumably raised to [Spec, TP] and been assigned nominative case.
         (i)   Yol-u      (bir) araba tıkamış
               road-ACC one  car   blocked
               'A car has (or 'Some cars have) blocked the road'
         (ii)  Araba yol-u       tıkamış
               car    road-ACC   blocked
               'The car has blocked the road'

[31] The Wh-expression also deletes C's +Wh feature. I have ignored the issue of features so far and will
address this in more detail later.

porous for movement from within it.  Although I will not elaborate here, I do not

assume a left-branch condition exists in Turkish.[32]

## 2.3  Recap

Let us review our assumptions thus far.  T has an EPP feature which can only be

satisfied by a DP.  If the subject is a DP, it must be attracted to the Spec of T.[33]  The

SR form is licensed when the expression that satisfies T's EPP feature is +Wh. In a

clause where the subject is non-specific, i.e. is an NP which cannot satisfy the EPP on

---

[32] Interestingly, neither RC form permits relativization of the entire DP, *girl's leg*.  Both the SR
strategy in (*i*)a and the NSR strategy in (*i*)b are unacceptable.  Whereas relativization of a complex
possessor-possessee DP object is <u>not</u> acceptable, extraction of the DP from the specifier of that DP
object is acceptable.  (*ii*)a is the NSR form with a specific subject and (*ii*)b is the SR with a non-
specific subject.  This makes sense if we are assuming that in relativization, only the head, or N°, of
the Wh-DP is promoted, and that nominals with specifiers are DPs.

    *i.*    a.    \*[ Ø$_1$ arı   sok-an ]  [kız-ın    bacağ-ı]$_1$
                 Ø  bee sting-**SR**   girl-GEN leg-POSS
                 'the girl's leg that a bee/some bees stung'

          b.    \*[ Ø$_1$ arı-nın   sok-duğ-u ]       [kız-ın    bacağ-ı]$_1$
                 Ø  bee- GEN sting-**NSR-** POSS.3S  girl-GEN  leg-POSS
                 'the girl's leg that the bee stung'

    *ii.*   a.    [arı-nın  [[Ø$_1$ bacağ-ın-ı]   sok-tuğ-u]          kız$_1$
                 bee-GEN  Ø  leg-POSS-ACC sting-**NSR**-POSS.3S  girl
                 'the girl whose leg the bee stung'

          b.    [[Ø$_1$ bacağ-ın-ı]    arı sok-an]   kız$_1$
                 Ø  leg-POSS-ACC bee sting-**SR**  girl
                 'the girl whose leg a bee stung'

Even in English, some possessor-possessee relatives sound odd: 'the woman that bought the fish'
sounds much more natural than 'Anne's mother that bought the fish'.  Because 'Anne's mother' picks
out a unique individual, possessor-possessee DP's may be more like appositives.  'John's car which I
washed' does not mean '(of John's three cars) the car that I washed'.  RC's in Turkish fail a range of
del Gobbo's (2003) diagnostics for appositives.  In fact, to construct an appositive in Turkish one must
make use of the borrowed Persian complementizer *ki* which introduces a clause, though subordinate,
nevertheless marked by matrix verbal and case properties.  The SR and NSR RCs can only be
restrictive (Meral 2004) and this may be one reason possessor-possessee DP's cannot be relativized.

        Another way of looking at this might be to remember that we had assumed the raising
analysis of RP's in which it is only the N° of the RC head that is promoted beyond the CP to the matrix
clause.  A possessor-possessee structure is a DP and too big to be promoted.  This would also explain
why a RC such as (i) is bad.  If proper names are referential and must therefore be a D, then (i) is bad
because a D(P) cannot be promoted.

        (i)  \*Anne that bought the fish

[33] Except for the accusative case-marked object also in [Spec, *v*P], attraction of any DP other than the
subject will violate Minimality.  I assume that DP arguments receive structural case in a Spec-Head
configuration.  When the subject is specific, it must obligatorily move to [Spec, TP] to avoid a Case
Filter crash.  Thus, even though both arguments are equidistant from the point of view of T's EPP, the
subject must raise for the derivation to converge.

T, relativization of any other element will license the SR morpheme. This is because the specifier of T will be free to host the +Wh-non-subject. This is shown in sentence (21), where the locative DP, *fields* is the relative head. Because the subject is non-specific, +Wh-*fields* is attracted by T. At some point in the history of this phrase, there was a +Wh element in [Spec, TP]; thus, the SR form is required.

21) a.   [Ø₁ mısır yetiş-en]   tarla₁
      Ø  corn  grow-**SR**  field
      'the field where corn grows'

b.
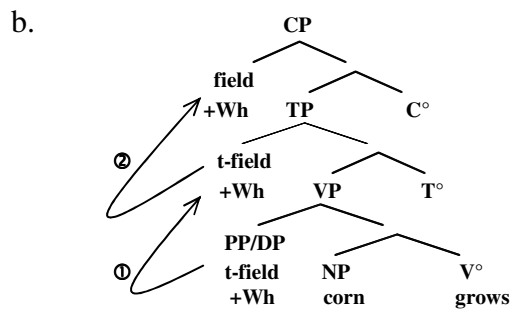


## 2.4  Diagnostics for non-specific subjects[34]

Enç (1991) points out Turkish has quantificational determiners[35] and NPI expressions that have selectional restrictions for specificity. There are two determiners in Turkish which both mean 'some' but differ in terms of their specificity. *Birkaç* patterns like the English 'some' in that it can receive either a specific on non-specific interpretation (22)a. Nominal expressions with *bazı* are always specific (22)b.

---

[34] I will return to specificity and the nature of DPs and NPs in Chapter 3, but I include a brief discussion here as it is important to the account I am proposing.
[35] Although the determiners in question translate as 'some' and could be called quantifiers, I am interested in their determiner-like properties and so will refer to them as determiners.

22) a. Ali Zyneb-e     birkaç kitap/kitab-ı     postala-dı.
       Ali Zyneb-DAT some    book/book-ACC mail-PAST
       'Ali mailed some /some-of-the books to Zyneb.'

   b. Ali Zyneb-e     bazı *kitap-lar/kitab-lar-ı    postala-dı.
       Ali Zyneb-DAT some    books/books-ACC      mail-PAST
       'Ali mailed some of the books to Zyneb.'

The determiner *bazı* (but not *birkaç*) is ungrammatical in existential constructions

(23)a but not in the non-existential locative construction (23)c, precisely because *bazı*

requires a specific, i.e. presupposed, interpretation. Notice the word orders in (23)b

and (23)c: in the existential construction with non-specific subject (23)b, the locative

must raise above the subject whereas in (23)b the specific subject has raised to T.

23) a. *Bahçe-de     bazı çocuklar var.
       garden-LOC some children exist
       'There are some children in the garden.'

   b. Bahçe-de     birkaç çocuklar var.
       garden-LOC some     children exist
       'There are some children in the garden.'

   c. Bazı çocuklar bahçe-de.
       some children garden-LOC
       'Some of the children are in the garden.'

The same pattern can be seen in the Turkish negative polarity determiner *hiçbir* 'any'

(literally 'any one'.) This determiner always forms a specific nominal expression in

Turkish: it requires accusative case morphology (24)a and is banned from existential

constructions (24)b.

24) a. Ali hiçbir *kitap/kitab-ı     al-ma-dı.
       Ali any      book/book-ACC buy-neg-PAST
       'Ali didn't buy any of the books.'

b. *Bahçe-de    hiçbir çocuk yok.
    garden-LOC any    child doesn't-exist
    'There aren't any of the children in the garden.'

Thus certain determiners and NPI items are incompatible with a non-specific

interpretations: nominal expressions with *bazı* 'some' and with the negative polarity

determiner *hiçbir* 'any' must always be interpreted as specific.

   If we are on the right track, that is, if the SR form is licensed when non-

relativized subjects are non-specific NP's, we would predict that the SR form would

be unacceptable when the subject contains the obligatorily specific determiner, *bazi,*

or the specific NPI, *hiçbir*.  We see that this is indeed the case.  Both *bazı* and the

determiner *birkaç* (which allows both the specific and the non-specific readings) are

acceptable with the NSR form in (25)a, while (25)b demonstrates that  *bazı* is

unacceptable in the otherwise grammatical SR clause we saw in (20)a.  Likewise, the

NPI item, *hiçbir*, yields ungrammaticality in (26)b.

25) a. [Bazı/birkaç      arı-nın  [[Ø$_1$ bacağ-ın-ı]    sok-tuğ-u ]          kız$_1$
       some of the/some bee-GEN  Ø    leg-POSS-ACC sting-**NSR**-POSS.3S  girl
       'the girl whose leg some of the/some bees stung'

   b. *[[Ø$_1$ bacağ-ın-ı]    bazı arı sok-an]    kız$_1$
        Ø  leg-POSS-ACC some bee sting-**SR**  girl
       'the girl whose leg some (of the) bees stung'

   c. [[Ø$_1$ bacağ-ın-ı]    birkaç arı  sok-an]   kız$_1$
        Ø  leg-POSS-ACC some   bee sting-**SR**  girl
       'the girl whose leg some bees stung'

26) a. [hiçbir arı-nın  [[Ø$_1$ bacağ-ın-ı]     sok-ma-dığ-ı]        kız$_1$
        any    bee-GEN  Ø  leg-POSS-ACC sting-**NSR**-POSS.3S girl
       'the girl whose leg no bee stung'

   b. *[[Ø$_1$ bacağ-ın-ı]    hiçbir arı  sok-may-an] kız$_1$
        Ø  leg-POSS-ACC any    bee sting-**SR**      girl

This further supports our argument that the SR form (which must be used when extracting a subject) may be used when a non-subject is being relativized only when the clausal subject is non-specific, i.e. is an NP and cannot satisfy T's EPP.

## 2.5   Optionality of RC forms

Turkish RCs seem to permit a certain degree of optionality in the choice of verbal paradigm.  In the sentences in (27) both the SR and NSR forms are acceptable[36].

27) a.   [[Ø₁ kız-ı ]        kitab-ı    getir-en]  adam₁
         Ø  girl-POSS.3s book-ACC bring-**SR** man
         'the man whose daughter brought the book'

    b.   [[Ø₁ kız-ı]-nın         kitab-ı    getir-diğ-i]      adam₁
         Ø  girl-POSS.3s-GEN book-ACC bring-**NSR**-3s  man
         'the man whose daughter brought the book'

According to our assumptions, a +Wh DP must have moved to [Spec, TP] in the SR clause in (27)a whereas a non-Wh DP must have been attracted to [Spec, TP] in the NSR clause in (27)b. Let's look at how this can be.

## 2.6   The option of the SR form

In the relative clauses in (27), the gap site is not the subject; it is the  possessor of the subject.  We have determined that the SR form is licensed when a +Wh expression has moved to [Spec, TP].  This can happen in RCs where the subject has not been relativized only when the subject is an NP and not a candidate for the EPP or Case.

---

[36] Although there seems to be some dialectical variation as to the acceptability of both these forms, my aim is to provide an account for the dialect where both forms are acceptable.

In the SR RC in (27)a, a +Wh element must have moved to [Spec, TP]. If the subject [*man's daughter*] in (27)a were a DP, it would be attracted to [Spec, TP]. Since the subject itself is not +Wh—only the possessor *man* is—the SR form would be barred. Thus, in (27)a, the subject cannot have moved to [Spec, TP]; only the +Wh element from within the subject must have raised to T. The subject itself must be a non-specific NP that has not raised from its base-generated position. In (27)a, because the SR form is acceptable, under our assumptions, we must assume that it was the +Wh possessor of the subject that moved to [Spec, TP].

Let's look at the derivation of (27)a. First, note that in both examples in (27), the direct object, *book*, must raise to [Spec, *v*P] because it is specific and therefore a DP. In the tree in (28) for (27)a, the object was attracted by the EPP of *v* and has had its case checked/assigned, in ①. The entire subject, *man's daughter*, is a non-specific NP. But, the possessor, *man*, in the Spec of the subject is a DP with +Wh features. The +Wh DP-*man*, is attracted by the EPP of T°, after which it moves to [Spec, CP].

28) the SR form
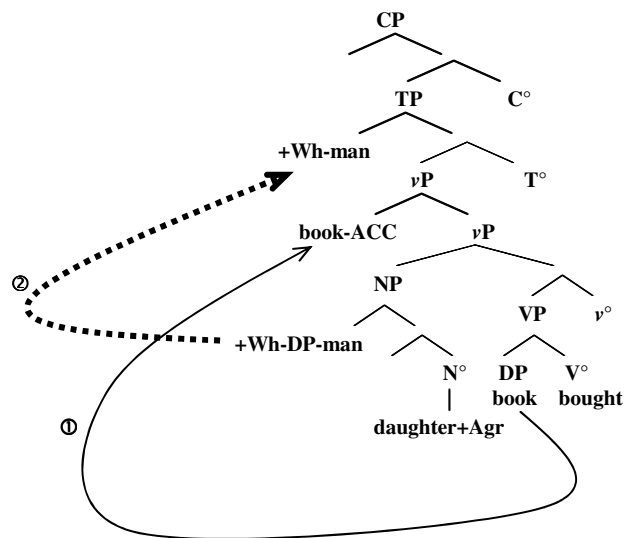
Although this account may explain the acceptability of the SR form, this derivation will give us the wrong word order: [$t_1$ book-acc [[$t_1$ daughter]] man$_1$. And it looks like this movement violates Minimality (at least under some definitions). We will return to this problem shortly.

## 2.7   The option of the NSR form

According to our generalization, in the NSR clause in (27)b, the element in [Spec, TP] must be a non-Wh DP.  Since the subject of the clause is not a +Wh expression, this is what must have moved to T.  The subject *man's daughter* must therefore be a DP in this example.  This is shown in derivation (29) for (27)b.  In move ①, the direct object *book*, being a DP, raises to [Spec, *v*P].  (It also receives overt accusative case.) The entire DP subject is attracted to satisfy the EPP of T in ②.  The DP subject has its case assigned/checked by T.  Crucially, in (29), the subject is not a +Wh DP; the DP-*man* in its specifier is.  Thus the SR form is not licensed.  This differs from the tree in (28) where the +Wh DP was a specifier of an NP.  The Wh-element, *man*, in the specifier of the subject in [Spec, TP] then moves in ③ to C.

Let's look at the derivation in (29) for the NSR example 27)b.  The EPP of T targets the closest DP.  Let us assume for now that the subject and the element in its Spec are equidistant from T, and thus both candidates for Attract by T's EPP.  Thus, T's EPP can be satisfied by both the in situ subject as well as the expression, *man*, in its Spec.  However, if the DP-*man* raises out of the subject to T, the derivation won't converge.  This is because if the entire DP subject does not raise to T, it will remain

without case, violating the Case Filter.[37]  The EPP of C°, on the other hand, can only

attract a +Wh element.  Whereas there are more options for the EPP of T, the EPP of

C must specifically target a +Wh DP for convergence, as in ③.

   In sum, in (29), of the two DP's (the subject and the object) in [Spec, *v*P], the

subject DP must raise to [Spec, TP] to avoid a Case Filter violation.  Furthermore,

raising of the +Wh DP from the specifier of the subject to [Spec, TP] is barred for the

same reason (the subject would remain without case).[38]

29)  the NSR form



---
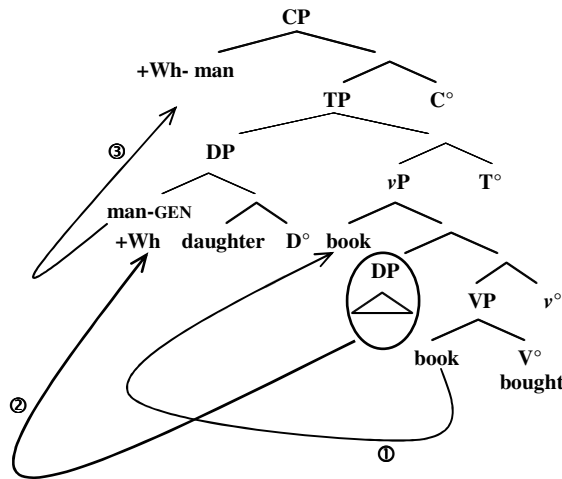
[37] The evidence from the strict correlation between structural case assignment and displacement leads
to the conclusion the structural case in Turkish must be assigned in a Spec-head configuration.  This
assumption and possible variations will be discussed in later chapters.

[38] Perhaps a more problematic issue is that in ③, the +Wh element was a constituent of the subject.  I
am assuming that, at least under certain conditions, subjects are not islands in Turkish. Even in
English, examples in the literature regarding the so-called *Subject Condition* effect are not definitively
unacceptable.  For example, in his discussion of the SC in extraction from non-finite clauses, Stowell
(1991) includes sentences such as (*i*) with the following proviso: "Although there is some variability in
the judgements …"

        (*i*.) a.   ?*Who$_i$ do you consider [[the oldest sister of **t**$_i$ ] to have left]?

            b.   ?*Which book$_i$ did you find [[the author of **t**$_i$ ] very eloquent]?

            c.   ?*Who do you judge [[John's having visited **t**$_i$ ] very unwise]?

I find that the sentences in (*ii*), which should be worse because we are extracting out of the subject of a
finite verb, are not any more degraded than Stowell's examples.

        (*ii*.) a.   ?*Who$_i$ do you believe [[the oldest sister of **t**$_i$ ] left]?

            b.   ?*Which book$_i$ did you say [[the author of **t**$_i$ ] was very eloquent]?

            c.   ?*Who do you feel [[John's having visited **t**$_i$ ] was very unwise]?

To review what we have determined thus far: whenever the subject is specific, no matter what non-subject nominal is being relativized, the NSR form must be used because [Spec, TP] will not be available for that element to move into. To put it another way, when the subject is a DP, the element that checks T's EPP feature must be the subject which also receives case from T.

Thus, the choice of the relative clause form depends on whether [Spec, TP] is available for the +Wh element or not. When the subject is non-specific, it cannot be a target of T's EPP and [Spec, TP] will be available for another DP. If the relativized element cannot move into [Spec, TP], the SR form will be barred.

Before we can resolve the word order problem noted in the derivation of (27)a in (28), we need to look at case assignment inside NPs and DPs.

## 2.8   Genitive case

Recall that we assumed that DPs require case and that NPs do not. Let's turn our attention now to the specifier position inside DPs and NPs. Except for nominative case, all other cases in Turkish are overtly case-marked. We will use this overt case marking as a diagnostic for DP's: a nominal expression without case morphology is an NP, while a structurally case-marked expression must be a DP—the structural cases being nominative (with the phonetically null Ø morpheme), accusative, and genitive. Referring back to the example in (29), note that the EPP of T can be satisfied by the DP subject, [man's daughter] as well as the expression, *man*, in its Spec. However, if the DP-*man* raises out of the subject to [Spec, TP], its in situ remnant, the DP [***trace-man*** daughter] will remain without case, and the derivation

won't converge. As we will see throughout this thesis, Turkish does not permit case

assignment via Agree. Thus, in RCs, when a subject bears overt genitive case, we

must assume it is a DP, and that it has raised to [Spec, TP] where it satisfied T's EPP

feature and was assigned case by T in a Spec-Head configuration.

Looking now at the examples in (30), *city* is in the specifier position and can

be either case-marked or not. When *city* has genitive case, it must also receive a

specific interpretation. This is consistent with what we have determined thus far

about Turkish nominals. Note in (30), as well as in (31), that there is agreement

between the possessor and the possessee regardless of whether either gets case.[39] In

(30)a, we have a nominal, *walls*, with an NP in its specifier; in (30)b, a case-marked

element, therefore a DP, is in the specifier position.

30) a.  şehir duvar-lar-ı              [[$_{NP}$ city] walls]
        city   wall-pl-AGR
        'city walls'

    b.  şehir-in   duvar-lar-ı          [[$_{DP}$ city-GEN] walls]
        city-GEN  wall-pl-AGR
        'walls of the city'

In (31) I have listed all possible NP/DP combinations. In (31)a, we have an NP with

an NP in its specifier. In (31)b, we have a DP with a DP in its specifier. In (31)c, we

have a DP with an NP in its specifier. And finally, in (31)d, note that a DP in the

specifier of an NP is bad.

---

[39] The morpheme I call 'AGR' is frequently referred to as a compound marker in the literature. In Chapter 5, I argue that this is a (possessive) agreement morpheme. On another note, these facts are contra Chomsky who assumes that case and agreement go hand-in-hand. In Turkish, we may be able to say that case-marked elements must agree but that the converse need not hold: agreeing elements need not be case-marked. This is similar to the asymmetry I assume with nominative case on T. A subject DP must be assigned case by T, but T doesn't have to assign case.

31) a.  şehir duvar-lar-ı   gördüm.                    [NP [NP city] walls]
         city   wall-pl-AGR see-PST-1s
         'I saw city walls.'

    b.  şehir-in   duvar-lar-ı-nı      gördüm.         [DP [DP city-GEN] walls]-ACC
         city-GEN wall-pl-AGR-ACC  see-PST-1s
         'I saw the walls of the city.'

    c.  şehir duvar-lar-ı-nı     gördüm.               [DP [NP city] walls]-ACC
         city   wall-pl-AGR-ACC  see-PST-1s
         'I saw the [city walls].'

    d.  *şehir-in duvar-lar-ı    gördüm.               *[NP [DP city-GEN] walls]
          city-GEN  wall-pl-AGR see-PST-1s
         'I saw walls [the city].'

These facts lead us to conclude that whereas D° assigns genitive case to a DP in its specifier, N° does not assign case. Hence, when the subject of a relative clause is an NP, a DP in its specifier cannot get case and must raise to a case-assigning head in order to receive case. Failure to raise will result in a Case Filter violation.

## 2.9   Clearing up the SR option

Looking back at the derivation in (28), we can now see why the DP in the specifier of the NP subject had to raise to [Spec, TP] as in (32). If the DP does not raise, it will remain without case and the derivation will crash.

Notice that derivation (32) still gives us the wrong word order for (27)a repeated below as (33)a. Assuming that *man* is further promoted to the RC external head position, the surface word order of (32) will be as in (33)b.

32) the SR form
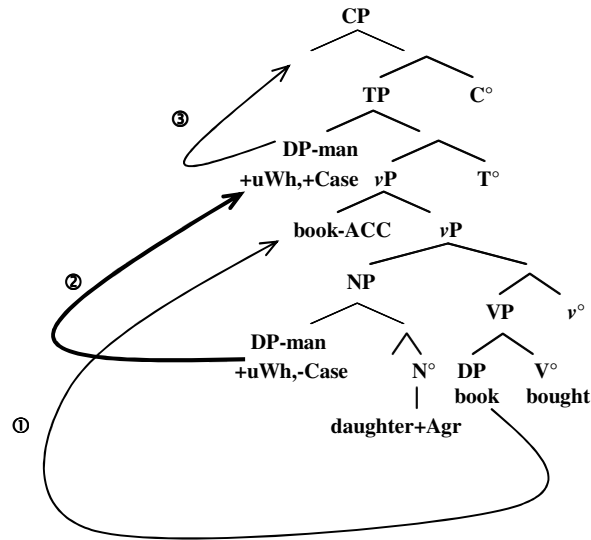
CP
TP   C°
③
DP-man
+uWh,+Case  *v*P   T°
②
book-ACC   *v*P
NP
VP   *v*°
DP-man
+uWh,-Case   N°   DP   V°
book   bought
①
daughter+Agr

33) a.  [[Ø_i kız-ı]        kitab-ı      getir-en] adam_i
      Ø  girl-POSS.3S book-ACC  bring-**SR** man
      'the man whose daughter brought the book'

  b.  *[kitab-ı     [[Ø_i kız-ı]          getir-en] adam_i
      book-ACC   Ø   girl-POSS.3S bring-**SR** man

In (32), the DP-specifier of the NP-subject, was attracted by the EPP of T, leaving the

NP-subject in its base-generated position inside the *v*P.  This move seems to violate

Minimality because although the entire subject and the object are now specifiers of

the *v*P, and thus equidistant from T, it is not so clear that the element that is a

constituent of the subject is in the same minimal domain as the object.

     Hornstein and Witkos' (2001) analysis of transitive expletive constructions

(TECs) offers a possible solution.  They argue that existential constructions are

formed by the merge of the expletive and the associate, and the overt movement of

the expletive to [Spec, TP].  Furthermore,  what happens in TECs is that the object

and the [expletive-associate] pair are both specifiers of *v*P at the point when T merges

with the *v*P.  TECs do not exist in English because movement of the expletive from the [expletive-associate] pair will violate Minimality because the expletive (which is a constituent of the [expletive-associate] pair) is not in the same minimal domain as the object.  On the other hand, in languages where another projection is available above the *v*P, the [expletive-associate] pair can move to that position, from which the expletive is now free to move without the issue of minimality.

For (32), one way around violating Shortest Move would be as follows: we could say that although the DP within the NP is attracted by the EPP of T, the whole NP, [NP [DP *man*-GEN  D°] *daughter*], moves to T°.  It is pied-piped by the DP-*man*.  This movement is allowed because the NP is equidistant to [Spec, T] being in the same minimal domain as the fronted object now in [Spec, *v*P].  This movement is similar to that of *whose book* in sentences such as "Whose book did you borrow?"  In this sentence, it is the element with the +Wh feature, *whose,* that is being attracted to [Spec, CP], but pied-piping of the remnant of the category allows for the convergence of a derivation that would otherwise crash with the movement of *whose* alone.

I repeat the relevant examples in (34).  In (34)a, the specifier of the subject receives case from T, whereas in (34)b, the entire DP subject receives case.

34) a.  [[Ø₁ kız-ı ]        kitab-ı      getir-en]  adam₁
        Ø  girl-POSS.3S book-ACC bring-**SR** man
        'the man whose daughter brought the book'

    b.  [[Ø₁ kız-ı]-nın         kitab-ı      getir-diğ-i]       adam₁
        Ø  girl-POSS.3S-GEN book-ACC bring-**NSR**-3s  man
        'the man whose daughter brought the book'

41

Adopting the Hornstein and Witkos proposal, it is the DP in the Spec of the NP-

subject in (34) (35)a that is attracted to T, and the NP-subject is pied-piped with it.

This strategy of avoiding the minimality violation noted for (32) is shown in (35):

When the DP-*man* in [Spec, NP] is attracted by the EPP of T, the entire NP, *man's*

*daughter*, pied-pipes to [Spec, TP], as in move ②.


35) The SR form with pied-piping of the subject
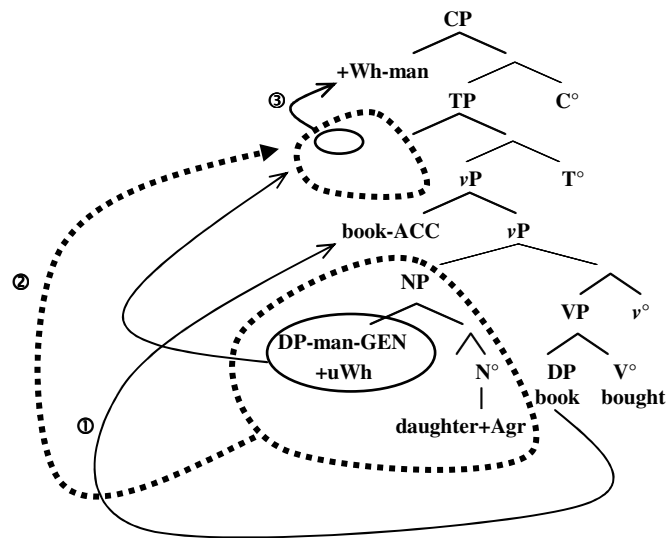


Another reason for proposing this sort of analysis, i.e. that it was only a constituent,

the +Wh-DP in the Spec of the subject, rather than the entire subject that was

attracted to T, is because had the subject been attracted by T's EPP, it would have

received overt genitive case.[40] In the analysis being proposed here, the SR form is

---

[40] I have not addressed the possibility of scrambling. One might argue that the entire subject has
scrambled to a position higher than the object but lower than [Spec, TP]. I reject this idea because
Kural (1992) and Kornfilt (2003), among others, shows that non-specifics in Turkish cannot scramble.
Persian shares many of the same phenomena regarding specificity, case and displacement as Turkish.
In her study of scrambling in Persian, Karimi (2005) also shows that scrambling is not possible for
non-specifics.

licensed when the expression that is Case-marked by T is also +Wh. Although the entire NP-subject is presumably sitting in [Spec, TP], it is the +Wh-DP in its Spec that is receiving case from T.

## *2.10 Relative clauses with complex arguments*

We can now extend our analysis to RCs with even more complex arguments. Relative clauses with sentential subjects permit both RC forms, as shown in (36).[41]

36) a.  [[Ø₁ biz-e      güven-eceğ-i]              şüpheli  ol-an]  adam₁
        Ø  1p-DAT  trust-FUT-COMP-POSS.3S  doubtful  be-**SR**  man
        'the man who/such that (he) will trust us is doubtful'

    b.  [[Ø₁ biz-e  güven-eceğ-i]-nin              şüpheli  ol-duğ-u]        adam₁
        Ø  1p-DAT  trust-FUT-COMP-POSS.3S-GEN  doubtfu  be-**NSR**-POSS.3S  man
        'the man who/such that (he) will trust us is doubtful'

Note that the subject in the RCs in (36) is something akin to "the fact that [the man] trusts us". I propose that the structure of these clauses is as in (37), where there is a null element "fact" in Nº whose complement is the CP "that [the man] will trust us".[42] It is thus the "factive" NP that receives the theta-role from the predicate "is doubtful".

37)
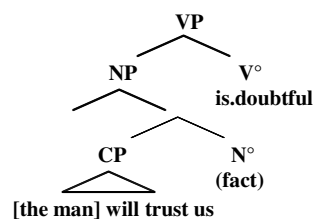


---

This structure is similar to the null nominal head selected by factive verbs as analyzed by Kiparsky and Kiparsky (1971). I assume that the +Wh head of the RC, *man*, is not base-generated inside the "factive"-CP, but rather is first-merged as the specifier of the NP. There is a null resumptive pronoun (RP) bound by *man* in the subject position of the "factive"-CP. I will justify this assumption a little later; for now, note that (38) better represents the structure of the RC subject for the RCs in (36).

38)

```
                              VP
                        ┌──────┴──────┐
                       NP            V°
                      ┌─┴─┐      is.doubtful
                  man_i
                  +uWh   ┌──┴──┐
                        CP     N°
                       ┌─┴─┐  (fact)
                      TP    C°
                   ┌───┴──┐
                 RP_i
                      ┌─┴──┐
                     VP    T°
                  ┌──┴──┐
              us-DAT    VP
                     ┌──┴──┐
                  t-RP    trust
```
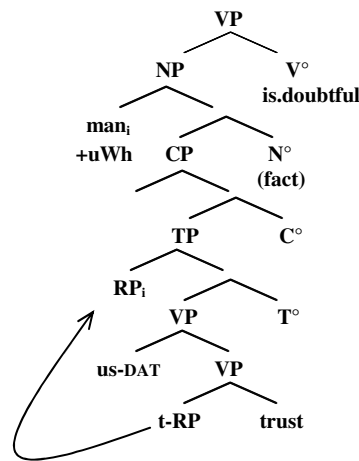
Furthermore, the subject can be an NP as in (38) or the "fact"-clause can be embedded in a DP[43] in which case the +Wh DP *man* will raise from [Spec, NP] to the specifier of the DP (and get genitive case). When the subject is a DP, the entire DP-subject is attracted by the EPP of T and assigned genitive case. Once this subject, [DP *man* [NP *t-man* [CP …] N° ] D°] is in [Spec, TP] of the relative clause, the +Wh-element, *man*, raises to [Spec, CP]. The derivation in (39), for the NSR phrase in

---

[43] We would expect there to be a semantic difference based on whether the "factive" subject is an NP or a DP. Some speakers do feel a slight difference but I have not been able to pin down a definitive diagnostic that will yield consistent results. It is possible that the verbs that allow sentential subjects, *is doubtful*, *is certain*, themselves cloud the semantic effects of the old information-new information distinction that the NP-DP subject should entail, but see Section 2.11 where time adverbial scopal differences are noted.

(36)b, demonstrates a RC with a DP subject. To be clear, as has been the case

throughout, we are looking at only the internal structure of RC's, prior to the

promotion of the relativized element to the external head position.

39)  the NSR form (36)b
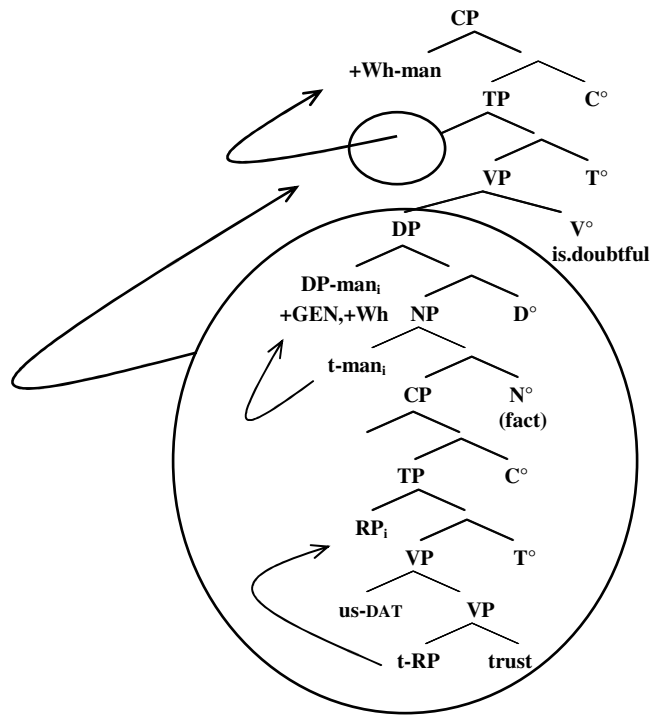


The difference between clauses (36)a and (36)b can be attributed to whether the

subject is a DP or an NP. We saw that in (36)b the subject was a DP. In (36)a, on the

other hand, the subject is an NP which cannot satisfy the EPP and consequently does

not raise to [Spec, TP]. Again, the +Wh head of the RC is base-generated in the

specifier position of the NP-subject. As we saw in (31), a DP in the specifier of an

NP must raise to the spec of a case assigning head. This is demonstrated in the tree in

(40), for example (36)a: to avoid violating the Case Filter, the +Wh DP-*man* must

raise to [Spec, TP] out of the NP-subject.  Note that in (40), pied-piping of the NP

subject is not required because there is no competing DP.

40)  the SR form (36)a
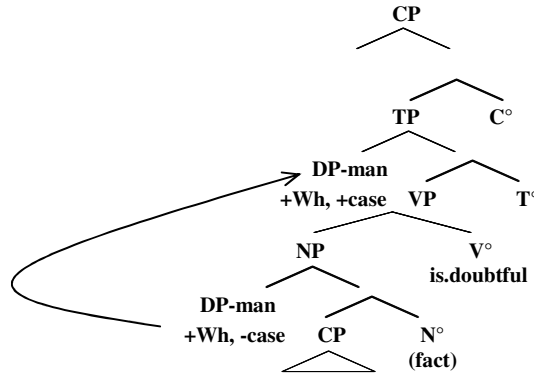
One more assumption must be clarified: I assume that all relativized elements are DPs

because they must be specific, or have topic-like properties, and must be visible for

attraction by the EPP.[44]  As DPs, relativized elements must be case-marked prior to

A-bar movement.

Let's take stock and look at the possible options for subjects.  A subject can

either be a DP or an NP.  A possessor in its specifier can be either a DP or an NP.

When the subject is a DP, it must raise to a case-assigning head.  It won't matter

whether the possessor of a DP subject is an NP or a DP because an NP doesn't

require case and a DP possessor will be assigned genitive case by the subject D°.  On

the other hand, when the subject is an NP, the subject itself does not need case.  If the

possessor in its Spec is also an NP, it too does not require case.  However, a DP

---

[44] Kayne (1994) proposes that in wh-relatives, the element that moves to [Spec, CP] is a DP headed by a relative D°, as in [DP which NP].   I adapt this analysis for Turkish which has neither overt determiners nor overt complementizers, and assume that the relativized element in Turkish is a null +Wh-D° and its NP complement.  See Bianchi (1999, 2000).  Borsley (1997), although disagreeing with Kayne's raising analysis, demonstrates that the RC  gap acts as a DP-trace with respect to binding, licensing of parasitic gaps, and weak islands.

possessor in the Spec of an NP subject must raise for case or violate the Case Filter.

With this in mind, let's look at derivations (43) and (44) for the RCs in (36).

Continuing derivation (40) in (41), we see why the SR is required in (36)a.

The +Wh DP-*man* in Spec of the NP-subject must raise to [Spec, TP] in ① to satisfy

T's EPP and to receive case.  The relative DP-*man* then moves to [Spec, CP] in ②.


41)  the SR form (36)a

[<sub>CP</sub> [<sub>NP</sub> Ø<sub>1</sub>  biz-e    güven-eceğ-i ]               şüpheli  ol-an ]  adam<sub>1</sub>
         Ø  1p-DAT  trust-FUT-COMP-POSS.3S  doubtful  be-**SR**  man
    'the man who [such that] (he) will trust us is doubtful'
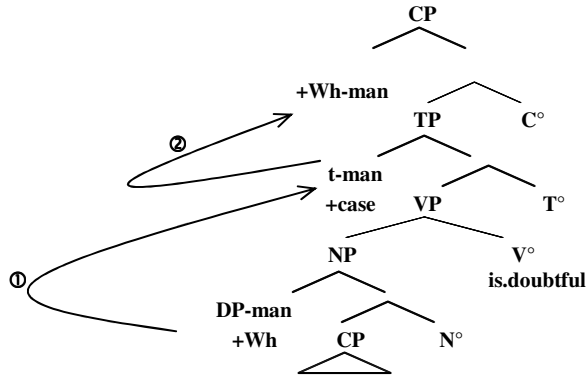


By way of contrast, the subject of the relative clause in (36)b is a DP.  Derivation (39)

repeated as (42) demonstrates that the entire DP-subject must raise to receive case.

The element in the Spec of the DP subject is assigned case by D°, and does not need

to move to an A-position for case.  The expression in [Spec, TP], the entire subject, is

not a +Wh element—a constituent is—and as expected the NSR form is required.


42)  the NSR form (36)b

[<sub>CP</sub> [<sub>DP</sub> Ø<sub>1</sub> biz-e    güven-eceğ-i-nin]            şüpheli  ol-duğ-u ]          adam<sub>1</sub>
         Ø  1p-DAT  trust-FUT-COMP-POSS.3S  doubtful  be-**NSR**-POSS.3S  man
    'the man who [such that] (he) will trust us is doubtful'

CP
+Wh-man
TP          C°
VP       T°
DP        V°
DP-man-GEN          is.doubtful
+Wh      CP      D°
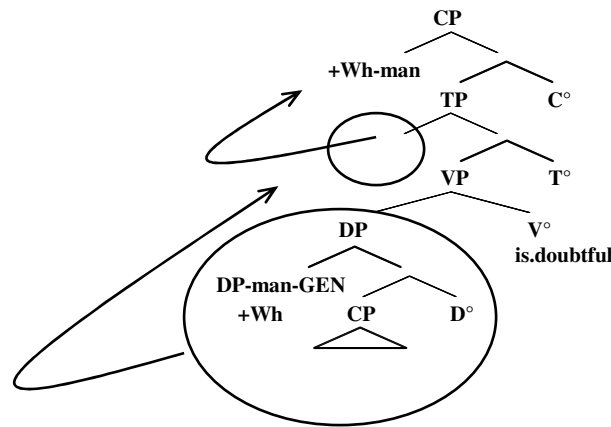
## 2.11 Semantic reflex of syntactic structure

In (41) and (42), we are making a claim about the category of the subject in the

matrix RC which has consequences in terms of the syntactic position the subject will

occupy. We would expect there to be some semantic reflex of the differences in

structure. This does seem to be the case as demonstrated in the examples 43) which

contain the time adverbial, *Monday*. The word order of the RCs in (43) is identical,

but in (43)a, the adverb can only modify the verb of the embedded RC subject,

whereas in (43)b *Monday* modifies the matrix RC verb.


43) a.   [[Pazartesi [$\emptyset_i$ kız-ı-nın]              Ankara-ya  git-tiğ-i]-nin
          Monday      daughter-poss3s-GEN  A.-DAT      go-NSR-3s-GEN
             anlaş-ıl-dığ-ı]               adam$_i$
             understand-PASS-NSR-3s   man
   'the man (such that) it was discovered that his daughter [went to Ankara on Monday]'


b.   [Pazartesi [[$\emptyset_i$ kız-ı-nın]          Ankara-ya  git-tiğ-i]  anlaş-ıl-an]          adam$_i$
      Monday         daughter-poss3s-GEN  A.-DAT   go-NSR-3s  understand-PASS-SR  man
      'the man (such that) on Monday it was discovered that his daughter went to Ankara'

The derivations in (44) and (45) demonstrate where the difference in interpretation comes from. Assuming the adverbial expression merges in T, there are two positions in each derivation in which *Monday* can merge: in the embedded sentential subject or in the RC (which I will call matrix) T. In (44), for the NSR in (43)a, if *Monday* had merged in the matrix T, we would get the wrong word order because the sentential subject will raise above *Monday*, yielding [[his daughter [ Ankara go]] Monday]. On the other hand, *Monday* merging in T of the sentential subject will give us the right word order but will yield an interpretation where Monday can only be interpreted as modifying the embedded verb, the event of going to Ankara occurred on Monday.

44) the NSR form (43)a
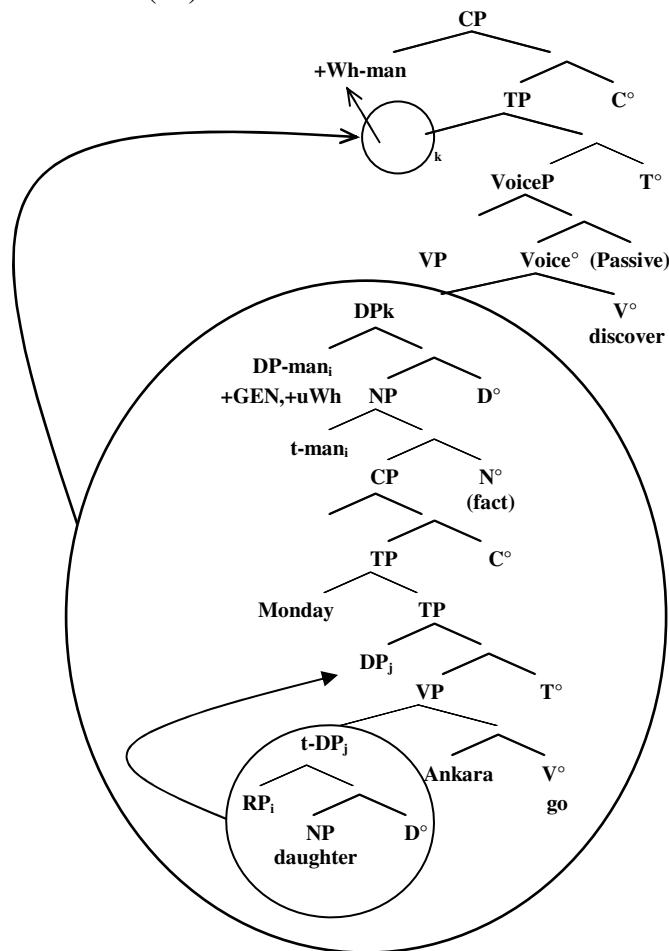
As shown in the tree in (44), the time adverbial *Monday* raises with the entire subject to a position higher than the RC verb *discover*, and crucially fails to c-command the matrix (RC) verb. Compare this with the position of the time adverbial in the tree in (45) for the SR example in (43)b where *Monday* remains below the matrix (RC) T.

In the SR form in (43)b, again the adverb can possibly merge in two positions, the T of the embedded subject and the matrix (RC) T. As shown in (45), *Monday* merging in matrix T will give us the correct word order and the interpretation that *Monday* modifies the RC verb *discover*. As can be seen in the tree in (45), although *Monday* c-commands the embedded verb (in the in situ sentential subject), it is too far away to modify it; there is a VP, NP and CP between the time adverbial and the Tense and verbal projections of the sentential subject.[45] The reading where the event of going happened on Monday is not available in this structure.

Monday merging in the subject should conceivably also be possible, but my informants were not able to get a reading where Monday would modify the embedded subject verb "going to Ankara" with the word order of (43)b. The interpretation that the going to Ankara will occur on Monday was only possible with the SR form with a different word order within the clause of the sentential subject, one where the subject of the sentential subject raises above Monday, yielding the phrase [[his daughter]$_1$ Monday [$_{vP}$ t$_1$ Ankara go]].

---

[45] This inability for the time adverbial to modify the embedded verb is straightforward in a Phase-based story. The complement of C is Spelled-Out when D merges in the structure of this complex subject. This story supports Chomsky's (1999/2001, and 2001) suggestion that that in addition to *v*P and CP, DP is also a Strong Phase. Another way of looking at the inability of the adverbial to modify the verb, would be to say that adverbial modification obeys Subjacency.

45) the SR form (43)b

CP
+Wh-man
TP          C°
DP-man      TP
+GEN,+Wh
Monday      TP
VoiceP      T°
VP      Voice° (Passive)
NP          V°
discover
DP-man$_i$
+uWh    CP      N°
(fact)
TP          C°
DP$_j$
VP      T°
t-DP$_j$
Ankara      V°
RP$_i$                go
NP      D°
daughter
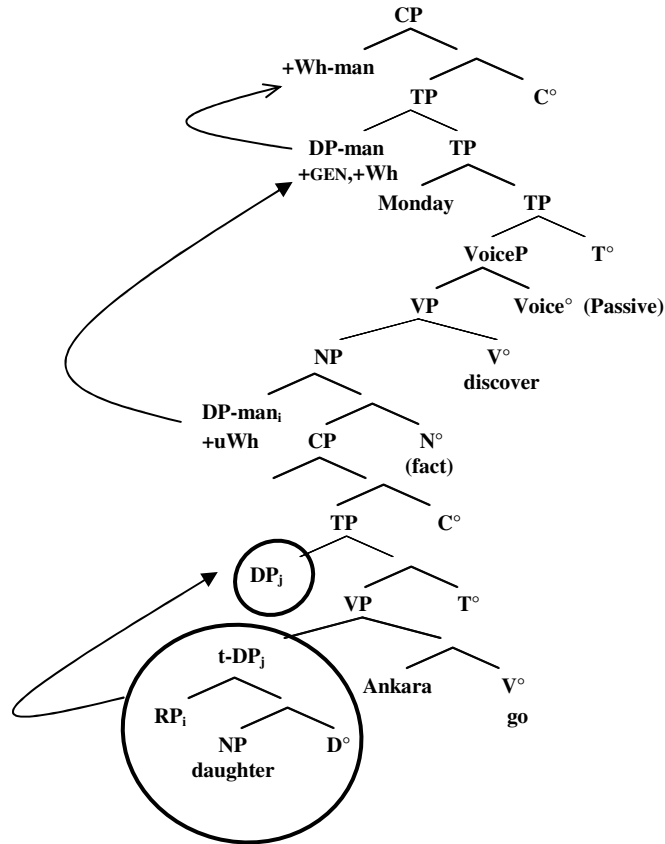
For those speakers whose dialects permit both RC forms, there is no ambiguity in the interpretations of the RCs in (43) when spoken with normal intonation.[46] That is, in (43)a, the adverb can only modify the embedded verb of the sentential subject, and in (43)b, the adverb can only be interpreted as modifying the matrix (RC) verb.

Let's look at another example. The relative clauses in (46) are passivised expressions. The phrase that was the complement of the RC verb, "that he will sell his house", has become the sentential subject of the RC. It is the subject of this sentential subject that is the relative head. I have highlighted the adverb *galiba*

---

[46] That is, without pauses. Pauses would denote a scrambled position similar to "We found out, [*next week (it is)*]$_1$, that the girl will go to Boston $t_1$."

51

'apparently' and the verb it modifies.  Notice the interpretations: the adverb modifies the RC verb in the NSR form in (46)a whereas the adverb modifies the sentential subject verb in (46)b.[47]


46) a.  [ **galiba**     [Ø$_i$ [*pro*$_i$ ev-i]-ni          sat-acağ-ı]-nın      **söyle-n-diğ-i** ]  adam$_i$
         apparently Ø  *pro*  house-AGR-ACC  sell-FUTNSR-3s-GEN tell-PASS-**NSR**-3s man
         'the man$_i$ who that (he) will sell his$_i$ house was apparently announced'

  b.  [Ø$_i$ [**galiba**     [*pro*$_i$ ev-i]-ni          **sat-acağ-ı**]      söyle-n-en] adam$_i$
         Ø apparently *pro*  house-AGR-ACC sell-FUTNSR-3s tell-PASS-**SR** man
         'the man$_i$ who that (he) will apparently sell his$_i$ house was announced'


The example in (46)a is particularly interesting because even with changed intonation and pauses, the adverb cannot be interpreted in the sentential subject.  It seems *galiba* cannot merge in TP.  In (46)a, *galiba* has scrambled and adjoined to TP, but it must be interpreted in its base position.  Let's take a closer look at the positions of *galiba* in (47).  We are still assuming that the sentential subject is a DP or NP Factive, but for ease of exposition, I am abstracting away from much of the structure of this phrase, and simply labeling it FDP or FNP.  I am using the Ø symbol to denote the +Wh-expression *man* with the understanding that this expression is generated in the specifier of the Factive phrase, and is coindexed with the null resumptive pronoun subject of the sentential subject.  In the illustrations in (47), I have highlighted the sentential subject in bold-type. In (47)a, *galiba* was generated in *v*P/PassiveP, and has scrambled to TP adjoining above the sentential subject, FDP. In (47)b, the sentential subject, FNP, is in the verbal domain, while the +Wh-expression has raised to [Spec,

---

[47] Again, we are assuming normal intonation without pauses which would reflect scrambling or discourse driven movement, such as Topic or Focus.

TP] and then to [Spec, CP]. As expected, (47)b is ambiguous and allows the

alternative reading where *galiba* modifies the RC verb 'was announced', but this

interpretation requires a pause after *galiba*.


47) a. [$_{CP}$ Ø$_i$ [$_{TP}$ galiba$_j$ [$_{FDP}$ Ø$_i$ [*pro*$_i$ evi]-ACC satacağı]-GEN [$_{vP/PassP}$ **t**$_j$ FDP söylen-NSR]]]
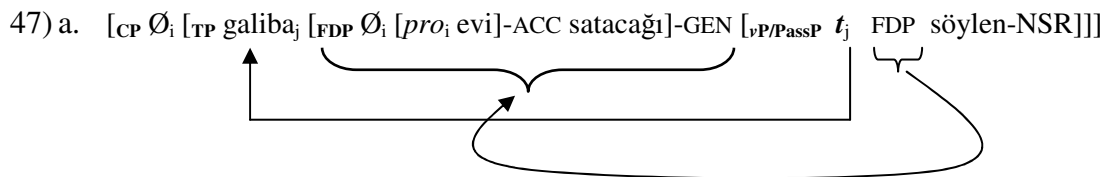
    b. [$_{CP}$ Ø$_i$ [$_{TP}$ Ø$_i$ [$_{vP/PassP}$ [$_{FNP}$ Ø$_i$ [$_{vP}$ **galiba [*pro*$_i$ evi]-ACC satacağı**]] söylen-**SR**]]] adam$_i$


These examples seem to provide further support that the structure being suggested for

the two RC forms is on the right track.


# 3  A minimalist account: Pestesky and Torrego (2001)


In this section I would like to present one theoretical account for the facts in Table 1

within the framework of Minimalism (Chomsky (1995, 2000)).  More concretely, I

will adopt a version of Pesetsky and Torrego (2001) (P&T).

    P & T (2001) use the principle of Economy to explain the *that*-trace effect.

They begin by taking *do*-support in English as evidence that C must contain an

uninterpretable T feature, uT, which must be deleted by T.  Using an adaptation of

Travis's (1984) Head Movement Constraint, P&T assume that uT on C must be deleted by movement of T° to C°.

P&T propose a tighter version of Chomsky's (1995) Attract Closest F, Attract Closest X (ACX), which prevents a head with multiple uninterpretable features from targeting via Attract across <u>any</u> element that could potentially delete one of its features. In effect, this constraint imposes ordering on feature checking of C. In P&T's system, C° always has an uT feature which can be deleted by head movement of T° to C°. Interrogative C°, and embedded C° that hosts successive cyclic Wh-movement, have an additional feature, uninterpretable Wh (uWh). Both these features, uT and uWh, host an EPP feature. The features of C target the closest element with matching features. The consequence of ATX is that C's uT feature must always be satisfied <u>before</u> its uWh feature; the <u>local</u> movement from the TP to delete C's uT feature, will always precede movement of another element to check C's uWh feature, <u>unless</u> this other element is *just as close* (i.e. within the same minimal domain). When the +Wh expression of a sentence is not also the subject, ATX will force T-to-C movement. When two elements in TP can check different features of C° (i.e. a +Wh subject that can check uWh and T° that can check uT), ATX applies vacuously, and either element is a candidate for movement.

In sum, the uninterpretable features of C° can be satisfied by:

1- movement of T° to C° to check uT, and

2- movement of a Wh-element to [Spec, CP] to check uWh.

Because the TP is the closest projection to C, the movement in (2-) can precede the movement in (1-) <u>only</u> when the +Wh-element is in [Spec, TP].

P&T explain lack of *do*-support, or T-to-C movement, in the sentence *Who bought the book?* as follows. Motivated by a desire to unify nominative case on DP and agreement on T, P&T argue that nominative case is, in fact, uT on D. Both T and D have uninterpretable features that once checked by the other result in D properties being borne on T, called "agreement", and T properties borne on D, called "nominative". The outcome of this analysis is that a nominative DP is able to delete the uT on C by moving to [Spec, CP] in the same way that T° to C° movement can.

P&T further assume that once a feature has been checked, it is "marked for deletion" but remains "alive" for further operations until the end of the (strong) phase. This means that although the uT features of the subject DP have already been checked by T°, they are not deleted until the end of the CP phase. So, we need to revise our summary above adding the additional way that C's uT can be checked.

The uninterpretable features of C° can be satisfied in the following ways:

1- movement of T° to C° **or** movement of a nominative DP to [Spec, CP] to
    check uT on C°, and

2- movement of a Wh-element to [Spec, CP] to check uWh on C°.

But, according to P & T, even though there are two ways to delete C's uT, T-to-C movement is required <u>unless</u> the element in [Spec, TP] is +Wh. [48]

Beginning with the derivation for the sentence *What did Mary buy?* in (48), let's review P&T's explanation of the subject/non-subject asymmetry of *do*-support in English interrogatives.

---

[48] The required head movement of T° to C° seems rather stipulative to me. P&T do not offer an explanation as to why, for example, in English yes-no questions, the nominative subject cannot delete uT on C° by moving to [Spec, CP]. I assume this is because a non-Wh expression is barred from the CP projection, but see fn. 49 and 52.

Although there are two ways in which uT on C can be deleted, P&T's analysis (of sentences in which the Wh-element is <u>not</u> the subject) rests on the assumption that in matrix interrogatives, uT is obligatorily deleted by head movement of T.[49]  After T moves to C, movement ①, the Wh-element moves to [Spec, CP] to check the uWh feature of C, movement ②.

48)  What did Mary buy?
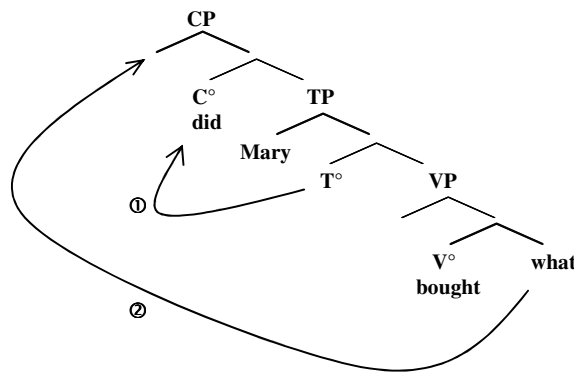


Central to Pesetsky and Torrego is their Economy Condition (49) based on the generalization that heads enter into Agree and Move relations only to the extent necessary.

---

[49] In discussing the ungrammaticality of "*What Mary bought" where the nominative subject has deleted uT on C, P&T state: "The obligatoriness of T-to-C movement … might lead us to search for a factor that favors T-to-C over subject movement...  We suspect that this is not the right approach." P&T never explain why T-to-C movement is obligatory, and conclude the discussion with the following statement:  "We ... leave it as an observation for further research…. that movement of the nominative subject to C is available as an alternative to T-to-C movement — even in matrix clauses headed by a C that contains uWh.  One factor that may explain this is unique specifier positions, that is, if a nominative subject occupied [Spec, CP], movement of the +Wh-expression to [Spec, CP] would not be possible with the result that neither C's uWh, nor the +Wh-expression's Wh features could be checked.  The evidence in Turkish certainly points to unique specifier positions in the functional projections.

49) Economy Condition

> A head H triggers the minimum number of operations necessary to satisfy
>
> the properties (including EPP) of its uninterpretable features[50].

This condition plays a crucial role in sentences where the Wh-element is the subject.

Recall that uT on C° can be deleted in one of two ways: i) by movement of the

nominative DP (carrying its still "alive" uT feature) from [Spec, TP], or ii) by head

movement of T° to C°. Even though both T° and the DP in [Spec, TP] are in the

same minimal domain and thus candidates for Attract Closest, the movement of T to

C is obligatory (see fns. 48 and 49). However, movement of the Wh-subject *who*

from [Spec, TP] to [Spec, CP] can check uT as well as uWh on C, as in derivation

(50)a. The Economy Condition disallows T-to-C in (50)b because movement of the

+Wh-subject results in a more economical derivation: all features of C are checked

with one move. The derivation which converges with less moves, (50)a, wins out

over an alternative derivation, (50)b, which requires more moves to check features.

50) a.   Who bought the book?



---
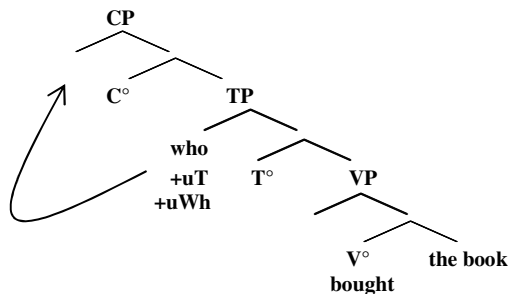
[50] Note that, on this view, the EPP is an uninterpretable feature.

b.   *Who did buy the book?  (with normal intonation)
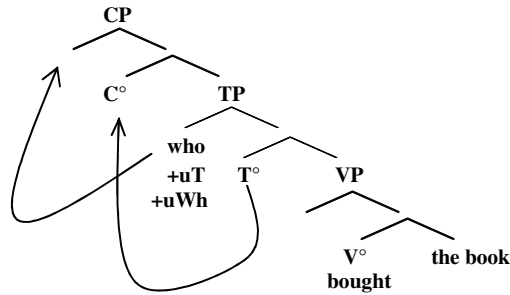


P&T also use the Economy Condition to explain the *that*-trace effect.  Rejecting the traditional view that *that* is a complementizer merged as a sister to TP, they propose that *that* is an instantiation of T-in-C.  For P&T, the declarative C of embedded clauses that hosts successive cyclic-*wh*-movement bears uT and uWh features, each of which also bear EPP features.  Again, when the Wh-phrase is not the subject, the uT feature of C must be checked by T-to-C movement.  In their system, C is null in English, but T-in-C in this embedded environment is pronounced as *that*.  Non-subject wh-movement is demonstrated in derivation (51).[51]

51)   What$_i$ did John say [$_{CP}$ *t-what$_i$* [$_T$ that]$_j$+[C] [$_{IP}$  Mary will$_j$ buy *t-what$_i$*]]?

In a sentence such as *Who$_i$ did John say* [$_{CP}$ **t-who$_i$**  [$_{TP}$ **t-who$_i$** *bought the book* ] ] where the Wh-word is the embedded nominative subject, movement of the subject to the embedded CP can simultaneously check the uT and uWh features of C.  Economy dictates that this derivation be chosen over the less economical one where the separate features of the embedded C are checked by two separate moves.  More

---

[51] Although not relevant for Turkish relatives, P&T account for ‘*that* deletion’ by allowing the nominative embedded subject to delete uT on C, rather than via T-to-C, an option not available in matrix clauses.

specifically, we can view Economy here as a local valuation: at a given point in the derivation, choose the move that maximizes the number of features checked. T to C movement, i.e. *that* to C, is precluded in this instance because movement of *who* to [Spec, CP] checks more (in fact, all) features on C.[52]

## 3.1 Pesetsky and Torrego (2001) analysis applied to Turkish relative clauses

Although Pesetsky and Torrego did not address relative clauses, their analysis can be extended to Turkish relative clauses. I assume that the Turkish NSR verbal morpheme, –DIK, is a compound of a Tense morpheme, –DI, and the –K morpheme, also found in uninflected infinitival verbs, as in (52). This view is supported by the fact that the NSR form also allows the future tense as in (53)a. Note that –cE is the future tense morpheme in matrix sentences (53)b.

52) a.  gel  -me -k          b.  ye -me-k
        come-INF-**K**            eat-INF-**K**


53) a.  adam-ın  gele-**ce**ğ-i          gün
        man-GEN come-**FUTNSR**-3s day
        'the day the man will arrive

    b.  adam yarın        gele-**ce-**k
        man   tomorrow come-FUT-3s
        'The man will come tomorrow.'

---

[52] P&T suggest that the lack of T-to-C movement in sentences such as (*i*) is due to the absence of an EPP feature on the embedded interrogative C in Standard English. They point to the dialectal difference in the Belfast English example in (*ii*), and propose that, in (*ii*), uT on the embedded C is deleted via movement, whereas in (*i*), it is accomplished via Agree.
        (*i*) I wonder what Mary bought.        (Standard English)
        (*ii*.) I wonder which dish that they picked.    (Belfast English)
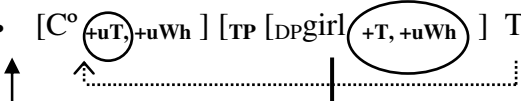
I propose that -DI- is Tense specified for Past and that the -K morpheme is a reflex of T to C movement, i.e. it signals T-in-C.[53] In the Pesetsky and Torrego story, a subject that is being extracted contains both uT and uWh features. Movement of the subject to [Spec, CP] deletes uT on C and renders the movement of T to C superfluous. The derivation in (54)b of the clause in (54)a demonstrates that the nominative subject *girl* can check both uT and uWh features of C.

If we assume that the -DIK (NSR) form is indicative of uT features of C being checked by T to C movement, we would predict that whenever the subject is the relative head, we would never see the -DIK (NSR) form because T to C movement would be an additional unnecessary move. In the illicit (54)c, T to C movement has deleted uT on C, which would have been deleted in any event by the obligatory movement of *girl* to [Spec, CP] to check the uWh features of C (54)d.

54) a.  [ hediye-yi ver-en ]   kız
        gift-ACC   give-SR   girl
        'the girl who gave the gift'


   b.  [    [C$_{+uT, +uWh}$] [$_{TP}$ [girl$_{+uT, +uWh}$] T [$_{VP}$ gave the gift]]]


   c.  *[ hediye-yi  ver-diğ-ı ]  kız
        gift-ACC    give-NSR  girl
        'the girl who gave the gift'


   d. [$_{CP}$   [C° $_{+uT, +uWh}$ ] [$_{TP}$ [$_{DP}$girl $_{+T, +uWh}$ ] T [$_{VP}$ bought the gift ]]]

[53] For a detailed discussion, see Kural (1993) who also argues that -DI is past tense and -K is C°. Note that for me the -K morpheme is specifically an instantiation of T° in C°.

P&T's analysis can be straightforwardly applied to account for the NSR -DIK

morpheme in non-subject RCs.  The C head simply targets the closest head,

specifically T, to check its uT feature.  There is no +Wh element in [Spec, TP] to

outcompete T-to-C.

## 3.2    The NSR -DIK form

Let us now go back to the NSR form, No. 2 and No. 3 in Table 1.  Using P&T's

intuition, we can see how Economy accounts for the unacceptability of the NSR form

in sentence (2)b repeated with its derivation in (55).

55)    *[Ø$_i$  divan-da otur-duğ-u] bayan$_i$
          Ø   sofa-LOC sit-**NSR**-3s  lady
        Intended: 'the lady that is sitting on a/the sofa'
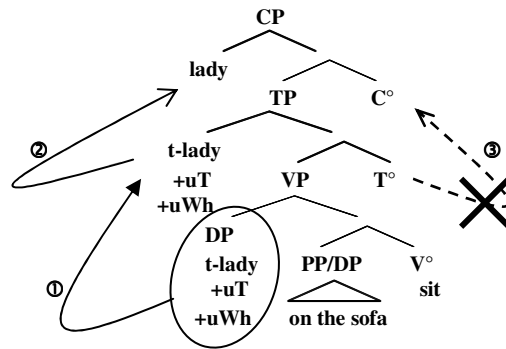


In (55), the NSR -DIK morpheme, an instantiation of T having moved to C, is

unacceptable.  The subject *lady* is attracted to [Spec, TP] by T's EPP feature,

movement ①, and is assigned nominative case.  The subject has both uT and uWh

features; in ② movement of the subject to [Spec, CP] deletes these two features.

Movement ③ of T° to C° is redundant, and so disallowed.

On the other hand, the NSR -DIK morpheme is acceptable in (3)a, repeated as

in (56), because when the extracted element is not the subject, there is no alternative,

more economical, move.

56)     [bayan-ın Ø<sub>i</sub> otur-duğ-u ] divan<sub>i</sub>
        lady-GEN Ø   sit-**NSR**-3s   sofa
        'the sofa that the lady is sitting on'

CP

sofa
+uWh   TP       C°

③      lady
       +uT      VP      T°      ③

       DP
       t-lady   PP/DP    V°
①      +uT      sofa-LOC  sit
       +uWh
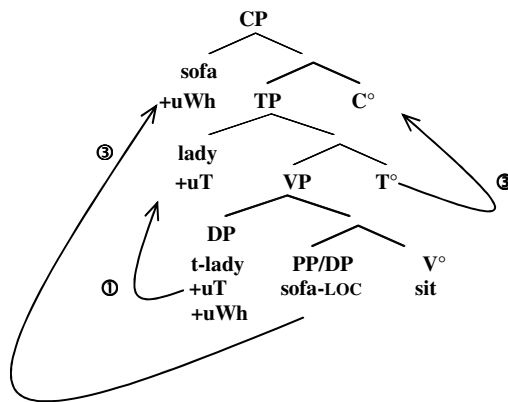
In the tree in (56), again the subject *lady* is assigned nominative case by T and is

attracted to [Spec, TP] to satisfy T's EPP feature, movement ①.  Because the subject

does not have a +Wh feature it cannot check uWh on C.  Movement of the +Wh DP

*sofa* to [Spec, CP] is required.  This derivation requires two moves to delete both uT

and uWh on C.  The movement of T to C is obligatory for convergence as it must

check C's uT feature.  When a non-subject is being extracted, there is no alternative

derivation that would converge with fewer moves.

## 3.3 The SR form

We saw that in a subject relative, Economy dictates use of the -An SR form and bars the -DIK NSR form. As demonstrated in (55), movement of the +Wh-subject deletes both features of C simultaneously, making T-to-C movement unnecessary. Thus (55) is aptly the derivation for the SR sentence (2)a repeated in (57).

57)     [Ø$_i$ divan-da otur-an] bayan$_i$
        Ø sofa-LOC sit-**SR** lady
        'the lady who is sitting on the sofa'

To be clear, P&T rely on Shortest Move to explain the obligatory movement of T to C (rather than the alternative nominative-DP movement to [Spec, CP]) when the subject is <u>not</u> a Wh-element, and they rely on Economy to disallow T to C movement when the subject <u>is</u> a Wh-element, with all moves driven by the EPP. For P&T, the crucial feature is uT on C.

Whereas the P&T analysis explains the asymmetry in simple relative clauses in Turkish, it cannot account for the exceptions (numbers 4 and 5 in Table 1) nor can it explain the optional cases. We will need to make adjustments to the P&T analysis. Let's begin with the first complication. How do we explain the acceptability of the SR form when a non-subject is relativized, as in the SR example (5) repeated as (58) (item 4 in Table 1)? Rather than T moving to C, the +Wh-element in the verbal domain has moved to C; this violates Shortest Move in P&T and should be banned.

58) a.  [gemi yanaş-an] liman
      ship sidle-**SR** harbor
      'the harbor that a ship is sidling up to'

b.

```
                    CP
            harbor
            +Wh    TP        C°
                      VP    T°
                  NP
                 ship   DP      V°
                     t-harbor+DAT  sidle.up.to
                         +Wh
```
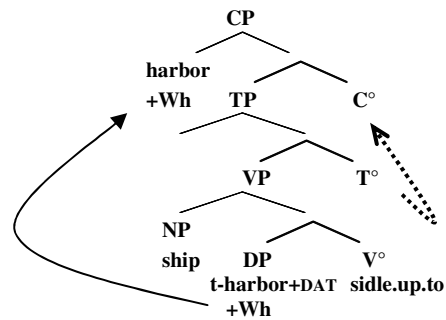
In section 1.3, we saw that Enç's (1991) work was of interest because she demonstrated the correlation between specificity, raising and overt case-marking in Turkish. In sum, non-specific nominal elements neither get overt case nor do they raise from their base-generated position whereas specific nominal expressions must raise and must bear overt case.[54] Based on this complementarity, I assumed an NP/DP division based on specificity: in Turkish, non-specific nominals are NP's that lack a D projection.[55] Conversely, specific nominals are DP's.

Furthermore, I consider the reciprocity between obligatory case assignment by functional heads (the Inverse Case Filter) and the Case Filter an unnecessary redundancy. I therefore assume that all DP's must have their case checked/assigned but that all case-assigning heads need not necessarily discharge their case[56]. In a sentence that has no DPs as arguments, T° (and $v°$, for transitives) will have no DP on

---

[54] We saw in (6) that case-marked objects must raise; (9) and (10) demonstrate that the same is true for subjects.

[55] Turkish lacks determiners, so the D head in DP's must be null. Longobardi (1994) provides evidence for DP's with a null D in Italian. I assume a similar structure for Turkish.

[56] I realize this complicates the issue of Full Interpretability. An uninterpretable Case feature on T that remains unchecked or undeleted cannot lead to a derivational crash under this view. There is the possibility that T does assign Case to whatever element sits in its Spec, and because the EPP of T must be satisfied for convergence, T will always be assigning Case. I will discuss this option in more detail later.

which to discharge its case feature.  An example is the Turkish sentence in (59)a in

which the sole argument, the subject, being non-specific, must be an NP as in (59)b.

59) a.   (Bir) köpek havla-dı.
      one  dog   bark-PST
      'A dog barked.'

   b.   [$_{TP}$ [$_{VP}$ [$_{NP}$ dog]  bark ]  -PAST]

The assumption that convergence requires that DP's receive case but <u>not</u> that relevant

heads assign case enables us to account for the acceptability of sentences with NP

arguments.  The question remains though, how is the EPP of T checked in (59)a?  As

demonstrated in (59)b, the subject, being an NP, has not raised to T.  Note that this

sentence would be quite odd without a context, for example in response to the

question, "What happened?"  Crucially, this question entails a contextually relevant

time and place.  Therefore, I assume the sentence in (59)a contains a *pro*-form

locative, as in the response in (60)a.  It is the *pro*-locative that raises to T and checks

its EPP feature, as in (60)b.[57]  At this point, I am not assuming that T assigns

Nominative Case to the Locative, but I will return to this in greater detail later.

60) a.   **Question:** (Sokak-ta)  ne    ol-du?
               street-LOC  what  happen-PST
               'What happened (in the street)?'

     **Answer:**   [ora-da]    (bir) köpek havla-dı.
               there-LOC one  dog   bark-PST
               'A dog barked [there].'

   b.   [$_{TP}$ *pro*-there-LOC [$_{VP}$ [$_{NP}$ dog]  bark ]  PAST]

---

[57] This is analogous to locative inversion in Spanish, where there is evidence to suggest that because a
bare NP subject cannot raise to a preverbal position, a locative must raise to satisfy the EPP of T.  See
Ortega (200).

In Section 1.3 of Chapter 2, we saw the correlation between displacement, specificity and case. Recall that a specific object must obligatorily raise and receive overt case, whereas a non-specific one does neither. Nominative case in Turkish is the Ø-morpheme, but similar facts were demonstrated for subjects in embedded environments where the subject is marked with overt genitive case. In the sentences in (61) and (62), note both the position of the subject and its case: no raising nor case on the subject when it is non-specific, obligatory raising and case when it is specific. These facts provide evidence that all DPs not only receive case, but must also raise to receive/check case, presumably because case is assigned in a Spec-Head configuration.[58]

61) a.  Sokak-ta   köpek havla-dığ-ın-ı                duydum.
        street-LOC dog     bark-NSR(COMP)-AGR-ACC hear-PST-1s
        'I heard a dog barked in the street.'

    b.  [*pro* [vP [CP [TP **street** [VP [NP **dog**]  **bark** ] ] ]-ACC heard]

62) a.  Köpe-ğin sokak-ta    havla-dığ-ın-ı                duydum.
        dog-GEN   street-LOC bark-NSR(COMP)-AGR-ACC hear-PST-1s
        'I heard that the dog barked in the street.'

    b.  [*pro* [vP [CP [TP [DP **dog**]-**GEN** [VP **street**  **bark** ] ] ]-ACC heard]

---

[58] Referring to Chomsky (2001), Boeckx (2001) points out that not every DP can satisfy the EPP; the DP must be "featurally related" to the EPP bearing head. In Chomsky (1995), EPP driven movement is comprised of Attract F (head adjunction of formal features FF) followed by pied-piping of the category for PF convergence (so that the category will be "close enough" to its FF so that the features of the category will not be scattered). In Chomsky (2001), the Spec-Head relation is considered an outcome of Move which is defined as Agree + Pied-piping + (internal) Merge. An important generalization is that in Turkish a DP receiving structural case must raise to the specifier of the case-assigning head. However, I concur with Boeckx (2001) that Agree need not be a prerequisite for Move, thus allowing for the possibility of Move to take place in some cases under Match, a looser requirement of "feature-relatedness" (see fn. 59).

Deviating from Pesetsky and Torrego, I propose that in Turkish relative clauses the EPP feature of T is simply a feature of some uninterpretable feature of C. That is, if C is in the derivation, it has an uninterpretable T feature that makes it select T.[59] By the same token, T also has a comparable uninterpretable feature that must be checked. Let us say that this feature is some sort of Wh- (i.e. A-bar) feature[60] because it was selected by C. For simplicity, let us call the matching features uT when on C, and uC when on T. When a non-Wh-element is in [Spec, TP], T must necessarily move to C because the uC feature it bears is still unchecked. On the other hand, a Wh-element in [Spec, TP] is able to delete/check the uC feature on T[61], after which it will raise to [Spec, CP] and delete/check uWh on C. The proposal for Turkish then is as in (63).

63) Theoretical Assumptions

   *i.*   The EPP feature on T is a feature of an uC feature; T has an EPP feature only when it has been selected by C.[62]

   *ii.*  The uC feature of T may be checked/deleted by movement of a +Wh-element to [Spec, TP] or by movement of T° to C°.

   *iii.* T can assign case but need not.[63]

---

[59] In Turkish matrix sentences, the specific subject has topic-like properties. Thus these sentences may have a Topic projection which selects T with an uninterpretable "Topic" feature. I assume that sentences such as (59) have neither a Topic projection nor an EPP feature on T. This contrasts with the embedded sentence in (61), where absent a DP requiring structural case, a featurally-related DP, the locative, raised to T to satisfy its EPP feature.
    I avoid a discussion as to whether *v* may or may not have an EPP feature. Following the reasoning for T°, however, there may be an optional A-bar "topic-like" projection above *v*P that selects for *v* with an EPP feature. Although not a topic of this dissertation, the data we incur in later chapters suggests there may indeed be an EPP on *v*° as well as an A-bar projection above *v*P. I will point these out as we encounter them. Certainly, this issue requires further inquiry.
[60] The EPP of this feature attracts a D; Wh-features are irrelevent for the operation Attract by T.
[61] It does not concern us here as to exactly how uC on T is deleted by a Wh-element in [Spec, TP]. One can imagine several plausible ways, none of which will detract from the proposal here.
[62] This also holds for sentences with TopicP, that is, Topic° will select for T° with an uninterpretable A-bar-like feature which itself will have an EPP feature, but see fn. 59.

*iv.* Nominals that are specific are DP's; non-specifics are NP's.

*v.* Only DP's need case.

*vi.* NP's cannot be attracted by the EPP and so are invisible for movement.

Let's look closer at the consequences of assumption (*ii*) above. We know that T's

EPP attracts the closest DP. If this DP has a +Wh feature, it satisfies two features: uC

on T and the EPP on uC. If the closest DP is non-Wh, the only way for T to

discharge its uC feature is by movement from T to C. This is what is required for T°.

The C° of a RC has an interpretable Wh feature to be checked. T-to-C movement

will delete uC on T, but not uWh on C° which still must be satisfied by movement of

a +Wh-expression to [Spec, CP] checking uWh and satisfying C's EPP feature.

With this new approach, let's look again at the SR in (57), repeated as (64).

64)     [Ø$_i$  divan-da otur-an] bayan$_i$
         Ø  sofa-LOC  sit-**SR**   lady
         'the lady that is sitting on the sofa'

---
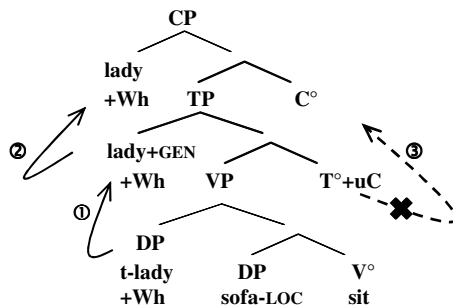
[63] Chomsky (1999) refers to non-finite T which has an EPP feature but cannot check case, as in (*i*), as
T$_{def}$.
         (*i*)  We expect there to be awarded several prizes.
For Turkish, I assume that finite T, when selected by C° (or Topic°), has an EPP feature but need not
necessarily assign case. As shown in (61), a (inherently) case-marked element may be attracted by the
EPP of T. The exact nature of T's case-assigning properties is not crucial here, thus I will remain
agnostic as to whether T actually assigns null nominative case to the already case-marked DP in its
spec, or the element being case-marked and "featurally-related" is able to delete T's uninterpretable
case feature. (I take up the question of whether T° must assign case in Chapter 4.)

In the derivation in (64), T has an uC feature and an EPP feature that must be satisfied. In step ①, the subject *lady* is attracted to [Spec, TP] satisfying T's EPP feature. Because the subject has a +Wh feature, the uC feature on T has been deleted. C merges with the TP, and its EPP and uWh features are checked by movement of the subject *lady* to [Spec, CP], step ②. Movement of T° to C°, step ③, is unnecessary, and so disallowed.

This contrasts with the NSR sentence in (56), repeated as (65), where the subject is not a Wh-element and so cannot delete uC on T. T to C movement as in ②, is required for this derivation to converge.


65)     [bayan-ın Ø$_i$ otur-duğ-u ] divan$_i$
         lady-GEN Ø sit-**NSR**-3s   sofa
         'the sofa that the lady is sitting on'
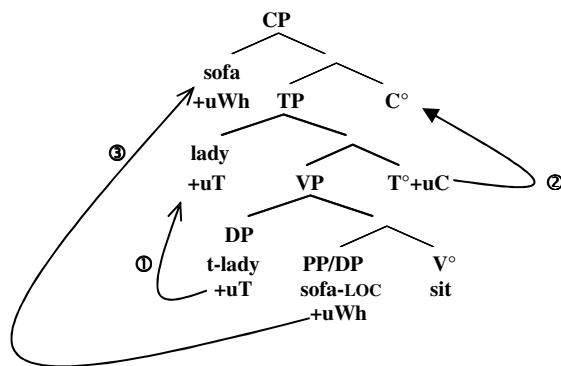


## 3.4   Recap: our new story

Before we proceed to relative clauses with non-specific subjects, let's review how we have deviated from Pesetsky and Torrego (2001). In the Pesetsky and Torrego analysis, the driving feature was on the C head. Notice that we have shifted the perspective from uT features on C to uC features on T. After all, it only makes sense

that if there is a C projection, C will select a T that will ensure that features required by C will be checked[64]. Thus relative clauses in Turkish have the following functional categories: a C° with uWh and EPP features, and a T° with uC and an EPP feature. Note that only a +Wh-expression can move to [Spec, CP]; [Spec, TP] has no such restriction. In this story, T can be thought of as a hybrid, an A projection bearing Wh-like features (which perhaps is the reason, when necessary, T can undergo head-movement to C). uC on T can be checked/deleted either by movement of a +Wh DP to [Spec, TP], or by head movement of T to C. The cycle ensures that the former be the unmarked case, and that T to C is Last Resort-like.[65] The reason we do not get the NSR -DIK morpheme (indicating T-in-C) when a subject is being relativized, is that there is no motivation for T to move to C; all of T's features have been checked.[66] In this sense, T is Greedy: it only moves to check features on itself; it cannot check any features on C.

These divergences from P&T (2001) enable us to explain the use of the SR form in RC's with no external argument as well as those with a non-subject gap in clauses a non-specific subject.

---

[64] This is different from S-selection; C° cannot check its features against T° merely by virtue of this selection. This kind of selection is analogous to the Force projection (Rizzi 1997) of C selecting a finite or non-finite T.

[65] It does not really matter if T moves to C as soon as C merges with TP or after the +Wh element moves to [Spec, CP]. Arguments could be made for both alternatives. The point is that uC on T must be checked preferably within the TP projection or at the latest, by the next projection.

[66] The implications for matrix sentences are that all sentences with specific subjects must have a CP layer if we are to assume that DP subjects raise from their base-generated positions. We saw in (26) and (27) that T° in sentences with non-specific subjects does not have an EPP feature. It is not far afield to assume that matrix sentences with specific subjects in Turkish have a Topic projection that selects for a T° with an uC feature that has an EPP feature. Thus sentences with non-specific subjects are TP's, whereas sentences with specific subjects have an A-bar projection, TopicP. It follows that the same assumption must be made for the *v*P layer: there is some kind of "Topic-like" projection above the *v*P which selects for *v*° with an EPP feature which attracts the DP (specific) object. Otherwise, there is no extra projection; *v*° does not have an EPP feature and the NP (non-specific) object remains in situ.

## 3.5   Clauses that lack external arguments: the SR form

We can now see why clauses that lack external arguments, item 5 in Table 1, as in

(4)a repeated as (66)a, require the SR form.  I have included the comparable matrix

sentence in (66)b to demonstrate that neither of the two nominals in the sentence,

"this stop" and "bus", requires structural case:  the PP 'from this stop' is rendered in

Turkish as the nominal *this stop* with ablative case, and *bus* receives inherent dative

case.  As shown in derivation (67), there are two (equidistant and non-structurally

case-marked) DP's which can satisfy the EPP of T.  Because one of them is +Wh,

Economy will choose movement of this element to [Spec, TP].  This move will delete

uC on T, bleeding T to C movement.


66) a.   [Ø$_i$ bu   durak-tan  bin-il-en]         otobüs$_i$
         Ø  this stop-ABL   board-PASS-**SR** bus
         'the bus which is boarded from this stop'

    b.   Otobüs-e bu   durak-tan  bin-il-ir.
          bus-DAT this  stop-ABL   board-PASS-AOR
          'The bus is boarded from this stop.'

67) 1- the +Wh-element *bus* merges with the verb *board* forming the VP:
              [$_{VP}$ bus board]

    2- the PP/DP *this stop* merges with (adjoins to) the VP:
              [$_{VP}$ this stop [$_{VP}$ bus board]]

    3- T° merges with this VP:  [ T° [$_{VP}$ this stop [$_{VP}$ bus board ]]]

    4- T° has uC with an EPP feature; there are only non-argument DP's available.
       Economy dictates that the +Wh DP move to [Spec, TP]:
              [$_{TP}$ bus$_i$ T° [$_{VP}$ this stop [$_{VP}$ *t*$_i$  board ]]]

    5- C° merges with the TP:
              [ C° [$_{TP}$ bus$_i$ T° [$_{VP}$ this stop [$_{VP}$ *t*$_i$ board ]]]]

    6- C's uWh and EPP features are checked by movement of +Wh *bus* to its Spec:
              [$_{CP}$ bus$_i$ C° [$_{TP}$ *t*$_i$  T° [$_{VP}$ this stop [$_{VP}$ *t*$_i$ board ]]]]

Let's take a closer look at step 4 in (67). How might Economy dictate movement of

one DP over another? The Pesetsky and Torrego analysis provides us an answer. In

the tree in (68), there are two DP's inside the VP. Being in the same minimal

domain, they are equidistant from the point of view of T's EPP. Movement ①, of the

+Wh-DP to T, will check uC on T, and in ②, the element moves to [Spec, CP] to

check uWh on C. Only two moves are necessary to check all the features on T and C.

68)

```
                        CP
                  +Wh-DP
                          TP        C°
              ②   +Wh-DP
                          VP        T°
                  ①                 +uC
                  +Wh-DP    VP
                        DP        V°
```
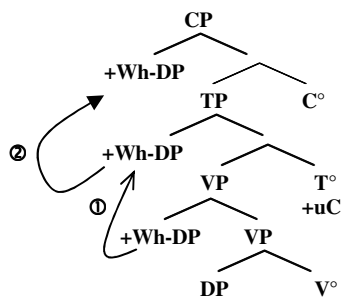
Compare with the alternative scenario: the equidistant, non-Wh DP is attracted to T,

as in (69). Although this element satisfies T's EPP feature, ①, T to C movement is

required to delete uC on T, ②. The +Wh DP must also move to [Spec, CP] to check

the uWh feature on C, ③. This derivation requires three moves to check all features

on both T and C.

69)

```
                        CP
                  +Wh-DP
                          TP        C°
              ③       DP
                          VP        T°       ②
                  ①                 +uC
                  +Wh-DP    VP
                        DP        V°
```

72
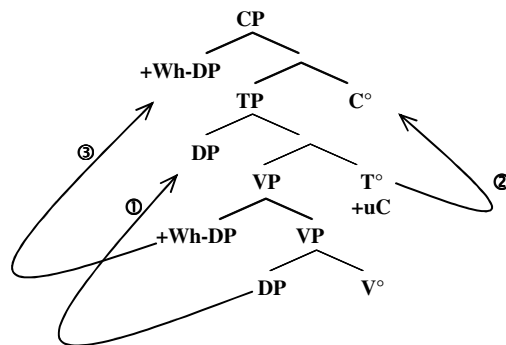
Derivation (68) is preferable to the derivation in (69) also because of Shortest Move. Both DP's are equidistant from T. In (68), the +Wh DP took two short moves to [Spec, CP]. In (69), the movement of the +Wh DP to [Spec, CP] in ③, is longer move, i.e. crosses more nodes. All things being equal, the system prefers a derivation where features—in this case, uWh on C—can be satisfied with shorter moves than with longer ones.

Looked at another way, derivation (68) will trump (69) when evaluated locally, i.e. by the amount of work accomplished at each point in the derivation. When T is merged, it has two features that must be checked/deleted: uC and its EPP. From the point of view of T, it is more economical to attract an element that will satisfy both these features as soon as possible and at once, by attracting a +Wh element to its specifier. The alternative is for T to attract a non-Wh-DP to its Spec and then to undergo head movement to C to delete its uC feature. When the DP's providing both options are equidistant, the system will choose the more efficient option.[67]

---

[67] This was noted in Hankamer & Knecht (1976) with the following examples:
  (i)  [Kapı-nın alt-ın]-dan      [yer-in    üzer-i]-ne    su    akıyor
       door-GEN bottom-AGR-ABL  floor-GEN top-AGR-DAT water is.flowing
       'Water is flowing from under the door onto the floor.'
       (Literally: 'From the door's bottom, onto the floor's top, water is flowing')
  (ii) [[Ø alt-ın]-dan        yer-in    üzer-ine      su    ak-an]  kapı
         bottom-AGR-ABL floor-GEN top-AGR-DAT water flow-**SR** door
       'the door that water is flowing under from onto the floor'
  (iii) [kapı-nın alt-ın-dan       [Ø üzeri]-ne      su    ak-an]  yer
       door-GEN bottom-AGR-ABL   top-AGR-DAT  water flow-**SR** door
       'the floor that water is flowing from under the door onto'
They conclude "...when there are two oblique phrases in an indefinite-subject construction, the [SR] is used no matter which contains the target of relativization. ... In fact, no matter what is relativized out of a clause with an indefinite subject, the RC is constructed with the [SR]." The principle of Economy explains why this is so. Any or all of the Economy measures sited will give preference to the SR form over the NSR.

## 3.6  Relative clauses with complex arguments

We are now ready to extend our analysis to RCs with even more complex arguments.

We saw in (36), now repeated as (70), that relative clauses with sentential subjects

permit both RC forms.

70) a.  [[$Ø_1$ biz-e      güven-eceğ-i]                  şüpheli  ol-an]  adam$_1$
            Ø  1p-DAT  trust-FUT-*COMP*-POSS.3S  doubtful  be-**SR**  man
         'the man (such) that (he) will trust us is doubtful'

   b.  [[$Ø_1$ biz-e  güven-eceğ-i]-nin                  şüpheli  ol-duğ-u]            adam$_1$
            Ø  1p-DAT  trust-FUT-*COMP*-POSS.3S-GEN  doubtful  be-**NSR**-POSS.3S  man
         'the man (such) that (he) will trust us is doubtful'

I had argued in section 2.10 that the subject in these RCs is something akin to "the

fact that [the man] trusts us" or "such that [the man] trusts us" and that the structure

of these subjects is comprised of a a null "fact" in N° whose complement is the CP

"that [the man] will trust us".  Recall that it was this "factive" NP that received the

theta-role from the predicate "is doubtful".

Recall further that I had assumed that the subject could be an NP or that the

"fact"-clause could be embedded in a DP.  The tree in (71) for the RC in (70)b

demonstrates the derivation of a relative clause with a "factive" DP subject.  The EPP

of T attracts the entire DP-subject, [$_{DP}$ *man* [$_{NP}$ *t-man* [$_{CP}$ …] N° ] D°].  Once this

subject is in the [Spec, TP] of the relative clause, the +Wh-element, *man*, from within

the subject raises to [Spec, CP].  Since the subject is not a +Wh element, uC on T

remains unchecked and T to C movement is required for convergence.

71) the NSR form for RC (70)b
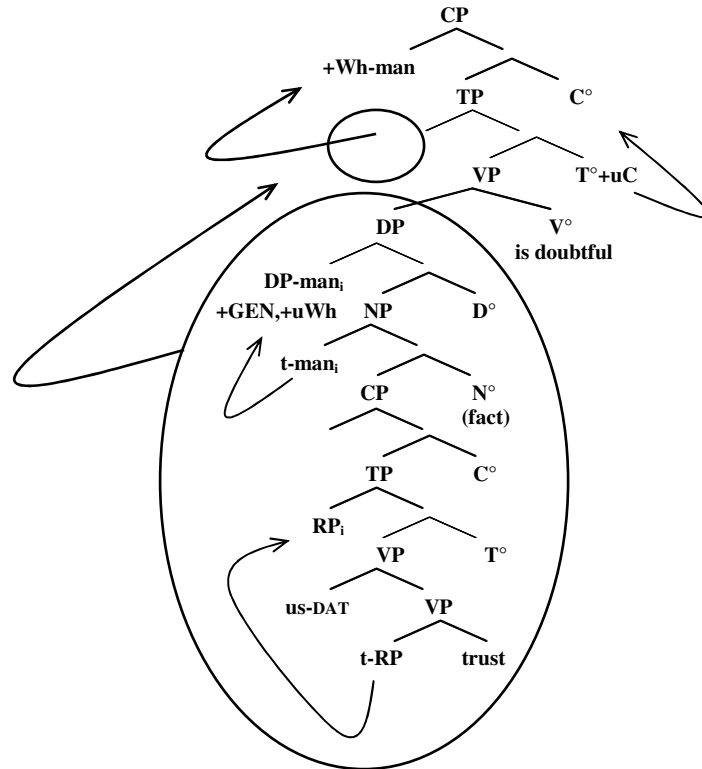


This derivation contrasts with the tree in (72) for the RC in (70)a where the subject is an NP which cannot satisfy the EPP of T.  Again, the +Wh head of the RC is base-generated in the specifier position of the NP-subject.  As we saw in (31)d, a DP in the specifier of an NP must raise to the spec of a case assigning head or it will violate the Case Filter.  Thus the +Wh DP-*man* must raise to [Spec, TP], ①, out of the NP-subject for case or the derivation will crash.  At the same time, this +Wh expression deleted uC on T, rendering T to C movement unnecessary.  The DP-*man* then moves to [Spec, CP] to delete uWh on C, in ②.

72) the SR form for RC (70)a

```
                              CP
                           ╱      ╲
                    +Wh-man    ╱    ╲
              ②              TP        C°
                          ╱    ╲
                 DP-man
              +uWh, +case   VP      T°+uC    ✗
                          ╱   ╲
                      NP          V°
          ①                    is doubtful
                    DP-man
              +uWh, -case   CP      N°
                                   (fact)
```
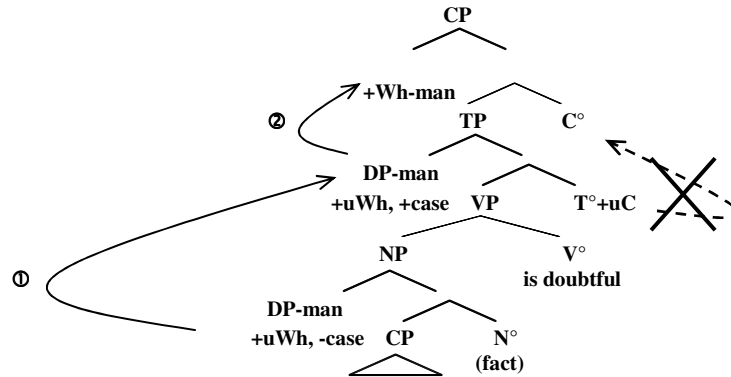
# 4  Conclusion

In this chapter, we saw an explanation for the two different relative clause forms in Turkish that accounts for their distribution. The SR form can be explained by the generalization that it is licensed whenever the +Wh relativized expression moves into [Spec, TP] and then to [Spec, CP]. I demonstrated a correlation between specificity and displacement, and proposed a DP/NP dichotomy that would capture the facts. I argued for an EPP feature on T, and suggested a restricted definition of the EPP and the Case Filter, such that these apply only to DPs. Furthermore, we saw evidence that D°, but not N°, assigns case.

Although valuable, the account of Wh-movement proposed by Pesetsky and Torrego (2001) failed to adequately explain the Turkish facts. I suggested a modification of the features implicated by (P&T) that while still capable of handling the Pesetsky and Torrego facts, is better able to account for the Turkish data. Rather than nominative case on C, it is an uninterpretable C feature on T that needs to be

76

checked. With this revised account, plus the assumptions about DPs, Case and the EPP, we were able to predict the distribution of RC forms. In addition, we had a vehicle for explaining the seeming optionality in RCs with complex subjects.

This chapter provides us with two things. First, we have the beginnings of a diagnostic for movement to [Spec, TP]. If we are right that the SR from is licensed only when a +Wh expression moves through [Spec, TP], then, every time we have an SR clause, we know the relative head must have A-moved to [Spec, TP]. This gives us a vehicle for testing conditions of A-movement in Turkish sentences. Second, as we proceed to apply our diagnostic, we will encounter issues that have theoretical import. We have mentioned some of these topics above. There are others that we have not yet addressed; for example, it seems that structurally case-marked elements are "frozen" because EPP effects in Turkish seem to be sensitive to structural vs. inherent case on DPs. In Chapter 4, we will also look into intervention effects. As we apply the SR diagnostic, we will examine the A-movement to T and the effects of Minimality in constructions with different verb classes, with psych verbs, and in infinitival structures. The hope is that as we formulate explanations, the ideas will simultaneously be specific enough to provide an accurate account of Turkish clauses, and general enough to provide insight into the grammar of Natural Language.

# Chapter 3: Specificity

## 1 Introduction

In Chapter 2, I made several proposals about specificity, case marking and the structure of nominals. In this chapter we review some of these assumptions and the arguments in their favor.

We saw that Turkish does not have overt determiners. Information about specificity is encoded by case morphology and by displacement. For example, the sentences in (1) demonstrate a direct object with and without overt case morphology. Only when the object 'book' is marked with accusative case, as in (1)b, can it have (indeed, must have) a specific interpretation.

1) a. Ali kitap oku-du.
      Ali book read-PST
      'Ali read a book.'

   b. Ali kitab-ı    oku-du.
      Ali book-ACC read-PST
      'Ali read the book.'

Overt case morphology is not the only phenomenon correlated with a specific interpretation. The sentences in (2) establish that case-marked objects are in a different structural position than their bare counterparts. Assuming that Turkish adverbs of manner mark the left edge of the VP[68], sentence (2)c demonstrates that a

---

[68] See Kural (1992).

case-marked direct object <u>cannot remain</u> inside the VP, while an object without overt case <u>must remain</u> inside the VP (2)a-b.[69]


2) a. Ben hızlı    kitap oku-r-um
      I    quickly book read-AOR-1sg
      'I read books quickly.'

   b. *Ben kitap hızlı    oku-r-um
       I    book quickly read-AOR-1sg

   c. *Ben hızlı    kitab-ı    oku-ru-m
       I    quickly book-ACC read-AOR-1sg
      'I read the book quickly.'

   d. Ben kitab-ı    hızlı    oku-ru-m
      I    book-ACC quickly read-AOR-1sg
      'I'll read the book quickly


This is not actually the whole story. To understand the behavior of Turkish nominals, one must distinguish between those expressions that merge into theta positions without case, and those that are inherently or lexically case-marked. Thus, nominals that are inherently case-marked, trivially always bear overt case and are ambiguous in terms of their specificity.[70] For clarity, throughout this chapter, I will refer to nominals that enter a derivation without case as 'arguments', admitting that technically a Dative or Ablative expression is also an argument of the verb. As we will see, there are behavioral differences both in the syntax (and at LF and PF) between nominals that require structural case and those that are inherently case-marked. For expository purposes, then, I will use the term 'argument' to refer to

---

[69] Examples from Aygen-Tosun (1999).
[70] See Kornfilt (2003).

those expressions that are typically referred to as the internal argument and the external argument, and which would be assigned structural case by *v* or T.

Returning to our examples in (1) and (2), we saw that specific direct objects must both raise and bear overt case, and non-specifics cannot raise and are bare.  This regularity provides us with a useful tool: we can safely use the presence or absence of overt case as an indication of whether or not the object has raised from its base-generated position.

This correlation is difficult to demonstrate for subjects in matrix clauses (nominative case being the null morpheme), but we do observe the same pattern in subjects in embedded clauses where a specific subject must bear overt genitive case. For example, the subject of so-called "factive"[71] clauses in Turkish has genitive case, as in (3).  However, the non-specific subject of the embedded existential construction in (4)a does not have case morphology.  Compare with (4)b in which the embedded subject has raised above the locative and is case-marked, and must receive a partitive (i.e. specific) interpretation.  Thus, (4)b is analogous to (3) where the subject has raised to [Spec, TP] and bears case, whereas in (4)a we get the existential reading because the subject has remained in situ while the locative has raised to [Spec, TP] to check T's EPP feature.


3)      *pro* [Ali-nin   hasta ol-duğ-u]-nu      söyle-di-ler.
        *pro* Ali-GEN  sick   be-**NSR**-3s-ACC say-PAST-3pl
        'They said that Ali was sick'

---

[71] This is the term used in the literature (e.g. Kornfilt 1997) to identify complement clauses with the NSR –DIK verbal morpheme, and not to be confused with factive clauses a la Kiparsky (1971).

4) a. *pro* [yan-ın-da    bir yılan ol-duğ-u]-nu    söyle-di-ler.
      *pro* side-his-LOC one snake be-**NSR**-3s-ACC say-PAST-3pl
      'They said that there was a snake by his side'

   b. *pro* [bir yılan-ın    yan-ın-da    ol-duğ-u]-nu     söyle-di-ler.
      *pro* one snake-GEN side-his-LOC be-**NSR**-3s-ACC say-PAST-3pl
      'They said that (of the salient snakes) one (of them) was by his side'

Because overt case only appears on nominals that have raised, let us adopt the idea that structural case in Turkish is assigned in a Spec-Head configuration.[72] From the examples so far, we have seen that an argument with overt structural case has raised from its base position where it has received a θ-role. In fact, the so-called *definiteness effect* that specific arguments raise and get case and non-specific ones do not, has been observed in other languages. However, Enç (1991) among others demonstrates convincingly that this is actually a *specificity effect*[73]. Mahajan (1992) also refers to specificity in providing an account for object movement in Hindi, noting that non-specific nominals cannot undergo overt object shift. I will adopt this insight and assume that it is specificity (or rather, non-specificity) that constrains subject and object raising.

---

[72] This assumption has several implications: 1) I will assume that all case in Turkish is overt (including the null nominative Ø-morpheme); and 2) case assignment via Long-distance Agree is not possible in Turkish.

[73] Enç reminds us that the term had already been used by Fiengo and Higginbotham (1981) and Hudson (1989) to describe constraints on NP movement. For a detailed explanation of the distinction between *definiteness* and *specificity,* with a particular emphasis for Turkish, see Enç (1991) and Kennelly (2003).

# 2 Toward an analysis of DP/NP structure and Case in Turkish

In Chapter 1, I proposed that the difference in syntactic behavior between specific and non-specific arguments could be attributed to a structural difference. I suggested that specifics were DPs and non-specifics were NPs. I used the insights from Longobardi (1994) to conclude that Turkish specifics have a null DP layer. Longobardi argues that, in Italian, nouns as arguments, in contrast to predicative nouns, must have a DP layer. He shows that a singular count noun must have a lexical D unless it has a mass interpretation that allows for quantification, in which case there is a null D. Having argued for the existence of a null determiner in Italian, Longobardi presents evidence for N-to-D movement and posits the structures in (5) as the possible structures of arguments with a null D. In his story, proper names must always raise to D (i), pronouns are base-generated in D (ii), and common nouns do not normally overtly raise to D (iii).

5) Arguments with null D in Italian
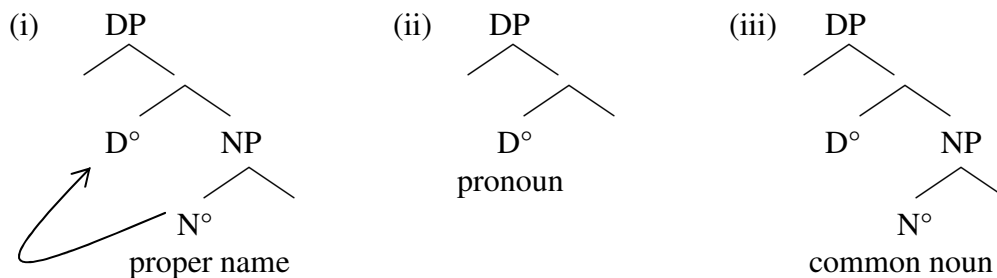
Let's see the Italian facts presented by Longobardi.[74] Italian sentences seem to

require a D in the preverbal subject position, as shown in examples (6) and (7).

6) a. *Acqua viene giù    dalle colline.
       water  comes down from the hills

   b. Viene giù    acqua dalle colline.
      comes down water from the hills

7)      *(Un/Il) grande amico di Maria mi ha telefonato.
        (a/the) great    friend of Maria called me up

Italian adjectives and possessives may occur between D and N or postnominally, but

as the examples in 8) show, neither an adjective nor a possessive may precede a

determiner with either common or proper nouns.

8) a. *mio il Gianni
        my the Gianni

   b. *vecchio il   tavolo
       old       the table

We see in (9) the expected paradigm:  the possible surface orders, [D – Poss – N] in

(9)a and [D – N – Poss] in (9)b.  So, what is going on with (9)c and (9)d that makes

one bad and the other good?

9) a. Il  mio  Gianni ha finalmente telefonato.
      **D Poss N**
      the my Gianni finally called up

---

b. Il Gianni mio ha finalmente telefonato.
   **D N      Poss**
   the Gianni my finally called up

c. *Mio  Gianni ha finalmente telefonato.
    **Poss N**
    my Gianni finally called up

d. Gianni mio ha finalmente telefonato.
   **N      Poss**
   Gianni my finally called up

Longobardi proposes that in sentences such as (9)d above, with a determinerless proper name as subject, there is in fact a null D head, and that there has been N to D movement.  Thus, (9)d is not an exception to the requirement of a DP as subject.  The subjects in (9)b and (9)d are almost identical except that in (9)d, there has been head movement of N to a null D.  The structural difference in the subjects is shown in (10).

10)   a.  Gianni ...  (in (9)d)                    b.      Il Gianni ... (in (9)b)
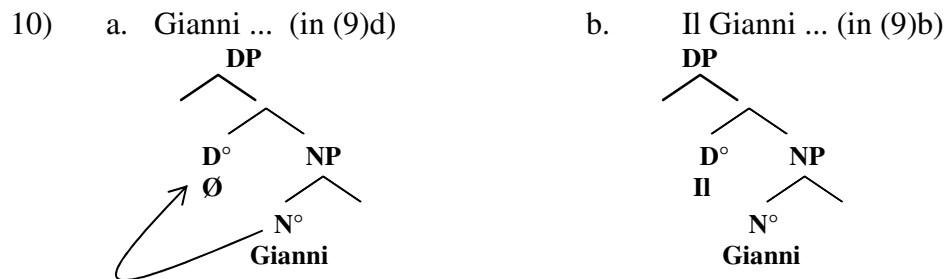


If we assume that a DP projection is obligatory for proper names as subjects, we cn understand why (9)c is unacceptable: *mio* precedes the D°-N° complex.  The Poss can follow D, or can follow D and the name, but it can never precede D.  Assuming that N° has raised to D°, the Poss should follow the name.  Compare this with (9)d which is acceptable because, beginning with the base order of [D – Poss – N], the

subsequent N-to-D movement yields a DP with a [D–N–Poss] surface word order, as shown in (11).

11)    [$_{DP}$ D°-null  [$_{NP}$ A°-mio N°-Gianni]]➔[$_{DP}$ Gianni-D°  [$_{NP}$ mio trace-Gianni]]

Longobardi cites Benincà's (1980) observation that Italian bare nouns as arguments must be interpreted roughly as indefinite, existentially quantified NPs, as in (12).

12) a.  Bevo sempre vino.
       I always drink wine.

    b.  Mangio patate.
        I eat/am eating potatoes.

    c.  Non c'era studente in giro.
        There wasn't a student around

Longobardi assumes an empty D even for these common nouns, with the proviso that N does not raise to D.  Departing from Longobardi, I propose that these nominals do not have a D projection.  I suggest that the structure of 'pretty girls' in the existential sentence in (13)a is not as in (13)b, but rather as in (13)c.[75]

---

[75] To be clear, I make this assumption for Turkish.  It need not hold for Italian.  One line of reasoning is as follows:  Italian has lexical determiners.  There may be parametric variation in how a grammar expresses specificity and definiteness which is determined by whether a language contains lexical D's. Unlike Italian, Turkish does not have lexical determiners.  The grammar must find an alternative way to capture specificity/non-specificity.  If we assume that D° is the locus of specificity, then the overt expression of that feature will differ based on the availability of functional items from the lexicon. Thus, in Italian (and generally in English, as well) it is the phonological content of the D° that provides the specific/definite interpretation, whereas in Turkish, it is the absence of D° altogether that marks non-specificity.

13) a. Ci   sono belle ragazze.
      there are  pretty girls

   b. *[DP [NP A°-belle N°-ragazze]]

   c. [NP A°-belle N°-ragazze]

Taking this line of reasoning a bit further, it has been argued that only DPs can be arguments, NPs can only be nominal predicates[76]. In fact, Mendelbaum (1994) shows that predicate NPs are basically adjectival. Translating this idea into an "event-ish" semantic interpretation, a sentence with an NP subject like *cat* in (14)a, would be an event of 'cat-scratching' which would have *his arm* as the Theme, as shown in (14)b[77]. This differs from the sentence in (15)a where the subject is a DP in that we now have an external argument *cat*. Thus, the semantic interpretation for (15)b would be there is an event of 'scratching' which has *cat* as the Agent and *his arm* as the Theme.

14) a. [*pro* kol-u]-nu      kedi tırmala-dı
        arm-POSS-ACC cat   scratch-PST
        'A cat (i.e. some cat or other) scratched his arm'

   b. ∃e [Cat-scratching (e) & Theme (e, his arm)]


15) a. kedi  [ *pro* kol-u]-nu       tırmala-dı
       cat            arm-POSS-ACC  scratch-PST
       'The cat scratched his arm'

   b. ∃e [Agent (e, the cat) & Scratching (e) & Theme (e, his arm)]

---

[76] Higginbotham (1987) proposed that an argument is "saturated" and can thus be assigned a theta role. By extension Szabolcsi (1987), Abney (1987) and Longobardi (1994) have argued that NPs are nominal predicates (unsaturated) and do not bear a theta-role and DPs are arguments that do bear a theta role. Stowell (1989b) has shown that NPs are non-referential, whereas DPs are referential.
[77] I reject the idea that the non-specific subject incorporates into the verb for two reasons: it can be a large expression such as "hundreds of cats" and it serves as an intervener for A-movement from its c-commanding domain.

Longobardi's reasoning is useful for Turkish because it provides evidence for a null D. The question is, are all arguments in Turkish indeed DPs as Longobardi proposes for Italian, or does Turkish allow both DPs and NPs as arguments? What must we say to account for certain arguments not moving and not bearing overt case?

I assumed that non-specifics do not have a DP projection. There are two alternatives worth considering. One we have seen, Longobardi's suggestion that all arguments have a DP layer.[78] The second is an attempt to account for the displacement and case facts in Turkish by suggesting that non-specific arguments (either subject or object) incorporate into the verb, in the style of Baker (1988). Kornfilt (1984, 2003[79]), and Kural (1992) argue against this approach.[80] The first problem with the incorporation account for non-specifics in Turkish has to do with the fact that a variety of focus-question and adverbial particles can appear between the supposedly incorporated noun and the verb. In (16)a, the Yes/No Focus Q-morpheme separates the noun from the verb. Compare with (16)b, where the Q-morpheme is in its canonical unmarked position post-verbally. In (17), we see that the particle –*DA*, 'also/too' can appear between noun and verb, and (18), demonstrates that the Turkish free morpheme *bile* 'even' can occupy this slot.

---

[78] Longobardi's wording does provide some flexibility: "...a 'nominal expression' is an argument only if it introduced by a category D" (Longobardi 1994: 620). By disambiguating predicative nominals from arguments, it may be possible for an NP (or perhaps just an N°) to be a nominal predicate, rather than an argument, as in the structure [$_{VP}$ V° N°]. See fn. 76.

[79] Although Kornfilt (2003) adopts the incorporation account, her arguments against incorporation are stronger than those that support it ("In spite of these inconclusive points, I would like to claim that, through the interaction of scrambling and incorporation, Turkish does make an interesting contribution with respect to incorporation", p.144). Kornfilt admits that certain properties of incorporation are not found in Turkish. Her motivation for adopting the incorporation account which she had argued against in Kornfilt (1984) is to explain puzzling scrambling facts.

[80] The anti-incorporation arguments and examples presented in this section are from Kornfilt (2003).

16) a.  Hasan pasta-mı ye-di
        Hasan cake-FOC eat-PST
        'Hasan ate CAKE??'

    b.  Hasan pasta ye-di-mi
        Hasan cake eat-PST-Q
        'Did Hasan eat cake?'


17)     Hasan pasta-da  ye-me-di
        Hasan cake-*too* eat-NEG-PST
        'Hasan didn't eat cake either'


18)     Hasan pasta bile  ye-me-di
        Hasan cake *even* eat-NEG-PST
        'Hasan didn't even eat cake'


The second argument against incorporation is that we would expect to see a reflex in

thematic assignment, which we don't.  Causatives in Turkish introduce an extra theta

role to the verb, that of causee.  Reminiscent of ergative systems which have a case

assigning hierarchy based on the number of arguments introduced into a structure, the

causee of an intransitive verb in Turkish is assigned accusative case whereas the

causee of a transitive verb is assigned dative case.  This is shown in (19).


19) a.  Hasan **Ali-yi**    koş-tur-du
        Hasan **Ali-ACC** run-CAUS-PST
        'Hassan made Ali run'

    b.  Hasan **Ali-ye**   kutu-yu   aç-tır-dı
        Hasan **Ali-DAT** box-ACC open-CAUS-PST
        'Hasan made Ali open the box'


The logic is that when a direct object incorporates into the verb, the resulting

syntactic structure should be analogous to an intransitive, and by way of extension,

the causee should surface with accusative case. As we see in (20), this is not borne out; in a transitive sentence with a non-specific direct object, the causee must bear dative case. The theta roles of the transitive verb, and accompanying case requirements on the causee, remain constant, regardless of the specificity of the direct object. This is unexpected if incorporation creates a new word resulting in the direct object losing its independent status.

20)      Hasan **Ali-ye / \*-yi**    kutu   aç-tır-dı
          Hasan **Ali-DAT/\*-ACC** box    open-CAUS-PST
          'Hasan made Ali open boxes'

These facts and others presented by Kural (1992, 1997) are sufficient for us to abandon the idea that non-specifics objects in Turkish incorporate into the verb. In addition, I reject the notion that the non-specific subject incorporates into the verb for two reasons. First, taking the sentence in (14)a as an example, the subject can be a large quantified expression such as "hundreds of cats". Second, the non-specific subject serves as an intervener for A-movement from its c-commanding domain.

       Returning to Longobardi's idea, what would we have to say to account for the Turkish facts if we adopt Longobardi's proposal that all arguments are DPs? To account for the obligatory raising of specifics only, we could say that D may or may not have a Specificity feature which is strong.[81] When D is [+Specific], the DP must raise to check that feature. When the feature is missing on D, the DP does not raise.

---

[81] Or, we could say that the [+Specific] feature is uninterpretable, and can only be deleted in a Spec-Head configuration with a functional head.

The structure of a specific DP[82] would be as in (21)a, and that of a non-specific DP would be as in (21)b where D does not have the Specificity feature.

21)      a.  (specific) DP          b.  (non-specific) DP

                    NP        D+[Specific]              NP        D

                          N                                   N
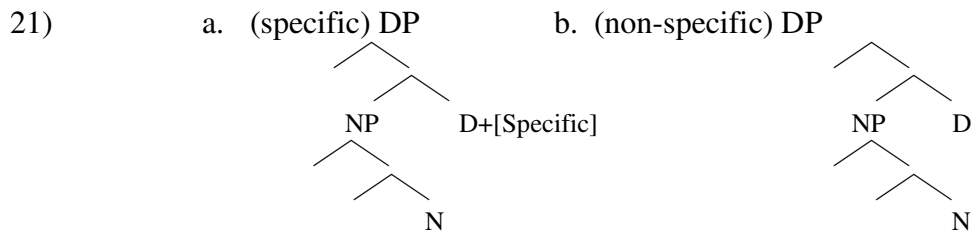
How do these DPs get case?  Based on Chomsky (1994, 1995), there are presumably two ways that case features can be checked: either by Match and Agree, in which case no movement occurs and the nominal does not receive overt case-marking, or by Move, which results in overt case morphology.  In our story so far, the +Specific DP would be a target of Attract, followed by Move, which would result in overt case morphology, while the non-specific DP would get its case checked via Agree.

There are several shortcomings to approach.  First, it posits two different case checking operations: case-checking via Match and Agree and case-checking via Attract and Move.  To resolve this, one could converge the operations by assuming that one operation is an extension of the other.  In this system, the case-checking head looks for D, Matches and Agrees with it, and if the D had the additional [+Specific] feature, as in (21)a, the case-checking head would have to Attract the DP to its specifier to check the [+Specific] feature.[83]

This account would have consequences for the definition of the EPP. Certainly, the EPP would have to be redefined so that it does not target D's without

---

[82] As the focus of here is to explain Turkish facts, I will use the head-final Turkish tree structure

[83] It may be Agr that is responsible for case checking and agreement.  Because the presence of an Agr projection is tangential to this schema, I avoid making a commitment.

the [+Specific] feature. Furthermore, for non-specific DP's, where a case-checking head checks case without Attract, the EPP of that head would not be satisfied. Separating case-checking from the EPP may not necessarily be a bad outcome, but we would in effect be discarding the requirement of a Spec-Head configuration for case checking and supplanting it with a rule of Spec-Head checking of a Specificity feature. Plus, we would now have a language specific definition of the EPP whereby it could only be satisfied by a DP with a [+Specific] feature.

It being preferable to reduce assumptions rather than to create them, let's simplify matters and return to the Chomsky (1995) definition of the EPP as a strong D-feature. Let's also assume for Turkish that all phrasal movement is driven by the EPP[84] and that all functional heads have an EPP feature which must be satisfied by a DP merging into the specifier position of that head. Let's take these as given for now, with the understanding that we will re-examine these assumptions more thoroughly in the next chapter.

My proposal for Turkish is, what you see is what you have. Thus, when there is no overt case morphology, there has been no case assigned. For the null nominative case as well, I assume an overt Ø morpheme, but crucially, this is the only Ø case morpheme. I do not adopt a null accusative, absolutive, partitive, or default case. Contrary to Longobardi, I suggest that (at least in Turkish) non-specific nominals lack a DP projection entirely and are only NPs. Specifics are DPs that contain a null D.[85] In sum, in Turkish nonspecifics are NPs which do not need case,

---

[84] This assumption does not extend to scrambling which is outside the scope of this paper. I have nothing to say as to what drives scrambling.
[85] In fact, Chomsky (1995) considers D° to be the locus of specificity.

and specifics are DPs which must get case.[86]  Following Longobardi, I assume that

names being referential must (almost) always undergo raising from N to D[87] and that

pronouns are base-generated in D[88].

To be clear, I am proposing narrow definitions of the EPP and the Case Filter,

as follows:

The EPP: a feature[89] of a functional head, *v*, T, and C, which must be satisfied by a D

feature, i.e. a DP in the specifier of that functional head, for a derivation to

converge.

The Case Filter: a convergence requirement that all DP's in a derivation must have

their case overtly checked.

The assumption for DP arguments is that they are attracted by the EPP of a

case-assigning head, satisfying the EPP, and are assigned structural case by that head,

satisfying the Case Filter.  Again, for the sake of simplicity, I do not assume the

Inverse Case Filter, that is, all heads with an EPP feature must have that feature

checked/deleted, but a case assigning head need not necessarily assign case.  This

---

[86] Actually, this suggestion may, in fact, be along the lines of Longobardi in the sense that non-specific direct objects, and non-specific subjects of unaccusative verbs, being complements of V, may be predicative, and thus not require case.  The reason, I have not adopted this idea entirely is because of transitive and unergative subjects which presumably merge in [Spec, vP].  These cannot be considered predicative, whereas the NP/DP distinction in case requirement would account for the different behavior of these subjects, particularly in embedded structures where specific subjects bear overt case. I have adopted the NP/DP difference for case assignment and down-played the predicative nature of verbal complements for the sake of uniformity.

[87] Exceptions to this generalization are cases where the name is non-referential as in the relative clause in (*i*) where the direct object, Ali, is not case-marked, and refers to non-specific men all named Ali. Compare with (*ii*) where Ali is case-marked and must refer to a specific individual.

        *i.*    [Ø Ali öp-en] kız-lar
              Ali kiss-SR girl-pl
            'girls that (only) kiss Ali's', i.e. men named Ali
        *ii.*   [Ø Ali-yi öp-en] kız-lar
              Ali-ACC kiss-SR girl-pl
            'girls that kissed Ali'

[88] Postal (1966) among others has suggested that pronouns are D with φ features.

[89] The EPP may, in fact, be a feature of a feature, for example a feature of the Case feature on *v* and T.

assumption will have consequences for movement to T of non-subjects, such as locatives or datives.[90]

The generalization that a specific DP must raise, whereas a non-specific NP cannot, seems to be too strong, cross-linguistically. A more accurate generalization for many languages is that non-specifics cannot raise. For example, in Icelandic Object Shift[91] constructions, only a definite (specific, for our purposes) DP may raise out of a VP. In (22)b, where the negative *ekki* marks the edge of the VP, raising of 'the-book' is felicitous whereas raising of 'a-book' is not.

22) a.  Jón keypti  [VP ekki   bókina/bók. ]
        Jon bought      not  the-book/a-book

   b.  Jón keypti bókina/*bók [VP ekki  *t*  ].

Although in Germanic and Icelandic, the shifting of pronouns is obligatory, a fact I will attribute to their specificity,[92] full NPs need not shift, but crucially, if they do raise, they must be interpreted as definite or specific. Non-specific objects, on the other hand, must remain within the VP.

I will assume that there is parametric variation in obligatory raising for specifics. The correlation between overt case and raising/non-raising cannot be a maintained in Germanic or Icelandic because all NPs/DPs bear overt case in these

---

[90] We will re-examine this assumption also in Chapter 4.
[91] Called so by Holmberg (1986). Because the data in (22) appears in so many papers on this subject, I am unable to give credit to the source of the sentences.
[92] See fn. 88, pronouns may, in fact, be D.

languages. What is important here is that we are seeing evidence in different languages of a parameter that constrains the movement of non-specific NPs.[93]

# 3 The EPP and case assignment

I have proposed that NPs are non-specific, do not need case, and remain in situ, whereas DPs are specific, require case, and must raise at least to a projection of a case-checking head. Let's look at the Turkish facts to see if this analysis can be maintained. In (2) we saw that adverbs of manner cannot appear between a non-specific nominal expression and the verb. As demonstrated in (23)b, a verb does not tolerate any element between itself and its non-specific complement. This contrasts with (23)c, where one or more adverbials can appear between the accusative specific object and the verb. Clearly, a direct object does not raise from its base-generated position unless it is specific, and case-marked.[94]

23) a. Hasan dün      /kaşık-la      pasta yedi.
      Hasan yesterday/spoon-COMM cake   ate
      'Hasan ate (some) cake with a spoon'

   b. Hasan pasta *dün/*kaşık-la yedi.

---

[93] It may be that the ban on movement may not be due to non-specificity but rather a function of an NP being unvalued. In Chapter 4, we will see that whereas an NP cannot satisfy the EPP, it does however, give rise to intervention effects when it is the closest nominal to the Attracting head. One way of explaining this would be to say that whereas an NP contains the kinds of features that can satisfy the EPP, it is unspecified for a value and therefore causes a crash.

[94] Contrastive Focus in Turkish is the immediate preverbal position. Although (i) is a grammatical sentence, it has a marked and contrastive interpretation, as in "Hasan ate cake yesterday (rather than today.)".

      (i)  Hasan dün       bu pastayı   yedi.
           Hasan yesterday this cake-acc ate.

The unmarked word order in sentence (23)c, does not entail this interpretation.

c. Hasan bu pastay-ı dün /kaşık-la yedi.
   Hasan this cake-ACC yesterday/spoon-COMM ate
   'Yesterday, Hasan ate this cake with a spoon'

For Turkish, classifying specific nominals as DPs that require case and non-specific nominals as NPs that do not, enables us to capture the fact that overtly case-marked arguments must receive a specific interpretation. Let's be clear, though, on what I am committed to and the implications that follow. First, note that the correlation between the EPP and case assignment[95] is tangential. DPs do not raise for case, they raise to satisfy the EPP. All movement is driven by the EPP, and must obey Attract Closest or Minimality. Second, although I am not totally committed to this, I am suggesting here that in Turkish case is assigned in a Spec-head configuration after the DP has been attracted by the EPP, while in other languages case may be assigned via Agree.

Similar to what I am proposing for Turkish can be found in Icelandic seem-type raising constructions (from Jonas and Bobaljik (1993)). In (24)a the dative experiencer can remain in the VP if it is indefinite, but must move to subject position if it is definite or a pronoun (24)b. Evidence of a Minimality effect is in (24)c, where the embedded subject cannot be raised over the dative experiencer.

24) a. Það virðist einhverjum manni [hertarnir vera seinir]
       there seems-sg some man-DAT the-horses-NOM be slow
       'It seems to some man that the horses are slow.'

   b. Mér virðast *t* [hertarnir vera seinir]
      me-DAT seem-pl the-horses-NOM be slow
      'It seems to me that the horses are slow.'

   c. *Hertarnir virðast mér [ *t* vera seinir]
       the-horses-NOM seem-pl me-DAT be slow

---

[95] I remain agnostic as to whether the operation is case assignment or case checking.

In (24)b, the embedded verb is nonfinite and cannot assign case to the embedded subject, *the horses*. We must assume that it was the matrix finite T that assigned nominative case to the embedded subject (triggering agreement with the verb), while the dative subject was attracted to [Spec, TP] by the EPP. I include this example to demonstrate that the EPP and case assignment are separate operations.

A difference that may exist between Turkish and Icelandic is how case is assigned. In (23)b, we see evidence of case checking via Agree. In Turkish, however, case may need to be checked in a Spec-head configuration after the DP has moved to the Spec of the case-assigning head.

What is crucial, however, is that specificity is a feature of D, and lacking overt determiners Turkish manifests specificity with both case morphology and displacement. I am thus suggesting parametric variation in how a language encodes specificity. In many languages, in situ subjects and objects receive overt case whether they are specific or non-specific. Whereas these languages use overt determiners to mark specificity, Turkish makes use of both displacement and case morphology to mark specificity. As to whether there is something universal about (non)specificity and NP/DP movement, I leave for further research.

# 4  Looking at Turkish 'Quirky' relatives

By adopting the DP/NP split above, we can explain the rather puzzling phenomenon of optionality in what are otherwise well-behaved relative clauses in Turkish.

We are now familiar with the two types of relative clauses in Turkish: the

Subject Relative (SR) (25)a, and the Non-subject Relative (NSR) (25)b.

25) a.  [ Ø mektub-u gönder-en ] kız
            letter-ACC send-**SR**    girl
         'the girl who sent the letter'

    b.  [ kız-ın Ø gönder-diğ-i ] mektup
            girl-GEN  send-**NSR**-3s   letter
         'the letter that the girl sent'

We saw that these forms are fairly predictable with the caveat that when there is no

subject in the clause, as in impersonal passive constructions, the SR form must be

used.  The sentences in (26) are examples we saw in previous chapters where the gap

is the (oblique) object of an impersonal passive.

26) a.  [ Ø$_i$ Ankara otobüs-ü-ne   bin-il-en ]        durak$_i$
            Ø  Ankara bus-CM-DAT  board-PASS-**SR**  stop
         'the stop where the Ankara bus is boarded'

    b.  [ Ø$_i$ bu durak-tan  bin-il-en]        otobüs$_i$
            Ø this stop-ABL board-PASS-**SR** bus
         'the bus which is boarded from this stop'                (from Kornfilt (1997))

This phenomenon does not seem too troubling at this point, because one can

immediately hypothesize that the SR morpheme is probably licensed by movement of

an element (the relativized expression) from [Spec, TP] to [Spec, CP].  In cases where

there is no surface subject, [Spec, TP] remains vacant.  The EPP of T attracts a lower

DP, after which the DP can move to [Spec, CP] thus satisfying the licensing of the SR verbal form[96].

We also saw in Chapter 2, SR examples as in (27) where the external head is not the subject of the verb. These examples differ from the ones in (26) because the relative clauses here have overt subjects, *mouse* and *student*, within the clause. Why is the SR form felicitous when there is no notion of subjecthood of the extracted elements *hole* and *statue*?

27) a.   [ Ø$_i$ fare     çık-an ]        delik$_i$
          Ø  mouse  come.out-**SR** hole
        'the hole which a mouse/mice comes out of'

   b.   [[ Ø$_i$ üst-ü-ne]    öğrenci  yaslan-an ]  heykel$_i$
          Ø top-3s-DAT student  lean-**SR**      statue
        'the statue that students are leaning on/lean on'

Let's make our generalization about the SR form more specific: The SR form is triggered when the EPP of T has attracted the relativized element, after which, the element further moves to [Spec, CP]. Although this is not an explanation of the SR form, but rather for ease of remembering, we are saying the conditions that license the SR form are met when the EPP of T has been satisfied by a +Wh-DP.

Note now that in (27), the subjects of the clauses are non-specific. From the examples in (28)[97], we can deduce the generalization that when the clausal subject has a non-specific interpretation, the SR morpheme is licensed, otherwise, the NSR form

---

[96] This is reminiscent of Stylistic Fronting in Icelandic which is licensed only in impersonal constructions and in constructions with a subject gap (Maling 1980/1990). In both Icelandic and Turkish, an operation that would be barred for elements other than the subject, is licensed when the structural position of the subject has not been otherwise occupied.

[97] Example (13a) is from Őzsoy (1994)

must be used.  The nominal 'three goats in (28)a is non-specific whereas in (28)b, it

receives a specific interpretation.


28) a. [üç   keçi otla-yan]  bahçe
        three goat graze-**SR**   garden
        'the garden where three goats graze', as in "at all times"

    b. [üç   keçi-nin    otla-dığ-ı]  bahçe
        three goat-GEN    graze-**NSR**   garden
        'the garden where the three goats grazed'


Let's look at another example with similar properties.  In the RC in (29)a, the subject

*bee* is specific and has raised to [Spec, TP] to satisfy T's EPP and has received case.

The relativized element cannot move to [Spec, TP].  It follows that when the

relativized expression must move to [Spec, CP] from any projection other than [Spec,

TP], the NSR form is required and the SR form is barred.  In contrast, the SR form is

acceptable in (29)c precisely because the subject *bee* is non-specific and has not

raised from its base-generated position.  This frees up [Spec, TP]; here, the EPP of T

is satisfied by the relativized element, a +Wh-expression.  I include (29)b to show that

a specific subject cannot remain without case, and neither can a non-specific subject

raise above an accusative object.


29) a. [arı-nın [Ø₁ bacağ-ın]-ı    sok-tuğ-u ]           kız₁
        bee-GEN Ø  leg-POSS-ACC sting-**NSR**-POSS-3s girl
        'the girl whose leg **the bee** stung'

    b. *[arı [Ø₁ bacağ-ın]-ı     sok-an]    kız₁
        bee Ø   leg-POSS-ACC sting-**SR**   girl
        'the girl whose leg a/the bee stung'

c. [[Ø₁ bacağ-ın]-ı    arı sok-an]    kız₁
     Ø  leg-POSS-ACC  bee sting-**SR**  girl
     'the girl whose leg a bee/some bees stung'

# 5  The subject/non-subject asymmetry is a misnomer

We have seen evidence that the subject/non-subject account for Turkish relative clauses is actually illusory.  The SR form is licensed when a +Wh-DP moves from [Spec, TP] to the CP projection.  For non-subject relatives, [Spec, TP] is usually occupied by the non-Wh-subject.  This is exactly the scenario where the SR form is barred and the NSR form must be used.

In normal discourse, the subject of the relative clause will often be "old information" and will therefore be specific.[98]  Thus, in simple relative clauses, it will usually be the case that the subject, a DP, will be in [Spec, TP], having been attracted there by the EPP.  If the subject is the relativized expression, i.e. +Wh, then the SR form will be licensed.  If a non-subject is relativized, the NSR form must be used because [Spec, TP] will be occupied by the non-Wh subject, and movement to [Spec, CP] will have to originate from a position lower that [Spec, TP].  In a construction with no subject, as in impersonal passives, or when the subject is an NP and cannot raise to [Spec, TP], the SR form will be triggered, even though the relativized element is a non-subject DP.

---

[98] It is a general property of languages that subjects tend to be about the topic.  This carries over into RCs where in normal discourse, the subject often refers to the topic.

# 6  Repeat of Pesetsky and Torrego (2001)

We saw in Chapter 2, that Pesetsky & Torrego's (2001) analysis straightforwardly accounts for the –DIK morpheme in non-subject RCs.  Their Head Movement Generalization requires the C to T to check C's uT feature.  There is no +Wh element in [Spec, TP] to outcompete T-to-C.  Thus, what we see in derivation (30), is simply raising of T to C as in ①, resulting in a PF output of –DIK (the NSR form), followed by movement of the +Wh-object *letter* to [Spec, CP] to check C's uWh feature.  As I have done throughout this dissertation, I show movement only within the clause and ignore promotion of the relativized element beyond CP.

30)　　[ kız-ın Ø gönder-**diğ**-i ] mektup
　　　　 girl-GEN  send-**NSR**-3s  letter
　　　　'the letter that the girl sent'
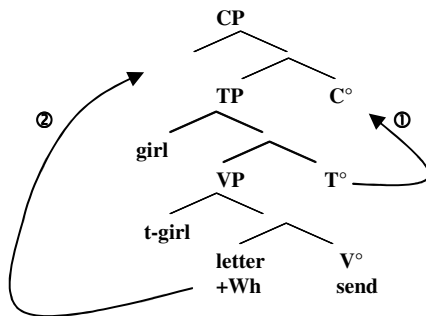


This contrasts with the SR form where the subject bears a +Wh-feature.  The derivation of (31)a shown in (31)b demonstrates that the nominative subject *girl* can check both uT as well as uWh features of C, making the movement of T to C gratuitous.

31) a.  hediye-yi  ver-en   kız
        gift-ACC   give-**SR** girl
        'the girl who gave the gift'

   b.  [ C° **+uT**, **+uWh**] [TP [girl, uT, uWh] , T° [VP bought the gift] ]

The P&T story can be used to account for Turkish relatives.  One need only say that

T° always assigns nominative case, and that movement of a nominative expression to

[Spec, CP] triggers the SR form.  However, this story requires the stipulation that

once nominative case is checked (note that deletion is not an option here) on the

+Wh-subject, those features remain "alive" to check uT on C.  Recall the impersonal

passive constructions in (26) repeated as (32) which require the SR form.  I have

included sentence (33) to demonstrate that both relativized elements had inherent

case, *stop*+ablative and *bus*+dative, prior to extraction.  Because the phrases in (32)

lack a "subject", [Spec, TP] was left vacant for another element, the relativized DP.

Under the P&T story we would have to assume that nominative case is assigned to

the inherently case-marked DP, so that it can check both uT and uWh on C and bleed

T to C movement.  It is not clear to me that the T in impersonal passive constructions

assigns nominative case.  This would be even more obvious in embedded structures

where T° presumably assigns genitive case.  Thus, preposing (i.e. raising to T) the

subject and adding genitive case (either with or without the inherent case) on either

DP results in acceptability, (33)b-c.

32) a.  [ Ø_i Ankara otobüs-ün-e   bin-il-en ]          durak_i
         Ø  Ankara  bus-CM-DAT  board-PASS-**SR**  stop
         'the stop where the Ankara bus is boarded'

102

b.  [ Øᵢ bu durak-tan  bin-il-en]        otobüsᵢ
     Ø this stop-ABL board-PASS-**SR** bus
     'the bus which is boarded from this stop'


33) a.  *pro* [onlar-ın   otobüs-e bu  durak-tan bin-diğ-i]-ni        duy-dum.
         *pro*  they-GEN  bus-DAT  this stop-ABL  board-**NSR**-3-ACC  heard-1s
         'I heard that they boarded the bus from this stop.'

   b.  *\*pro* [otobüs(-e)-nin  bu  durak-tan bin-il-diğ-i]-ni          duy-dum.
        *pro*  bus(-DAT)-GEN  this stop-ABL  board- PASS-**NSR**-3-ACC  heard-1s
        Intended: 'I heard that the bus is boarded from this stop.'

   c.  *\*pro* [bu  durak(-tan)-ın    otobüs-e  bin-il-diğ-i]-ni         duy-dum.
        *pro*  this stop(-ABL)-GEN  bus-DAT  board- PASS-**NSR**-3-ACC  heard-1s
        Intended: 'I heard that [from this stop] is boarded the bus.'


This is why I proposed in Chapter 2, that rather than C having an uT feature, it is T

that has an uninterpretable Wh feature, which I called uC.  The idea was that in order

to ensure that the Wh-features of C get checked, C selects for a T with an uC feature.

I did not go into detail as to what this feature on T might be.  Perhaps it is some kind

of Topic-like referential requirement.  It has been noted that except for the aorist

tense, all other tenses require that at least one nominal be referential (using this term

rather loosely) or "specific", i.e. a DP.  Thus, even sentences such as "Some dogs

barked" requires the subject "some dogs" to have a partitive construction that displays

the syntactic properties of a DP.  A Turkish sentence with only non-specific

arguments is not acceptable.[99]  It may be, then, that to guarantee convergence, every

non-existential, non-irrealis sentence has a Topic projection that selects a T with an

---

[99] Işsever (2003) argues against this idea presenting a host of sentences where both arguments are non-specific.  He fails to note two things, however.  First, many of his examples include the +human nominal *biri* 'someone' which I show in Chapter 5 is a partitive DP.  Second, each of his examples includes the evidential verbal morpheme *–miş* either as the sole TAM (Tense, Aspect, Mood) marker or in addition to a future or aorist morpheme.  This is evidence that only in restricted existential or "irrealis" TAM environments can a sentence converge with no DPs.

EPP feature, as well as an uC feature.  In matrix sentences, T° is prohibited from

moving to C°; once the EPP of T is checked by the closest DP (presumably the

subject), the +Wh-Topic-expression (whichever that is) A-bar moves to [Spec, CP].

In RCs, where T-to-C is not prohibitted, if the DP that the EPP of T is +Wh

then, uC on T is deleted, and the +Wh-DP moves to [Spec, CP] to check uWh on C.

If the closest DP to T is not +Wh, then head movement of T to C is required to check

T's uC feature.  A +Wh-DP must still move to C to check C's uWh feature.  We saw

how this played out for the impersonal passive constructions in Chapter 2.  An

example is repeated in (34).

34)  [ Ø$_i$ bu durak-tan  bin-il-en]      otobüs$_i$
      Ø this stop-ABL board-PASS-**SR** bus
      'the bus which is boarded from this stop'
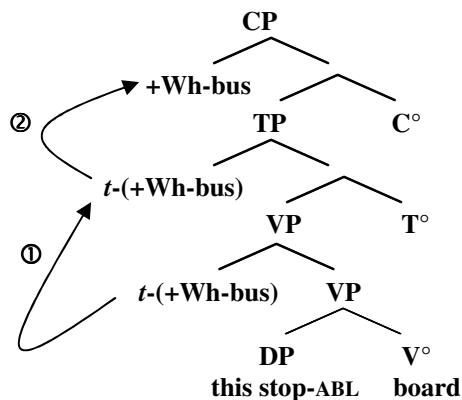


In the derivation in (34), the EPP of T targets the DP *bus* which moves to [Spec, TP]

in ①.  This DP is +Wh; consequently, uC on T is deleted and T to C movement is no

longer motivated.  The relativized element then moves to [Spec, CP] in ② to check

C's uWh.

# 7 Explaining the choice in RC forms

Let's review. We have two principles that determine the choice of RC form: 1) Specific nominals in Turkish have a DP projection; and 2) The EPP attracts a D° feature. In the relative clauses in (28) repeated as (35), it seemed as if both the SR and the NSR forms were acceptable. Notice, however, that the subject in (35)a can only receive a non-specific interpretation, whereas the subject in (35)b is specific.

35) a. [üç    keçi otla-yan]  bahçe
       three goat graze-**SR**   garden
       'the garden where three goats graze'

   b. [üç    keçi-nin     otla-dığ-ı]  bahçe
       three goat-GEN    graze-**NSR**   garden
       'the garden where **the** three goats grazed'

Recall that in Section 2, we had argued that non-specifics are NPs that cannot satisfy the EPP. In a sentence where the subject is an NP, the EPP of T must be satisfied by a non-subject-DP. This is precisely what occurs in the RC in (35)a. Let's look at the derivation in (36). I should point out that I am assuming that the subject *three goats* and the locative *garden* are in the same minimal domain and thus equidistant from T.[100] The subject is an NP, and cannot be attracted by the EPP. T's EPP targets the only other nominal, the DP-*garden*. Because *garden* has +Wh features, movement of *garden* to [Spec, TP] in ① deletes T's uC feature. T to C movement is not motivated. *Garden* then moves to [Spec, CP] and deletes C's uWh feature.

---

[100] If I did not assume equidistance of the two nominals, we would expect intervention effects from the higher nominal. See fn. 93.

36) [üç    keçi otla-yan] bahçe
      three goat graze-**SR**   garden
      'the garden where three (non-specific) goats graze'

```
                              CP
                          ╱      ╲
              +Wh-garden      ╱    ╲
                          TP        C° [+uWh]
                       ╱    ╲
    ②  ╱    t-(+Wh-garden)   ╱    ╲
                          VP        T° [+uC]
        ①  ╱            ╱    ╲
          ╱  t-(+Wh-garden)  VP
                          ╱    ╲
                        NP      V°
                    three goats  graze
```
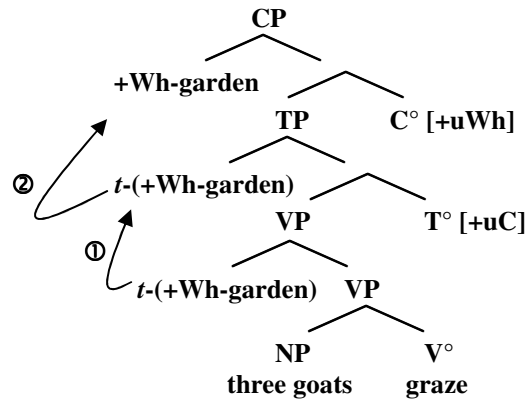
Now let's turn to the RC in (35)b with the derivation in (37).  In this derivation, either

*garden* or *three goats* is a target for Attract by T's EPP; however, if *garden* moves,

the DP-subject will be left without case and the derivation will crash.  We have

already seen that structural case in Turkish is assigned in a Spec-head configuration.

Thus, *garden* must raise to [Spec, TP] satisfying T's EPP feature, and receiving

genitive case from T[101].  Because the subject is non-Wh, uC on T has not been

checked and T to C movement is required, as in ②.  The +Wh-garden then moves to

[Spec, CP] to check C's uWh feature, ③.


37) [üç    keçi-nin    otla-**dığ**-ı]  bahçe
      three goat-GEN    graze-**NSR**    garden
      'the garden where the three goats grazed'

---

[101] It is beyond the scope of this paper to discuss how genitive rather than nominal case is assigned in
this position.  I will mention though that I believe it to be a reflex of the T-C amalgam formed by head
movement of T to C, along the lines of Hiraiwa (2001) who suggests the same for Japanese 'NO' on
subjects in relative clauses.

```
                              CP
              +Wh-garden  ╱     ╲
                        TP        C° [+uWh]
              ╱                ╲
   ③  three goats-GEN            ╲
                          VP        T° [+uC]
                      ╱        ╲         ②
            t-(+Wh-garden)       VP
                             ╱      ╲
                           DP        V°
              ①        t-(three goats)   graze
```
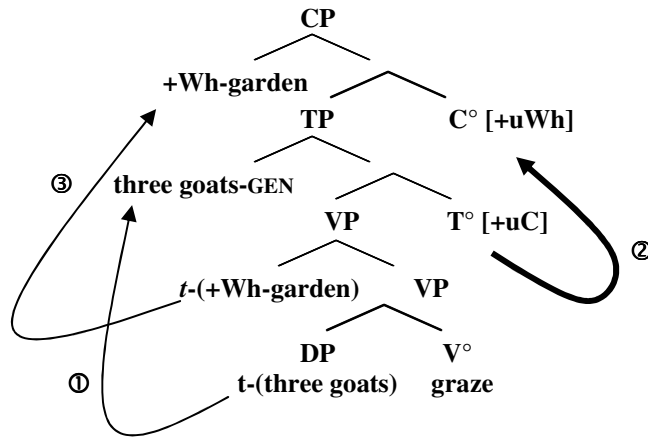
In the derivation in (37) we are assuming that the NSR morpheme –DIK, is the instantiation of T in C. One other point worth mentioning is that, unlike the SR form, the NSR verb shows agreement, not a bad consequence when we are assuming that in this sentence case was assigned to the DP-subject. The outcome is that structural case-assignment and agreement with the verb seem to go hand-in-hand.

Let's now look at another pair of relative clauses which seem to allow either RC form. The pairs in (38) have a sentential subject. To account for the acceptability of both forms, I assume that one has an NP subject which prevents it from raising to [Spec, TP], leaving that position open for the +Wh expression, while the in the other, the subject is a DP which raises to [Spec, TP]. This is better shown in (39).

38) a. [[Ø₁ biz-e    güven-eceğ-i]                şüpheli ol-**an**]  adam₁
       Ø 1p-DAT  trust-FUT-COMP-POSS-3s  doubtful be-**SR**  man
       'the man that it is doubtful will trust us'

   b. [[Ø₁ biz-e güven-eceğ-i]-nin            şüpheli ol-**duğ**-u]      adam₁
       Ø 1p-DAT trust-FUT-COMP-POSS-3s-GEN  doubtful  be-**NSR**-POSS-3s  man
       'the man that it is doubtful will trust us'

First, recall that in Chapter 2, I had posited a null resumptive pronoun (RP) inside the

sentential   subject co-indexed with the +Wh-expression in the specifier position of

the nominal phrase, either NP or DP.  Note that in example (38)b where we assumed

the subject was a DP, the entire sentential subject is marked with genitive case.  Thus,

the phrase cannot be an element in-situ and must have raised to [Spec, TP].  The

phrase being non-Wh, the NSR form is required, that is, T-to-C movement is

necessary to delete T's uC feature.


39) a.  [**CP** [**TP** Ø$_1$ T° [**VP** [**NP/CP** **Ø-RP$_1$** biz-e   güven-eceğ-i] şüpheli  ol-**an**] adam$_1$
　　　　　　　　　　　　　　　　　　　us-DAT  will.trust　　doubtful be-**SR**　man

　 b.  [**CP** Ø$_1$ [**TP** [**DP/CP** **Ø-RP$_1$** biz-e   güven-eceğ-i]$_2$-nin [**VP** *t$_2$* şüpheli  ol-**duğ**-u]  adam$_1$
　　　　　　　　　　　　　　us-DAT will.trust-GEN　　　　doubtful be-**NSR**-3s man


It is evident that there is really no "optionality" in the choice of RC.  DP subjects

must move to [Spec, TP] or they will violate the Case Filter.  The movement is

motivated by the EPP on T.  If the DP subject does not have +Wh-features, T to C

movement will be required to save the derivation.  This is instantiated as the NSR

form.  On the other hand, NP subjects cannot satisfy the EPP and so T's EPP feature

will attract another DP in the structure, the +Wh DP that is to be relativized.  This

move by the relativized expression to [Spec, TP] checks uC on T, thereby bleeding T

to C movement.

# 8 Summary

Determining that specific arguments in Turkish must raise to be assigned case, I have
shown that it is the interaction of specificity and movement that give us the
alternations in Turkish relatives. The generalization is not one of subject/non-subject
asymmetry but rather a combination of the category of the subject, feature checking
and case assignment. An innovation in this chapter and in the previous one, is the
proposal that there is a +Wh-like feature on T. Further cross-linguistic research is
needed to support this claim. The idea that specifics are DPs and nonspecifics are
NPs, I think can be maintained for Turkish, although it seems clear that there will be
parametic variation as to how languages encode specificity. The assumption that the
EPP can only be satisfied by D is fairly well accepted; however, the proposal that NPs
are not subject to the Case Filter also needs further investigation. It may be that in
Turkish φ-features are uninterpretable, that is, φ-features need checking via
(structural) case. Ns may be lexical atoms like verbs, and prepositions, adjectives,
adverbs, etc. that do not need to have their features checked.

This chapter was intended to review the fundamental claims regarding
specificity and the categorial structure of nominals that are important to the overall
research proposal of this work. Many issues regarding the nature of DPs still need
clarification, and we will continue to address these in the proceeding chapters. In
Chapter 4, we look at how movement to [Spec, TP] is affected by the hierarchical
positions of nominals. In Chapter 5, we again address the structure of nominals, and
the syntactic reflex of a D° head.

# Chapter 4: The EPP on T and Minimality

## 1 Introduction and Background

In this chapter, I present evidence for the EPP in Turkish. I then use the SR relative clause as a diagnostic for movement to [Spec, TP]. I show that movement to [Spec, TP] obeys Minimality and that the behavior of DP movement across NP subjects is constrained along verb classes (as suggested by Perlmutter (1978), Burzio (1986), among others), the structure of some of which induce Minimality effects.

### *1.1    Specificity, case, and displacement[102]*

Let's review the behavior of arguments in Turkish. Assuming that adjuncts adjoin to a verbal projection (either $v$P or VP), (1) is evidence that specific, case-marked DOs must raise out of their thematic positions in VP.[103]

---

[102] As we saw in Chapter 3, Enç (1991) disambiguates definiteness and specificity noting that whereas all definites must be specific, indefinites can be either specific or non-specific. The syntactic behavior of Turkish nominals clearly falls along the specific/non-specific divide, as shown in (i). *Two of the women* is indefinite but is unacceptable in an environment restricted to non-specifics.

        (i)  a.    Bayan-lar-dan iki-si-**ni**      tanıyor-um.
                women-pl-ABL two-agr-**ACC** know-1s
                'I know two of the women'
          b.   * Bayan-lar-dan iki-si    tanıyor-um.
                 women-pl-ABL two-agr know-1s
        (ii)  a.    There are two women in the room.
           b.   *There are two of the women in the room.

[103] The items marked as bad in (1) are in fact acceptable with marked stress and other contrastive or focus intonations. The point, however, is that they are unacceptable as unmarked cases.

1) a. Ali dün      /kaşıkla    /hızlı   pasta(*-yı) yedi.
      Ali yesterday /with a spoon/quickly cake(-ACC)  ate
      'Ali ate (some) cake yesterday/quickly/with a spoon'

   b. Ali bu pasta-yı dün        /kaşıkla       /hızlı    yedi.
      Ali  this cake-ACC yesterday /with a spoon/quickly ate
      'Ali ate this cake quickly/yesterday/with a spoon'

   c. Ali pasta *dün        /*kaşıkla    /*hızlı    yedi.
      Ali cake   yesterday/with a spoon/quickly  ate

In Chapter 2, we also saw that direct objects that raise must bear overt case, and those that do not raise must be bare. Thus, we can use the presence or absence of overt case as an indication of whether or not the object has raised from its base position. The same correlation can be demonstrated for subjects, perhaps not in matrix clauses because nominative case is the null morpheme, but certainly in embedded constructions where the specific subject bears overt genitive case. The subject of so-called "factive" clauses in Turkish has genitive case, as in (2). However, the non-specific subject of the embedded existential construction in (3)a does not have case morphology. Compare with (3)b in which the embedded subject has raised above the locative, is case-marked, and must receive a partitive (i.e. specific) interpretation.

2) a. Ali-nin   hasta ol-duğ-u-nu       söyle-di-ler.
      Ali-GEN  sick   be-**NSR**-3s-ACC say-PAST-3pl
      'They said that Ali was sick'

3) a. Yan-ın-da    bir kız ol-duğ-u-nu      söyle-di-ler.
      side-his-LOC one girl  be-**NSR**-3s-ACC say-PAST-3pl
      'They said that there was a girl by his side'

   b. Bir  kız-ın    yan-ın-da    ol-duğ-u-nu       söyle-di-ler.
      one  girl-GEN side-his-LOC be-**NSR**-3s-ACC  say-PAST-3pl
      'They said that (of the salient girls) one (of them) was by his side'

The conclusion is: case-marked arguments must have raised, and non-case-marked ones cannot have raised. Let's now look at arguments that raising is a consequence of an EPP feature on $v$ and T, although the focus throughout this chapter will be on T.

### 1.1.1 The EPP on T in Turkish

There are several versions of the EPP, but for now, I would like to adopt the version that defines the EPP as a feature on a functional head that attracts a morphologically contentful element to its specifier. More specifically, the EPP attracts a D feature, and thus can only be satisfied by movement of a DP. EPP driven movement is sensitive to minimality such that the EPP feature attracts the closest element from its c-commanding domain that can satisfy it. I assume that all movement[104] of nominals is to satisfy the EPP feature of the head into whose projection they move. We have seen evidence that structural Case in Turkish must be assigned in a Spec-Head

---

[104] My use of the term "movement" precludes scrambling. Importantly, the Turkish facts indicate that scrambled elements do not satisfy the EPP. The SR form is unacceptable in (i), but if we embed *sofa* in a locative PP/DP as in (iii), we can scramble the locative above the subject and then extract *sofa* though TP licensing the SR form (ii). As shown in (iii), the PP/DP 'on the sofa's top' has a possessor/possessee structure, where *sofa* is the specifier or possessor (and bears genitive case). After scrambling of the locative PP/DP (iva), the possessor first moves to [Spec, TP] and then to [Spec, CP], triggering the SR form (ivb). The scrambled position of the PP/DP must be different from the EPP position because if the entire PP/DP had moved to [Spec, TP] (rather than just the +Wh-expression *sofa*-GEN from the specifier of the PP/DP), the SR form would not be licensed.

    (i)   *[bayan Ø$_i$ otur-an] divan$_i$
            woman Ø sit-**SR** sofa
        Intended: 'the sofa that a woman is sitting on'

    (ii)  [Ø$_i$ üst-ün-de     bayan otur-an] divan$_i$
            top-AGR-LOC woman sit-**SR**    sofa
        'the sofa that a woman is sitting on (top of)'

    (iii) [$_{PP/DP}$ [$_{DP}$ divan-ın] üst-ün]-de
                 sofa-GEN top-AGR-LOC
        'on the sofa' (Literally: 'on the sofa's top')

    (iv) a.   [$_{TP}$ Spec-empty [$_{PP/DP}$ [$_{DP}$ divan-ın] üst-ün-de]$_2$  [$_{vP}$ bayan $t_2$ otur] T° ]
                                 sofa-GEN top-AGR-LOC          woman   sit
        b.   [$_{CP}$ [$_{DP}$ divan-ın]$_1$ [$_{TP}$ [$_{DP}$ divan-ın]$_1$ [$_{PP/DP}$ [$_{DP}$ $t$ ]$_1$ üst-ün-de]$_2$  bayan $t_2$ otur-an] C°]
                 sofa-GEN         sofa-GEN               top-AGR-LOC woman     sit-**SR**
        c.   [$_{CP}$ $t_1$ [$_{TP}$ $t_1$ [$_{PP/DP}$ [$_{DP}$ $t$ ]$_1$ üst-ün-de]$_2$  bayan $t_2$ otur-an] ] divan$_i$
                           top-AGR-LOC woman   sit-**SR**    sofa

Lavine and Freidin (2002) also show that for Russian and Ukrainian A-movement and scrambling have different properties and consequences.

configuration. Within the generative framework, three potential factors have been identified as motivating this displacement: Case (Bošković 2002, 2005), agreement, and the requirement that certain functional heads must have a syntactically realized specifier phrases (Chomsky 1981, 1982, 1999). I have presented evidence that in Turkish non-specifics are NPs, and specifics are DPs.[105] We have seen that DPs must raise and be case-marked; "movement is driven by case" proponents could explain this by saying that DPs must satisfy the Case Filter and so Case drives movement of argument DPs to structural case-assigning heads. We will see shortly that this argument is probably not correct for Turkish.

For the moment, let's disentangle Case from displacement, and rely on a notion of an EPP feature as "the thing that 'causes' movement". Thus, for now let's adopt the view that the case-assigning functional heads T and $v$ (as well as the functional head C°) have an EPP feature that must be satisfied by a DP moving to the specifier of that head, with case assignment occurring when the proper configuration is achieved, as a free rider.[106]

To demonstrate, in (4)a, the subject *dog*, to the right of the locative *street*, has not raised and receives a non-specific interpretation, i.e. is an NP which cannot satisfy T's EPP. Assuming locatives mark the edge of VP[107], the locative *street* must have moved to a position higher than the base position of the subject, having been attracted to [Spec, TP] by the EPP. Compare (4)a with (4)c where the subject must receive a specific interpretation. In sentence (4c), *dog* is a DP which can be attracted by T's

---

[105] In fact, Chomsky (1995) considers D° to be the locus of specificity.
[106] Chomsky 1995, p. 282.
[107] See Kural (1991).

EPP, hence its position to the left of the locative.  Note that (4)b is unacceptable with

a non-specific interpretation for *dog*; an NP subject cannot raise over a locative.


4) a.   Sokak-ta    köpek havl-ıyor.
        street-LOC  dog    bark-PRES.CONT.
        'A dog/dogs are barking in the street'

   b.   *Bir köpek sokak-ta   havl-ıyor.
         a   dog    street-LOC bark-PRES.CONT.
        'Some dog (or other) is barking in the street'

   c.   Köpek sokak-ta   havl-ıyor.
        dog    street-LOC bark-PRES.CONT.
        'The dog is barking in the street'
        *A/some dog is barking in the street'


The unacceptable or marginal examples[108] in (5) provide further support that NPs do

not check the EPP of T.  Note that these sentences become acceptable with the

addition of a locative or temporal phrase, as in (6).


5) a.   *[Bir tavuk]   piş-iyor
          a   chicken cook-PRES
        'A chicken is cooking'

   b.   ??[Bir bardak] kır-ıl-mış
          a    glass    break-PASS-PST
        'A glass is broken'

   c.   ?*[Bir adam]   uyu-muş
          a   man     sleep-PST
        'A man slept'


6) a.   Burada [bir tavuk]    pişiyor.
        here      a   chicken is-cooking

---

[108] Examples from Kural (1992).

114

b. Burada [bir bardak] kırılmış.
   here    a   glass   was-broken

c. Burada [bir adam] uyumuş.
   here    a   man   slept

I conclude from these sentences that T has an EPP feature which must be satisfied for

convergence. The adverbial *bura-da* 'here' in Turkish is actually a determiner-like

nominal *bu* 'this' with locative case *-da*. The nominal can take other cases as well,

for example *bura-dan* with ablative case means 'from here', and *bura-ya* with dative

case means 'to here'. Thus, *bura-da* is a DP with locative case that is deleting T's

EPP feature.

Of course, another interpretation is possible. If we assume the Inverse Case

Filter, we can reason that the sentences in (5) are unacceptable because T has not

discharged its Case feature, whereas the examples in (6) are felicitous because T's

Case feature has been discharged. More specifically, in (6) T° is assigning structural

case to an inherently case-marked DP. It is difficult to know if T <u>must</u> assign case.

In Section 2, we will see that the only DP that cannot move to [Spec, TP] is one with

accusative case. Is this because structural case-marked elements are frozen for

further A-movement[109] or is it because case-stacking of structural case on structural

---

[109] According to Chomsky (1995), whereas multiple satisfaction of the EPP and multiple agreement is possible, multiple case checking is excluded under Last Resort. Case checking of a DP erases its case features, so that if the DP moves to another case position (satisfying the EPP), it "offers no Case feature to be checked, so the derivation crashes" (p. 284). In this account, a DP's [– Interpretable] feature, such as Case, is "frozen in place" once checked (p.280). This is because "checking [of features] is deletion and is followed by erasure without exception" (p.281). Notice that this account requires that T° (and *v*°) have case features that must be discharged (the Inverse Case Filter); otherwise there would be no reason for the derivation to crash if the [-Interpretable] Case feature of the DP that satisfied the EPP on these functional heads were erased. Furthermore, Chomsky vaguely suggests that some version of the uniformity condition (Chomsky 1986: pp.193-194) bars A-movement from an inherent Case position (fn. 55). Clearly, the Turkish facts show this conjecture to be incorrect.

case is disallowed, perhaps for PF reasons?[110]  Let's look at the implications of each assumption.

In adopting an EPP story, I forego the need for the Inverse Case Filter.  I assume that T assigns Case to the DP in its Spec but that movement of the DP is triggered by the EPP.  In this story, if T's EPP were satisfied, and T did not check the case of the element in its Spec, the derivation would still converge.  The problem is we now have no way of preventing an accusative DP from moving to [Spec, TP].  We would need to invoke [±Interpretable] features such that once a DP is structurally case-marked, its D feature is no longer available to the EPP, i.e. it is "frozen".  This has the unhappy result of conflating the EPP and Case.  Furthermore, it is not clear how structural case marking would make D features invisible for Attract by the EPP.  In a story where T does not need to assign case, there is no way to prevent an accusative-DP from moving to T.

On the other hand, adopting the Inverse Case Filter will mean that T will always have a case feature it must discharge.  This gives us two ways to prevent the accusative object from further A-movement:  an accusative expression will be frozen because of Last Resort, or T will have to assign case to whatever element is in its Spec with the consequence that structural case stacking leads to a crash.[111]  The facts in (5) and (6) are a problem for the pure Case drives movement account.  The locative that moves to [Spec, TP] already has case, so it does not need to move for case.

Chomsky (2000) also maintains that "once Case of α is checked, α is "frozen"; it cannot enter into further agreement relations" (fn. 36), although Icelandic facts regarding Quirky Dative raising to check T's EPP feature are mentioned.  But, Chomsky makes clear that the Quirky Dative in [Spec, TP] "does not satisfy the requirement that the features of T can be checked only by Nominative".  Either default inflection or long distance Agree with a lower Nominative is required for convergence (p. 11).
[110] Chomsky (1995) also makes reference to "Case conflict" (p. 285).  See fn. 114 as well.
[111] In Chapter 7, we see that the latter of these options seems to be the better account.

Certainly, if one rejects the EPP, the fact that a locative must move if and only if the subject is non-specific is theoretically unstatable without recourse to the Inverse Case Filter.

An argument against the Inverse Case Filter is found in Lavine and Freidin (2002) (L&F). They argue that Russian and Ukrainian Accusative Unaccusative Constructions have a "defective" T. A defective category is defined as in (7).

7) A category that lacks a full set of φ-features is **defective**.

Examples of defective categories in English are infinitival T and passive *v* which are both φ-incomplete appear in (8)a and (8)b respectively.

8) a. We expect Len [$_{TP}$ T-DEF to finish his book this summer].

   b. He was [$_{vP}$ *v*-DEF attacked by the visitor].

The idea is that a T that is φ-incomplete cannot enter into an Agree relation with a nominal and also cannot assign nominative case. In the Russian and Ukrainian examples below, the T° cannot assign nominative case, and cannot show agreement.[112] The Russian constructions usually contain two nominal expressions, an accusative direct object and an instrumental. One of these nominals must always

---

[112] The authors (L & F) point out that they follow Chomsky (2000, 2001), Pesetsky and Torrego (2001), George and Kornfilt (1981), among others, in assuming that nominative case in Slavic (as well as in English) is licensed by agreement. They admit that this correlation does not hold universally across all languages, citing Modern Greek and Japanese as examples of languages where T's φ-features and nominative case can be checked independently.

appear preverbally, as in (9).  In the Ukrainian passive-like construction, the

accusative nominal must always move to preverbal position, as in (10).


9) a.  Soldata       ranilo             pulej
       soldier-ACC wounded-[−AGR]  bullet-INST
       'A soldier was wounded'

   b.  Podvaly         zatopilo          livnem
       basements-ACC flooded-[−AGR]   downpour-INST
       'Basements were flooded by the downpour'

   c.  Volnoj       oprokinulo         lodku
       wave-INST overturned-[−AGR]  boat-ACC
       'A wave overturned a boat.'


10)    Inozemcja    bulo        posadženo     do v'jaznyci
       foreigner-ACC was-[−AGR] placed-[−AGR]  to  prison
       'A foreigner was put into prison'


Let's focus on the Russian case.  Of interest to us in these constructions is the

following:  First, the word order is discourse neutral, no matter which argument

fronts.  Second, when T is φ-complete, the subject surfaces with nominative case.

Compare (9)a-b with (11)a-b.


11) a. Pulja            ranila        soldata.
       bullet-NOM.F.SG.  wounded-F.SG.  soldier-ACC
       'A bullet wounded a soldier'

    b. Liven'           zatopil        podvaly
       downpour-NOM.M.SG. flooded-M.SG. basements-ACC
       'A downpour flooded basements'

Third, L&F take the fact that either the accusative expression or the instrumental can front as evidence of accusative case being valued via ling-distance agree, and conclude that Russian and Ukrainian, unlike Scandinavian, are not object-shift languages. Here, we have evidence that a T that is not assigning case, nevertheless attracts a nominal to its specifier. This is evidence against the Inverse Case Filter because in the Accusative Unaccusative Construction expressions which already have case move to a functional projection that does not seem to be assigning case.

Further evidence that Case and the EPP operate independently come from Quirky Case subjects in Icelandic and Germanic case facts.

## 1.2 Evidence for the EPP in Icelandic and German

It looks like in Icelandic, as in Turkish, T° has an EPP feature which can be satisfied by movement of a non-case-marked nominal to [Spec, TP] where it is assigned nominative case as in (12) or by movement of an inherently case-marked nominal expression to [Spec, TP] as in (13).[113] I assume that the Icelandic verb in (13), *batnaði* 'recover' is unaccusative-like with the difference being that the expression bearing the Benefactive/Experiencer theta role first-merges as the complement to V° with inherent dative case. As this argument already bears case, it does not need to raise to [Spec, TP] for case. Furthermore, nominative case in Icelandic has a distinct morpheme. The dative expression in [Spec, TP] bears dative, not nominative, case. I assume that T° has not assigned case in (13).[114]

---

[113] The Icelandic examples in this section are from Freidin and Sprouse (1991).

[114] This is contra Burzio (2000) and Frank (2002). Burzio argues that (abstract) nominative case is stacked upon Quirky subjects (datives, for example), and that because the nominative is assigned to the 'outer' shell of the DP, the agreement between subject and verb is with the outer shell only, not with the lexical φ-features of the subject. In order to account for the agreement between the verb and the

12)     Haraldur$_i$    las  bókina sína$_i$
        Herald-NOM read book    his(+REFL)


13)     Haraldi$_i$    batnaði    veikin    hjá         bróður sínum$_i$
        Harald-DAT   recovered-from the-disease at-the-home-of brother his(+REFL)


Dative expressions behave in an identical fashion to the nominative subjects in raising

verbs as shown in (14).  Note that whereas in (14)a the subject has been assigned

nominative case, in (14)b, the subject bears the inherent dative case which was

assigned in the embedded clause.  Again, it seems clear that matrix T° has not

assigned case.  These examples also demonstrate that, as in Turkish, an inherently

case-marked expression can move to [Spec, TP].


14) a.  Haraldur$_i$    virðist [ $t_i$ hafa    lesið  bókina]
        Herald-NOM  seems        to-have read    book

    b.  Haraldi$_i$    virðist [ $t_i$ hafa    batnað          veikin]
        Harald-DAT  seems        to-have   recovered-from the-disease

---

object as shown in (i) from Sigur☆sson (1996) and Taraldsen (1995).Jonas and Bobaljik (1993), Frank adds the notion that checking of φ-features does not necessarily entail their deletion.  Thus, in (i), T first checks its EPP and φ-features against the dative subject, deleting only its  EPP feature, and then again checks, and now deletes, its φ-features against the object.  This second checking operation is optional, as evidenced by example (ii), with default verbal agreement.  Although Frank provides a lengthy account to explain the restriction against agreement between between a matrix verb across a dative to the object of an infinitival, he fails to account for simpler examples such as (iii) from Jonas and Bobaljik (1993), where the matrix verb agrees with the embedded subject. For a complete version of his account, see Frank (2002: 138-153).

    (i)   Mér      mistókust allar tilarunirnar.
          me-DAT failed-3pl all    the-attempts-NOM
          'I failed all the attempts.'
    (ii)  Mér      virtust / virtist þær        vinna   vel.
          me-DAT seemed-3pl/-3s  they-NOM to-work well.
          'It seemed to me that they work well.'
    (iii) Mér      virðast  $t$ [ hertarnir        vera seinir]
          me-DAT seem-pl      the-horses-NOM  be    slow
          'It seems to me that the horses are slow.'

120

Expressions merged with inherent case retain their case-marking even in passive

constructions. If passivization is an operation that bleeds accusative case-assignment,

there is no reason to assume that it would have any effect on inherently case-marked

DPs. Let's assume that passivization is simply the absence of a *v*P projection in a

derivation with the result that the theta position for an external argument is

unavailable. In this structure, the EPP of T must still be satisfied. The sentences in

(15)a and (15)b select for a bare (non-case-marked) argument and a dative argument,

respectively. In (16)a, the direct object *Harald* (which needs case to avoid a Case

Filter violation) raises from its theta position to [Spec, TP] and is assigned nominative

case[115], whereas in (16)b, the dative argument retains its case. Unlike in (15)a, there

is no evidence that nominative case has been assigned in (15)b; therefore, some other

feature must be implicated for the movement.


15) a.  Egill       drap  Harald       í gær
        Egill-NOM killed Harald-ACC yesterday

    b.  Egill       hjálpaði  barninu
        Egill-NOM helped    the-child-DAT


16) a.  Haraldur      var drepinn    í gær
        Harald-NOM  was  killed-PPP yesterday

    b.  Barninu          /*barnið           var hjálpað
        the-child-DAT/the-child-NOM was helped


We saw in Turkish that non-specifics cannot satisfy the EPP. The same phenomenon

seems to hold in Icelandic passive constructions. In (17), where the internal argument

---

[115] In fact, there is evidence of long distance case assignment in Icelandic. Thus, it may be that T°
assigns nominative case in Icelandic via Agree prior to movement.

is non-specific, some other expression must satisfy the EPP. In (17)a, the time

adverbial 'yesterday' raises to [Spec, TP], and as shown in (17)b-c, where no other

expression exists in the clause, a pleonastic (or expletive) 'it' must be inserted to

satisfy T's EPP feature. Note that neither of these strategies is acceptable when the

internal argument is specific, as shown in (18). I assume this is because the strategies

in (17) are both Last Resort, in order to save a derivation. When the derivation

contains a "proper" candidate that will satisfy the EPP (i.e. a specific argument), it is

the argument that must raise.

17) a. Í gær     var  hjálpað     barni
       yesterday was  helped-PPP  a-child-DAT

   b. Það var   hjálpað     barni
      it    was helped-PPP a-child-DAT

   c. *var  hjálpað     barni
        was  helped-PPP a-child-DAT

18) a. *Í gær     var  hjálpað     barninu
         yesterday was  helped-PPP the-child-DAT

   b. *Það var   hjálpað     barninu
        it    was helped-PPP the-child-DAT

Similar evidence appears in the German examples below.[116] Whereas T assigns

nominative case to canonical subjects, it does not seem to discharge/assign case to

inherently case-marked DPs that move to subject position. The German verbs

'observe' and 'help' subcategorize for an accusative Theme and a Dative Theme,

respectively, as shown in (19).

---

[116] The German examples are from Freidin and Sprouse (1991), who following convention give the
examples in the form of subordinate clauses to abstract away from German matrix V2 effects.

19) a.  daß  der Polizist           den Spion    beobachtete
        that [the policeman]-NOM [the spy]-ACC observed
        'that the policeman observed the spy'

    b.  daß  der Polizist           dem Spion    half
        that [the policeman]-NOM [the spy]-DAT helped
        'that the policeman helped the spy'

In German passive constructions, the formerly accusative object behaves as expected,

ending up with nominative case in subject position, as in (20)a.  Contrast this with the

dative Theme in (20)b which retains its lexical (inherent) case marking, appearing in

subject position [Spec, TP] with dative case.[117]  As shown in (20)b, nominative case

is not acceptable on a passivized dative expression.

20) a.  daß  der Spion      beobachtet   wurde
        that [the spy]-NOM observed-PPP was

    b.  daß  dem Spion   /*der Spion       geholfen    wurde
        that [the spy]-DAT/[the spy]-NOM helped-PPP was

One might argue that the subject in (20)b bears null nominative on top of the dative.

This is unlikely for the following reason.  Verbs that have subjects with nominative

case can be coordinated in German, as in (21)a.  However, as demonstrated in (21)b,

a passivized dative-DP subject is not possible in a coordinate structure with a

nominative-DP.  I conclude from this that there is a case mismatch in the two DPs

which should not be the case if the dative bore (null) nominative case.

---

[117] Franks and Levine (2005) point out that in Genitive under negation constructions in Lithuanian, "[i]n the competition between structural and Lexical Case, lexical Case normally wins."  The same facts hold for Russian. In Genitive under Negation constructions and Numerically Quantified NPs, expressions that would normally bear structural case surface with genitive case, whereas inherently case-marked expressions retain their lexical case.

21) a.  daß der Spion      Angst hatte und beobachtet   wurde
        that [the spy]-NOM fear    had   and observed-PPP was
        'that the spy was afraid and was observed'

    b.  *daß  dem Spion      Angst hatte und   geholfen   wurde
         that [the spy]-NOM fear    had   and   helped-PPP was
        Intended: 'that the spy was afraid and was helped'

The combination of these arguments suggests that the EPP is separate from Case.

Committing ourselves to the EPP, let us now turn to determining what elements

satisfy the EPP on T and under what circumstances.  The evidence will show that the

Turkish subject relative (SR) clause form provides a reliable diagnostic for movement

to [Spec, TP].

# 2  Review of Turkish Relative Clauses

We saw that the subject relative (SR) requires the -An verbal morpheme with no

agreement as in (22), whereas a non-subject relative (NSR) as in (23) requires the

-DIK verbal morpheme with possessive agreement.  Crucially, the NSR form requires

the (overt) clausal subject to bear genitive case morphology.  Thus, in (23)a, the

subject must be case-marked and must receive a specific interpretation; the NSR

forms in (23)c and (23)d where the subject bears no overt case are unacceptable.

22) a. [$\emptyset_i$ divan-da   otur-an ] adam$_i$
        $\emptyset$  sofa-DAT  sit-**SR**     man
        'the man who is sitting on the sofa'

    b. *[ $\emptyset_i$ divan-da  otur-duğ-u] adam$_i$
        $\emptyset$  sofa-DAT  sit-**NSR**-3s   man

23) a. [adam-ın Øᵢ otur-duğ-u ] divanᵢ
       man-GEN Ø   sit-**NSR**-3s  sofa
       'the sofa that the man is/was sitting on'

   b. *[adam Øᵢ otur-an] divanᵢ
       man  Ø  sit-**SR**    sofa

   c. *[adam Øᵢ otur-duğ-u] divanᵢ
       man  Ø  sit-**NSR**-3s sofa
       Intended: 'the sofa a (non-specific) man is sitting on'

   d. *[Øᵢ adam otur-duğ-u] divanᵢ
       Ø  man  sit-**NSR**-3s sofa
       Intended: 'the sofa a (non-specific) man is sitting on'

We also saw, as in (24)a, that when the subject is non-specific, i.e. is an NP under our

assumptions, the Subject Relative form is permitted even though a non-subject has

been relativized.  In the minimally different (24)b the subject is specific, and thus a

DP, and the NSR verbal form is required.  When the subject is a DP, the SR form is

barred, (24)d.  Note though the position of the subject vis-à-vis the dative "top" (a

nominal expression that takes case) which I assume is an adjunct.  As expected, when

the subject is an NP, it cannot raise, i.e. be in a structurally higher position than the

dative "top".  Compare the unacceptable (24)f with the acceptable (24)a.

24) a. üzeri-ne  öğrenci yaslan-an araba
       top-DAT  student lean-**SR**    car
       'the car that a student is leaning on'

   b. üzeri-ne   öğrenci-nin  yaslan-dığ-ı araba
       top-DAT   student-GEN lean-**NSR**    car
       'the car that the student is leaning on'

   c. öğrenci-nin  üzeri-ne  yaslan-dığ-ı araba
       student-GEN top-DAT  lean-**NSR**    car
       'the car that the student is leaning on'

d. *üzeri-ne  o     öğrenci(-nin) yaslan-an araba
   top-DAT  that student-GEN   lean-**NSR** car

e. *o     öğrenci(-nin) üzeri-ne  yaslan-an araba
   that student-GEN   top-DAT  lean-**NSR** car

f. *öğrenci üzeri-ne yaslan-an araba
   student  top-DAT lean-**SR**   car

We formulated a generalization, or rather, a mnemonic, to handle the facts: the SR form in Turkish relatives is licensed when the EPP of T attracts a +Wh DP to its specifier.  When a non-Wh expression occupies [Spec, TP], the SR form is barred. Since the SR form is the instantiation of a +Wh element having moved into (and then out of) [Spec, TP], we can use the acceptability of the SR form as a diagnostic of attraction of a DP (in this case albeit a +Wh one) by the EPP on Tº.

# 3  The SR and Movement through [Spec, TP]

We are assuming that the SR form is the instantiation of a +Wh element having moved through [Spec, TP].  Use of the SR form with NP subjects when extracting non-subjects is not completely free, however.  Using the acceptability of the SR form as a diagnostic, let us examine when the SR form is acceptable and when it is not, with the aim of discovering the constraints on the EPP of T[118] in Turkish.

---

[118] This paper examines the EPP only in embedded contexts which may have different properties than matrix contexts.  For example, left dislocation is degraded in embedded environments.
   i)   a. Down the street ran the boys.
        b. *He announced/believed/promised that down the street ran the boys.

## 3.1 *Relative clauses with non-specific subjects and the SR form*

Subjects in existential constructions are non-specific. In an existential construction,

the subject, being an NP, cannot raise, and the EPP of T must target another DP. We

would thus predict that relativization of a non-subject DP in an existential

construction would license the SR form. This is indeed the case, as in (25). In the

marginal (25)b, the interpretation of the subject must be a specific type of

"incorporation". Note that the example improves with the addition of "this" to the

subject as in (25)c.

25) a. *incorporation* ol-an   dil-ler-de
      incorporation  be-**SR** language-pl-LOC
      'languages that have incorporation'
      Literally:  languages in which there is incorporation

   b. ?*incorporation*-ın   ol-duğ-u    dil-ler-de
       incorporation-GEN be-**NSR**-3s language-pl-LOC
       'languages which have [this kind of] incorporation'

   c. bu *incorporation*-ın   ol-duğ-u    dil-ler-de
      this incorporation-GEN be-**NSR**-3s language-pl-LOC
      'languages which have this [kind of] incorporation'

Let's see what happens with different verb classes. The verb in examples (26) and

(27) is unaccusative. As these examples show, both RC forms are acceptable

depending on whether or not the subject is specific. The (a) examples with the SR

form have non-specific NP subjects, while the NSR form is required in the (c)

examples with DP subjects. The (b) sentences demonstrate the case on the relativized

element prior to movement: the element that was attracted by the EPP of T in (26)a is

a locative, and in (27)a, a dative.  Crucially, the SR form is acceptable (when

extracting non-subjects) with unaccusative verbs when the subject is an NP.


26) a.   yağmur yağ-an    bölge
         rain      rain-**SR**  region
         'the region where it rains/where (typically) there is rain'

    b. Bölge-de      yağmur  yağ-ıyor.
       region-LOC  rain       raining-pres.prog.-3s
       'It's raining in that region.'

    c.   yağmur-un  yağ-dığ-ı            bölge
         rain-GEN    rain-**NSR**-POSS-3s  region
         'the region where it is raining/rained'


27) a.   gemi yanaş-an liman
         ship  sidle-**SR** harbor
         'the harbor that a ship is sidling up to'

    b.   Liman-a      gemi  yanaş-ıyor.
         harbor-DAT ship    sidle-pres.prog.-3s
         'A ship is sidling up to the harbor'

    c.   gemi-nin  yanaş-tığ-ı  liman
         ship-GEN  sidle-**NSR**  harbor
         'the harbor that the ship is sidling up to'


This contrasts with unergative verbs, such as (28) and (29), where only the NSR form

is permitted.  Notice that the subject must be specific (a DP) and receive overt case; a

non-specific, bare subject is unacceptable in either RC form.


28) a.   *gençler dans  ed-en  salon
          youth    dance do-**SR** club
         Intended: 'the club where young people dance'

    b.   gençler*(-in) dans  et-tiğ-i    salon
         youth-GEN    dance do-**NSR** club
         'the club where young people dance'

29) a.  *atlet-ler   koş-an  saha
        athlete-pl run-**SR** track
        Intended: 'the track where athletes run'

   b.  atlet-ler*(-in)  koş-tuğ-u    saha
       athlete-pl-GEN run-**NSR**-3s track
       'the track where athletes run'


So far, we see that locatives, genitive possessor DPs, and datives can satisfy T's EPP

in unaccusatives with NP subjects; but, this is not acceptable with unergatives.

Let's now turn to transitive constructions.  In (30)a, the relativized element is

the possessor of the object DP, and as expected the non-subject relative (NSR) verbal

form is licensed when the subject is specific.  Use of the SR form is also acceptable,

when the subject is non-specific, as in (30)b.  Note that the non-specific subject being

an NP cannot raise from its base-generated position to a position higher than the

accusative direct object in [Spec, $v$P], (30)c.  In (30)b, the relativized element, i.e. the

element that moved through [Spec, TP], was the genitive possessor *girl* of the

accusative object, *girl's leg*.  Thus, a genitive can satisfy the EPP on Tº.


30) a.  [$_{CP}$ arı-nın  [$_{VP}$ [$_{DP}$ Ø$_1$  bacağ-ın-ı]    sok-duğ-u]]   kız$_1$
             bee-GEN              leg-POSS-ACC  sting-**NSR**-3s  girl
         'the girl whose leg the bee stung'

   b.  [ [Ø$_1$ bacağ-ın-ı]    arı  sok-an ]  kız$_1$
            leg-POSS-ACC bee  sting-**SR**  girl
       'the girl whose leg some bee stung'

   c.  *[arı [Ø$_1$  bacağ-ın-ı]    sok-an ]  kız$_1$
        bee       leg-POSS-ACC sting-**SR**  girl

   d.  *Ø$_1$  arı   sok-an    kız$_1$
        Ø    bee  sting-**SR**  girl
        Intended: 'the girl some bee stung'  [Actual: 'the girl who stung some bee']

Note that, as expected, the SR form is unacceptable when relativizing an accusative object even when the subject is non-specific, (30)d. As we noted, an accusative case-marked element cannot move to [Spec, TP]. Thus, a non-subject +Wh-DP <u>can</u> raise to [Spec, TP] in a transitive construction as long as the DP does not bear accusative case (and, of course, the move obeys minimality). This is in line with Chomsky (1995, 2000); once structural case has been checked on a DP, it can no longer undergo A-movement to a structural case assigning/checking position. Recall that it is only structural case that causes this restriction; inherently case-marked expressions are free to undergo A-movement, perhaps because they can get a second case (Hong 2002).[119] Because in (30)b a genitive possessor is patterning like the dative and locative DPs in these SR constructions, we must assume that, at least in Turkish, genitive case on a possessor is inherent, not structural.[120] Recall that the RC subject (i.e. in the NSR form with overt subject) bears genitive case. I assume that the genitive on RC subjects in Turkish is structural case assigned either by T or by a

---

[119] Although I have argued against the idea that T° has a case feature it must discharge, nothing in the story I am presenting rests on this assumption, and I leave the option open that the Inverse Case Filter may hold. I point to arguments in favor of one view or the other as a way of expanding the discussion.
[120] Chomsky (1995) considers genitive case inherent because it is associated with theta-marking (p. 114). This would distinguish possessor genitive from clausal genitive on a subject. See also fn. 117. A. Ince (p.c.) provides the following data as evidence that Turkish has two types of genitive case: inherent and structural. In the NP-Deletion example in (*i*), genitive case remains on the possessor. In (*iia*), the specific subject in the embedded clause bears genitive case. However, in the sluiced structure (*iib*), genitive case on the subject is ungrammatical. But see fn. 118.

  (*i*)    Bu  kim-in    araba-sı.  Ahmet'in ~~arabası~~.
           *this who-GEN car-poss. Ahmet-poss*
           'Whose car is this? Ahmet's'
  (*ii*) *a.*   Ahmet birin-in  sen-i    ara-dığı-nı      söyle-di.
               *Ahmet one-GEN you-ACC call-COMP-ACC said-pst*
               'Ahmet said someone called you'
        *b.*   Ahmet birin-in  sen-i    ara-dığı-nı      söyle-di. Ama kim(*-in)    bilmi-yorum.
               *Ahmet one-GEN you-ACC call-COMP-ACC said-pst   but  who(*-GEN) know-pres-1s*
               'Ahmet said someone called you. But I don't know who'

V-T-C amalgam.[121] On the other hand, the possessor genitive assigned by D is inherent case because it patterns with all other inherently case-marked elements in being able to raise to T in unaccusatives with NP subjects.[122,123]

The unergatives in (28) and (29) had animate subjects. One might wonder if sentiency or animacy might be a factor. But, as demonstrated in the unacceptable unergative examples in (31) and (32), unergatives with inanimate NP subjects also bar movement of another element to T. Example (31) is an attempt to raise a locative to [Spec, TP], and (32), an ablative.

31)     *araba-lar gid-en cadde
          cars       go-**SR** street
         'the street that cars go on.'

32) a.  *taş-lar düş-en   tepe
          rocks   fall-**SR**  hill
         'The hill rocks fall from'

---

[121] See Hiraiwa (2001) for arguments that a possessor genitive and RC subject genitive are different types of case and that the subject genitive case is assigned by a V-T-C amalgam.

[122] Of course, if one wanted to assume that genitive case assigned by D° is also structural, one could argue that nominative case on top of accusative leads to a PF crash. Since inherent or lexical case is thematic, these may be interpreted at LF whereas structural case must be PF-interpretable. Since the case assigned by the RC T° is genitive, movement of the structural genitive possessor to [Spec, TP] does not lead to PF crash because of homomorphism. This would mean that both the accusative object and its possessor are candidates for Attract by T's EPP. The former leads to a PF crash whereas the latter will lead to convergence. I must admit that I find the idea that the case assigned by D° is structural tempting because it is not theta-related and does seem to require raising to a Spec-Head configuration. Not surprisingly, I will not open the can of worms about an EPP feature on D.

[123] Note that a possessor genitive as in the response to the question in (i), does not allow an additional inherent case, ablative in (ii), or a structural accusative case, (iii). These facts suggest that possessor genitives are structural. Note that structural case does not seem to allow a second case, structural or inherent. This is consistent with Hong's 2002 observations in Korean.

      (i) Kim-in   köpeğ-i  kaçtı?    Sen-in.
           who-GEN dog-AGR ran.away you-GEN
           'Whose dog ran away? Yours.'
      (ii) *sen-in-den korkuyor-um
           you-GEN-ABL fear.1s
           'I am afraid of yours'
      (iii) *sen-in-i gördüm
           you-GEN-ACC saw-1s
           'I saw yours'

b. Tepe-den taşlar  düşü-yor.
   hill-ABL   rocks  fall-PRES.PROG.
   'Rocks fall from this hill.'

# 4  Toward an explanation

We are assuming that once structural case has been checked on a DP, it can no longer undergo A-movement to a case-checking position.[124] We would assume that another (non-structurally case-marked) DP in the structure should be able to satisfy the EPP of T as long as the move obeys minimality. In a transitive construction, the EPP of $v$ must be satisfied before T° merges with $v$P. At this point in the derivation, the DO in [Spec, $v$P] will already have been assigned structural case, and will no longer be a candidate for Attract by the EPP of T.[125] The question is, will the accusative object be invisible for Attract or will it serve as an intervener for movement of another nominal element lower in the structure?

In (30)b, a transitive with an NP-subject, the genitive possessor of the accusative DO raised to [Spec, TP]. However, as example (33) demonstrates, a locative cannot move to [Spec, TP] over an accusative object. Thus we can conclude that accusative object induces intervention effects for A-movement. This is demonstrated in the tree in (34) for example (33).

---

[124] I assume that case is assigned in a Spec-Head configuration. T can, trivially, assign case to a DP without case; it can also assign nominative case to an inherently case-marked DP. This is consistent with Hong's (2002) observation about multiple case on DPs in Korean: structural case can be added onto an inherently case-marked element, but stacking of structural case onto structural case does not seem to be possible. See fn. 119.

[125] But see fn. 122 where I proposed that perhaps the DP could move to just such a position, but the derivation would crash at PF.

33) *[Ø₁ çocuk-lar-ı  arı  sok-an]   orman₁
     Ø  children-ACC bee  sting-**SR** woods
     'the woods where a bee/bees sting children'

34)
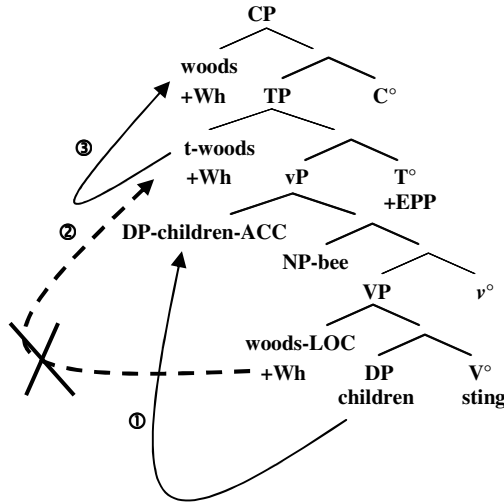


The unacceptable SR RC in (33) contrasts with the acceptable example in (35). How

do we account for the difference?

35)   [Ø₁ çocuk-lar-a  kurt  saldır-an]   orman₁
      Ø  children-DAT wolf  attack-**SR**  woods
      'the woods where a wolf/wolves attack children'

Recall that we had assumed that $v°$ also has an EPP feature that must be

checked/deleted.[126]  A DP direct object can satisfy $v$'s EPP, or in the absence of one,

another nominal element must move to [Spec, $v$P]. It is important to note that with

both T° and $v°$, if they do assign (overt) case, the case-marked element must be the

---

[126] A footnote in the previous chapter contained a discussion about the EPP on $v°$ where I speculated
that the vP projection might be analogous to the TP projection. That is, T° has an EPP feature when
selected by C°, and $v°$ has an EPP feature when selected by v*°, the head of a (perhaps A-bar) v*P
projection above $v$P.

one Attracted to the case-assigning head by the EPP.  Thus, in (33), the direct object must raise out of the VP, leaving the locative in VP.  If the direct object does not raise, the derivation will crash because of a Case Filter violation.  In example (35), on the other hand, the internal argument is assigned inherent dative case which does not need to move for case.  This leaves [Spec, _v_P] available for the +Wh-locative.

As demonstrated in the tree in (36), the dative internal argument *children* and the locative *woods* are in the same minimal domain, and so equidistant from _v_.  (Actually, under one definition, the locative being in the specifier is closer.)  We can assume that the Turkish verb *attack* "saldıran" in (35) is quirky and does not assign/check accusative case.  In the derivation in (36), the locative *woods* moves to [Spec, _v_P] and deletes _v_'s EPP feature in ①, but is not assigned structural case, and so, can further undergo A-movement to [Spec, TP] as in ②.

36)
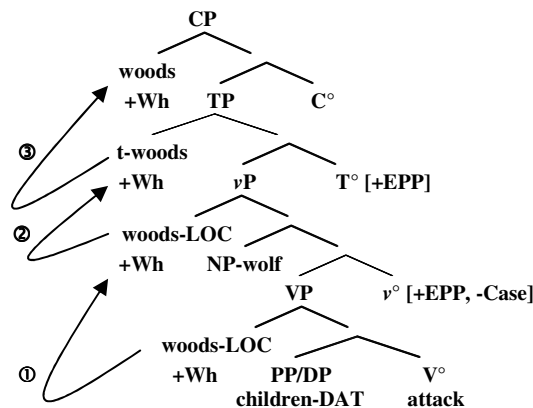


The derivation in (36) has implications for the "movement for case" story.  Let's assume that _v_° had a case feature that needed to be deleted or checked.  If the dative DP *children* moved to [Spec, _v_P], it would block the +Wh locative from raising to

[Spec, TP] and the SR form would be barred.  If the locative *woods* moved to delete

*v*°'s case feature, it would be assigned structural accusative case on top of the

inherent locative case.  This would be permissible; but now, once the +Wh-locative

had been assigned structural accusative case, it would be frozen for further

A-movement, and like other accusative objects, could not move to [Spec, TP],

bleeding the SR form.  It seems that this example is another piece of evidence against

the movement is for case analysis.

One might ask whether the movement ① of the locative to [Spec, *v*P] in (36)

might not be scrambling.  This is not likely as there is evidence that once scrambled,

an element is frozen.  A constituent may raise out of a scrambled expression, but the

expression itself is locked in place for the rest of the derivation.[127]

---

[127] It is not possible to deal with the larger issue of scrambling in this thesis.  Throughout this work,
however, we will observe effects and properties of scrambling.  Crucially, we will see many examples
where a scrambled expression ameliorates minimality effects by carrying a +Wh-DP constituent
around an intervener.  We also see evidence that a scrambled expression cannot move again because a
DP cannot scramble around an intervener and A-move, only a constituent can move once an expression
has scrambled.  Thus, we are able to note three properties that emerge with respect to scrambling
which are important for the analysis in this work: 1) a scrambled expression does not delete an EPP
feature (because it does not move to the specifier of the functional head bearing an EPP feature), 2) a
scrambled expression is porous for movement (contra Chomsky (2005)), and 3) once an expression
scrambles, it cannot move again (See fn. 11 in Chapter 7 for speculations as to why this may be so.)
        My assumption that scrambling freezes an expression was based on the fact that, once
scrambled, a DP cannot be relativized using the SR form.  A scrambled DP adjoins below TP; it can
cannot move to [Spec, TP] and then to [Spec, CP] which would license the SR form.  Tomo Fujii (p.c.)
points out, however, that the scrambled expression may not be frozen; the freezing effect may be
epiphenomenal to structural and semantic constraints.  I assume the raising/promotion analysis of RCs,
where the RC head is an N° that is promoted from [Spec, CP] to a theta position in the matrix sentence.
This is consistent with the Turkish facts: Turkish RCs do not permit a possessor-possessee relative
head.  The scrambled elements we are looking at in this work have just this configuration.
Furthermore, Japanese also has constructions such as [sofa's top]+case, and [table's under]+case 'the
bottom of the table', but although "top" and  "bottom" bear case (and in Turkish they bear possessive
agreement with the possessor in the Spec) these terms to be semantically weak (i.e. they are pseudo-
PPs) and cannot be relative heads either in Turkish or Japanese.  Even in English, in a context where
the child spilled juice on top of one of the sofas, you cannot say "*?the top that the child spilled juice
on".  However, in a context where a factory worker is painting tops of cars, it does seem okay to say
"the top that the worker painted (green)".  It seems more prudent then, to merely state that these larger
DP's cannot be relativized, and that within the confines of this work, we are not able to determine
whether, once having scrambled, they can actually move to TP.  There is no way to tease apart the
cause of the derivational crash when we try to relativize these scrambled expressions.

## 4.1    The base position of subjects and intervention by NPs

Let's return now to our questions regarding the unacceptable unergative examples in (28)-(29) and (31)-(32).  Why was the SR form acceptable for unaccusatives but not for unergatives?  Previous research has suggested that the base position of the subject, i.e. the expression that picks up the outermost theta position, in these verbs is different,[128] i.e. that in an unaccusative structure, the subject is generated as the complement of V°, as in (37), whereas in an unergative, the subject is generated in [Spec, $v$P], as in (38) for example (29)a.  Note that the difference in these structures is the position of the NP-subject which intervenes between the +Wh-expression and T in (38), but not in (37).

37) [Ø$_i$ su    ak-an]    dam$_i$
        water  pour-**SR**  roof
    'the roof water pours/drips from'



---
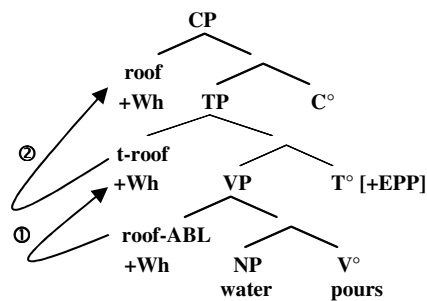
        Kural (1992), using WCO, scope and binding phenomena as diagnostics, argues that scrambling in Turkish is A-bar movement, but crucially not to a C projection.  There are suggestions that there may be an A-bar projection above the verbal domain but below the inflectional domain (also proposed by Baker & Stewart 2002).  This is hierarchically equivalent to the position the scrambled expressions here seem to occupy.  Kural's idea is appealing because the idea that scrambling is A-bar movement to a projection immediately above $v$P provides us with a landing position as well as a reason for the freezing effect.
[128] Perlmutter's (1978) "Unaccusative Hypothesis" and Burzio (1986) for evidence in Italian.

38) *[atlet-ler    koş-an]  saha
      athlete-pl run-**SR**  track
    Intended: 'the track where athletes run'

```
                          CP
                      ___/ \___
                     TP        C°
                  __/ \__
               track      \___
               +Wh   vP       T° [+EPP]
                  __/ \__
            NP-athletes   \__
                    VP       v° [-EPP, -Case]
                 __/ \__
            track-LOC   V°
            +Wh        run
```
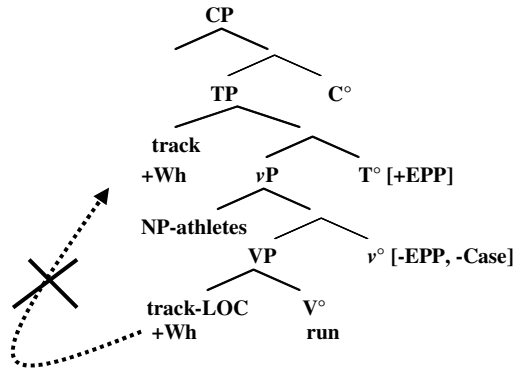
Note also that I am making one more assumption about unergatives: that the _v_° head

does not have an EPP feature.  This differs from the transitive construction in (35)

with the tree in (36) which had an internal argument that was assigned inherent dative

case.  I had assumed that the _v_ in this construction had an EPP feature but did not

assign case.  The implication is that there are three _v_ heads in Turkish: one with both

EPP and case features, one with only an EPP feature, and one with neither an EPP nor

a case feature.

I'd like to side-track momentarily to point out thatthe derivation in (36) is an

argument against the non-EPP story that movement to functional heads is for Case.  If

we are right in assuming that an element that is assigned structural case is no longer a

candidate for A-movement, i.e. movement to another case assigning functional

projection, then the +Wh-locative in (36) could not have moved for case.  For if it had

been assigned accusative case on top of its inherent locative case (which is

theoretically possible in the story here), it would be frozen and could not move to T to

trigger the SR form. Another possible explanation for the movement of the locative to the *v*P is scrambling. The locative could scramble above the subject and then move to [Spec, TP]. The facts throughout this thesis indicate that this option is not feasible. The question that should be asked is why does the locative need to move to *v*P in the first place? After all, the NP subject cannot satisfy the EPP on T. The differences with respect to RCs in unergatives vs. unaccusatives provides us with insight to answer such questions.

What we see in (38) is evidence for what Chomsky (2000) describes as a defective intervention constraint (39).

39) Defective Intervention Constraint (DIC):

In the structure, $\alpha > \beta > \gamma$ , where $>$ is c-command, and $\beta$ and $\gamma$ match

probe $\alpha$, but $\beta$ is inactive, the effects of matching are blocked.

In terms of the DIC, in (38), the locative DP, *track* ($\gamma$), matches probe T° ($\alpha$). The NP-subject, *athletes* ($\beta$) is "inactive", i.e. not a candidate to move to T, but it does serve to block the locative from being attracted to T. The structure of (38) meets the requirements of the DIC: $\beta$ (*athletes*) c-commands $\gamma$ (*track*). Thus the NP subject is an intervener for attraction of the locative by T's EPP. This contrasts with (37) where there is no intervener. We must conclude that the DIC plays a role in the unergative examples: an NP, which itself cannot satisfy the EPP of T, blocks the movement of a DP from its c-commanding domain.[129]

---

[129] Another way of explaining the intervention effects of NPs might be to propose that they are unspecified, i.e. lack a value. Thus, while an NP may bear the kind of features that would be picked up

# 5 Versions of the EPP

Within the generative framework, there are three core versions of the EPP each with different implications. The first, based on Chomsky (1981, 1982) is configurational: clauses must have subjects. In the second version, based on Chomsky (1995), the EPP is a strong D feature of a functional head and the subsequent pied-piping of the phrase entire phrase. Recently, Chomsky (2000, 2001) relies on Match and Agree operations for φ-feature checking, precluding the motivation for movement. In this version, the EPP is a requirement that certain functional heads must have a specifier.

Having argued throughout this chapter that there is an EPP, the question is, is the EPP (in Turkish) a feature or a structural requirement? If the EPP were merely a structural requirement as argued by Lasnik (2001), we would not see intervention effects. The data indicates that not only do c-commanding DPs intervene in the raising to [Spec, TP], but even those expressions that cannot themselves satisfy the EPP intervene. These include DPs such as accusative objects, and NPs such as the subject of an unaccusative. If the EPP was only a requirement that the Spec position of a functional head be occupied, these expressions would not induce intervention effects. It is only when specific *features* must be checked can the head be selective in admitting or barring movement to its specifier. If the EPP were not sensitive to features, an NP subject of an unergative verb could not block another DP in its

---

by the EPP of an Attracting head, the features are unvalued and thus unable to delete the EPP on that head. This idea is radically different from what I have been proposing thus far. In this version, NPs do move, they are attracted by the EPP, but they fail to delete or check the EPP. Note that this version requires the idea of unique Spec positions. Once an NP has been attracted by the EPP, the derivation will crash; a DP cannot come along and check the EPP on a head by merging in a second Spec position.

c-commanding domain from moving to T. We are able to deduce that the NP subject

is an intervener for movement because it is possible to skirt the NP via scrambling.

We will see this operation in greater detail in later chapters, but at this point note that

the unacceptable (31) repeated as (40), is acceptable in (41). As demonstrated in

(41)b, the DP/DP phrase *on the street* with the structure *[street's top-AGR]-LOC*

functions as a carrier of the +Wh-*street* around the NP subject, *cars*. After, *street* has

gotten around the subject, it is free to move to [Spec, TP] licensing the SR form. If

the EPP were merely a structural requirement, what would prevent an NP from

satisfying it by moving to [Spec, TP]. Obviously, there is some featural requirement

that an NP cannot satisfy.


40)     *araba-lar gid-en cadde
         cars      go-**SR** street
        'the street that cars go on.'


41) a.  [[$\emptyset_1$ üst-ün]-de     araba gid-en] cadde$_1$
             top-AGR-LOC  car   go-**SR**   street
        'the street that cars go on (top of)'

    b.  [$_{CP}$ [$_{TP}$ [$_{DP/PP}$ $\emptyset_1$ üst-ün]-de$_k$   [$_{vP}$ araba $t_k$   gid-en] cadde$_1$
                     top-AGR-LOC      car          go-**SR**  street


# 6  Conclusion


This chapter has looked at the consequences of and constraints on the EPP of T in

Turkish.   Although limited to subordinate clauses, the findings prove interesting

because they support previous observations about the syntactic structure of different

verb classes, case-marking of arguments and intervention effects. Using the acceptability of the SR relative clause form as a diagnostic of movement to [Spec, TP], we have seen intervention effects of Attraction by the EPP of T. We have seen arguments for an EPP feature which can only be satisfied by a DP (a specific nominal expression). Nominals that cannot satisfy T's EPP feature do, however, serve as interveners for the raising of other DPs in their c-commanding domain. In clauses with an NP-subject, some other expression, a DP, must raise to delete T's EPP feature for convergence. NP-subjects and accusative objects induce intervention effects; both are barred from moving to T, the former cannot satisfy the EPP and the latter cannot move to a structural case position. Although neither can satisfy the EPP on T, they block movement of a lower DP.

Approaches based on theta-roles are also not adequate. Structural hierarchy rather than grammatical functions such as subject or object determines the ability of a DP to raise to T. An NP subject of an unaccusative verb because of its position as the complements of V° does not block another DP raising to T. Any inherently case-marked expression can be relativized using the SR form in unaccusatives because the subject will not intervene. By contrast, the NP subject of an unergative verb, which is generated in a structurally higher position, does block the raising of DPs from its c-commanding domain. Similarly, in transitive constructions, a DP-direct object raises to $v$P. Although the accusative object itself cannot satisfy T's EPP feature, it serves to block the raising of a lower DP such as a locative. A genitive possessor from within the accusative object, however, can raise to T. This is because neither the accusative object nor the NP-subject c-commands this possessor DP. These facts

give support to Chomsky's (2000) Defective Intervention Constraints which stipulate that elements that cannot themselves delete features serve to block other elements in their c-commanding domain from checking those features. In sum, the EPP seems to be a featural requirement; as long as there is no intervening c-commanding nominal, any DP can check T's EPP feature with the proviso that it not be structurally case-marked (i.e. not bear accusative case).

# Chapter 5: Human/Non-human Distinctions in Turkish

## 1 Background

In Chapter 4, we saw that the movement of a DP to T obeys Minimality. The example in (1) has an unaccusative verb. This means that the "subject"[130] is the complement of V° and other nominal expressions are generated higher than the subject. When relativizing a non-subject, the SR form is generally not acceptable in clauses with unergative, or intransitive, verbs. As demonstrated in the tree in (1)b for (1)a, the NP-subject *cars* intervenes between the Wh-element and T. There is no way to express this clause with a non-specific subject; it must be stated with a specific subject using the NSR form, as in (2).[131]

1)  a. *[araba(-lar) gid-**en**] cadde
   car(s)  go-**SR** street
  'the street that cars go on.'

---

[130] By subject I mean the expression that merges into the outermost theta position of the verb. Thus, the subject of an unaccusative verb is its complement, while the subject of both transitive and intransitive verbs is the expression merged in the theta position in [Spec, *v*P]. Note that this excludes inherently case-marked expressions which, analogous to PPs, are lexically theta-marked.

[131] Note that example (6) must do double-duty, and is used to mean both "the specific cars" and "the cars in general". As we will see later in this chapter, another way of denoting non-specificity in Turkish is by use of a partitive construction, so example (i) is also a possibility.

  (*i*) [araba-lar-dan git-**tiğ**-i] cadde
     car-pl-ABL go-**NSR** street
     'the street that (some (of the)) cars go on'

b.

```
                              CP
                      track
                             TP        C°
            ②           t-street
                        +uWh    vP        T°
                    NP-cars
                             VP      v°
              ①         DP-street   V°
                        +Loc        go
```
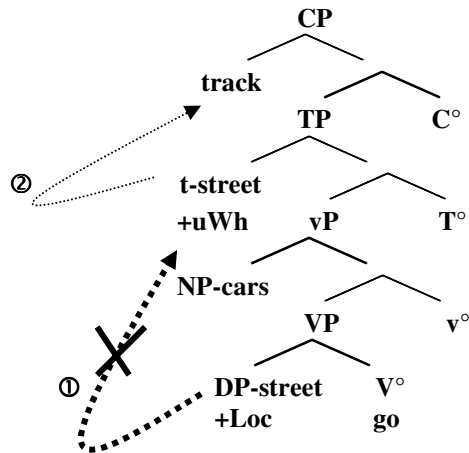
2)    [araba(-lar)-ın git-**tiğ**-i] cadde
       car(s)-GEN    go-**NSR**   street
       'the street that the cars go on'

I have argued that (1)a is a Minimality violation; the NP subject c-commands the

locative and is an intervener.  There is another derivation that literally gets around the

Minimality issue by letting *cadde* 'street' become a "free-rider" on a scrambled

expression.  A larger expression, for example the DP/PP [on the street's top] with

*street* as the specifier as in (3)a and (3)b, can scramble around the subject, (3)c.  The

specifier *street* is now free to move out of the scrambled expression raising to [Spec,

TP] without intervention from the subject as in the now acceptable SR clause in (3)d.

3) a.  [DP/PP [DP cadde-nin] üst-ün]-de
                   street-GEN  top-AGR-LOC
        Lit: 'on the street's top'

   b.  [araba [VP [DP [DP cadde-nin] üst-ün]-de     gid-er]].
        car                street-GEN  top-AGR-LOC  go-AOR
        Lit: 'Cars go on the street's top' (i.e. 'Cars go <u>on/over</u> the street')

c. [ [DP [DP cadde-nin] üst-ün-de]₁    [vP araba [VP *t*₁ gid-er ]
           street-GEN  top-AGR-LOC       car          go-AOR
     'It is cars that go <u>on/over</u> the street'

d. [CP ... [DP [DP Ø₂] üst-ün-de]₁    [vP araba [VP *t*₁ gid-**en**] cadde₂
                      top-AGR-LOC       car          go-**SR**  street
     'the street that cars go on (the top of)'


We see the same phenomena with transitive verbs.  First, notice that as shown in (4)b

for the unacceptable example in (4)a, an accusative direct object cannot move to T.


4) a.  *[kedi tırmala-**yan**] çocuk
         cat   claw-**SR**     child
     Intended: 'the child that a cat clawed' [Actual: 'the child that clawed a cat']

b.
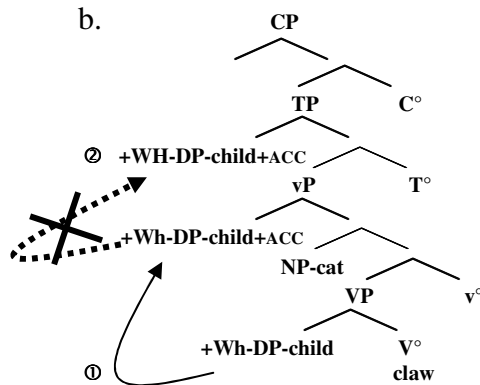


It is not surprising that a structurally case-marked element cannot move to another

structural case-assigning position.  On the other hand, we have seen that Turkish

allows inherently case marked elements in the [Spec, TP] position.  The relativized

expression in (5)a bears inherent locative case prior to movement to [Spec, TP], as

shown in the sentence in (5)b, and in (6)b we see that the relativized expression in

(6)a bears inherent ablative case prior to promotion.

5) a. [mısır yetiş-**en**] tarla
    corn grow-**SR** field
    'the field where corn grows'

  b. (Bu) tarla-da mısır yetişiyor.
    (this) field-LOC corn grows
    'Corn grows on (this) field'

6) a. [fare çık-**an**] delik
    mouse come.out-**SR** hole
    'the hole that mice come out of'

  b. Delik-den fare çıkı-yor.
    hole-ABL mouse come.out-pres.prog.
    'A mouse/mice is/are coming /came out of the hole.'

Returning to the issue of Minimality, we have so far determined that i) an intervening NP subject blocks raising of a +Wh-expression to T; ii) although an accusative direct object is higher than an in-situ subject, the object is barred from moving to T; and iii) inherently case-marked expressions are permitted in [Spec, TP]. The example in (7)a demonstrates that a genitive possessor of an accusative object can also move to [Spec, TP] as evidenced by the acceptability of the SR form. The derivation of (7)a appears in (7)b. Once the direct object has raised to [Spec, *v*P], the subject no longer intervenes between the object and T. Whereas the accusative object itself, the DP [*child's arm*] is barred from moving to [Spec, TP], the possessor *child* is free to raise out of the DP to T, as in move ②.

7)    a. [ [Ø₁ kol-u]-nu kedi tırmala-**yan**] çocuk₁
        arm-POSS-ACC cat claw-**SR** child
      'the child whose arm a cat clawed'

b.

```
                      CP
                   ╱      ╲
               TP          C°
            ╱      ╲
②  +Wh-child      ╱    ╲
                vP        T°
             ╱      ╲
       DP+ACC        ╱   ╲
          NP-cat        v°
              ╱    ╲
            VP        v°
         ╱      ╲
       DP          V°
    ╱      ╲        claw
+Wh-child    ╲
 +GEN    arm    D°
```

①
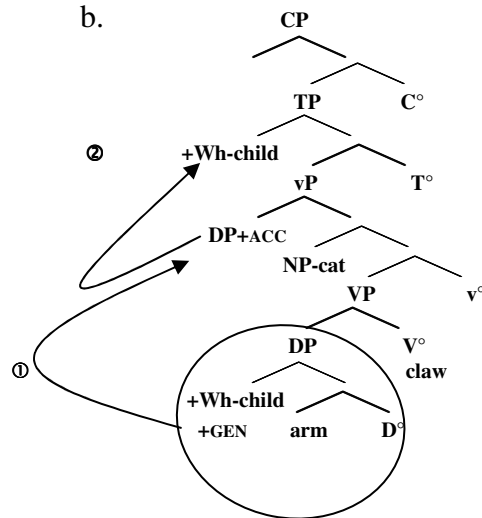
Crucially, the direct object [*child's arm*] is not +Wh, only the element in its Spec, *child*, is. Thus, it is only the genitive possessor of the accusative object that raises in ② from the *v*P to [Spec, TP] after which it again raises to [Spec, CP], triggering the SR form.

The conclusion is that as long as the relativized expression can get around the subject, and the subject itself does not have to, indeed, cannot raise to T, the relativized expression can move to [Spec, TP] and license the SR form.


## 2  The Problem of Human Subjects


Having determined that the SR form is only licensed when the relativized expression can move to, and through, [Spec, TP], we saw that this move must obey Minimality. We also saw that raising of a possessor out of an accusative object which itself has raised above a non-specific NP-subject avoids a Minimality violation.  The problem

147

is that whereas this strategy generally holds, it results in unacceptability when the subject is +human. The near-minimal sets (8) through (10) are transitive constructions where the relativized element is the possessor of the accusative direct object. However, the SR form is acceptable only when the subject is –human; a +human subject results in unacceptability of the SR form.

8)    a.   [[Ø₁ kayığ-ı]-nı    nehir  sürükley-**en**] balıkçı₁
            boat-POSS-ACC river  drag-**SR**     fisherman
            'the fisherman whose boat a river dragged'

    b.   *[[Ø₁ kayığ-ı]-nı    köylüler kıyı-ya   sürükley-**en**] balıkçı₁
            boat-POSS-ACC villagers shore-DAT drag-**SR**     fisherman
            'the fisherman whose boat villagers dragged onto the shore'

9)    a.   [[Ø₁ ev-i]-ni       fırtına  yık-**an**] aile₁
            house-POSS-ACC tornado raze-**SR** family
            'the family whose house a tornado razed'

    b.   [[Ø₁ ev-i]-ni       belediye     yık-**an**] aile₁
            house-POSS-ACC municipality raze-**SR**  family
            'the family whose house a municipality razed'

    c.   *[[Ø₁ ev-i]-ni       işçi/asker(-ler)    yık-**an**]  aile₁
            house-POSS-ACC worker/soldier(-pl) raze-**SR**  family
            'the family whose house (a) worker(s)/soldier(s) razed'

10)   a.   [[Ø₁ çocuğ-u]-nu   arslan yiy-**en**] anne₁
            child-POSS-ACC lion   eat-**SR**  mother
            'the mother whose child a lion/lions ate'

    b.   *[[Ø₁ yavru-su]-nu    avcı(-lar)  yiy-**en**] geyik₁
            young-POSS-ACC hunter(s)  eat-**SR**   deer
            'the deer whose young a hunter/hunters ate'

    c.   [[Ø₁ yavru-su]-nu    avcı-lar-ın    ye-**diğ**-i]    geyik₁
            young-POSS-ACC hunter-pl-GEN  eat-**NSR**-3s  deer
            'the deer whose young the hunters ate'

As demonstrated in (11), the difference does not lie in animacy. The subjects in both

(11)a and (11)b are animate; but in the unacceptable (11)b, the subject is +human.

Furthermore, (11)b becomes acceptable in the NSR form (11)c, as long as the subject

is specific, and has moved to T[132]. We can assume this to be so because the subject

bears genitive case, which it cannot get unless it has raised to T. Support for this

assumption appears in (12).


11)　　 a.　[pro bir kız-ın　　yan-ın-da　　　ol-**duğ**-u]-nu　　gör-dü-ler.
　　　　　　　 one　girl-GEN side-his-LOC　be-**NSR**-3s-ACC　see-PAST-3pl
　　　　　　'They saw that (of the salient girls) one (of them) was by his side.'

　　　　 b.　pro [yan-ın-da　　bir kız　ol-**duğ**-u]-nu　gör-dü-ler.
　　　　　　　 side-his-LOC one girl　be-**NSR**-3s-ACC　see-PAST-3pl
　　　　　　'They saw that there was a girl by his side.'


Subjects of embedded clauses in Turkish generally bear overt genitive case. We

assumed case is assigned in a Spec-Head configuration and that the EPP of a case

assigning head attracts a DP to its Specifier. We also assumed that non-specifics are

NPs that neither satisfy the EPP nor require case. We assumed that locatives mark

the edge of the VP (Kural 1992). In (11)a, the embedded subject of the copular

---

[132] Note that the accusative direct object in the NSR form is higher than the subject in these examples. I argue that the genitive subject in the NSR form is in [Spec, TP], so I assume that the possessor-possessee DP-object scrambles out of the *v*P, to a position above the subject. (There may be a projection v*P above *v*P but below TP as suggested by Lasnik (1998, 2002)and Chomsky (2005) to which the scrambled expression adjoins.) It is beyond the scope of this work to discuss this scrambling further, but I will point out that the unscrambled version of the NSR form is also acceptable as in (i) for example (13c) because the Wh-expression *geyik* undergoes A-bar movement from with the accusative DP in [Spec, *v*P]. As expected, this order is not possible with the SR form because the Wh-geyik is A-moving to [Spec, TP] and the subject intervenes.
　　　　 (*i*)　[avcı-lar-ın　　　[*vP* Ø₁ yavru-su]-nu　　　ye-**diğ**-i] ] geyik₁
　　　　　　　　 hunter-pl-GEN　　　 young-POSS-ACC　 eat-**NSR**-3s ] deer
　　　　　　　 'the deer whose young the hunters ate'

clause has raised above the VP and bears genitive case.[133]  It must also receive a

specific interpretation.  This contrasts with (11)b, where the embedded clause is an

existential construction.  In (11)b the locative is above the non-specific subject which

bears no case morphology.  A non-specific subject must remain in-situ and must be

bare, whereas genitive case on the subject can be viewed as evidence that the subject

is in [Spec, TP].  Returning then to the acceptable (10)c, because the subject bears

genitive case, it must be in [Spec, TP], it must receive a specific interpretation, and

based on our assumptions, it must be a DP.

No other animacy heirarchy among the arguments is playing a role in the

grammaticality of the examples.  Let's look at several alternatives.  In examples (8)

and (9) above, the direct object is composed of a human possessor and an inanimate

possessee.  In (10)a, possessor and possessee are both human, and in (10)b, they are

both animate.  In (12) below, the possessor is human and the possessee is animate.

And, in (13), the possessor is inanimate and the possessee is human.  In all these

examples, the same pattern obtains.  The SR form becomes unacceptable when the

non-specific subject is +human.[134]  As we see (12)c-d, the NSR form is acceptable for

both human and non-human subjects with the stipulation that the subject be specific.

---

[133] I assume that the subject of a copular structure merges as a complement of V° and that locatives
adjoin to VP.  Thus a locative in a copular sentence merges above (and linearly to the left) of the
subject.

[134] Zimmer (1987) notes that the RC with the human subject in (i) is quite marginal whereas (ii) is fine.
He suggests that this is "presumably because humans are inherently more individualized and topic-
worthy than non-humans."

    (i)  ??bir  doktor otur-an  ev
         one doctor  live-**SR**  house
        'a house in which a doctor lives'
    (ii) bir  köpek bul-un-an    ev
        one dog    find-**PASS**-**SR** house
        'a house in which there is a dog' (Literally: 'a house in which one finds a dog')

12) a. [[Ø₁ ineğ-i]-ni      tren ez-**en**]      köylü₁
           cow-POSS-ACC train run.over-**SR** peasant
           'the peasant whose cow a train ran over'

     b. *[[Ø₁ ineğ-i]-ni      şoför ez-**en**]      köylü ₁
           cow-POSS-ACC driver run.over-**SR** peasant
           Intended: 'the peasant whose cow a driver ran over'

     c. [[Ø₁ ineğ-i]-ni      şoför-ün ez-**diğ**-i]      köylü ₁
           cow-POSS-ACC driver-GEN run.over-**NSR**-3S peasant
           'the peasant whose cow **the/*a** driver ran over'

     d. [[Ø₁ ineğ-i]-ni      tren-in ez-**diğ**-i]      köylü₁
           cow-POSS-ACC train-GEN run.over-**NSR-**3S peasant
           'the peasant whose cow the train ran over'

To rule out as much as possible the other factors that may be responsible for the difference, I include the minimal pairs in (13). In Turkish, the words 'publisher' and 'publishing house' are similar to the English in that they contain the same root plus a morpheme. In Turkish, 'publish' *yayın* plus the '-er' morpheme *-cı*, denote the +human noun 'publisher' *yayıncı*, and 'publish' plus the word 'house' *ev* denote the non-human organizational 'publisher', or 'publishing house', *yayınevi*. As demonstrated in (13)a, whereas 'publishing house' is acceptable as the subject of the SR clause, the +human 'publisher' is not. Both are possible as clausal subjects, as shown in (13)b, but only if specific, and case-marked.

13) a. [[Ø₁ yazar-ı]-nı      yayınevi      /*yayıncı aray-**an**] makale₁
           author-POSS-ACC publishing.house/publisher search-**SR** article
           'the article whose author publishing.houses/*publishers are looking for'

---

Although I do not find this explanation adequate—indeed, the purpose of this chapter is to find a principled syntactic explanation as to why this may be so—it demonstrates that the phenomena has been previously remarked upon.

yayınevi-nin

b. [[Ø₁ yazar-ı]-nı /yayıncı-nın ara-**dığ**-ı] makale₁
   author-POSS-ACC publishing.house-GEN search-**NSR**-3S article
   /publisher-GEN

'the article whose author the publishing.house/the publisher is/was looking for'

# 3  Toward a Solution

In the previous section, we saw that in otherwise acceptable transitive SR relative clauses, a +human subject leads to unacceptability. Interestingly, there are other instances in Turkish where a +human nominal behaves differently from its non-human counterpart.[135] As shown in (14), in matrix sentences, a non-human non-specific subject is restricted to the immediate preverbal position, i.e. must remain in situ. The examples in (15) show that this restriction does not hold for +human non-specific subjects.

14)  a.  Ağaç-tan bir elma düş-tü
         tree-ABL one apple fall-PST
         'An apple fell from a tree'

     b.  *Bir elma ağaç-tan düş-tü
          one apple tree-ABL fall-PST

15)  a.  Ağaç-tan bir çocuk düş-tü
         tree-ABL one child fall-PST
         'A child fell from a tree'

     b.  Bir çocuk ağaç-tan düş-tü
         one child tree-ABL fall-PST

---

[135] Most of the examples (14)-(20) are from Erguvanlı (1984) which includes the following observation based on animacy: [-animate] indefinite subjects are restricted to the immediate left of the verb 1- in intransitive sentences and 2- in transitive sentences with a definite [+animate] DO. I show that the contrast is more aptly described in terms of human/non-human features and specificity, rather than animacy and definiteness.

Non-specific non-human direct objects cannot have case (16)b (or a plural marker (16)c). Note that overt case on 'apples' in (16)d-e[136] yields a specific interpretation. This contrasts with +human direct objects which must bear accusative case, as shown in (17)a-c.[137] A definite or specific interpretation is achieved by means of a demonstrative, (17)d-e.

16)    a.   Ben elma   sev-er-im
            I     apple like-AOR-1s
            'I like apples'

       b.   *Ben elma-lar   sev-er-im
            I     apple-pl   like-AOR-1s

       c.   *Ben elma-lar-ı     sev-er-im
            I    apple-pl-ACC   like-AOR-1s

       d.   Ben bu     elma-lar-ı     sev-er-im
            I     these   apple-pl-ACC   like-AOR-1s
            'I like these apples'

       e.   Ben elma-lar-ı     sev-di-m
            I    apple-pl-ACC   like-PST-1s
            'I liked the apples'

17)    a.   *Ben insan   sev-er-im
            I     human   like-AOR-1s

       b.   *Ben insan-lar sev-er-im
            I    human-pl   like-AOR-1s

---

[136] Use of the aorist tense in (16)d would have been odd without the demonstrative 'this', i.e. the sentence would mean 'I like the apples (we grow rather than the pears)'. I include the past tense example in (16)e to demonstrate that the demonstrative is not necessary to denote specificity.
[137] Although Erguvanlı (1984) did not include it, the non-plural example with accusative case is also unacceptable with the unmarked interpretation of 'I like apples'. (i) has the interpretation of 'I like apples [not some other fruit]' and can only be uttered as a contrastive response to someone else's utterance about some other fruit.
       (*i*)   Ben elma-yı     sev-er-im
             I    apple-ACC like-AOR-1s

c.  Ben insan-lar-ı      sev-er-im
    I   human-pl-ACC  like-AOR-1s
    'I like people'

d.  Ben bu    insan-lar-ı       sev-er-im
    I    these human-pl-ACC  like-AOR-1s
    'I like these people'

e.  Ben bu    insan-lar-ı       sev-di-m
    I    these human-pl-ACC  like-PST-1s
    'I liked these people'

Although Turkish has relatively free word order, the transitive constructions in (18)

demonstrate that a non-human object can never precede a +human subject, even a

non-specific one.  The exception is (18)f where the object is in Topic position, i.e.

must be D-linked.

18)    a.  [bir adam] [bir bahçe]   suluyor
            one man    one garden  watering
           'A man is watering a garden'

       b.  [bir adam] [bir bahçe]-yi    suluyor
            one man    one garden-ACC watering
           'A man is watering a (specific) garden'

       c.  [bir adam] [bahçe]-yi    suluyor
            one man    garden-ACC  watering
           'A man is watering the garden'

       d.  *[bir bahçe]-yi    [bir adam]  suluyor
             one garden-ACC  one man   watering

       e.  *[bir bahçe] [bir adam] suluyor
             one garden one man   watering

       f.  bahçe-yi    [bir adam] suluyor
           garden-ACC one man    watering
           'The garden, a man is watering (it).'

As shown in (19), a non-human non-specific subject cannot precede a +human specific object.[138] No such restriction applies to non-human specific objects.[139]

19)  a.  Ali-yi    ev-de      bir sürpriz bekliyor
         Ali-ACC home-LOC one surprise waiting
         'A surprise is waiting for Ali at home'

     b.  *bir sürpriz Ali-yi    ev-de       bekliyor
          one surprise  Ali-ACC home-LOC  waiting

20)  a.  Yol-u      bir araba tıkamış
         road-ACC one car    blocked
         'A car has blocked the road'

     b.  bir araba yol-u       tıkamış
         one car    road-ACC blocked
         'A car has blocked the road'

Let's take stock:

  *i.*   Whereas –human non-specific subjects must remain in situ, +human non-specific subjects can (in fact, it seems must) raise from their base positions.

  *ii.*  Whereas non-specific –human direct objects cannot have case (or a plural morpheme), +human direct objects must bear overt case.

  *iii.* A non-human object can never precede a +human subject.

  *iv.*  A non-human non-specific subject cannot precede a +human specific object.

---

[138] I will shortly demonstrate that a non-specific human nominal is not possible in Turkish, and will argue that a partitive construction is used to denote non-specificity for humans.
[139] I am not sure what position *bir araba* 'a car' occupies in (20)b. I assume that in (20)a, it is in its base position. Although I have not said anything throughout about Agr projections, it may be the AgrO projection in the verbal domain that causes the difference. As we will see later in this chapter, +human expressions have φ-features, or rather are φ-complete. Perhaps, it does not matter whether it is the object or the subject that checks the Agr features in (20); however, in (19) the +human object must be the highest expression in the verbal domain so that its φ-features can be checked by AgrO. Being marked with structural accusative case, the human direct object cannot have its φ-features checked by AgrS because it is barred from moving to T. This point is purely speculative, though.

These facts combined lead us to conclude that +human arguments must be DPs. Recall that I had proposed that only DPs can raise and receive Case. Extending this assumption to the +human facts, we must conclude that +human nominals can never be NPs, they must be DPs. Thus, just like DPs +human arguments must bear case, (ii) above, and just like DPs, they must raise to case assigning positions, (iii) and (iv) above. The facts in (i) also follow if we assume that +human subjects are DPs: they <u>must</u> raise from their base positions, and be case-marked. Before I explain the nature of the +human DP, let's first look at more evidence and the consequences of such an assumption, including the issue of specificity.

The assumption that +human arguments are obligatorily DPs is supported by evidence from Quantifiers and Wh-phrases. According to Kural (1992) +human direct object Quantifiers (QPs) and Wh-phrases must bear accusative case.[140] Let's look at the contrast between *who* and *what*, and *someone* and *something*, in the examples below.

As shown in (21) and (22), the +human Wh-expression *who* must always bear accusative case when it is a direct object, no such requirement holds for *what*.


21)    a.  *pro* kim-i     unut-tu-n?
             pro who-ACC forget-PST-2s
             'Who did you forget?'

        b.  **pro* kim unut-tu-n?
              pro who forget-PST-2s

---

[140] from Kural (p.c.)

22)    a.  *pro* ney-i      unut-tu-n?
               pro what-ACC forget-PST-2s
               'What (specific thing) did you forget?'

    b.  *pro* ne    unut-tu-n?
               pro what forget-PST-2s
               'What did you forget?'

Nominative case is null, but we can assume the same holds for *who* when it is a subject, i.e. it raises to T and bears the Ø nominative morpheme. This can be verified by embedding the question in a complement clause. In (23), the +human wh-subject *kim* 'who' must bear overt case. No such requirement exists for the non-human wh-subject *ne* 'what' in (24)[141].

23)    a.  **pro* [kim  gel-diğ-i]-ni      gör-dün?
               pro  who  arrive-**NSR**-3s-ACC saw-PST-2s
               'Who did you see arrive?'

    b.  *pro* [kim-in    gel-diğ-i]-ni       gör-dün?
               pro  who-GEN arrive-**NSR**-3s-ACC saw-PST-2s
               'Who did you see arrive?'

---

[141] The example in (23)b is an interrogative even though the matrix verb does not bear the Question morpheme *–mI*. This contrasts with (24), which can only be a question if the matrix verb has a Q-marker, as in (i).

        (*i*)  a.  *pro* [ne   kırıl-dığ-ı]-nı       biliyor-**mu**?
                  pro   what broke-NSR-3s-ACC know-**Q**-3s
                  Does he know what broke?'
            b.  *pro* [ne-yin    kırıl-dığ-ı]-nı       biliyor-**mu**?
                  pro  what-GEN broke-NSR-3s-ACC know-**Q**-3s
                  'Does he know what (specific thing) broke'

When a Q-morpheme is added to (26b), the interpretation becomes 'Did you see who arrived?' I will not speculate here as to what may motivate this difference. In the ECM example in (ii) with the verb *san* 'believe/think', the bare *what* takes matrix scope, making (ii) an interrogative in contrast to (27).

        (*ii*)  Ne   kır-ıl-dığ-ı-nı san-ıyor?
                what break-NSR-3s-ACC believe-3s
                'What does he think/believe broke?'

24) a. *pro* [ne   kırıl-dığ-ı]-nı       biliyor
         pro  what broke-**NSR**-3s-ACC know-3s
         'He knows what broke'

    b. *pro* [ne-yin     kırıl-dığ-ı]-nı       biliyor
         pro  what-GEN broke-**NSR**-3s-ACC know-3s
         'He knows what (specific thing) broke'

The same requirement holds for Quantifiers.  In (25), we see that the +human QP

*someone* must also obligatorily bear case, whereas *something* need not (26).  And, as

expected the QP *someone* must bear genitive case when it is the embedded subject

(27)a whereas no such requirement exists for *something* (27)b.

25) a. *pro* biri-**ni**       unut-tu-n.
         pro someone-**ACC** forget-PST-2s
         'You forgot someone'

    b. **pro* biri      unut-tu-n.
          pro someone forget-PST-2s

26) a. *pro* birşey-i          unut-tu-n.
         pro something-ACC forget-PST-2s
         'You forgot some (specific) thing'

    b. *pro* birşey      unut-tu-n.
         pro something forget-PST-2s
         'You forgot something'

27) a. *pro* [biri*(-nin)   gel-diğ-i]-ni       biliyor
         pro  someone-GEN  come-**NSR**-3s-ACC know-3s
         'He knows someone came/is coming'

    b. *pro* [birşey(-in)       kırıl-dığ-ı]-nı       biliyor
         pro  something(-GEN) broke-**NSR**-3s-ACC know-3s
         'He knows some (specific) thing broke'

The QP and Wh-facts support our earlier conclusion that +human arguments must always bear case.[142] We saw that Case in Turkish is assigned in a Spec-head configuration. Because +human arguments are always case-marked, we can conclude that they must obligatorily have raised to a case-assigning head.

We saw that the SR relative clause is licensed for non-subject extraction when the subject remains low in the structure, leaving [Spec, TP] vacant for the Wh-expression. Repeating the tree in (7) as (28), note that we had assumed the non-specific subject *cat* was an NP that must remain in-situ. If the subject were a DP, it would have to raise to T and get case. When [Spec, TP] is occupied by a non-Wh-element, the NSR is triggered, as shown in (29).

---

[142] Similar facts can be found cross-linguistically. For example, in Persian (an SOV Indo-European language), the direct object case morpheme –*ra* is obligatory on Wh-words and Quantifiers denoting humans (ii) but is not permitted for non-human nominals unless they are D-linked and specific (i).

(*i*)  a.  che /yek chizi did-im          b.  che-ra  /yek chizi-ra  did-im?
            what/one thing see-1p                what-ACC/one thing-ACC see-1p
            'What did we see?'                    'What (specific) thing did we see?'
            'We saw something.'                   'We saw some (specific) thing.'
(*ii*) a.  *ki /*kesi     did-im          b.  ki-**ra**  /kesi-**ra**     did-im?
            who/someone see-1p                   who-ACC/someone-ACC see-1p
            'Who did we see?'                     'We saw someone.'

In Hindi (P. Chandra, p.c.) 'something' as a direct object can optionally be marked with the specificity marker –ko, as in (i). On the other hand, a direct object 'someone' without the –*ko* marker is unacceptable, (ii).

(*i*)  a.  hər  sʊbəh  mɛ kʊčh čizɛ  bhul jati hũ
            every morning I   somethings forget PROG be
            'every morning I forget something'
        b.  hər  sʊbəh  mɛ kʊčh čizɛ  bhul jati hũ
            every morning I   somethings forget PROG be
            'every morning I forget some (specific) thing'
(*ii*) a.  *hər partime mɛ kIsI         bhul jati hũ
             every party I    someone forget PROG be
        b.  hər partime mɛ kIsI-**ko**        bhul jati hũ
            every party I    someone-**KO** forget PROG be
            'every party I forget someone'

In Afrikaan, direct objects raise when they are specific. A non-human universal quantifier direct object can raise or remain in situ, but a human direct object must obligatorily raise (T. Biberauer, p.c.).

28)   a.   [ [Ø₁ kol-u]-nu       kedi tırmala-**yan**] çocuk₁
             arm-POSS-ACC cat   claw-**SR**       child
           'the child whose arm a cat clawed'

   b.
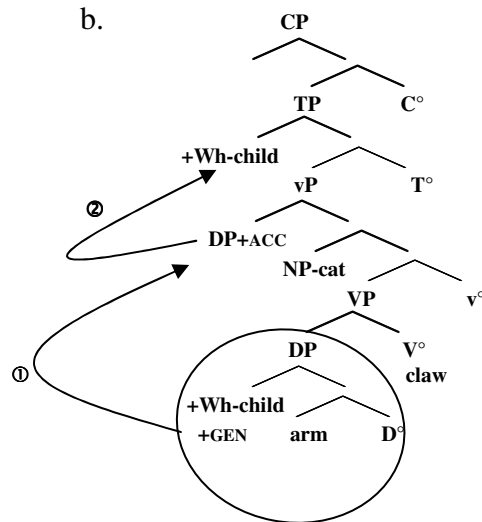


29)   a.   [ [Ø₁ kol-u]-nu       kedi-nin tırmala-**dığ**-ı] çocuk₁
             arm-POSS-ACC cat-GEN   claw-**NSR**       child
           'the child whose arm <u>the</u> cat clawed'

   b.
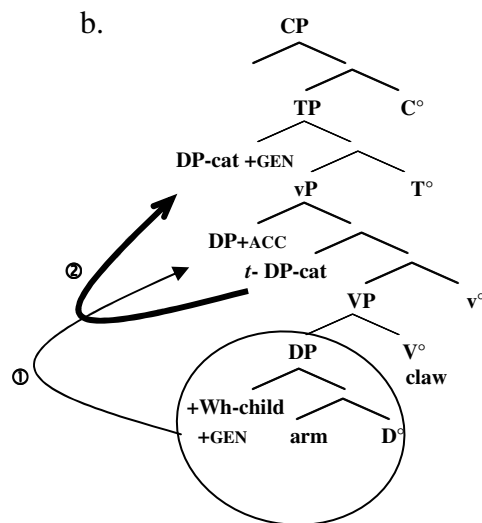


Thus, the SR form is not possible for non-subjects when the clausal subject is a DP.

By assuming that +human nominals are obligatorily DPs, we can account for the fact

that the SR form is banned when the subject is human: [Spec, TP] will always be occupied by the +human DP-subject. Consequently, the +Wh relativized element will not be able to move to [Spec, TP], and the SR form will be barred.

# 4  Explaining the Behavior of Human Nominals

We have determined that +human nominals in Turkish have the hallmarks of DPs. They must be case-marked and they must raise to functional projections. I suggest that +human nominals in Turkish must always first merge with a null pronoun which gives the nominal its φ-features.[143] Adopting Postal (1966), I assume that D° and pronouns are essentially the same thing, a bundle of features, specifically φ-features. Adopting a version of Longobardi (1994), I propose that +human nominals in Turkish have the structure as in (30).

---

[143] Interestingly, number agreement on the verb in Turkish is permitted only when the subject is +human. Plural agreement with an overt non-human subject usually denotes a plurality of events, as in (iiib) and (ivb).

| | | | | | |
|---|---|---|---|---|---|
| *i.* | a. | yolcu-lar  geldi | b. | yolcu-lar geldi-ler | |
| | | traveler-pl  came | | traveller-pl came-pl | |
| | | 'the travelers came' | | 'the travelers came' | |
| *ii.* | a. | kuş-lar ötüyor | b. | *kuş-lar ötüyor-lar | |
| | | bird-pl  chirping | | bird-pl  chirping-pl | |
| | | 'the/some birds are chirping' | | | |
| *iii.* | a. | köpek-ler hırladı | b. | köpek-ler hırladı-lar | |
| | | dog-pl growled | | dog-pl    growled -pl | |
| | | 'the/some dogs growled' | | 'the/some dogs growled (on different occasions)' | |
| *iv.* | a. | otobüs-ler geldi | b. | otobüs-ler  geldi-ler | |
| | | bus-pl    came | | bus-pl      came-pl | |
| | | 'the buses came (at one time)' | | 'the buses came (series of comings/*all at one time)' | |

Thus, it may be that contrary to what is believed, Turkish actually has a "poor" agreement system and that the verbal agreement that does exist is triggered by the presence of (or perhaps required for interpretability by) φ-features which appear only on +human nominals. Kornfilt (2005) suggests that in Turkish "agreement has pronominal features". It seems reasonable to assume that φ-features must obligatorily enter into an Agree relation, and that the null 3rd person singular verbal agreement is in fact no agreement at all for non-human arguments, and is default or defective agreement for +human arguments.

30)                                    DP
                                   ╱‾‾╲
                                      ╱‾╲
                        NP+human    D° (= Ø-pronoun=φ-features)
                          athlete
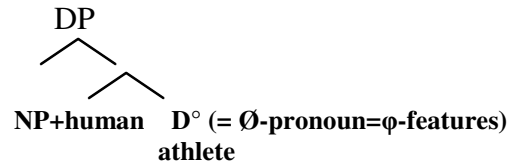

In Chapter 3 on Specificity, we looked at some of Longobardi's arguments.  Let's

revisit some of them here.  First, we saw that Italian sentences require a D in the

preverbal subject position, as in (31) and (32).


31)    a.  ***Acqua** viene giù    dalle     colline.
              water  comes down from.the hills

       b.  Viene  giù    **acqua** dalle     colline.
           comes down water from.the hills


32)    **\*(Un/Il)** grande **amico** di  Maria  mi ha telefonato.
         (a/the)  great   friend  of  Maria called me up


However, an article is optional when the subject is a proper name, as in (33).  An

exception is (34), when the proper name is the last name of a female, the article is

obligatory.


33)    a.  Gianni mi ha telefonato.
           Gianni called me up

       b.  Il Gianni mi ha telefonato.
           the Gianni called me up


34)    La Callas/*Callas ha cantato.
       the Callas/Callas sang


162

Longobardi assumes that in sentences such as (33)a) above, with a determinerless proper name as subject, there is in fact a null D head, and that there has been N to D movement. Thus, (33)a) is not an exception to the requirement of a DP as subject. (33)a) and (33)b) are almost identical except that in (33)a), there has been head movement of N to a null D. The structural difference in the subjects is shown in (10).

35)   a.   Gianni ...                          b.    Il Gianni ...

```
          DP                                        DP
         /  \                                      /  \
       D°    NP                                  D°    NP
       Ø      \                                  Il     \
              N°                                        N°
            Gianni                                    Gianni
       (N to D movement arrow from Gianni to D° Ø)
```
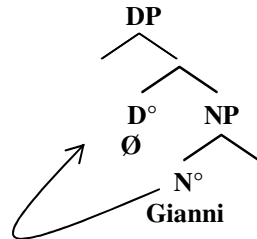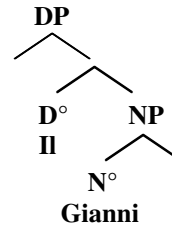
It becomes understandable why an overt determiner is obligatory for last names of females. Whereas a name like Marie carries a gender feature, the feminine gender feature is not carried on the last name, which is neutral. I assume that this gender feature is borne by D, with the result that there is too much φ-feature information on the D for it to be null (or vacuous).

For Turkish, I had suggested a strong hypothesis: that only DPs can be arguments, and that by extension NPs can only be nominal predicates[144]. I had adopted Mandelbaum's (1994) proposal that predicate NPs are basically adjectival. Translating this idea into an "event-ish" semantic interpretation, a sentence with an NP subject like *cat* in (36)a), would be an event of 'cat-scratching' which would have

---

[144] Higginbotham (1987) proposed that an argument is "saturated" and can thus be assigned a theta role. By extension Szabolcsi (1987), Abney (1987) and Longobardi (1994) have argued that NPs are nominal predicates (unsaturated) and do not bear a theta-role and DPs are arguments that do bear a theta role. Stowell (1989) has shown that NPs are non-referential, whereas DPs are referential.

*his arm* as the Theme, as shown in (36)b)[145]. This differs from the sentence in (37)a

with a DP subject in that we now have an external argument *cat*. Thus, the semantic

interpretation for (37)b) would be there is an event of 'scratching' which has *cat* as

the Agent and *his arm* as the Theme.


36)     a.  [*pro* kol-u]-nu        kedi tırmala-dı
                arm-POSS-ACC cat   scratch-PST
            'A cat (i.e. some cat or other) scratched his arm'

        b.  ∃e[∃x:Cat (x) [Agent (e, x) & Scratching (e)] & Theme (e, his arm)]


37)     a.  kedi  [ *pro* kol-u]-nu        tırmala-dı
            cat           arm-POSS-ACC  scratch-PST
            'The cat scratched his arm'

        b.  ∃e [Agent (e, the cat) & Scratching (e) & Theme (e, his arm)]


The question remains as to why a +human subject is not allowed by the grammar to

be predicative or adjectival as in (36)a. Does the restriction reside in the syntax or the

semantic component? I suggest that it is the syntax that drives this constraint, or

more aptly, it is the lexicon. My proposal is that in Turkish (and perhaps in other

languages as well[146]), nominals in the lexicon marked as having +human features

---

[145] I point out again that I reject the idea that the non-specific subject incorporates into the verb. See Chapter 3 and reasons cited there.

[146] Freeze (1992) includes interesting cross-linguistics data for existentials. He also includes the following data from English in regards to the interaction between +human subjects and locations and the verb 'have'. When the subject of 'have' is non-human, the theme must be inalienably possessed (or characteristically treated as such), as in (i). No such restriction holds for human subjects, (ii).

    (i)  a.   The tree has branches.
         b.   The flour has weevils.
         c.   The tree has a nest *(in it.) = There is a nest in the tree.
         d.   The flour has a ring *(in it).  = There is a ring in the flour.
    (ii) a.   The boy has a needle.
         b.   The boy has a cousin/nose.
         c.   The boy has fleas.

have a selectional requirement for φ-features. Pronouns are inherently human because they contain, in fact, are φ-features.[147] As for non-pronominals, I assume that a +human nominal must first merge with φ-features in the lexicon before it can enter a derivation.[148] The +human element that enters the derivation, then, is a composite of human+φ-features which is identical to human+(null)pronoun, which if we take Postal's work seriously is equivalent to human+D. This human+D expression, as with all DPs, is prevented (either by the syntax or the LF interface) from being predicative/adjectival, and so must first-merge into a theta position.[149]

---

Note that whereas a non-human location permits existential predication with a theme, the human location prefers to be the subject of a 'have' construction, (iii). In fact, as shown in the existential/'have' constructions in (v) and (vi), human "locations" require the 'have' construction in contrast to non-human locations which can only appear in existential or copular constructions.

     (iii)  a.    There is a nest in the tree.
             b.    There is a ring in the flour.
             c.    There is a needle on the boy. ( ≠ The boy has a needle.)
     (iv)  a.    *A book is with/at/by Lupe.
             b.    *There is a book with/at/by Lupe.
             c.    Lupe has a book.
     (v)   a.    A mongoose is on the shelf.
             b.    There is a mongoose on the shelf.
             c.    *The shelf has a mongoose.

Although discussing the nature of human/non-human nominals in English is beyond the scope of this thesis, the data here demonstrates that +human locations are not acceptable in existential "there" constructions, and that they must raise to [Spec, TP] of the verb 'have'. As for possession, if we assume a thematic heirarchy with inalienable possession being the lowest, one could argue that the data on possession in (i) and (ii) suggests that human possessors can raise within this heirarchy, but that non-human possessors can not.

[147] Note that the 3rd person singular pronoun in English *it* cannot refer to humans: *It came. I assume this is so because this pronoun lacks φ-features, which is consistent with what I am proposing for Turkish. Note that this excludes the 3rd person plural pronoun, *they*. It is noteworthy that number features seem to add structure to a nominal, for example a NumP, that has consequences in Turkish. Thus, in the good SR examples where the RC subject is an NP, changing the subject to a plural leads to degrading or unacceptability. Thus, absence of φ-features means absence of person and number features.

[148] Of course, it is also possible that a +human nominal must merge with a null-pronoun, i.e. φ-features, in overt syntax forming a DP which then merges into a theta position. I am not committed as to the exact nature of the selectional requirement and how it is satisfied; it is only that such a requirement exists that is germane here.

[149] Higginbotham (1987) argues that the copula in "John is the director" is different from the copula in "John is a director" in that the former expresses identity and is referential whereas the latter is predicative. In addition, he argues that in English definite descriptions can be predicative as the embedding of [John (is) the man] without an overt copula in (ia) demonstrates.

     (*i*)  a.    I consider [John [the man (for the job)]]

Being a DP, it can satisfy the EPP, and it must receive case. As we will shortly see, a DP must also enter into an Agree relation.

Before we return to Turkish, I should point out that the nature of D° must be parametric cross-linguistically. A null D° in Italian may have default 3rd person, singular (perhaps masculine) φ-features, which would explain why a proper name may raise to D° in (10)a. It would also explain why an overt determiner is required for female last names in Italian as we saw in (34); the feminine feature on the proper name (assuming it exists only on last names of females) would create a feature mismatch on D°.

Returning to the Turkish examples in (12) repeated as (38), we are now in a position to account for the unacceptable SR form in (38)b. Recall that the SR form is licensed when a +Wh-expression moves to [Spec, TP]. For a non-subject to move to [Spec, TP], the subject had to be an NP so that it would not need case. In (38)b, the non-Wh-subject *şoför* 'driver' is +human. This means that it must have first merged with a null-pronoun (or D°). As a DP, it must satisfy the Case Filter, and so must move to [Spec, TP] in order to receive case. The unacceptability of (38)b is due to a Case Filter violation. In (38)c, the +human subject has raised to [Spec, TP] and received case. I assume the accusative object [DP [DP *peasant's*] *cow*] has scrambled over the subject, after which the possessor [DP *peasant*] raises from the specifier of the DP to [Spec, CP]. A non-human subject, on the other hand, may be either an NP, as

---

b.    *I consider [John [the man (standing over there)]]
I would argue that (ia) actually contains a small clause, as in "the man (who is best) for the job". Thus I will stick to the strong hypothesis that a DP cannot be a predicate.

in (38)a, leaving [Spec, TP] vacant for the Wh-expression, or a DP, as in (38)d, in

which case it must raise to [Spec, TP] to be assigned case.

38)  a.  [[Ø₁ ineğ-i]-ni      tren ez-**en**]       köylü₁
           cow-POSS-ACC train run.over-**SR** peasant
           'the peasant whose cow **a** train ran over'

     b.  *[[Ø₁ ineğ-i]-ni       şoför ez-**en**]       köylü ₁
           cow-POSS-ACC driver run.over-**SR**  peasant
           Intended: 'the peasant whose cow **a** driver ran over'

     c.  [[Ø₁ ineğ-i]-ni       şoför-ün     ez-**diğ**-i]        köylü ₁
           cow-POSS-ACC driver-GEN  run.over-**NSR**-3S peasant
           'the peasant whose cow **the/*a** driver ran over'

     d.  [[Ø₁ ineğ-i]-ni       tren-in  ez-**diğ-**i]        köylü₁
           cow-POSS-ACC train-GEN run.over-**NSR-**3S  peasant
           'the peasant whose cow **the** train ran over'

We saw in (25) and (26), repeated as (39)and (40) respectively, that there is a contrast

with respect to case-marking and specificity based on whether an argument is

+human.  A case-marked non-human argument, as in the accusative 'something'

*birşey-i* in (40)a, must receive a specific interpretation (a specific "thing").  This is

expected from what we know about overt case and specificity.  However, the bare

*someone* as a direct object is unacceptable in (39)b, and the case-marked *someone*

does not denote a specific person.  How is it that a case-marked expression can yield

a non-specific interpretation, in this case, a non-specific human?

39)  a.  *pro* biri-**ni**      unut-tu-n.
           pro someone-**ACC** forget-PST-2s
           'You forgot someone'

     b.  **pro* biri       unut-tu-n.
            pro someone forget-PST-2s

40)   a.  *pro* birşey-i        unut-tu-n.
          pro something-ACC forget-PST-2s
          'You forgot some (specific) thing' or 'You forgot a/one thing'

      b.  *pro* birşey      unut-tu-n.
          pro something forget-PST-2s
          'You forgot something'

I suggest non-specificity for human nominals is achieved in Turkish by means of a

partitive construction.  Support for this proposal comes from the fact that the word

*someone* in Turkish is in fact bi-morphemic: *one* plus possessive agreement, as shown

in (41)a.  I assume that the structure of *bir-i* is actually "of them, one" as in (41)b,

with a null *pro* denoting the *of them* in the specifier of D°.  This null *pro* triggers the

possessive agreement on *bir* 'one'.  This DP-NP structure is analogous to an

existential IP with the NP-one in the restrictor and the *pro* defining the scope.

Because D° is a case-assigner, the *pro* in the Spec of the DP is assigned case. The NP

does not require case, but the entire DP must be case-marked.  The partitive itself is

specific, i.e. a DP, but the expression in its restrictor can be non-specific.

41)   a.  Bir-i   gel-di.
          one-3s come-PST
          'Someone came'

      b.
```
                    DP
                  /    \
              pro      / \
                    NP     D° = Ø-pronoun
                  one+agr        +human
```

168
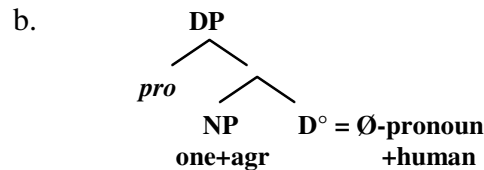
There are two partitive constructions in Turkish: one with genitive case on the superset nominal, and the other with ablative case, as in (42)a and (42)b respectively[150].

42)  a.  Ali kadın-lar-**ın**   iki-si-ni        tanıyordu.
         Ali woman-pl-**GEN** two-AGR-ACC knew
         'Ali knew two of the women'

     b.  Ali kadın-lar-**dan**  iki-si-ni        tanıyordu.
         Ali woman-pl-**ABL** two-AGR-ACC knew
         'Ali knew two of the women'

Let us look closer at the derivation of these partitives. Beginning first with (42)b, I assume that the structures begin by merging the superset DP-*women* with the subset NP *two X's*, where X is of the same type as the superset, as in (43)a where the index merely denotes "of the same type". In (42)b the DP-*women* is a PP-like expression "from/of the women" and as with most Turkish PPs is inherently case-marked, in this case with ablative case. As shown in (43)b the merge of the PP/DP and the NP projects to an NP which merges with a D°. D° has an EPP feature and attracts the ablative PP/DP-*women* to its specifier triggering agreement on the NP[151], as in (43)c. Note that I refer to the phrase "of the women" as a PP/DP-*women*. This is because the structure of this expression is actually a DP with ablative case; there is no PP projection above the DP. In this structure, there is no issue of minimality in the movement of the PP/DP to [Spec, DP]. In an English PP, the DP would be raising

---

[150] Examples from Enç (1991).
[151] I remain agnostic as to where and how agreement is actually triggered. There may be an Agr projection (both in the nominal and verbal domains), but I have ignored this completely as it would take me too far afield. What is relevant, is that an agreement morpheme shows up on the phonologically contentful N°. Kornfilt (2005) offers an account of Agr in these constructions, but the analysis is at right angles with what I am proposing here.

from the complement position of P°, and thus be c-commanded by the NP *two*.

However, the Turkish PP has the structure of a DP, i.e. it is  not embedded in a PP

projection.  This is shown in the tree in (44) for the derivation in (43).

43)    a.   [PP/DP women$_1$]-ABL + [NP two X$_1$]

       b.   [NP [PP/DP women$_1$-ABL] + [NP two X$_1$]] + D°

       c.   [DP [PP/DP women$_1$-ABL] [NP [PP/DP women$_1$-ABL] + [NP two X$_1$]] + D°+AGR]

44)
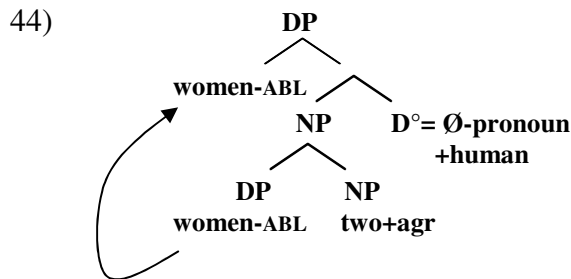


The derivation of the partitive in (42)a is almost identical to (43)-(44) except that the

PP/DP *women* does not have inherent case and needs to be assigned structural case.

Looking at the derivation for (50)a in (45), we see that a possessive PP/DP *(of)*

*women* merges with the NP *two X's* in (45)a.  This structure then merges with D°, and

the PP/DP *(of) women* raises to [Spec, DP], triggering agreement.  In this derivation,

D° assigns genitive case to the DP in its Spec.[152]

45)    a.   [PP/DP (of) women$_1$] + [NP two X$_1$]

       b.   [NP [PP/DP (of) women$_1$] [NP two X$_1$]] + D°

---

[152] This is basically a possessor construction.  It may be that there is a null *of* in the PP/DP *(of) women*.
A possibility that I find appealing is that the specifier of NP may be a possessor theta position and that
an element merged here picks up a possessor theta role.

c.   [$_{DP}$ [$_{PP/DP}$ (of) women$_1$-GEN] [$_{NP}$ [$_{PP/DP}$ (of) women$_1$] [$_{NP}$ two X$_1$]] D°+AGR]

Let's now return to the sentence in (39)a repeated as (46). Note that the structure of

the direct object is actually polymorphemic, consisting of *one* plus possessive

Agreement plus the accusative morpheme. I propose that this structure is identical to

the partitives we saw above, specifically the derivation in (45). The derivation in (47)

shows the structure of *bir-i-ni* 'someone'. The superset denoted by *(of) them+human*,

is actually a null pronoun, or more specifically a D° with φ-features, as in (47)d. The

NP *one X* picks up its identity from whatever the identity of the superset is, but it does

not itself need to bear the same features. Thus *one X* can remain an NP. In this way,

we can explain the non-specific interpretation of *someone*+case; the larger partitive

construction is a DP which gets case, but the NP *bir* is non-specific. Thus, in (46),

the direct object is a partitive with the non-specific (NP) lexical item *one* embedded

in a DP shell that serves as its scope. Non-specificity obtains because *someone*, i.e.

[$_{NP}$ one X] remains in the restrictor. Of course, the partitive, being a DP, requires

case; (39)b repeated as (48), is therefore a Case Filter violation.


46)     *pro* bir-i-ni     unut-tu-n.
           pro one-3s-ACC forget-PST-2s
           'You forgot someone'


47)     a.  [$_{PP/DP}$ (of) them+human$_1$] + [$_{NP}$ one X$_1$]

        b.  [$_{NP}$ [$_{PP/DP}$ (of) them+human$_1$] [$_{NP}$ one X$_1$]] + D°

        c.  [$_{DP}$ [$_{PP/DP}$ (of) them+human$_1$-GEN] [$_{NP}$ [ *t* ] [$_{NP}$ one X$_1$]] D°+AGR]

        d.  [$_{DP}$ [$_{PP/DP}$ D°=φ=null pronoun X$_1$+human-GEN] [$_{NP}$ [ *t* ] [$_{NP}$ one X$_1$]] D°+AGR]

48)  *pro bir-i      unut-tu-n.
      pro someone-3s forget-PST-2s

To be sure we are on the right track, let's look closer at the Turkish "one" *bir*.

Perlmutter (1969) demonstrates that the indefinite article in English behaves like the

numeral *one*. Yükseker (2003) argues that *bir* 'one' in fact behaves differently from

the other numerals. First, as demonstrated in (49), numerals (other than *one*) can

alternate in word order with adjectives with no semantic reflex. On the other hand,

*bir* denotes numericity when separated from the nominal it modifies, as in (50).

49)  a. iyi   yeni iki  kitap
        good  new  two  book
        'two good new books'

     b. **iki** iyi   yeni kitap
        two good new    book
        'two good new books'

     c. iyi  **iki**  yeni   kitap
        good two   new     book
        'two good new books'

50)  a. iyi   yeni **bir**  kitap
        good new  one     book
        'a/*one good new book'

     b. **bir** iyi   yeni kitap
        one good new  book
        '*a/one good new book'

     c. iyi  **bir**  yeni   kitap
        good one   new     book
        '*a/one good new book'

Second, numerals can co-occur with a demonstrative as long as the nominal is case-marked, as in (51)[153], whereas *bir* is incompatible with a demonstrative as shown by (52). In fact, *bir* seems to be incompatible with specificity, as shown by the unacceptability of the accusative case on (53)b. Example (53)c demonstrates an exception where *bir* is focused and pronounced with stress and can appear with an overtly accusative, i.e. specific, object.[154]

51)  a.  Patricia bu  kitab-ı     oku-du
         Patricia this book-ACC read-PST

    b.  *... bu   kitap ...
            this book

    c.   ... iki   kitap ...
            two book

    d.  *... iki kitab-ı[155] ...
            two book-ACC

    e.   ... bu   iki   kitab-ı ...
            this two book-ACC


52)  a.  *Patricia bu  **bir** kitab-ı     oku-du
            Patricia this one book-ACC read-pst

    b.  *... bu   **bir** kitap ...
            this one book


53)  a.  Patricia bir  kitap oku-du
         Patricia one book read-PST
         'Patricia read a book'

    b.  *... bir kitab-ı ...
            one book-ACC

---

[153] Numerals seem to be [–specific] because they lead to unacceptability when modifying a case-marked nominal without an overt demonstrative element, as in example (51)d.
[154] This issue of focus will be addressed later as part of a larger discussion.
[155] This example is acceptable when in response to a D-linked set, but this is orthogonal at this point.

c. Exception: Patricia her  gün **BIR** gazetey-i      oku-r
                Patricia every  day **ONE** newspaper-ACC read-AOR
                'Patricia reads one particular newspaper every day'

Finally, whereas numerals exhibit adjectival properties as part of a larger DP, (54)a,

*bir* 'one' is predicative; it does whatever the indefinite article "a" or the indefinite

quantifier "some" do in English.

54)    a.  [DP bu  **iki**  yeni kitap]
              this two new book

       b.  [DP bu(*-nlar) **iki**  yeni kitap(*-lar)]
              this(*-pl)  two new book(*-pl)

       c.  *[DP bu  bir  yeni kitap]
              this one new  book

       d.  *[TP [DP bu] [VP iki   yeni kitap] ]
              this      two new book

       e.  [TP [DP bun-lar] [VP iki   yeni kitap] ]
              this-pl       two new  book
           'These are two new books'

       f.  [TP [DP bu] [VP bir yeni kitap] ]
              this      one new book
           'This is one new book'

       g.  [TP [DP bu] [VP yeni bir kitap] ]
              this      new one book
           'This is a new book'

For expository purposes I am going to refer to *bir* denoting non-specificity (translated

as the indefinite article in English in the glosses above) in lower case letters and the

numeral BIR 'one' in upper case letters.  I conclude from the data that once *bir* raises

from a position as sister to N°, it is interpreted as the numeral BIR.  To be more

precise, I assume that *bir*, in fact, cannot raise at all; it is the head of a phrase, OneP, which is syntactically an NP, and thus non-specific.[156] This contrasts with the numeral BIR that adjoins to NP, and is adjectival. The difference is shown in the diagrams in (55).

55)　　a.　***bir***　'a new book'　　　b.　the numeral **BIR** 'one new book'

```
           OneP                              NP
          /    \                            /  \
      new       \                        BIR    NP
            One°   N°                           /  \
            bir    book                     new     \
                                                      N°
                                                     book
```

Pursuing our analysis of partitives above, we might say that (55)a is analogous to [one $X_1$] [book$_1$] whereas (55)b is simply [one [new [book]]].

　　　I also assume that One° is the antithesis of a pronoun. A pronoun is a D° and is composed of φ-features, and is the locus of specificity. D-features raise in the syntax. One° is devoid of features, and serves as a "drag" on nouns: by this I mean that 1) it is an NP and cannot satisfy the EPP (OneP and its complement N cannot raise), and 2) it induces minimality effects and blocks raising from its c-commanding domain. In this way, One° causes syntactic (non-)specificity effects which will be interpreted in the semantic component.

　　　Repeating (41) as (56)a, let's use our analysis of the possessive partitive we saw in (47), to build the structure of the DP subject with the non-specific

---

[156] I adopt the view that phrasal labels are for expository/mnemonic purposes only and that the syntax only cares about categories as identified by their features or properties. Thus, as far as the syntax is concerned OneP is an NP.

interpretation 'someone'. First, note that the subject *biri* is indeed a DP with null

nominative case because when we embed the sentence, the subject must be

obligatorily case-marked, as in (56)b.

56)    a.  Bir-i-Ø        gel-di.
           one-3s-NOM come-PST
           'Someone came'

       b.  Susan [bir-i*(-nin)  gel-diğ-i]-ni          duy-muş.
           Susan  one-3s-GEN  come-COMP-3s-ACC hear-EVID
           'Susan heard that someone had come'

In (56)a, I assume the subject *bir-i* is a partitive structure where the superset is a *pro*

with the meaning akin to 'of the group'. As we saw, partitives can be denoted in

Turkish by either a nominal expression with ablative case, *onlar-dan*, as in (57), or a

possessive with genitive case, *onlar-ın*, as in (58).

57)    on-lar-dan *bir*-i    (dir)
       3-pl-ABL   one-3s (copula)
       'It/He is one of them'

58)    on-lar-ın *bir*-i    (dir)
       3-pl-GEN one-3s (copula)
       'It/He is one of them'

I assume that D° is a functional head that assigns case and also has an EPP feature.

As with other case assigning heads a non-case-marked DP may move to its specifier,

to be assigned case, or an inherently case-marked expression may move there to

satisfy the EPP. This is shown in (59)a for (57) where the ablative moves to [Spec,

DP] to check the EPP feature of the (null pronoun) D°, and (59)b for (58) where the

3<sup>rd</sup> person plural pronoun *them* without case raises to [Spec, DP] and receives genitive

case from D°.  In both instances, the movement triggers agreement on *bir*.

59)    a.                    DP
              them+ABL           /\
                        OneP     D° = Ø-pronoun
                         /\
                  DP       One°
              them+ABL    *bir*


       b.                    DP
             them+GEN          /\
                        OneP     D° = Ø-pronoun
                         /\
                  DP       One°
               them       *bir*


3rd person plural pronoun *them* without case raises to [Spec, DP] and receives genitive

case from D°.  In both instances, the movement triggers agreement on *bir*.

59)    a.                    DP
              them+ABL           /\
                        OneP     D° = Ø-pronoun
                         /\
                  DP       One°
              them+ABL    *bir*


       b.                    DP
             them+GEN          /\
                        OneP     D° = Ø-pronoun
                         /\
                  DP       One°
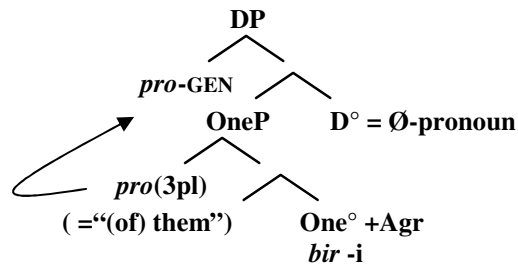               them       *bir*


In both these structures, the effect is such that the superset group identifies the scope

and the OneP delineates the restrictor.  Because *bir* is in the restrictor, it receives a

non-specific reading.

       In (56)a, with subject *bir-i*, the superset DP "(of) them" remains

unpronounced, a reflection of the "Avoid Pronoun Principle" which operates quite

systematically in Turkish. The superset in (56)a could also be pronounced as in (60),

but would entail a D-linked group.


60)         On-lar-dan/ın bir-i-Ø        gel-di.
            3-pl-ABL/GEN one-3s-NOM come-PST
            'One of them came'

Thus, I assume the superset "(of) them" of (56)a is *pro*. Furthermore, I will assume the possessive structure for *pro + bir* because there is evidence that this partitive structure requires the subset to be of the same type.[157] We had originally said that the expression denoting the superset could be first-merged as the complement of the subset (in this case One°) or as the Spec of One°.[158] I revise this view somewhat and suggest that in the ablative construction, the superset ablative adjoins to the subset-NP, and in the possessor partitive, the superset first merges as the specifier of the subset-NP. Thus, as shown in (61), the *pro* denoting the superset "of them" merges into [Spec, OneP], after which OneP merges with D°, and "of them"-*pro* raises to [Spec, DP] to be assigned genitive case, triggering possessive agreement on One.

61)    *pro*(on-lar-ın)  *bir*-i

The result is that by being in the restrictor of this construction, *bir* remains non-specific, while its superset possessor defines the scope. At the same time, the requirement that +human nominals be DPs is satisfied.


# 5 Summary


We began with a problem: in Turkish, +human subjects triggered unacceptability in relative clauses that were otherwise acceptable. Our analysis showed that +human nominals could not be NPs. We saw evidence from other data that supported this conclusion. We then looked at the non-specific +human QP, *biri*, 'someone', and saw that the grammar required it to be obligatorily case-marked. We had determined that overt case denotes specificity in Turkish, so how was the non-specific reading obtained? The polymorphemic structure of *bir-i* indicated that it was part of a partitive structure. By proposing an account where the *bir* remains in the restrictor of a complex DP, the contradiction between overt case and non-specificity was resolved.

In addition to the theoretical implications of human-non-human distinctions in specific grammars and in Universal Grammar, in general, on a pragmatic level, this study serves to identify another variable that needs to be considered when evaluating grammaticality. For example, Kennelly (1997) states that "Time expressions do not function as a 'Locative' argument in terms of relativizing using the [SR] strategy. *\*Adam gel-en gün.* 'The day when a man came.'" (p.64) Based on what we saw in this chapter, the ungrammaticality of this example is predictable because the subject is +human and must move to [Spec, TP] for case. However, examples with non-

human subjects are perfectly grammatical with the same time expression as the

relative head, as shown in (62).

62)  a.  [yağmur/kar yağ-an]   günler
          rain/snow   rain-SR   days
          'the days it rained/snowed

     b.  [bomba patlay-an] gün
          bomb   explode   day
          'the day a bomb exploded'

     c.  [çöp  al-ın-an]      gün
          trash take-PASS-SR day
          'the day the trash is taken'


# 6  Contrastive Focus and Human Subjects

We saw that extraction from possessive accusative objects using the SR form is

unacceptable when the RC subject is human.  Compare (63) with (64).  Of course, the

NSR form is acceptable for both these examples with the condition that the subject be

specific, as shown in the examples in (65), where the clausal subjects, *tren* 'train' and

*şöför* 'driver' must be overtly case-marked with genitive case and must receive a

specific interpretation.[159]

---

[159] As we have seen in other cases, the scrambled position above the subject in [Spec, TP] is also
available for the accusative object.  Thus the examples in (i) are also acceptable, but note that the case-
marking and interpretation (modulo the discourse effect of the scrambling) is identical.
     i.  a.  [[Ø ineğ-i]-ni    tren-in    ez-diğ-i]      köylu
                cow-AGR-ACC train-GEN run.over-NSR peasant
                'the peasant whose cow *a/the train ran over'
        b.  [[Ø ineğ-i]-ni    şöför-ün    ez-diğ-i]      köylu
                cow-AGR-ACC driver-GEN  run.over-NSR peasant
                'the peasant whose cow *a/the driver ran over'

63)     [[Ø ineğ-i]-ni      tren ez-en]      köylu
            cow-AGR-ACC train run.over-SR peasant
        'the peasant whose cow a train ran over'


64)     *[[Ø ineğ-i]-ni      şöför ez-en]      köylu
            cow-AGR-ACC driver run.over-SR peasant
        'the peasant whose cow a driver ran over'


65) a.  [tren-in    [Ø ineğ-i]-ni      ez-diğ-i]      köylu
        train-GEN      cow-AGR-ACC run.over-NSR peasant
        'the peasant whose cow *a/the train ran over'

    b.  [şöför-ün    [Ø ineğ-i]-ni      ez-diğ-i]      köylu
        driver-GEN      cow-AGR-ACC run.over-NSR peasant
        'the peasant whose cow *a/the driver ran over'


But note that the unacceptable (64) becomes acceptable when the +human subject is

contrastively focused, as in (66).[160]


66)     [[Ø ineğ-i]-ni      **BU şöför** ez-en]      köylu
            cow-AGR-ACC THIS DRIVER run.over-SR peasant
        'the peasant whose cow THIS DRIVER (rather than that one) ran over'


In the previous section, we determined that a +human nominal must be a DP and

must therefore always raise and be overtly case-marked.  A +human subject cannot

remain in-situ.  But this seems to be exactly what is happening in example (66), as

well as example (67) with a dative object, and example (68).  The SR form with a

+human subject is unacceptable unless the subject is contrastively focused.


67) a.  *[[Ø gemi-si]-ne    kaptan çarp-an]      adam
            ship-AGR-DAT captain run.into-SR  man
        'the man whose ship a captain ran into'

---

[160] Işsever (2003) shows that focus and contrastively focus are distinct phenomena in Turkish that
exhibit different properties.

b. [[Ø gemi-si]-ne    **BU kaptan** çarp-an]    adam
      ship-AGR-DAT THIS captain run.into-SR  man
      'the man whose ship THIS CAPTAIN (rather than that one)  ran into'


68) a. *[[Ø₁ ev-i-ni          işçi/askerler    yık-an] aile₁
          house-AGR-ACC worker/soldiers raze-SR family
          'the family whose house (a) worker(s)/soldiers razed'

b. [[Ø₁ ev-i-ni          **BU işçi/askerler** yık-an] aile₁
          house-AGR-ACC THIS worker/soldiers raze-SR family
          'the family whose house THIS WORKER/SOLDIERS (rather than that/those) razed'


We know that the NSR form is acceptable (in fact, required) for non-subject

extraction with human subjects, and contrastive focus is also possible on the NSR

clauses, as in (69) through (71) below.


69)    [[Ø₁ ineğ-i]-ni    **BU şöför-ün** ez-diğ-i]          köylu₁
          cow-AGR-ACC THIS driver-GEN  run.over-NSR-3s peasant
          'the peasant whose cow THIS DRIVER (rather than that one) ran over'


70)    [[Ø₁ gemi-si]-ne   **BU kaptan-ın** çarp-dığ-ı]          adam₁
          ship-AGR-DAT THIS  captain-GEN run.into-NSR-3s  man
          'the man whose ship THIS CAPTAIN (rather than that one)  ran into'


71)    [[Ø₁ ev-i-ni          **BU işçi-nin/askerler-in**       yık-tığ-ı]       aile₁
            house-AGR-ACC THIS worker-GEN/soldiers-GEN raze-NSR-3s  family
          'the family whose house THIS WORKER/SOLDIERS (rather than that/those) razed'


Returning to the SR examples, we know that the SR form is licensed when [Spec, TP]

is available for the +Wh-expression.  We had determined that human subjects cannot

remain low in the structure, i.e. they must always raise to [Spec, TP], so non-subject

SR clauses are expected to be bad because [Spec, TP] will always be occupied by the

non-Wh human subject.  In the good SR examples (66), (67)b and 68)b, the

relativized expression must have moved to [Spec, TP]. How is it that contrastive focus on a human subject allows it to remain out of [Spec, TP]?

There are three possible answers:

1- the subject is case-marked by T under long distance agree and the contrastive focus takes care of the movement at LF.

2- Contrastive Focus allows default case on the subject or perhaps no case.

3- Case is a PF phenomenon for visibility.

Let's look at these one at a time. The problem with the first option is that so far we have not assumed Long Distance Case Assignment. In fact, much of the evidence pointed to case assignment only in a [Spec-Head] syntactic configuration. The specifier of T was available only when the subject was an NP that did not require case. Furthermore, the human subjects in the examples do not bear case morphemes. In Turkish, expressions that are scrambled or sluiced keep their case morphology. I assume that case is, if anything, a PF phenomenon, i.e. absence of case on DPs leads to a PF crash. Again, it would be odd to say that that for this circumstance only, case is assigned via Agree and that PF does not require the case morpheme to have phonetic content.

The second option is also unappealing because we are coming up with exceptions to what has been a very consistent state of affairs. We have seen no evidence to presuppose the existence of a default case. All case-marking has been quite predictable and falls within standard theoretical assumptions. Allowing human subjects to have no case would completely negate what we have had to assume based

on the behavior specific to human nominals. We have just seen evidence that, in fact, whereas non-human nominals can be bare and remain in-situ, human nominals must always be case-marked and can never remain in-situ.

What do we know about human nominals and DPs in general? We know that they must raise in the structure and be overtly case-marked. If we assume that case-marking is a PF phenomenon required for visibility/interpretability, then we can argue that contrastive focus also gives us a PF reflex. That is, contrastively focused elements must receive intonational stress. This marked pronunciation is obviously visible at PF. In addition, contrastive focus is a feature that must be checked in the C domain. Turkish is a Wh-in-situ language. I assume that, just as with Wh-movement for interrogatives, movement for contrastive focus occurs in covert syntax, perhaps at LF. By assuming this, we can account for the acceptability of the SR form for contrastively focused human subjects. The intonation provides the visibility for the phrase at PF and the focus features drive the raising of the expression at LF. In this way, both interface requirements of a DP are met. The implication is that other than the EPP which is a requirement in narrow syntax, raising and case are LF and PF interface requirement respectively.

There is also a slightly different way to look at the phenomena here. The issue seemed to be that the grammar requires specifics, in general, and +human subjects, in particular, to have case and to raise. I had assumed that specifics "had to" raise to give us the Diesing-style mapping. We know that in these examples, there is no raising of the focused expression in the syntax because [Spec, TP] had to be vacant to license the SR form. But it is not clear that the focused expression must raise at

LF.  It is also possible that the interpretation of specificity is not because of heirarchy per se but simply a coincidental by-product of DPs—which are interpreted as specific at LF—having to raise.  Under this story, all other requirements being met, it could also be possible to interpret something as specific, *even at LF*, without raising.  A crucial requirement is satisfaction of the Case Filter.  Now if contrastive focus were also a case, or to be more precise, if it did at the PF interface whatever case does, then the "Case" requirement would be met.  And the specific interpretation would follow from the features on D°.

Now as to the PF Case requirement, there is also a view from Korean that focus and structural case may be doing the same work.  Schutze (2001) and Hong (2002) present evidence from Korean case-stacking phenomena that the structural case marking on top of inherent case-marked expressions is actually a focus marker. More interestingly, their data shows that focus and structural case marking are incompatible.  Let's assume that this prohibition holds for Turkish.  That would mean that in the SR examples, the contrastive focus intonation on the subject does the work of structural case-marking at PF, this being the flip-side of the second structural case marking in Korean which is presumably interpreted as focus marking at PF (and LF). At the same time, we would have to assume that the focus marking in the NSR examples with genitive subject is not on the subject (structural case and focus being incompatible) but rather on the T projection.  This would follow nicely with our expectation that there would be a difference in the scope of a contrastively focused SR vs. NSR clause.

I bring up these issues both to unpack what is fundamental to the spirit of this research project and what is peripheral, and also to point out topics of interest, but really they are orthogonal to this thesis, and it does not matter here what explanation one may wish to adopt.

One further issue remains. How do we explain the contrastively focused NSR examples (69) through (71)? Herburger (2000) notes that (contrastive) focus can target as little as a quantifier or as much as an entire phrase. In my account, I assumed that in the SR examples, the entire DP is focused and raises at LF. This contrasts with the NSR examples where only the Quantifier/Demonstrative of the subject raises at LF. I have avoided a detailed discussion of the different interpretation we expect in these two constructions. Again, I have made predictions, but the question is tangential to this work. I do want to add, though, that in addition to the scopal differences, the prediction is that there will be a difference in intonation patterns between these two types of clauses. In the SR version, the entire subject phrase will be stressed whereas in the NSR version only the demonstrative will receive stress. It is difficult to tease apart these two or indeed to develop diagnostics to tease apart the different interpretations between these structures, but it may be worthwhile, at least, to make a prediction.

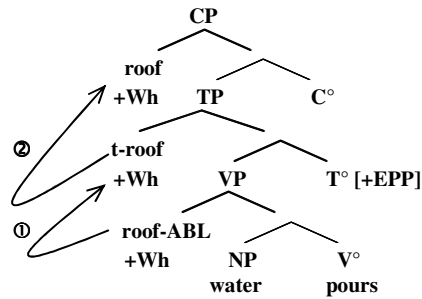# Chapter 6: Relativization in Psych Verb Constructions

## 1 Background

The central claim in this thesis is that the properties observed in Turkish relative
constructions can be explained by A-movement and minimality. We saw for example
that relativization of a non-subject, which canonically requires the Non-subject
Relative (NSR) form, is possible with the Subject Relative (SR) form in
unaccusatives, as in (1) but not in unergatives, as in (2).[161] We concluded this was
because the NP subject intervened between the Wh-expression and T° in unergatives,
but not in unaccusatives, as shown in the tree in (3) for (1), and in (4) for (2).

1) a. [Ø$_i$ su     ak-an]   dam$_i$
         water   pour-**SR**   roof
         'the roof water pours/drips from'

   b. Dam-dan su      ak-ıyor.
       roof-ABL watership   pour-pres.prog.-3s
       'Water is pouring/dripping from the roof'

   c. [su-yun     ak-tığ-ı]     dam
       water-GEN   pour-**NSR-**3s   roof
       'the roof that the water is dripping/pouring from'

2) a. *at-lar     koş-an   saha
       horse-pl run-**SR**   field
       Intended: 'the field where horses run'

---

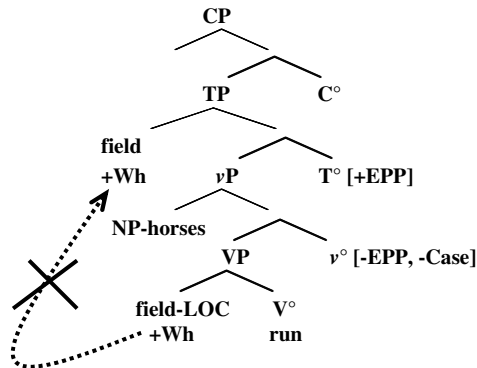[161] As noted in Chapters 2 and 3, the subject must be non-specific, and thus an NP in this account.

b. at-lar*(-ın)   koş-tuğ-u   saha
   horse-pl-GEN run-**NSR**-3s field
   'the field where the horses run'


3)   [Øᵢ su     ak-an]   damᵢ
        water pour-**SR** roof
        'the roof water pours/drips from'

CP
   roof
   +Wh    TP          C°
       t-roof
       +Wh     VP          T° [+EPP]
   ②
   ①    roof-ABL
           +Wh     NP        V°
                   water     pours


4)   *[at(-lar)   koş-an] saha
        horse-pl    run-**SR** field

CP
       TP          C°
   field
   +Wh     vP          T° [+EPP]
       NP-horses
               VP          v° [-EPP, -Case]
           field-LOC   V°
           +Wh         run


However, we have seen the SR form is licensed in another derivation with

scrambling. When the Wh-expression is embedded in a larger DP which scrambles

around the subject, thereby circumventing the intervention effects of the subject, the

SR RC is acceptable. In the tree in (5), the complex locative DP roughly equivalent

to 'the field's inside' first scrambles (and adjoins) to a projection below TP in move

①, after which the +Wh genitive expression 'field' in its Spec raises to [Spec, TP] and checks T's EPP feature.  This derivation licenses the SR form.

5)  [[ Ø₂ iç-in-de]₁       at     *t*₁ koş-an] saha₂
        inside-AGR-LOC  horse       run-**SR**  field
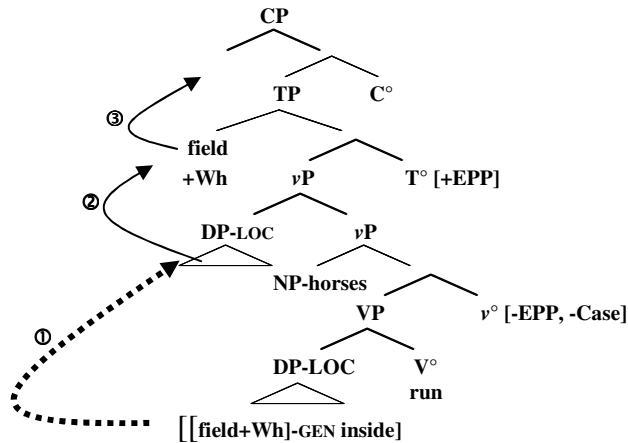
There is a class of verbs that does not seem to be as well-behaved in this respect: the class of predicates that denote psychological states, so called psych verbs.  Before we begin, let's refresh our memory as to potential confounding factors.  First, the SR form is licensed for non-subjects when the RC subject is an NP (non-specific). Second, human nominals cannot be NPs.  Thus, for non-subject relatives, any time the clausal subject is +human, the SR form will be barred because the DP subject must move to [Spec, TP] for case.  It is only when a +Wh expression moves to [Spec, TP] that the SR form is triggered. Thus, to even get the analysis off the ground, we must control for the human features of the subject.  This means that for non-subject extraction from psych verbs using the SR form, the subject can never be +human.

189

With this much introduction, let's now look at the behavior of these verbs with

respect to relativization.

## *1.1  Classes of Turkish psych verbs*

Turkish psych verbs fall into several types.[162]  These are shown below.  In Group 1

and 2, the subject is the Experiencer with an inherently case-marked Theme.  In

Group 3, we have an Experiencer subject and an accusative, or structurally case-

marked, Theme.  In Groups 4 and 5, the Experiencer is the Accusative object or

Dative object respectively.[163,164]

---

[162] Turkish allows a Causative morpheme in many of these psych verbs.  Compare (i) and (ii) with (6)
and (7), respectively.  The discussion in this Chapter is limited to psych verbs in what I assume is the
base form, that is, without the Causative morpheme.

| | (i) | Bu  ben-i    şaşır-t-tı. |
| | | this me-ACC surprise-CAUS-PST |
| | | 'This surprised me' |
| | (ii) | O         ben-i   kız-dır-dı |
| | | S/He/that me-ACC anger-CAUS-PST |
| | | 'S/He/that made me mad/angered me' |

Many of the intransitive psych verbs (i.e. those that take PP complements) become transitivized (assign
accusative case to the direct object) with the addition of a Causative morpheme.  This suggests that the
Causative is introduced in the vP, a la Pesetsky (1995).

[163] It may be more than coincidental that Levin (1993) identifies four classes of psych verbs in English:
Subject Experiencer that takes an object Theme (*admire*), Subject Experiencer that takes a PP Theme
(*marvel*), Object Experiencer (*amuse*), and Object of preposition Experiencer (*appeal*).  These can be
viewed as analogous to the kinds listed for Turkish.  Thus, it seems that languages allow psych verbs to
range over all verb classes.

[164] Pesetsky (1995) notes that the Theme of psych verbs can be divided into two semantic types: the
Target of emotion and the Subject Matter of the Emotion.  The Target of emotion object is evaluated
by the Experiencer, as in (i), where the impression is that Mary gave the play a bad evaluation.  The
Subject Matter Theme is shown in (ii) where "play" only participates in a linking to the Experiencer,
that is the play that didn't please Mary might be an excellent play, but it was written by her rival.

  (i)  The play didn't appeal to Mary.
  (ii)  The play didn't please Mary.

A preliminary evaluation of Turkish psych verbs does not yield such a tidy division, as the semantic
denotation of the Theme seems to be rather arbitrary.  Thus, whereas the Group 1 Subject Experiencer
verb *kız-* 'to get angry (at)' permits both Target and Subject Matter as Themes, the verb *bayıl-*
'love/get a kick out of' seems to require a Target Theme.  Similarly, in Group 2, the verb *kork-* 'fear'
permits both Target and Subject Matter Themes, while *nefretet-* 'despise' imposes a Target
interpretation on the Theme.  Likewise with the Object Experiencer verbs which differ as to the
interpretations they permit for the Causer, either Target or Subject Matter.  The Group 4 verb *rezil et-*
'disgrace' allows both semantic roles for the Causer, but *sık-* 'bore/frustrate' requires the Causer to be
the Subject Matter.  I mention these to point out that there seems to be no regularity in interpretation
that can be deduced from the various types of verbs or the Case that the arguments bear.

**Group 1: Subject Experiencer     Dative Theme**

6)     Ben bun-a     şaşır-dım.
       I    this-DAT surprised
       'This surprised me' (Literally: 'I felt.surprise to this')


7)     Ben on-a          kız-dım
       I    him/that-DAT got.angry
       'I got mad at him'


8)     Ben san-a     gıpta ed-iyorum.
       I    you-DAT envy  do-PRES
       'I envy/emulate you'


9)     Ben san-a     bayıl-ıyorum
       I     you-DAT faint-PRES
       'I love you' (Literally: 'I swoon over you')


10)    Ben o-na        güven-irim
       I    that-DAT trust-PRES
       'I trust him'


**Group 2: Subject Experiencer     Ablative Theme**


11)    Ben on-dan     kork-tum
       I     that-ABL fear-PST
       'I got scared by that'


12)    Ben bun-dan   zevk al-dım
       I     this-ABL   got-pleasure
       'I enjoyed this'


13)    Ben sen-den    nefret ed-iyorum
       I     you-ABL  hatred do-PRES
       'I despise you'

14) Ben sen-den   bık-tım
    I     you-ABL fed.up
    'I am fed up with you'

## Group 3:  Subject Experiencer        Accusative Theme

15) Ben sen-i       sev-iyorum
    I     you-ACC  love-PRES
    'I love you'

16) Ben sen-i       özlü-yorum
    I     you-ACC  miss-PRES
    'I miss you'

17) Ben o-nu          / sen-i     arzulu-yorum
    I     s/he/it-ACC/you-ACC desire-PRES
    'I desire s/he/it/you'

18) çocuklar-ı-nı köpek özle-yen adam
    I     you-ACC  miss-PRES
    'I miss you'

## Group 4:  Accusative Object Experiencer

19) O ben-i    etkile-di
    It me-ACC affected
    'It affected me'

20) O     ben-i   rezil    et-ti
    He/It me-ACC disgrace do-PST
    'He/It disgraced me.'

21) O     ben-i    sıkıyor
    He/It  me-ACC bores
    'He/It bores/frustrates me'

22) O ben-i boz-du
   He me-ACC humiliated
   'He humiliated me'

**Group 5: Dative Object Experiencer**

23) O ban-a dokun-uyor
   s/he/that me-DAT upset-PRES
   'S/he/That upsets me'

24) O ban-a tuhaf gel-di
   that me-DAT odd come-PST
   'That seemed strange/odd to me'

25) O ban-a eziyet et-ti
   s/he/that me-DAT bother/disturb do-PST
   'S/He/That bothered/disturbed me'

26) O ban-a malum ol-du
   that me-DAT obvious be-PST
   'It/That became known to me' (as in 'I found out')

# 2 Turkish Psych Verbs and Relativization

All psych verbs behave as expected with respect to canonical relativization. As the
examples in (27) demonstrate, the SR is acceptable only for subject extraction and the
NSR is required when relativizing non-subjects.

27) a. [haber-e şasır-an] adam
     news-DAT surprise-**SR** man
     'the man who felt surprised by the news'

b. *[haber-e   şasır-dığ-ı]   adam
     news-DAT surprise-**NSR** man

c. [adam-ın   şaşır-dığ-ı]       haber
     man-GEN surprise-**NSR**-3s  news
     'the news that the man felt surprised by'

d. *[adam(-ın)   şaşır-an]     haber
     man(-GEN)  surprise-**SR**  news

## 2.1   *Experiencer subjects*

The complication with these Subject Experiencer verbs is that, at first glance, they
seem to require human subjects. Thus, the example in (28) is marginal. And the
example in (29) can be viewed as an instance of coercion of sorts, that is, that the
subject 'dog' is being endowed with human characteristics. Note that example (31)
with human Experiencer as the subject is perfect. If the Experiencer subject is being
encoded as "human-like", it would account for the RC in (30)a, where the SR form
with an NP subject is unacceptable. Contrast this with the corresponding but good
NSR clause in (30)b, where the DP subject is case-marked. Is this because there is
something peculiar about the structure of psych verbs, or is (30)a bad because non-
subject extraction using the SR form is not possible with human subjects, and here
'dog' is behaving as if it were *syntactically* +human.


28)   ??at   tren   sesi-ne   şaşır-dı
         horse train  noise-DAT  felt-suprised
         Intended: 'The horse was surprised by the noise of the train'


29)   köpek/??at eğetimci-nin yeni  düdük  çal-ma-sı-na           şaşır-dı
         dog/horse   trainer-GEN   new whistle blow-INF-3POSS-DAT felt-surprised
         'The dog/??horse was surprised by the trainer('s) blowing a new whistle'

30) a  *[[ $\emptyset_1$ yeni düdük  çal-ma-sı-na]          köpek  şaşır-an]            eğetimci$_1$
         new whistle  blow-INF-3POSS-DAT dog    feel.surprised-**SR** trainer
         Intended: the trainer who dogs felt-surprised by (his) blowing a new whistle'

   b.  [[$\emptyset_1$ yeni düdük  çal-ma-sı-na]          köpeğ-in şaşır-dığ-ı]            eğetimci$_1$
         new whistle  blow-INF-3POSS-DAT dog-GEN    feel.surprised-**NSR-**3S  trainer
         'the trainer who the dog felt-surprised by (his) blowing a new whistle'

31)     öğrenci müdür-ün      yeni düdük çal-ma-sı-na          şaşır-dı
         student principal-GEN   new whistle blow-INF-3POSS-DAT felt-surprised
         'The student was surprised by the principal('s) blowing a new whistle'

Surely, it cannot be possible for a language to encode dogs as having "human-like" qualities and horses not. Furthermore, we are looking at syntactic reflexes here, prior to evaluation or interpretation by the semantic component. Let's therefore keep our analysis at the syntactic level and just assume at this point that Subject Experiencer Psych verbs seem to require DP subjects. We had determined that φ-features rest on D. In Turkish, φ-features are required for "the quality of being human". But recall that we had determined that this was a selectional requirement imposed by the lexicon. We can assume that this quality can be extended idiosyncratically to animals depending on the individual user. This would be analogous to the alternation we see in English between the +human pronouns *him/her* and the –human *it* when referring to animals. People who love dogs refer to their pets as "he" or "she" while a non-dog-lover may use "it" to refer to the same animal. It is no surprise, then, that horse lovers would find the marginal (28) and (29) with 'horse' acceptable. The proposal, then, is that psych verbs require the Experiencer subject to have a D-feature (which is the same as φ-features), and that there is some leeway in the acceptability of this feature on animals which is posited idiosyncratically. This will account for the facts so far.

Let's look at another example, the verb *gıpta* 'to envy/covet/emulate'.

Relativizing a locative using the NSR using *gıpta* is fine, (32)a. As expected,

relativizing a non-subject using the SR form is bad in (32)b-c because the clausal

subject 'villagers' is +human and must obligatorily raise to [Spec, TP] for case.

32) a.  [köylüler-in    eğitimli  kadınlar-a     gıpta et-tiğ-i]    ülke
          villagers-GEN educated women-DAT envy.do-**NSR**-3s country
          'the country where the peasants envy educated women'

   b.  *[köylü(-ler) eğitimli   kadınlar-a     gıpta ed-en] ülke
          villager(s)  educated women-DAT envy.do-**SR**  country
          Intended: 'the country where peasants envy educated women'

   c.  *[eğitimli   kadınlar-a     köylü(-ler) gıpta ed-en] ülke
          educated women-DAT villager(s)  envy.do-**SR**  country

Look what happens when the +Wh-expression is embedded. In the NSR example in

(33)a, the relative head 'villagers' has been extracted from the complex DP-subject

'villagers' daughters'. Not surprisingly from what we saw in previous chapters

regarding extraction from complex subjects, the parallel SR form in (33)b is also

acceptable. When extracting from within the Dative object though, note that the NSR

is acceptable (34)a, whereas the parallel SR form is unacceptable. As demonstrated

in (34)b-c, the subject 'villagers' daughters' may not remain in situ or without case.[165]

Again, the +human subject must raise to [Spec, TP] for case, making [Spec, TP]

unavailable for the +Wh-expression. Notice now the acceptable SR example in (35)

where the verb has been passivized. Here the Experiencer has been demoted; it is

now the complement of an adjunct 'by-phrase' with ablative case. With the

Experiencer former-subject out of the way in an adjunct clause, [Spec, TP] is now

---

[165] Example (34)c is an attempt to avoid intervention effects by scrambling the dative object around the subject. .

available for the +Wh specifier of the Dative DP, a configuration which licenses the

SR form.

33) a.  [[Ø₁ kızlar-ın-ın]    eğitimli  kadınlar-a   gıpta et-tiğ-i]    köylüler₁
          girls-AGR-GEN  educated women-DAT envy.do-**NSR-**3s villagers
    'the villagers₁ whose [such that (their₁)] daughters envy educated women'

   b.  [[Ø₁ kızlar-ı]  eğitimli  kadınlar-a    gıpta ed-en] köylüler₁
          girls-AGR educated women-DAT envy.do-**SR**   villagers
    'the villagers₁ whose [such that (their₁)] daughters envy educated women'

34) a.  [eğitimli kadınlar-ın   [Ø₁ kızlar-ı-na]        gıpta et-tiğ-i]    köylüler₁
          educated women-GEN    daughters-AGR-DAT envy.do-**NSR**-3s  villagers
    'the villagers₁ who [such that] educated women envy (their₁) daughters'

   b.  *[eğitimli   kadın(-lar) [Ø₁ kızlar-ın-a]        gıpta ed-en] köylüler₁
          educated woman(-pl)    daughters-AGR-DAT  envy.do-**SR** villagers
    Intended: 'the villagers₁ who [such that] educated women envy (their₁) daughters'

   c.  *[[ Ø₁ kızlar-ın-a]        eğitimli  kadın(-lar) gıpta ed-en] köylüler₁
          daughters-AGR-DAT educated woman(-pl) envy.do-**SR**  villagers

35)  [[Ø₁ babalar-ı-na]    genç  adamlar taraf-ın-dan  gıpta ed-il-en]   askerler₁
          fathers-AGR-DAT young men    viewpoint-ABL envy.do-PASS-**SR** soldiers
    'the soldiers₁ whose [such that (their₁)] fathers are envied by young men'

Let's say we accept the lexico-semantic fact that it doesn't make sense for *gıpta*

'envy/covet' to have a non-human subject. After all, a dog "envying" the food or the

collar of another dog is a little weird. Let's take a look at another verb that in

principle should permit a non-human subject. It seems though that the same facts

hold for the Subject Experiencer verb *güven* 'trust'. First, let's look at the behavior of

this verb with a human subject as in (36). As expected, extraction of a non-subject is

fine using the NSR form (36)a and bad using the SR form (36)b. Passivization

renders the human subject out of the way, and the SR form is again licensed (36)d.

36) a.  çocuklar [okulun müdür-ü]-ne          güvenirler
        children   school-GEN principal-AGR-DAT trust
        '(The) children trust the school's principal'

   b.  [[Ø₁  müdür-ü-ne]       çocuklar-ın   güven-diğ-i] okul₁
           principal-AGR-DAT children-GEN trust-**NSR**-3s  school
       'the school whose principal the children trust'

   c.  *[[ Ø₁ müdür-ü-ne]       çocuk(-lar) güven-en] okul₁
          principal-AGR-DAT child(ren)   trust-**SR**    school
       Intended: 'the school whose principal children trust'

   d.  [[ Ø₁ müdür-ü-ne]         güven-il-en]   okul₁
          principal-AGR-DAT trust-PASS-**SR**   school
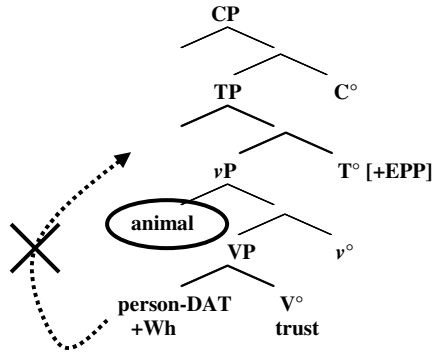       'the school whose principal is trusted'

Now let's look at this Experiencer subject verb with a non-human subject. As

expected, the SR form is barred when relativizing a non-subject because the subject

intervenes. This is demonstrated in the tree in (37)b for the unacceptable SR in (37)a.

In (37)a, the EPP of T fails to be satisfied. The non-specific subject *hayvan* 'animal'

cannot satisfy it, and, whereas the Dative Wh-expression can satisfy the EPP, it is

blocked from doing so by the intervening subject. The only way to relativize the

Dative Theme of the verb 'trust' is with the NSR form with a specific subject, as in

(38)a.[166] As demonstrated in the tree in (38)b, the subject raises to [Spec, TP]

satisfying T's EPP and is assigned genitive case while the +Wh-Dative long-distance

A-bar moves to [Spec, CP].

---

[166] In Chapter 5, I showed that the denotation of non-specificity on a nominal expression where a D-feature is imposed on it (as in the case of humans, and as we will see, psych verb Experiencers) is achieved in Turkish by the use of a partitive construction, (i). I assume that the underlying structure of the subject in (i) is as in (ii) where the non-specific (existential) 'animals' is in the restrictor of the null DP-animals. Thus, the meaning in (i) is technically 'the person who [of the animals] (some) animals trust'.

   (i)  [hayvanlar-ı-nın güven-diğ-i] insan
         animals-AGR-GEN strust-**NSR** person
        'the person who animals trust'
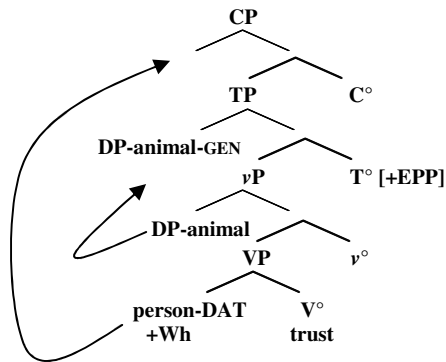   (ii) [DP [DP animals-GEN] [NP animals-POSS.AGR] D° ]-GEN

37) a. *[hayvan güven-en] insan
       animal  trust-**SR**   person
       Intended: 'the person who animals trust'

b.

```
                        CP
                      /    \
                    TP       C°
                  /    \
                vP      T° [+EPP]
            ( animal )
                  \    VP      v°
                  /    \
            person-DAT  V°
              +Wh       trust
```

38) a. [hayvan-ın  güven-diğ-i] insan
        animal-GEN trust-**NSR**    person
        'the person who **the** animal trusts'

b.

```
                        CP
                      /    \
                    TP       C°
                  /    \
        DP-animal-GEN    T° [+EPP]
                 vP
               /    \
        DP-animal    v°
                 VP
               /    \
        person-DAT   V°
          +Wh        trust
```

We saw in (5), an example of an alternative derivation using the SR form: the +Wh-expression is a "free-rider" in a larger DP and literally gets carried around the blocking element.  Recall how this worked: the relativized expression is embedded in a DP (as the specifier), the DP scrambles around the subject, and adjoins to a position lower than [Spec, TP].  The relativized expression is now free to raise to [Spec, TP] because there are no interveners, and the SR form is triggered.  This alternative

199

derivation does not seem to be possible with a Subject Experiencer psych verb. As shown in the examples in (39), the SR form is still unacceptable.


39) a.  *[[Ø₁ çocuklar-ı-na]     hayvan(-lar) güven-en/kız-an] insanlar₁
           children-AGR-DAT animal(s)    trust-**SR**/get.angry-**SR**    people
        Intended: 'the people whose children animals trust/get angry at'

   b.  [[Ø₁ çocuklar-ı-na]     hayvanlar-ın güven-diğ-i/kız-dığ-ı]    insanlar₁
          children-AGR-DAT animals-GEN  trust-**NSR**/get.angry-**NSR** people
        'the people whose children the animals trust'

The conclusion that Experiencer psych verbs "select" for human subjects is too strong as evidenced by the acceptability of (39)b. We must therefore assume that Turkish psych verbs require a subject with a D feature. Note that we are making a claim that psych verb selection is evaluated in overt syntax, prior to LF.[167]

Although we are looking at Turkish facts here, this requirement about Experiencers may be universal. Experiencers need not be definite but they cannot be existential. In English, for example, in sentence (40) we get the reading there were some children who played in this park. It certainly doesn't mean all children in general, played in the park. Contrast this with sentence (41) where the reading seems to be that all (contextually relevant) children, in general, trusted the policeman.


40)     Children played in this park


41)     Children trusted this policeman.

_____

[167] In essence, this is the flip-side of the requirement that +human nominals have a D feature. That is, we have two instances of selection, one nominal, that human nominals must merge with a D, and the other verbal, that psych verbs select for a DP as Experiencer, that produce identical intervention effects in the syntax.

The implication is that psych verbs do not allow Experiencers to be existential, that this is a lexico-semantic selectional requirement, and that this requirement is satisfied in unique ways in varying grammars. In Turkish, absence of a D-feature is interpreted as existential.[168] As shown in the table in (42), only an indefinite non-specific nominal does not require a D°.[169] And, as we have seen repeatedly, the presence of a D-feature on a nominal has syntactic consequences.

42) Encoding Definiteness and Specificity in Turkish

| Definite | Indefinite | Indefinite |
|----------|------------|------------|
| Specific | Specific | Non-Specific |
| Requires D° | Requires D° | **No D°** |

We are at a point where we can predict the behavior of an expression in a RC based on whether it is a DP or NP. Let's look at Subject Experiencer psych verbs that take an Ablative Theme, for example. Not surprisingly, as shown in (43)a-b, extraction of a locative is allowed with the NSR, but not the SR. Extracting from the subject permits both forms, (44)a-b. Extracting from the Ablative Theme is permitted only with the NSR form, regardless of the word order, (44)c-d-e. This is typical behavior of a clause with a +human subject. In (44), the relative head is the inanimate *okul*

---

[168] See Enç (1991) and Chapter 3 of this dissertation. Karimi (2003) offers a revised version of Enç (1991) according to which a nonspecific nominal (an NP, according to our account here), either lacks a referent (=kind-level) or is existential. The implication is twofold: that neither of these interpretations are permitted by the selectional requirement of the Experiencer of a psych verb, and that semantic notions such these and their counterparts are encoded in the lexicon.
[169] Chomsky (1999: fn.10) associates D with referentiality; nonreferential nominals such as non-specifics, quantified and predicate nominals need not be assigned D.

'school' which moved out of the larger Theme DP [school's naughty students]. I include the example in (45) to demonstrate that making the relative head +human, as in 'parents' from the Theme DP [parents-GEN naughty children-AGR] does not effect the outcome: non-subject extraction using the SR form is impossible with a +human clausal subject.

43) a.  [öğretmenler-in yaramaz öğrenciler-den bık-tığ-ı]     okul
        teachers-GEN    naughty students-ABL   fed.up-**NSR** school
        'the school where the teachers are fed up with naughty students'

  b.  *[öğretmenler yaramaz öğrenciler-den bık-an]     okul
      teachers       naughty students-ABL   fed.up-**SR** school
      'the school where teachers are fed up with naughty students'

44) a.  [[Ø₁ öğretmenler-i-nin] yaramaz öğrenciler-den bık-tığ-ı]     okul₁
         teachers-AGR-GEN naughty students-ABL   fed.up-**NSR** school
         'the school whose teachers are fed up with naughty students'

  b.  [[Ø₁ öğretmenler-i] yaramaz öğrenciler-den bık-an] okul₁
      teachers-AGR naughty students-ABL   fed.up-**SR** school
      'the school whose teachers are fed up with naughty students'

  c.  [öğretmenler-in [Ø₁ yaramaz öğrenciler-in]-den bık-tığ-ı ]     okul₁
      teachers-GEN        naughty students-AGR-ABL fed.up-**NSR** school
      'the school where the teachers are fed up with its naughty students'

  d.  *[öğretmenler [Ø₁ yaramaz öğrenciler-in]-den bık-an]     okul₁
      teachers           naughty students-AGR-ABL fed.up-**SR** school
      Intended: 'the school where teachers are fed up with (its) naughty students'

  e.  *[[Ø₁ yaramaz öğrenciler-in]-den öğretmen(-ler) bık-an]     okul₁
       naughty  students-AGR-ABL teacher(s)        fed.up-**SR** school

45) a.  [öğretmenler-in [Ø₁ yaramaz çocuklar-ın]-dan    bık-tığ-ı]    anne-babalar₁
        teachers-GEN        naughty children-AGR-ABL  fed.up-**NSR** parents
        'the parents who the teachers are fed up with their naughty children'

  b.  *[ öğretmenler [Ø₁ yaramaz çocuklar-ın]-dan    bık-an]       anne-babalar₁
       teachers           naughty children-AGR-ABL  fed.up-**SR** parents
       'the parents who teachers are fed up with their naughty children

Furthermore, just as with Dative Theme psych verbs, the Experiencer subject with

Ablative Theme behaves the same as RCs with +human subjects. This is

demonstrated in (46)b with the inanimate 'publishing house' as the Experiencer

subject; extraction of a non-subject using the SR form is unacceptable even when the

Theme has been scrambled around the subject. This is evidence that the psych verb

*bık* 'fed.up' must require its Experiencer subject to be a DP. Just as we saw with

subjects that were +human (which we determined in the Chapter 5 had to be DPs), the

Experiencer subject cannot remain in situ without case.


46) a.  [ Ø₁ [yazar-ın      geç kalmasın]-dan  bık-an]      yayınevi₁
             author-GEN tardiness-AGR-ABL  fed.up-SR publishing.house
         'the publishing house which is fed up with the author's tardiness'

    b.  *[ [Ø₁ geç kalmalar-ın]-dan yayınevi            bık-an]    yazarlar₁
             tardiness-AGR-ABL    publishing.house fed.up-SR author
         Intended: 'the authors whose tardiness publishing houses are fed up with'


Note that there is no requirement on the lexical item 'publishing house' itself, that it

be a DP. We saw in Chapter 5, an example, where the nominal 'publisher' led to a

derivational crash but not the expression 'publishing house'. This example is

repeated as (47). The RC in (47)a is unacceptable with 'publisher' as the subject

because 'publisher' being +human must enter the derivation as a DP. No such

requirement exists on 'publishing house' which as an NP can remain in situ.


47) a.  [[Ø₁ yazar-ı]-nı         yayınevi          /*yayıncı  aray-**an**] makale₁
             author-POSS-ACC  publishing.house/publisher  search-**SR** article
         'the article whose author publishing.houses/*publishers are looking for'

yayınevi-nin

b. [[Ø₁ yazar-ı]-nı /yayıncı-nın ara-**dığ**-ı] makale₁
  author-POSS-ACC publishing.house-GEN search-**NSR**-3S article
  /publisher-GEN
  'the article whose author the publishing.house/the publisher is/was looking for'


We are forced to conclude that it is the psych verb that is requiring the same lexical item, 'publishing house', to behave as a DP.

### 2.1.1 Subject Experiencers with accusative Theme

We already know that relativization of an accusative DP is not possible using the SR form. Accusatives cannot move to [Spec, TP]. We saw that the possessor of the accusative can be relativized using the SR form as long as the subject is an NP. The SR clause in (48)a is one such example, with the derivation in (48)b. The subject, *dog*, is an NP and remains in situ. The object with the +Wh specifier *man-GEN*, moves around the subject to a higher Spec of *v*P, as in ①, and is assigned accusative case. The genitive possessor then raises from the Spec of the accusative object to [Spec, TP], in ②, and then again to [Spec, CP], in ③.


48) a. [ [Ø₁ çocuklar-ı]-nı köpek yala-yan] adam₁
  children-AGR-ACC dog lick-**SR** man
  'the man₁ who [such that] a dog/dogs licked (his₁) children'
  b.
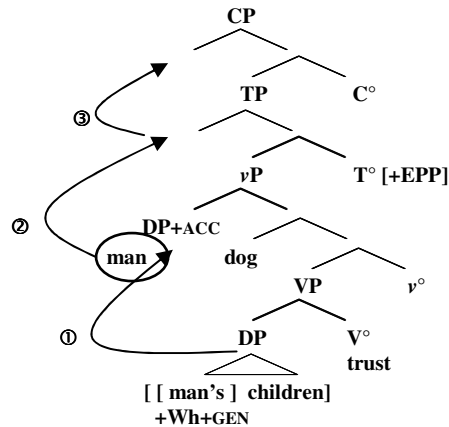
But, psych verbs with Experiencer subjects do not permit such a derivation. The

example in (49)a is unacceptable. The derivation in (49)b should proceed in an

identical manner to the one in (48)b. Why does this derivation crash? Because the

Experiencer subject cannot be an NP; it must raise for case to [Spec, TP]. The

derivation in (49)b is a Case Filter violation.

49) a.  *[ [Ø₁ çocuklar-ı]-nı      köpek  sev-en] adam₁
             children-AGR-ACC  dog     love-SR man
        Intended: 'the man₁ who [such that] dogs love (his₁) children'

b.
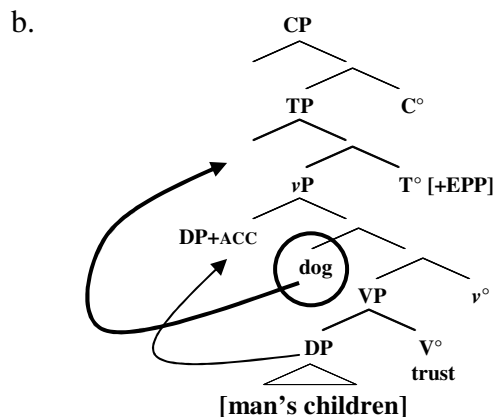


In conclusion, none of the subject Experiencer psych verbs will allow non-subject

relativization using the SR form. The subject Experiencer has to be a DP and must

obligatorily raise to [Spec, TP] for case. This will bleed the SR form.

## 2.2  Experiencer objects

Let's now turn to psych verbs with Object Experiencers. From what we observed in

Subject Experiencers, will we find that Object Experiencers are also required to be

DPs? The evidence certainly points in this direction, as shown by the unacceptability

of the sentence in (50) without accusative case on the Experiencer object 'dog(s)'.

Notice from the English equivalent that there is no sense of 'dogs' as being definite; but it seems the syntax requires that the Experiencer object be case-marked, a requirement on DPs.  This is support for the view that psych verbs do not permit an existential Experiencer.


50)     Bu  çocuk köpek(-ler)*(-i) çok   sık-ar.
        this child   dog(-pl)*(-ACC) much bother-AOR
        'This child bothers dogs a lot.' (In the sense that 'dogs feel bothered')


While the Experiencer object is required to be a DP, there is no such categorial requirement on the subject.  As demonstrated in (51)b, extraction from the Experiencer object is possible using the SR form.  This is because the subject, 'disastrous news', is a non-specific NP which can (indeed must) remain without case in situ.  In this phrase, [Spec, TP] is vacant for the +Wh-expression, 'parents' to move to, and the SR form is required.


51) a.  [felaket haberleri-nin [$Ø_1$ çocuklar-ı-nı]        etkile-diğ-i] anne-babalar$_1$
             disastrous news-GEN      children-AGR-ACC affect-**NSR** ] parents
             'the parents whose children **the** <u>disastrous news</u> affected'

    b.  [ [$Ø_1$ çocuklar-ı-nı]        felaket haberleri   etkiley-en] anne-babalar$_1$
               children-AGR-ACC disastrous news    affect-**SR** ] parents
             'the parents whose children disastrous news affected'


And, as we had hypothesized, the Experiencer object cannot be non-specific, at least not syntactically; it must be a DP and bear accusative case, (52).


52) a.  *Felaket haberleri çocuk    etkil-er
             disastrous news   child     affect-AOR

Intended: 'Disastrous news affects children'

b. Felaket haberleri  çocuğ-u  /  çocuk-lar-ı  etkil-er
disastrous news   child-ACC/children-ACC affect-AOR
'Disastrous news affects the child/the children/children'


Another example of an Accusative Object Experiencer psych verb is *büyüle* 'to fascinate'. Recall that an accusative DP cannot A-move to [Spec, TP]. This is why (53)a is bad even though the RC subject, 'magic tricks' is an NP, and cannot raise to T°. When the subject is a DP, as in (53)b, the NSR form is required; the +Wh-accusative object, 'children' A-bar moves to [Spec, CP]. In the SR in (53)c, the relative head is embedded in the accusative object. The NP subject remains in situ, while the possessor of the Accusative Experiencer raises to [Spec, TP] triggering the SR form.


53) a.  *[sihirbaz hileleri büyüley-en] çocuklar
magician tricks  fascinate-**SR** children
Intended: 'the children who are fascinated by magic tricks'

b.  [sihirbaz hileleri-nin  büyüle-diğ-i] çocuklar
magician tricks-GEN fascinate-**NSR** children
'the children who are/were fascinated by **the** magic tricks'

c.  [[ Ø₁ çocuklar-ı]-nı        sihirbaz hileleri büyüley-en] anneler₁
children-AGR-ACC  magician tricks fascinate-**SR**  mothers
'the mothers₁ who [such that] magic tricks fascinated (their₁) children'


Note that relativization of a locative is not possible using the SR form (54)a. The tree in (54)c demonstrates that both the subject and the accusative object intervene

between the locative and T°.[170] A-movement, move ②, of a locative to [Spec, TP] is

a minimality violation, but A-bar movement, as in ③, is possible, hence the

acceptability of the NSR in (54)b.

54) a.  *[çiçekler çocuklar-ı   büyüle-yen] bahçe
        flowers children-ACC fascinate-**SR** garden
        Intended: 'the garden where flowers fascinate children'

  b.  [çiçekleri-nin] çocuklar-ı    büyüle-diğ-i]  bahçe
       flowers-GEN   children-ACC fascinate-**NSR** garden
       'the garden where **the** flowers fascinate children'

  c.
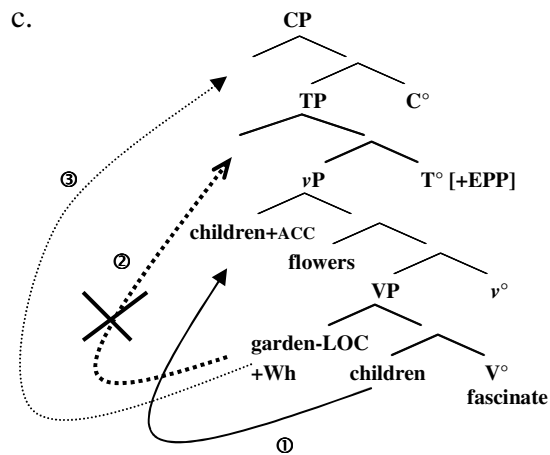


This confirms what we saw in previous chapters, extraction from the accusative

object using the SR form is possible when the subject is an NP.  In the SR example in

(55), the subject, 'Iranian films' is an NP which remains in situ.  The accusative

object is in [Spec, *v*P], and the +Wh-*teachers* has raised from its Spec to [Spec, TP].

---

[170] Except in impersonal passive constructions which have no external argument. We saw in Chapters 1 and 2 that these require the SR form as the +Wh-locative is often the only DP in the clause that can satisfy T's EPP feature.

55)   [[Ø₁ öğrenciler-i]-ni    Iran filmleri  büyüle-yen] öğretmenler₁
        students-AGR-ACC Iranian films fascinate-**SR** teachers
        'the teachers whose students Iranian films fascinate'

Recall that the SR form is impossible when the subject is +human. Compare the good (56)a with the unacceptable (56)b with a +human subject. The unacceptability of (56)b is predictable because we have already concluded that +human subjects cannot be NPs that remain in situ; they must raise to [Spec, TP] for case.

56) a.   [[Ø₁ oğular-ı]-nı    konuşmalar/seks filmi tahrik ed-en] anneler₁
          sons-AGR-ACC speeches/sex film      arouse.do-SR mothers
          'the mothers whose sons speeches sex films provoke/arouse'

   b.   *[[Ø₁ oğular-ı]-nı    konuşmaci(-lar)/seksi kadın(-lar) tahrik ed-en] anneler₁
          sons-AGR-ACC  speaker(s)/sexy women           arouse.do-SR mothers
          'the mothers whose sons speakers/sexy women provoke/arouse'

# 3  Conclusion

Let's take stock. Relative clauses with Experiencer subject psych verbs exhibit behavior similar to RCs with human subjects: non-subject extraction using the SR form is not possible. Psych verbs with Experiencer objects allow non-subject extraction using the SR form as long as the subject is an NP and the movement to [Spec, TP] of the relative head obeys minimality. There is the added complication of the accusative object which is frozen for further A-movement. Just as in other transitive (i.e. accusative) constructions, non-subject relativization of the expression in the Spec of the object licenses the SR form when the clausal subject is an NP. The

conclusion of the evidence here is that we have not had to assume any new technology to explain relativization with respect to psych verbs. We saw identical behavior in extraction from clauses with human subjects, and we determined this was because +human features required a DP layer. The only "innovation" in this chapter is that psych verbs seem to require that the Experiencer be non-existential, that is, they display a selectional restriction, prior to overt syntax, that the Experiencer be a DP, regardless of its theta-role or initial merge position. Although we looked mainly at Subject Experiencers, we saw evidence that suggested this was true for Accusative objects as well. This requirement is harder to test on Dative Experiencers. Recall the two diagnostics used to test DP-hood: overt case and required raising to a functional case-assigning projection. Neither test can be used to determine the category of a Dative expression.[171] First, datives enter the derivation already case-marked, and second, the subject is base-generated in a position higher than the Dative, and thus intervenes in the movement of the Dative to [Spec, TP] (regardless of whether the subject is an NP or DP).[172] For Datives, there is no way of assessing whether it must A-move, or whether it blocks A-movement of lower nominals. These tests require the availability of the SR form, which can never be licensed when relativizing the Dative Experiencer or a lower expression. Having said this, however, it is reasonable to think that the requirement that Experiencers be DPs probably holds of Dative Experiencers as well.

---

[171] These are the two syntactic diagnostics used throughout this work. Other diagnostics may be available, WCO, Binding, and semantic interpretation.

[172] In Chapter 4, we saw that a c-commanding NP induced intervention effects even though the NP itself could not satisfy the EPP on T°.

Obviously, this is not the complete story about psych verbs in Turkish, but the fact that we were able to account for diverse behavior within a limited theoretical account is interesting. The facts here are reminiscent of what Belletti and Rizzi (1988) (B&R) conclude in their study of Italian Psych verbs.

> *Substantive distinctions between θ-roles are irrelevant within formal grammar but play a crucial role at the interface between formal grammar and other cognitive systems. In fact, they contribute to determining the initial syntactic representations (D-structures) through a system of mapping principles projecting θ-structures onto syntactic structures ... [e]verything is mediated through structure, and grammatical processes only refer to structural information which indirectly reflects θ information ... θ-hierarchies and the like intervene only once, in the formation of D-structures. From there on, reference to such entities is excluded in formal grammar.*

> (Belletti and Rizzi 1988:294-295 [bold font mine])

I have highlighted the last lines in bold because this is exactly what the evidence from Turkish psych verbs seem to be indicating. We have seen that Turkish psych verbs require that the Experiencer enter the derivation as DPs. They do not permit NP Experiencers. NPs do not need to raise for case, and we saw that Experiencer subjects and direct objects behave in the syntax as if they were DPs. We were unable to coerce them to behave as NPs. It must be that these expressions enter into the derivation (at D-structure, to use B&R's terminology) with these features and that the

211

derivation proceeds, failing or crashing, based on the requirement imposed on the nominal elements prior to Merge.

Although Belletti and Rizzi's work was under a different framework and for a different language, the evidence in this chapter seems to support their proposal. Indeed, we were able to explain Turkish relatives without resorting to additional projections for psych verbs a la Pesetsky (1994). If we extend our theory merely to include the lexical-selectional requirement that psych verbs denote states that only humans can exhibit, we need not posit any other rules to explain the behavior of relativization from psych-verb constructions. To be more precise, the evidence suggests that the constraint is that psych verbs require the Experiencer to be perhaps sentient (as encoded by φ-features) and non-existential. The syntactic consequence is that the Experiencer of psych verbs is always a DP. Thus, subject Experiencers always need case, and [Spec, TP] will always be occupied by the Experiencer subject.

This is not to say that the discussion in this chapter is the complete story on the structure of psych verbs. Obviously other syntactic (and semantic) properties of Turkish psych verbs need to be studied. But, on first pass, psych-verbs, otherwise interesting because of their diversity in assigning Experiencer-Theme roles, offer nothing exciting in terms of relativization. Just like other examples throughout this thesis, the non-subject SR can only be licensed when the move of the +Wh-DP to [Spec, TP] obeys minimality.

# Chapter 7: Relativization from Infinitivals in Turkish

## 1 Background

Sezer (1986) notes that like Japanese, Turkish does not obey Ross' (1967) Sentential

Subject Constraint.  Examples (1), (2) and (3) show extraction from English,

Japanese[173] and Turkish[174], respectively.

1) a.  The teacher$_1$ [who$_1$ the reporters expected [that the principal would fire $t_1$ ]] is
    a crusty old battleax.

   b.  *The teacher$_1$ [ who$_1$ [ that the principal would fire $t_1$ was expected by the
        reporters]] is a crusty old battleax.

   c.  The teacher$_1$ [who$_1$ it was expected by the reporters [that the principal would
        fire $t_1$ ]] is a crusty old battleax.

2) a.  [watakusi ga $t_1$ au     koto/no] ga muzukasii hito$_1$
        I                  meet that        difficult    person
        '(Lit.) the person whom that I see (him) is difficult'

   b.  [kimi ga $t_1$ au     koto/no] ga atarimae no    hito
         you            meet that           matter.of.fact   person$_1$
        '(Lit.) the person whom that you see (him) is matter of fact'

   c.  [kare ga $t_1$ kaita   koto] ga yoku sirarete-iru  bun$_1$
         he            wrote that      well  known-is    article
        '(Lit.) the article which that he has written (it) is well known'

---

[173] Japanese examples from Kuno (1973:241).  I have added $t$ (for trace) in 2) and (3) for ease of
comparison.
[174] The Turkish examples (3) through (12) are from Sezer (1986). .

3) a. [[$t_1$ iyileşi-ceğ-i]    son derece şüpheli  ol-an] hasta$_1$
      recover-FUT-3s last degree doubtful be-SR  patient

   hastane-den  yürü-yerek  çık-tı.
   hospital-ABL walking.by  leave-PST

   'The patient$_1$ [who [[that (he$_1$) would recover] was extremely doubtful]]
      walked out of the hospital.'

   b. [[$t_1$ daha uzun sür-eceğ-i]  anla-şıl-an]      ekonomik kriz$_1$
       yet  long  last-FUT-3s realize-PASS-SR economic crisis

       memurlar-ı          bunalt-tı.
       civil.servants-ACC depressed

   'The economic crisis$_1$ [which [it is realized that [(it$_1$) will continue longer]]]
      depressed the civil servants.'

   c. [[$t_1$ tamir ed-il-me-si    milyonlar-a malol-an] stat$_1$-ta      koyun-lar otlu-yor.
       repair do-PASS-INF-3s millions-DAT cost-SR     stadium-LOC sheep-pl  grazing
   'Sheep are grazing in the stadium$_1$ [which [[(its$_1$) being repaired] cost millions]].'


We saw in (3) that sentential subjects are not islands in Turkish. However, according

to Sezer (among others) infinitival sentential subjects are islands. Relativizing out of

an infinitival subject, as in the (b) examples in (4) and (5), is unacceptable.


4) a. Stad-ı        tamir et-mek pahalı-ya       maloldu.
      stadium-ACC repair do-**INF** expensive-DAT cost-PST
      'To repair the stadium was costly.'

   b. *[[ Ø$_1$ tamir et-mek] pahaliya         malol-an] stad$_1$
           repair do-**INF**  expensive-DAT cost-SR    stadium-ACC
      Intended: 'the stadium that to repair it was costly'


5) a. Problem-i    çöz-mek zor-dur.
      problem-ACC solve-**INF** difficult-be-AOR
      'To solve the problem is difficult.'

   b. * [[Ø$_1$ çöz-mek] zor      ol-an] problem$_1$
           solve-INF difficult  be-SR  problem
      Intended: 'the problem which to solve is difficult.'

Sezer demonstrates that infinitive clauses in Turkish are not of themselves islands.  In examples (6) through (8), the infinitive is a complement or verbal argument.  And the example in (9) shows that relativization out of infinitival adjunct clauses is also possible.

6) a. Bakan   [meclis-te          konuş-mak] iste-di
      minister  parliament-LOC speak-**INF**    want-PST
      'The minister wanted to speak in the parliament.'

   b. [bakan-ın     [Ø₁ konuş-mak] iste-diğ-i]     meclis₁
       minister-GEN      speak-**INF**   want-PST-3S parliament
       'the parliament that the minister wanted to speak (in)'

7) a. yeni idare           [kitaplar-ı    yasakla-ma]-ya çalış-ıyor
      new  administration   books-ACC ban-**INF**-DAT    try-pres
      'The new administration is trying to ban (certain) books.'

   b. [yeni  idare-nin              [Ø₁ yasakla-ma]-ya çalış-tığ-ı ]] kitaplar₁
       new  administration-GEN      ban-**INF**-DAT    try-NSR-3s  books
       'the books that the new administration is trying to ban'

8) a. Ali [kitab-ı       oku-mak]-tan zevk      al-ıyor.
      Ali   book-ACC read-**INF**-ABL  pleasure take-aor
      'Ali gets pleasure from (i.e. enjoys) reading the book.'

   b. [Ali-nin [Ø₁ okumak]-tan   zevk      al-dığ-ı]]     kitap₁
       Ali-gen      read-**INF**-ABL pleasure take-NSR-3s  book
       'the book that Ali enjoys reading' (lit: 'the book Ali gets pleasure from (to) read')

9) a. Ali okul-a      gir-mek    için on yıl   uğraş-tı
      Ali school-DAT enroll-**INF** for  ten year struggle-pst
      'Ali tried for ten years to get into that school'

   b. [Ali-nin [[Ø₁ gir-mek] için] on yıl uğraş-tığ-ı]         okul₁
       Ali-GEN       enroll-**INF** for  ten year struggle-NSR-3s school
       'the school that Ali tried for ten years to get into'

To explain the unacceptability of extraction from infinitival sentential subjects, Sezer

formulates the constraint in (10).

10) The Unmarked Sentential Subject Constraint

      Nothing may relativize out of a clause that is unmarked for agreement

      and is dominated by a subject NP node.

This constraint seems to correctly predict the minimal pair in (11)b and (12)b.  In

these examples, both infinitival clauses are subjects, but the infinitive verb in (11)b

bears agreement inflection whereas in (12)b, the verb is an uninflected infinitive.[175]

11) a.  [[Kitab-ın   yazıl-ma-sı]     Ali-ye   beşbin liraya otur-du
       book-GEN write-PASS-**INF**-3s Ali-DAT 5000   lira    come-PST
       'The writing of (this) book cost Ali 5000 lira.'

    b.  [[Ø$_1$ yazıl-ma-sı]      Ali-ye   beşbin liraya otur-an]  kitap$_1$
         write-PASS-**INF**-3s Ali-DAT 5000   lira   come-SR book
        'the book that its writing cost Ali 5000 lira'

12) a.  [[Kitab-ı     yaz-mak] Ali-ye   beşbin liraya otur-du
       book-ACC write-**INF**  Ali-DAT 5000   lira   come-PST
       'The writing of (this) book cost Ali 5000 lira.'

    b.  *[[Ø$_1$ yaz-mak]   Ali-ye   beşbin liraya otur-an]  kitap$_1$
         write- **INF**  Ali-DAT 5000   lira   come-SR book
       Intended: 'the book that to write (it) cost Ali 5000 lira'

Unfortunately, the constraint in (10) is stipulative, and it would obviously be better to

identify a principled account of the phenomena, if possible.  In fact, the constraint

does not seem to exist at all.  Let's take another look at the bad examples in (4) and

---

[175] We will look at inflected infinitival constructions a little further on in this chapter.

216

(5) repeated as (13) and (15).  Notice that in (13)b the RC is the SR form which means that the relativized expression would have to move through the RC [Spec, TP], but the relative head inside the infinitival subject has accusative case.  We have already seen that DPs with accusative case are barred from moving to [Spec, TP]. Let's see what happens when we tweak the infinitival subject a little such that the relativized head has some other case.  As shown in (14)b, the result is a perfectly well-formed relative clause.

13) a.  Stad-ı          tamir  et-mek pahalı-ya          maloldu.
        stadium-ACC repair do-**INF** expensive-DAT cost-PST
        'To repair the stadium was costly.'

   b.  *[[ Ø₁ tamir  et-mek] pahalı-ya          malol-an] stad₁
              repair do-**INF**   expensive-DAT cost-SR     stadium-ACC
        Intended: 'the stadium that to repair it was costly'

14) a.  [[ köylü-ler-in      evler-i-ni]          tamir et-mek] pahalı-ya          malol-du.
           villager-pl-GEN houses-AGR-ACC repair do-INF    expensive-DAT cost- PST
        'To repair the villagers' houses was costly'

   a'.  [[[ Ø₁ evler-i-ni]          tamir et-mek] pahalı-ya          malol-an ] köylü-ler₁
              houses-AGR-ACC repair do-INF   expensive-DAT cost- SR     villager-pl
        'the villagers whose houses that to repair (them) was costly'

   b.  [[ şehir-in  sokaklar-ı-nı]     tamir  et-mek] pahalı-ya          malol-du
         city-GEN streets-AGR-ACC repair do-INF    expensive-DAT cost- PST
        'To repair the streets of the city [lit: city's streets] was costly'

   b'.  [[[ Ø₁ sokaklar-ı-nı]     tamir  et-mek] pahalı-ya          malol-an ] şehir₁
              streets-AGR-ACC repair do-INF   expensive-DAT cost- SR     street
        'the city whose streets that to repair (them) was costly'

The same can be accomplished by tweaking example (15).  Again changing the relative head to an expression that does not have accusative case yields an acceptable relative clause, as in (16).

15) a. Problem-i     çöz-mek  zor-dur.
       problem-ACC solve-**INF** difficult-be-AOR
       'To solve the problem is difficult.'

   b. * [[Ø₁ çöz-mek]   zor          ol-an] problem₁
             solve-INF difficult   be-SR  problem
       Intended: 'the problem which to solve is difficult.'


16) a. [[makine-nin  /araba-nın motor-u-nu]     çalıştır-mak] zor     dur      /ol-du
        machine-GEN/car-GEN engine-AGR-ACC start-**INF**    difficult be-AOR/be-PST
        'To start the (this) machine's/car's engine is/was difficult'

   a′. [[ Ø₁ motor-u-nu]      çalıştır-mak] zor        ol-an] makine₁/araba₁
            engine-AGR-ACC start-**INF**       difficult be-SR  machine/car
        'the machine/car which to start (its) engine is/was difficult'

   b. [[araştırmacı-lar-ın  makaleler-i-ni]    bastır-mak] kolay gel-di
        researcher-pl-GEN papers-AGR-ACC publish-**INF**  easy  come-PST
       'To publish the researchers' papers was easy (lit: came easily)'

   b′. [[ Ø₁ makaleler-i-ni]    bastır-mak] kolay gel-en]  araştırmacılar₁
            papers-AGR-ACC publish-**INF** easy  come-SR researchers
       'the researchers which to publish (their) papers was easy (lit: came easily)'


Let's be clear about exactly how we tweaked the good examples above. In previous chapters, we saw that non-subject SR clauses were acceptable for unaccusative verbs but not for unergatives (the subject must always be non-specific, of course). We determined that the unacceptability in unergatives was due to intervention effects from the subject whose base position we assumed to be in [Spec, vP]. In the constructions above, 1) the subject could not move to [Spec, TP] because it was an NP, 2) the NP subject blocked movement of lower expressions from moving to [Spec, TP], and 3) the accusative direct object in a vP Spec (higher than the NP subject) was barred from moving to [Spec, TP] because of its case. We saw that embedding in a scrambled expression circumvents the intervention from the subject. Similarly, by

making the accusative object more complex, we saw that it was possible to extract the

specifier of the object. As demonstrated in the tree in (17)c, with possessor-possessee

direct object as in (17)b, the "possessor", or genitive expression *kitap* 'book' in the

Spec of the accusative object is able to move to [Spec, TP] without intervention

effects from the subject.[176]

17) a.  [[Ø sayıfalar-ı]-nı  kedi parçala-yan] kitab
          pages-AGR-ACC      cat  tear.up-SR    book
     'the book whose pages a cat tore up'

   b.  accusative object prior to extraction of possessor 'book-GEN':
       [DP [DP kitab-ın]     sayıfalar-ı]-nı
             book-GEN  pages-AGR-ACC
       'the book's pages'
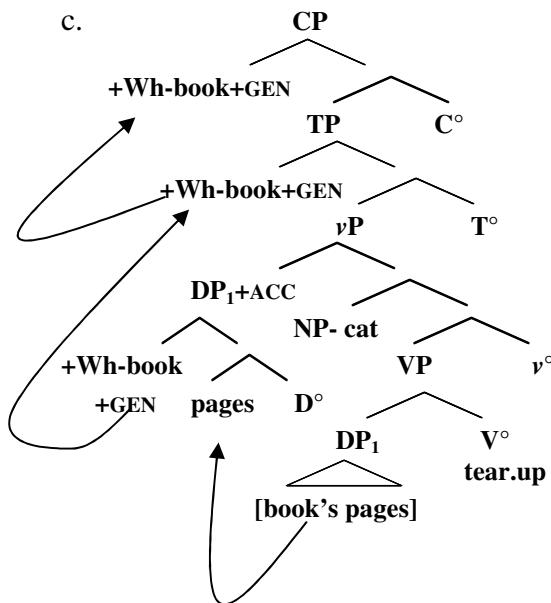
   c.



---

# 2 Uninflected Infinitivals

In this section we will be mainly looking at uninflected infinitivals. Here, I will use the term 'infinitival' to refer to a construction containing an infinitive with no agreement inflection.[177] Now, note that the well-formed infinitival RC examples (14)a′-b′ and (16)a′-b′ above have the SR form. It is interesting that the NSR form is unacceptable for all these cases, as their equivalents in (18) demonstrate.

18) a.  *[[[ Ø₁ evler-i-ni]        tamir et-mey]-in pahalı-ya     malol-duğ-u ] köylü-ler₁
           houses-AGR-ACC repair do-INF-GEN  expensive-DAT cost- NSR      villager-pl
         'the villagers whose houses that to repair (them) was costly'

b.  *[[[ Ø₁ sokaklar-ı-nı]     tamir et-mey]-in pahalı-ya       malol-duğ-u ] şehir₁
           streets-AGR-ACC repair do-INF-GEN expensive-DAT cost- NSR       city
         'the city whose streets that to repair (them) was costly'

c.  *[[[ Ø₁ motor-u-nu]       çalıştır-may]-ın zor       ol-duğ-u] makine₁/araba₁
           engine-AGR-ACC start-INF-GEN     difficult be-NSR     machine/car
         'the machine/car which to start (its) engine is/was difficult'

d.  * [[ Ø₁ makaleler-i-ni] bastır-may]-ın    kolay gel-diğ-i] araştırmacılar₁
           papers-AGR-ACC publish-INF-GEN easy   come-NSR  researchers
         'the researchers which to publish (their) papers was easy (lit: came easily)'

Let's return to Sezer's examples (6)-(8) of infinitivals in positions other than subjects that did not exhibit "island" effects. In all these examples, the infinitival phrases bear case, except for the infinitival direct object in (6). The matrix verbs in (6)-(8) are listed in (19). The verbs in (19)b-c select for inherently case-marked "arguments"[178] while the verb *iste* 'want' in (19)a assigns optional accusative case.

---

[177] We will look more closely at extraction from inflected infinitivals later in this chapter. Although both inflected and uninflected forms are infinitivals, I use the bare term 'infinitival' to denote the latter to reduce wordiness.

[178] I use the term "argument" in its standard usage here. (This is different from other Chapters of this thesis where I used this term to refer strictly to those expressions merged without inherent case. This

19) a.  iste:            Ayşe ders(-ı)            iste-di
        want             Ayşe homework(-ACC) want-PST

  b.  çalış:           Ayşe ders-e            çalış-tı
      try/work.on      Ayşe homework-DAT work-PST

  c.  zevk.al:                    Ayşe ders-ten        zevk al-dı
      enjoy (Lit: gain pleasure)  Ayşe homework-ABL enjoy-PST

Now note that the examples in (6) are unacceptable when the infinitival complement

clause is marked with accusative case, as in (20).

20) a.  *Bakan   [meclis-te        konuş-may]**-ı**   iste-di
          minister  parliament-LOC speak-**INF-ACC**  want-PST
        'The minister wanted to speak in the parliament.'

  b.  *[bakan-ın    [Ø₁ konuş-may]**-ı**    iste-diğ-i]      meclis₁
        minister-GEN        speak-**INF-ACC**   want-PST-3S parliament
      'the parliament that the minister wanted to speak (in)'

So, whereas infinitival clauses can be case-marked, for example, (7)b with dative case

and (8)b with ablative case, the facts in examples (18) and (20) lead to the conclusion

that uninflected infinitival clauses do not permit <u>structural</u> case marking. Because

structural case in Turkish is uniformly assigned in a Spec-Head configuration, after

raising to a functional projection, we will assume the same for uninflected infinitivals.

That is, infinitivals as direct objects in transitives do not raise to [Spec, vP], and

infinitivals as sentential subjects do not raise to [Spec, TP]. If they did, they would

be marked with genitive case as subject of RCs. This prohibition against raising is

what forces the SR form for RCs with infinitival subjects and prohibits the NSR form;

[Spec, TP] is left vacant for the +Wh expression to move through. The EPP of T

---

denotation was for expediency and did not carry any theoretical import except perhaps to illustrate that
we lack a term to refer to those expressions that merge into theta positions without lexical case.)

must be satisfied,[179] and in the absence of the (sentential) subject moving to [Spec, TP], the Wh-expression must move there.[180]

The above assumptions have a further implication: we are, in essence, assuming that uninflected infinitival clauses are NPs: NPs cannot have structural case and they must remain in their first merge positions (but they allow extraction from within them). We see the same behavior for uninflected infinitivals, so we will consider them syntactic NPs.

Let's review our conclusions thus far for uninflected infinitivals: Uninflected infinitival clauses are NPs in terms of their syntactic behavior: they do not move, nor can they be structurally case-marked.[181] Infinitival clauses are not islands.

Now let's look at another example from Kornfilt (1997), (21)a from (21)b.

21) a.  *[ Ø$_1$ yüz-mek] güzel ol-an] deniz$_1$
        swim-**INF** nice  be-SR  sea
        Intended: 'the sea which to swim (in) is nice'

   b.  [ deniz-de    yüz-mek] güzel.dir
        **sea-LOC**   swim-**INF**  nice.be-AOR
        'It's nice to swim in the sea'

We said that the reason extraction from the infinitival sentential subject in (4) and (5) was bad was because the Wh-element has accusative case which was barred from

---

[179] I am assuming that T has an EPP feature when it is selected by C. In a sentence with an infinitival sentential subject with no relativization, I assume no CP projection; T in this sentence will have no EPP feature.

[180] The reader must already have several questions in mind regarding the nature of these infinitival phrases and case-marking. I ask for the reader's patience as I try to present the issues one by one.

[181] Note that in example (15)a, the verb is in the aorist tense which must be used for generic subjects. I assume that the aorist either has no T projection or has a defective T, one that neither assigns case nor has an EPP feature. This is consistent with the subject in this example being an NP.

moving to [Spec, TP]. But in (21), the relative head has inherent locative case prior

to extraction. We have seen many examples where locative extraction using the SR

form was fine. The examples in (22)a and (23)a are also bad, even though the

relativized expression is marked with inherent case in each.


22) a. *[[ Ø₁ hoşlan-mak] zor ol-an] kız₁
　　　　　　like-**INF**　　difficult be-SR girl
　　　Intended: 'the girl who to like is difficult'

　　b. [(bu) kız-dan hoşlan-mak] zor-dur
　　　　(this) **girl-ABL** like-**INF**　　difficult be-AOR
　　　'It's difficult to like this girl' '(Lit.) It's difficult to feel good from this girl'


23) a. *[[ Ø₁ git-mek] kolay ol-ma-yan] şehir₁
　　　　　　go-**INF**　easy be-neg-SR town
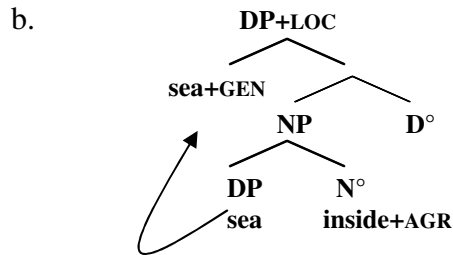　　　Intended: 'the town that to go to is not easy'

　　b. [(o) şehir-e git-mek] kolay değil
　　　　(that) **town-DAT** go-**INF**　easy be-neg
　　　'It's not easy to go to that town'


Again, the problem seems to be an intervention effect because if we embed the Wh-

expression in a PP and scramble the PP, we derive an acceptable RC, as in (24) which

is minimally different from (21).


24) [[ Ø₁ için-de] yüz-mek] güzel ol-an] deniz₁
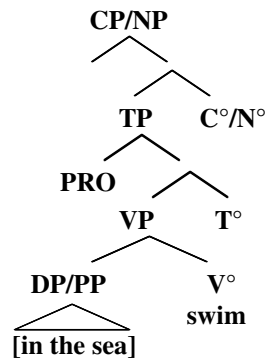　　　　　in-LOC swim-**INF** nice be-SR sea
　　'the sea which to swim (in) is nice'


Let's look at this construction a little closer. The structure of the PP *deniz-in için-de*

'in the sea' is shown in (25)a with tree in (25)b.

25) a. [DP [DP deniz]-in [NP iç-in]   D° ]-de
         sea-GEN      inside-AGR-LOC
    '(Lit.) at the sea's inside'

b.
```
              DP+LOC
             /      \
        sea+GEN      \
                  /      \
                 NP       D°
                /  \
              DP    N°
             sea   inside+AGR
```

Now let's take a look at the structure of the infinitival clause, as shown in (26).[182]

26) [PRO deniz-de yüz-mek] = [PRO [in the sea] to swim]

```
          CP/NP
          /    \
         /      \
        TP      C°/N°
       /  \
    PRO    \
          /   \
         VP    T°
        /  \
    DP/PP    V°
              swim
   [in the sea]
```

Again, recall that in our story about the SR form, we saw intervention effects from the subject in unergatives but not in unaccusatives.[183] We were able to circumvent the intervention effects in unergative constructions by embedding the Wh-expression in a PP and scrambling the PP above the in-situ subject in [Spec, vP]. This is shown in (27). In the bad (27)a, the subject blocks the raising of the locative Wh-expression

---

[182] I have nothing to say just yet as to whether infinitivals have a CP layer or are only TPs. The issue is orthogonal to what is being discussed and will make no difference to the discussion at this point.
[183] By subject, I mean the argument merged into the outermost theta position (not assigned lexical case).

'couch' to [Spec, TP].  However, when 'couch' is embedded in a complex DP/PP,

this DP/PP can scramble around the subject and 'couch' can move to [Spec, TP], and

then to [Spec, CP] triggering the SR form.

27) a.  *[bayan  $\emptyset_1$  otur-an]  kanepe$_1$
       woman       sit-**SR**   couch
       Intended: 'the couch that a woman is sitting on'

   b.  [[$\emptyset_1$ üst-ün]-de     bayan  otur-an]  kanepe$_1$
           top-AGR-LOC  woman sit-**SR**    couch
       'the couch that a woman is sitting on (top of)'
       [Lit: 'the couch whose top a woman is sitting on']

I have argued elsewhere that scrambled elements may only scramble once after which

they are frozen for further movement.[184]  Let us assume this is correct.  The result is

that in order to get around an intervening subject, a Wh-expression may not scramble

because it will become frozen in the scrambled position.  However, a Wh-expression

embedded in the specifier of a DP, can move with the DP as it scrambles around the

subject, after which the Wh-expression can move to a functional projection.

Importantly, the Wh-expression must be in the specifier of the DP so that the DP and

the Wh-element will be equidistant from the target.[185]  Returning to the example in

---

[184] Although scrambling is beyond the scope of this work, I have speculated that the reason for this "freeze" after one scrambling is due to Recoverability.  It seems to me Feature checking leaves a "trail" of sorts, but scrambling, as far as I can see, does not check any features; certainly, it does not check case or EPP features (see Chapters 2 and 4).  So, you're allowed "one free move".  If a move is possible (i.e. does not violate minimality, PF and LF conditions), a DP can take it, and the (LF) interface component can reconstruct back one possible move, but that's all.  Reasoning through this possibility is not feasible within the confines of this work, but I mention it for future research.  But see fn. 26 in Chapter 4 where I offer other possible explanations.

[185] Equidistance is computed in terms of Chomksy's (2000) Defective Intervention Constraint, (i).
      (*i*)  Defective Intervention Constraint (DIC):
          In the structure, $\alpha > \beta > \gamma$ , where > is c-command, and $\beta$ and $\gamma$ match
          probe $\alpha$, but $\beta$ is inactive, the effects of matching are blocked.
I have adopted this for all movement in the sense that if there is nothing that c-commands $\alpha$ but not $\beta$, then $\alpha$ and $\beta$ are equidistant from a higher probe. This definition resolves two problems: not only does

(24), let's revisit what has to happen inside the infinitival phrase, as shown in (28).

Here the complex DP/PP scrambles above PRO (which, for the moment, I have located in [Spec, TP]) and, I assume, adjoins to TP.[186]

28) [ [[**DP** [**DP** deniz-in] iç-in] D° ]-de]   PRO [**DP/PP** ~~deniz-in iç-in-de~~]   yüz-mek]
           sea-GEN   inside-AGR-LOC                                swim-**INF**
    'to swim in the sea' '(lit) in the sea's inside PRO to swim'
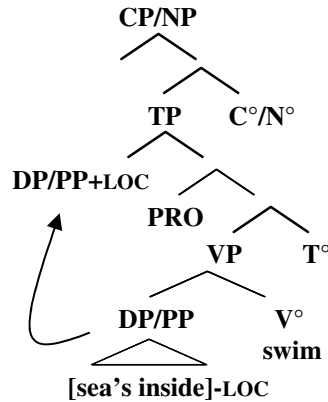


## 2.1   *Review of assumptions*

Let's review what we have determined so far.  First my assumptions:

1- An uninflected infinitival clause is an NP and remains in situ.

---

it define what is and is not an intervener, it also provides us with a measure of Economy.  When two expressions are "equidistant" in terms of the above description, the movement of one expression is not more "economical" than movement of the other.  Richards (2005) also uses such a measure of equidistance in explaining movement in Tagalog.

[186] I make the assumption that this is an adjunction site for three reasons.  First, nothing in the data throughout this work suggests that Turkish has multiple specifier positions.  Quite the contrary, unique specifier positions are often the culprit in moving prohibitions. Second, this movement freezes the expression. There is evidence that adjuncts, though porous for movement from within them, are frozen for A-movement.  Finally, accusative objects can A-scramble above the subject in [Spec, TP].  Whereas movement to the specifier of T is clearly prohibited for accusatives, one can make the case that adjunction to T is not a case assigning position, and this is the reason accusative objects can scramble/adjoin to T.

2- (Because of 1) [Spec, TP] of the RC of which the infinitival is the subject remains vacant.

3- (Because of 2) the relativized expression must move from within the infinitive clause to [Spec, TP] of the RC, to check T's EPP feature.

With these assumptions in mind, the solution to the infinitival sentential subject puzzle then, is as follows:

1- An accusative direct object of the infinitival sentential subject may not be the relative head of the RC because an accusative expression is barred from moving to [Spec, TP].

2- Inherently case-marked expressions can be the relative head, except that they are lower than PRO in the infinitival clause.

3- An expression may A-scramble around PRO, in which case, the expression in its Spec can be the relative head. This expression will move out of the scrambled DP in the infinitival phrase to the RC [Spec, TP], triggering the SR.

Let's revisit other bad examples to see that we can indeed get around the intervention effects. Repeating (22)a as (29)a, note that by embedding the relative head *kız* 'girl' in a larger DP, I can now relativize out of the infinitival subject, as in (29)b.

29) a.   *[[ Ø₁ hoşlan-mak]  zor        ol-an] kız₁
              like-**INF**      difficult be-SR girl
            Intended: 'the girl who to like is difficult'

   b.   [[ [DP Ø₁ şakalar-ın]-dan hoşlan-mak]  zor        ol-an] kız₁
              jokes-AGR-ABL like-**INF**      difficult be-SR girl
            'the girl whose jokes which to like is difficult'

Likewise for (23)a repeated as (30)a.  By making the Wh-expression *şehir* 'city' a possessor of the DP [city's neighborhoods], it is possible to scramble this complex DP around PRO, and then extract 'city' thereby avoiding the intervention from PRO.

30) a.   *[[ Ø₁ git-mek] kolay ol-ma-yan] şehir₁
               go-**INF**   easy   be-neg-**SR**   town
         Intended: 'the town that to go to is not easy'

    b   [[ [**DP** Ø₁ mahaleler-i]-ne           git-mek] kolay ol-ma-yan] şehir₁
               neighborhoods-**AGR-DAT** go-**INF**   easy   be-neg-**SR**   town
         'the town whose neighborhoods that to go to is not easy'

If this analysis is on the right track, we must conclude that, like the unergative subject, PRO is also an intervener.  Extraction of the locative Wh-DP was not possible unless we embedded it, and left behind a remnant.  We must conclude that in such a derivation, we are circumventing intervention effects for A-movement within the infinitival.  Recall that such a strategy is not needed for A-bar movement which can be long-distance.  PRO blocks the A-movement of a lower expression.  When that expression is a constituent of a larger element that scrambles around PRO, it evades intervention by PRO and is free to A-move.

## 2.2   *Non-subject infinitivals*

Let's now turn to non-subject infinitivals beginning with item (6) repeated as (31).

31) a.   Bakan   [meclis-te           konuş-mak] iste-di
         minister  parliament-**LOC** speak-**INF**    want-**PST**
         'The minister wanted to speak in the parliament.'

    b.  [bakan-ın      [Ø₁ konuş-mak] iste-diğ-i]        meclis₁
          minister-**GEN**      speak-**INF**   want-**NSR-3s** parliament
          'the parliament that the minister wanted to speak (in)'

228

Note in the RC in (31)b that the relative head has inherent locative case prior to movement, and yet no embedding and scrambling was necessary. Extraction of a locative from a complement infinitival clause is perfectly acceptable. There seem to be no intervention effects from PRO in this construction. Why would that be? Notice that in this example, we have obligatory control (OC) PRO. Could it be that arbitrary PRO creates intervention effects and OC PRO does not? Let's look at another example.

In (9) repeated as (32), we see extraction of a dative from an adjunct infinitival clause. Again, this is a case of OC PRO. I assume that the dative is generated lower than PRO, and yet it can move past the PRO without the intervention effects we saw with non-OC PRO.

32) a. Ali [[ PRO$_{OC}$ okul-a      gir-mek]   için]        on yıl  uğraş-tı
       Ali              school-DAT enroll-**INF**  in.order.to ten year struggle-pst
       'Ali tried for ten years in order to get into that school'

   b. [Ali-nin [[PRO$_{OC}$ Ø$_1$ gir-mek]  için]         on yıl  uğraş-tığ-ı]        okul$_1$
       Ali-GEN               enroll-**INF** in.order.to ten year struggle-NSR-3s school
       'the school that Ali tried for ten years in order to get into'

This suggests that arbitrary PRO and OC PRO are different animals. In fact, it lends support to the Hornstein (1999) proposal that OC PRO is derived via movement. If this is indeed the case, then the consequences are such that OC PRO is a residue of movement leaving behind either nothing (except relevant features it has checked on

functional heads)[187] or a trace which does not serve as an intervener for A-movement from its c-commanding domain.[188]

However, things are not so simple. In example (33)a, note that we again have an instance of OC PRO except that it is object control. In stark contrast to its English counterpart in (33)b, the Turkish example is unacceptable.

33) a. *Ahmet Ayşe-ye [ $Ø_1$ oku-mak] bir kitap$_1$] al-dı.
    Ahmet Ayşe-DAT     read-**INF**  one book    buy-PST
    Intended: 'Ahmet bought Ayşe a book to read'

   b. John bought Mary [a book [ to read Ø ] ].

Let's look closer at the structure of (33)a and perhaps we can account for its unacceptability. First, note that the infinitival in this sentence is not an argument. The matrix direct object is *kitap* 'book'. Furthermore, (in spite of the English gloss) there is no relative clause the structure of (33)a.[189] Wh-movement in Turkish, or more specifically, movement to the CP domain, is possible only in relative clauses, sluicing structures and for Topic movement. So the question is how did 'book' become the relative head? If it's just a matter of 'book' raising out of the infinitival, then it is on the wrong side of 'to read', as specifiers are leftward.

---

[187] By this I mean that the history of the derivation is "accessible", i.e. features have been checked or deleted so that there is no crash at the interface levels.
[188] We are at this point still looking at intervention effects with the infinitival itself. As demonstrated by example (34)/(35) the controller, i.e. the antecedent, does not seem to be an intervener.
[189] First, the infinitival lacks the verbal morphology of an RC. Second, recall that all RCs require that the EPP of T be checked. In the infinitival in (33)a neither the PRO subject nor the accusative direct object can check T's EPP.

Extraction out of Object Control PRO infinitives seems to be possible, as shown by (34), where the infinitive is an argument (the direct object) of the embedded RC verb 'want'.

34)     Ahmet Ayşe-ye   [[Ø₁ oku-mak] iste-diğ-i]     kitab₁]-ı   al-dı.
        Ahmet Ayşe-DAT      read-**INF**   want-NSR-3s book-ACC  buy-PST
        'Ahmet bought Ayşe the book he/she wanted to read'

Notice though that in (34) the subject of the RC can be either Ahmet or Ayşe. The structure of (34) then, is really as in (35) where the RC subject is a null pronoun which can take Ahmet or Ayşe as an antecedent. So, again, we are back to a case of Subject Control for the PRO of the infinitival, which picks up its referent depending on the referent of the subject of the RC '[the book that he/she wants to read]'.

35) Ahmet₁ Ayşe₂-ye [pro₁/₂ [PRO₁/₂ Ø₃ oku-mak] iste-diğ-i]     kitab₃]-ı]   al-dı.
    Ahmet   Ayşe-DAT                        read-**INF** want-NSR-3s book-ACC buy-PST
    'Ahmet bought Ayşe the book he/she wanted to read'

In (35), 'book' moves out of the infinitival phrase without intervention from the OC PRO subject. The question is what position does the Wh-*book* land in in the embedded relative clause? I assume that 'book' is marked with accusative case <u>inside</u> the infinitive, i.e. it receives accusative case from the $v°$ of 'read' in the infinitival phrase. Let us assume for the moment (although we will see arguments for it later) that elements moving out of an infinitival do not A-bar move.[190] I come to this conclusion because we saw intervention effects from PRO which would not have been possible if the expression could A-bar move. The accusative 'book' must move

---

[190] This could mean that either there is no CP projection or that the CP layer has no specifiers, i.e. no features, EPP or uWh, to check via phrasal movement.

directly to [Spec, vP] of the RC verb 'want', which is unoccupied because the infinitival clause, being an NP, cannot move there. Although this is an instance of an accusative expression moving to an accusative assigning position, this move is presumably possible because structural case is evaluated at PF; there is no issue of case mismatch. I suggest that this is what happens with possessor DPs moving to [Spec, TP]. Because a possessor DP must raise to the [Spec, DP] of the possessee D°, I assume that the genitive assigned by D° is also a structural case. We had determined that only inherently case-marked elements may move to a structural case assigning position. But, an embedded possessor genitive, assigned structural case by D°, can move to [Spec, TP] of a subordinate clause because the case in that position is morphologically identical; embedded T assigns "genitive" case. Returning to the movement of 'book' in (35), it seems clear that [Spec, vP] is the only position available, as [Spec, TP] is taken up by the RC subject. From the RC [Spec, vP], the relative head 'book' A-bar moves to the RC [Spec, CP], after which it is promoted to the external head position.

Let's look at another example, the unacceptable (36). What is the difference between (34) and (36) that makes one bad and the other good? Note what happens when we change the RC verb to 'want', as in (37). The relative clause becomes acceptable. The answer here lies in the verb. The clausal complement of the verb 'tell' must obligatorily be a DP. As shown in (38), the verb 'tell' takes a case-marked infinitival complement, but, crucially, one that must have agreement inflection.[191] These are the inflected infinitivals that we will look at in more detail in Part 2.

---

[191] Perhaps this is because the "thing" you utter is referential; it cannot be non-specific. It seems that even in English, the only way to denote a non-specific, existential utterance as the complement of *said*

36)    *Ahmed-in   Ayşe-ye [ Ø₁ oku-mak] söyle-diğ-i    kitap₁
       Ahmet-GEN Ayşe-DAT     read-**INF**  tell-NSR-3s  book
       Intended: 'the book John told Mary [ PRO to read]'


37)    [Ahmed-in [ Ø₁ oku-mak] iste-diğ-i]        kitap₁
        Ahmet-GEN      read-**INF**  want-NSR-3s  book
       'the book Ahmet  wanted [ PRO to read]'


38)    Ahmet Ayşe-ye    [ kitab-ı    oku-ma-*(-**sı**)]*(-**nı**)    söyle-di
       Ahmet Ayşe-DAT   book-ACC read-**INF**  -**3s**  -**ACC**   tell-PST
       Ahmet told Ayşe to read the/this book'


Kornfilt (1997) points out that the choice of complement type, i.e. a bare infinitive, an

inflected infinitive or a "Factive"[192] NSR clause, is determined by the verb.  For

example, as shown in (39), the verb *kork* 'fear' allows for all three types of

complements.


39) a.  (ben) [PRO öl-mek]-ten  kork-uyor-du-m
         I              die-**INF** ABL fear-PROG-PST-1s
        'I was afraid of dying' '(Lit.) I was afraid to die'

    b.  (ben) [Ahmed-in     öl-me-sin]-den kork-uyor-du-m
         I       Ahmet-GEN die-**INF**-3s-ABL fear-PROG-PST-1s
        'I was afraid that Ahmet had died' '(Lit.) I was afraid Ahmet to have died'

    c.  (ben) [Ahmed-in    öl-düğ-ün]-den        kork-uyor-du-m
         I       Ahmet-GEN die-**INF**-NSR-3s-ABL fear-PROG-PST-1s
        'I was afraid that Ahmet had died'
        '(Lit.) I was afraid Ahmet to have died'                    (Kornfilt: p.51)

---

is through the use of passive voice.  Compare (i) where *something* is indefinite but specific, with (ii)
where *something* is indefinite and non-specific.
        (i)   John said something.
        (ii)  There was something said.
[192] The term "Factive" is used in the literature to refer to NSR –DIK complement clauses as opposed to
"Active" infinitival complement clauses.  These labels carry no theoretical implications for the purpose
of this work.

Note, however, that the verb *kork* 'fear' takes an inherently case-marked argument, in this case an ablative. We saw elsewhere that inherently case-marked elements are ambiguously specific or non-specific. For us this means, that they may be either DPs or NPs. If we are right in assuming that the bare infinitive is an NP, and the inflected infinitive is a DP, then the ablative structures of (39)a and (39)b would be as in (40)a and (40)b, respectively. That is, the bare infinitive in (39)a is an NP.

40) a.   [NP PRO öl-mek]-ten
                die-**INF** ABL

    b.  [DP Ahmed-in    öl-me-sin]-den
            Ahmet-GEN die-**INF**-3s-ABL

While we are looking at these structures, let's take a moment to remark that the subject of the inflected infinitival in (40)b bears genitive case. This is expected because we are assuming that D° assigns genitive case to the expression in its specifier. The approximate structure of 40)b is shown in (41) where what is important is that the subject *Ahmet* must have raised to a structural case-assigning position if it bears overt genitive case.[193]

41)     [DP Ahmed-in    öl-me-sin]-den
            Ahmet-GEN die-**INF**-3s-ABL



---
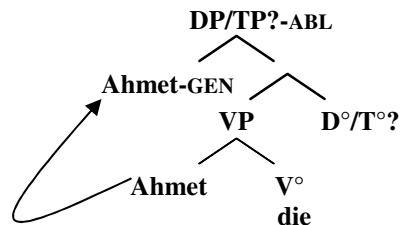
[193] See fn. 196.

The point of these examples is to demonstrate that just as with nominals, one <u>can</u> use case-marking to determine the category, but it must be structural case, either accusative or the embedded genitive.  Structural case can only appear on DPs and direct object DPs of accusative transitives must bear overt accusative case.

Interestingly, OC PRO direct object clauses are always bare whereas the inflected clauses must have accusative case, as in (42).  This also complies with the movement account of OC PRO because N° does not assign case, but D° does.  If we do not assume a special case for PRO, we can conclude that the subject of *die* in (42)a raises for case reasons, whereas no such raising is necessary for the subject of the DP infinitival in (42)b.

42) a.  (ben) [PRO öl-mek](\*-ği) iste-mi-yor-um
         I           die-**INF**  want-NEG-PROG-is
        'I don't want to die'

   b.  (ben) [Ahmed-in    öl-me-sin]\*(-i)      iste-mi-yor-um
        I       Ahmet-GEN die-**INF**-3s-ACC want-NEG-PROG-is
        'I don't want Ahmet to die'

In example (43), the infinitive bears inherent dative case, and because it is uninflected, we are assuming it is an NP.  In this example, we have an instance of object control.  Relativization of the ablative from within the infinitival is not possible, (44).  Is this due to intervention effects from PRO, as we saw earlier?  That is, the ablative is presumably lower in the structure than PRO.  Let's change the infinitival verb to a transitive, like "to read" for example.  By providing the infinitive a direct object that must raise to get accusative case, we can skirt PRO (which I am

assuming remains in its base position in [Spec, vP]) using the "free-rider" strategy we saw in previous chapters.

43)     (o) Ahmed-i   [sınıf-tan   kaç-mağ]-a       zorla-dı
         he Ahmet-ACC class-ABL run.away-**INF**-DAT compel-PST
         'He compelled Ahmet to run away from class'

44)     *[ *pro* Ahmed-i     [ Ø₁ kaç-mağ]-a        zorla-dığ-ı]    sınıf₁
              Ahmet-ACC       run.away-**INF**-DAT  compel-NSR-3s class
         'the class he compelled Ahmet to run away from'

With this change in the infinitival, we see that an accusative object can indeed be relativized, as in (45).[194]

45)     [ *pro* Ahmed-i     [ Ø₁ okumay]-a   zorla-dığ-ı]    kitap₁
              Ahmet-ACC       read-**INF**-DAT compel-NSR-3s book
         'the book he compelled Ahmet to read'

Let's try another structure, this time trying to relativize an instrumental. Again, the result in (46)b is unacceptable. We must assume this is because, unlike the accusative direct object in a specifier of *v*P <u>higher than PRO</u>, an instrumental is generated in a position lower than PRO.[195]  PRO is an intervener.

---

[194] I am for the moment ignoring the issue of T's EPP feature in the infinitival; we saw that an accusative DP cannot move to [Spec, TP], and therefore T's EPP would not be satisfied in 45). I ask for the reader's patience as this issue will be resolved in Section 3.

[195] In the sentence in (i), the antecedent of *his* in the instrumental phrase [*his ball*] cannot be Ahmet. Note that the non-specific subject, *dolphin*, is in situ in [Spec, *v*P]. The locative has raised to [Spec, TP] to satisfy T's EPP feature. The instrumental must be lower than [Spec, *v*P] in order to allow the binding of the pronoun by the subject.

   (i)   [Ahmed-in₁   havuz-un₁]-da     bir yunus.balığı₂ [top-u*₁/₂]-ile      oynu-yor.
          Ahmed-GEN pool-3sAGR-LOC one porpoise      ball-3sAGR-INST play-PRES
          'In Ahmet's₁ pool, a dolphin₂ is playing with his*₁/₂ ball'

46) a.  (o) Ahmed-i    [ PRO bu kaşık-la    ilac       al-may]-a      zorla-dı
        he Ahmet-ACC        this spoon-INST medicine take-**INF**-DAT  compel-PST
        'He compelled Ahmet to take medicine with this spoon'

   b.  *[(o-nun) Ahmed-i    [PRO Ø₁ ilac       al-may]-a      zorla-dığ-ı]      kaşık₁
        he-GEN Ahmet-ACC        medicine take-**INF**-DAT compel-NSR-3s  spoon
       Intended : 'the spoon that he compelled Ahmet to take medicine (with)'

Object control PRO seems to pattern with arbitrary PRO in that it induces

intervention effects.  Extraction from these infinitival clauses is possible, but only

when the expression is structurally higher than PRO.  This is demonstrated in the tree

in (47) for the '[PRO (to) read book-ACC]' we saw in (45).  In (47) (where we are, for

the moment, only concerned with the derivation up to the *v*P projection), the direct

object merges in V and gets its theta-role, PRO picks up its theta-role when it merges

in [Spec, *v*P], and the direct object raises to a higher Spec of *v*P to be assigned

accusative case.  PRO is no longer an intervener for movement of the direct object.


47)    [ *pro* Ahmed-i    [ Ø₁  okumay]-a     zorla-dığ-ı]      kitap₁
            Ahmet-ACC         read-**INF**-DAT  compel-NSR-3s book
       'the book he compelled Ahmet to read'
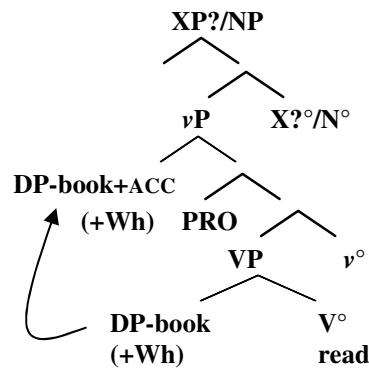


Here's an even better way to prove the point about the intervention from PRO: by

"tweaking" the unacceptable (46)b.  Recall that we can scramble over PRO, but then

the scrambled expression is "frozen", <u>but</u> its specifier is free to move. Let's make the

instrumental *kaşık-la* "spoon-INST" in (46)b a larger DP by giving it a +Wh possessor.

The new sentence appears as (48)a, with the corresponding relative clause in (48)b. I

have changed the matrix (RC) subject and direct object to 1$^{st}$ and 2$^{nd}$ person pronouns

to avoid any ambiguity as to the possessor of 'spoon' which has 3$^{rd}$ person singular

agreement. Notice that the relative clause is now good! Why? Because the +Wh-

*hospital* was able to ride parasitically as a constituent of a scrambled DP as it moved

around (and higher than) PRO, and then move again into the matrix RC clause.


48) a. Ben sen-i [[$_{DP}$ hastane-nin kaşığ-ı]-la$_1$ PRO $t_1$ ilac al-may]-a
     I    you-ACC hospital-GEN spoon-3s-INST     medicine take-**INF**-DAT
       zorla-dı-m
       compel-PST1S
       'I compelled you to take medicine with the hospital's spoon'

   b. [ben-im sen-i [[$_{DP}$ Ø$_2$ kaşığ-ı]-la$_1$         PRO $t_1$ ilac al-may]-a
     I-GEN you-ACC       spoon-3sAGR-INST      medicine take-**INF**-DAT
       zorla-dığ-ım]     hastane$_2$
       compel-NSR-1s  hospital
       'the hospital whose spoon I compelled you to take medicine (with)'


Another non-subject control verb is *tavsiye etmek* 'to recommend' where the

controller is the indirect object. Extraction of an accusative object is not possible, as

in (49)b. Neither is extraction of the dative expression, *ada* 'island' in (50)b. But, as

expected, the possessor of a direct object of the infinitival can be relativized, as in

(51)b. Again, the possessor was a "free rider" as the direct object raised over PRO

for case.

49) a. Biz-e  [her  gün şerbet-i    iç-me]-ye    tavsiye    et-ti
       us-DAT  every day syrup-ACC drink-**INF**-DAT  recommend do-PST
       'He recommended to us to drink the syrup every day'

   b. *[biz-e [her   gün Ø₁ iç-me]-ye      tavsiye    et-tiğ-i]     şerbet₁
        us-DAT every day    drink-**INF**-DAT  recommend do-NSR-3s syrup
       Intended: ' the syrup that he recommended to us to drink every day'


50) a. Biz-e  [o  ada-ya    git-me]-ye tavsiye    et-ti
       us-DAT  that island-DAT go-**INF**-DAT  recommend do-PST
       'He recommended to us to visit (go to) that island'

   b. *[bize   [Ø₁ git-me]-ye   tavsiye    et-tiğ-i]     ada₁
        us-DAT    go-**INF**-DAT recommend do-NSR-3s  island
       Intended: 'the island that he recommended to us to visit (go to)'


51) a. *pro* Ahmed-e [[**DP** araştırmacı-nın  makale-si]-ni  oku-may]-a
       (he) Ahmet-DAT    researcher-GEN  paper-AGR-ACC read-**INF**-ACC
             tavsiye     et-ti
             recommend do-PST
       'He recommended to Ahmet to read the researcher's paper'

   b. [ *pro* Ahmed-e [[**DP** Ø₁ makale-si]-ni   oku-may]-a    tavsiye et-tiğ-i]
        (he) Ahmet-DAT         paper-AGR-ACC read-**INF**-ACC recommend do-NSR
             araştırmacı₁
             researcher
       'The researcher whose paper he recommended to Ahmet to read'


So what can we conclude?  The examples in (48) and (51) demonstrate that

movement from within the infinitive is possible, but only when the expression is

above PRO.  This is evidence that PRO that is controlled by an indirect object is an

intervener.  Extraction is possible only when the RC head is a "free rider" on an

expression that moves around the PRO subject.  As for (47), I will tentatively suggest

that the accusative direct object of the infinitive is too far away for A-bar movement

and has no available intervening A-position to move to.  Remember that we are

assuming that movement (excluding scrambling) is driven by the EPP. The verb *recommend* takes a dative argument which means that its $v°$ does not assign case and does not have an EPP feature. Whereas the T° of *recommend* does have an EPP feature, the subject, *he*, must move to [Spec, TP] to be assigned case. The example in (47)b is an argument for phases. By the time matrix (RC) C° merges with the structure, the most deeply embedded $v$P, that of the infinitival has been spelt-out and is no longer accessible for even long distance A-bar movement. What is remarkable though is that successive cyclic A-bar movement does not seem to be available to save this derivation; otherwise, we would not have seen the contrast between (46)b and (48)b. Movement to a CP projection of the infinitival clause is not an option.

Let's return to the examples of subject OC PRO in (7) and (8) repeated as (52) and (53). In these examples, movement out of the infinitival is good. In the RCs in (52)b and (53)b, the subject is overt and has genitive case. This means that [Spec, TP] is occupied. Again, the accusative object of the infinitive must have moved first to [Spec, $v$P] of the RC, and then to [Spec, CP]. As noted above, A-bar movement through a [Spec, CP] of the infinitive clause doesn't seem to be an option, and it is not possible for the direct object to move in one fell swoop from the infinitive [Spec, $v$P] to the matrix (RC) [Spec, CP].

52) a.  yeni idare            [kitaplar-ı    yasakla-ma]-ya çalış-ıyor
         new  administration  books-ACC ban-**INF**-DAT    try-pres
         'The new administration is trying to ban (certain) books.'

    b.  [yeni idare-nin            [Ø₁ yasakla-ma]-ya çalış-tığ-ı ]] kitaplar₁
         new  administration-GEN      ban-**INF**-DAT    try-NSR-3s  books
         'the books that the new administration is trying to ban'

53) a.  Ali [kitab-ı     oku-mak]-tan zevk      al-ıyor.
        Ali   book-ACC read-**INF**-ABL  pleasure take-aor
        'Ali gets pleasure (i.e. enjoys) reading the book.'

   b.  [Ali-nin [Ø₁ okumak]-tan  zevk      al-dığ-ı]]      kitap₁
        Ali-gen        read-**INF**-ABL pleasure take-NSR-3s  book
        'the book that Ali enjoys reading' (lit: 'the book Ali gets pleasure from (to) read')


# 3  Inflected infinitivals

It was argued above that the bare uninflected infinitival –*mak* behaves like an NP.

Kornfilt (1997) also points this out.  Though Turkish complement clauses can

generally be separated from the matrix verb by a number of elements, as in (54)b, the

bare infinitival complement does not permit any element between itself and the verb,

as in (55)b.  This prohibition, however, does not hold for inflected infinitival

complements, which are case-marked and permit elements between them and the

verb, (56)b.  Kornfilt notes that "the infinitive not marked for case behaves like

incorporated nouns which are non-specific and are not marked for case" (p. 407).

54) a.  Hasan Ali-ye  [Ayşe-nin yarış-ı     kazan-dığ-ın]-ı    söyle-di
        Hasan Ali-DAT  Ayşe-GEN race-ACC win-NSR-3s-ACC tell-PST
        'Hasan told Ali that Ayşe won the race'

   b.  [Ayşe-nin yarış-ı    kazan-dığ-ın]-ı     Ali-ye **HASAN**  söyle-di
        Ayşe-GEN  race-ACC win-NSR-3s-ACC Ali-DAT HASAN    tell-PST
        'HASAN (focus) told Ali that Ayşe won the race'

55) a.  Hasan₁ [Ø₁ yarış-ı     kazan-mak] isti-yor
        Hasan        race-ACC win-**INF**      want-PRES.PROG.
        'Hasan wants to win the race'

241

b. *[Ø₁ yarış-ı    kazan-mak] **HASAN**₁ isti-yor
      race-acc win-**INF**      HASAN   want-PRES.PROG.
   'HASAN (focus) wants to win the race'

56) a. Hasan Ali-ye [Ayşe-nin  proje-yi     bitir-me-sin]-i      söyle-di
      Hasan Ali-DAT  Ayşe-GEN  project-ACC finish-**INF**-3s-ACC tell-PST
      'Hasan told Ali that Ayşe should finish the project'

   b. [Ayşe-nin  proje-yi      bitir-me-sin]-ı     Ali-ye  **HASAN**  söyle-di
       Ayşe-GEN  project-ACC finish-**INF**-3s-ACC Ali-DAT HASAN   tell-PST
      'HASAN (focus) told Ali that Ayşe should finish the project'

In our framework, and completely in line with what we have seen for non-clausal

arguments, the non-case-marked infinitival is an NP and must remain in-situ, whereas

the inflected infinitival is a DP (i.e. behaves syntactically as a DP), and must raise for

case.

It is this difference which explains the contrast in extraction from sentential

subjects. Let's look at Sezer's examples again repeating the minimal pairs in (11)

and (12), as (57) and (58). We have concluded that the structure of these infinitival

subjects is different, with the uninflected infinitival being an NP and the inflected

infinitival being a DP. Actually, these examples aren't minimal pairs at all, as (57) is

a passivized infinitive. Let's look at a more evenly matched pair, such as those in

(59) and (60).

57) a. [[**DP** Kitab-ın   yazıl-ma-sı]      Ali-ye    beşbin liraya otur-du
         book-GEN write-PASS-**INF**-3s Ali-DAT 5000    lira    come-PST
      'The writing of (this) book cost Ali 5000 lira.'

   b. [[**DP** Ø₁ yazıl-ma-sı]      Ali-ye   beşbin liraya otur-an]  kitap₁
         write-PASS-**INF**-3s Ali-DAT 5000    lira    come-SR book
      'the book that its writing cost Ali 5000 lira'

58) a.  [[~NP~ Kitab-ı    yaz-mak] Ali-ye    beşbin liraya otur-du
              book-ACC write-**INF**  Ali-DAT 5000    lira    come-PST
              'The writing of (this) book cost Ali 5000 lira.'

   b.  *[[ ~NP~ Ø₁ yaz-mak]   Ali-ye   beşbin liraya otur-an]  kitap₁
              write- **INF**  Ali-DAT 5000    lira    come-SR book

In our new examples, (59) and (60), the verbs are comparable except that one is an
inflected infinitive with a genitive subject (59), and the other is a bare infinitive, (60).
Since we have committed ourselves to treating these infinitival phrases as nominals,
let's make comparable assumptions about the internal structure of these phrases.  That
is, just as we had assumed that a bare NP does not have a case-assigning DP
projection above it (although there may be other projections that would normally be
between DP and NP), let's assume that the bare infinitival also lacks a structural case-
assigning projection, i.e. a TP projection.[196]  Now, let's assume that PRO in (60) does
not need case.  This is not so far a stretch seeing as how the generic PRO in these
sentential subject environments is non-specific, and non-referential anyway.  Thus,
PRO in (60) remains in its base-generated theta position.  With these assumptions, the
structure of the infinitival in (60) is as in (61).

59) a.  [[~DP~ Ali-nin sokaklar-ı  temizle-me-si] belediye-ye      beşbin dolar-a     ol-du
              A.-GEN streets-ACC  clean-**INF**-3s   municipality-DAT 5000 dollar-DAT come-PST
              '[(For) Ali to clean the streets] cost the municipality 5000 dollars.'

   b.  [[~DP~ Ali-nin   Ø₁ temizle-me-si]  belediye-ye
              Ali-GEN        clean-**INF**-3s   municipality-DAT
                 beşbin dolar-a      ol-an ]      sokaklar₁
                 5000   dollar-DAT come-SR   streets
              'the streets which (for) Ali to clean cost the municipality 5000 dollars.'

---

[196] To be more precise, the label on these phrases is for ease of exposition only.  My point is that the
infinitive in (60)/(61) lacks a case-assigning functional projection above the vP.  I have nothing to say
about the category of the head of such a projection and have referred to it as D°/T°.

60) a. [[<sub>NP</sub> Sokaklar-ı temizle-mek] belediye-ye beşbin dolar-a otur-du
    streets-ACC clean-**INF** municipality-DAT 5000 dollar-DAT come-PST
    '[To clean the streets] cost the municipality 5000 dollars.'

   b. *[[ <sub>NP</sub> Ø₁ temizle-mek] belediye-ye beşbin dolar-a otur-an] sokaklar₁
      clean-**INF** municipality-DAT 5000 dollar-DAT come-SR streets


61)    [<sub>NP</sub> sokaklar-ı temizle-mek]
       streets-ACC clean-**INF**
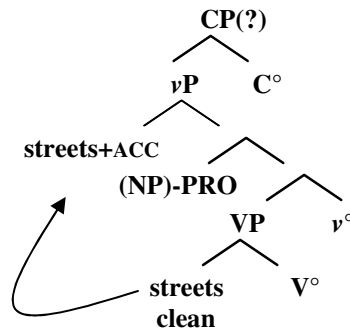


Again, I have nothing to say at this point, about the CP projection, except to say that

it does not seem to have an available Spec position.  I do assume that, as with all

transitive subjects, PRO first-merges in [Spec, *v*P], after which the direct object

*streets* raises to a higher *v*P Spec to receive accusative case.  As we saw, extraction of

a genitive of the direct object was possible because there was no intervener between

the relative head and the matrix clause.

        In contrast to (60), the infinitive in (59) is DP-like, and based on our new

assumptions, this means that there is an external structural case assigning head in this

clause.  The structure of the infinitive subject in (59) is shown in (62).  In this

structure, the subject raises to [Spec, TP] and is assigned genitive case.

62) [**DP** Ali-nin  sokaklar-ı   temizle-me-si]
      Ali-GEN streets-ACC clean-**INF**-3s
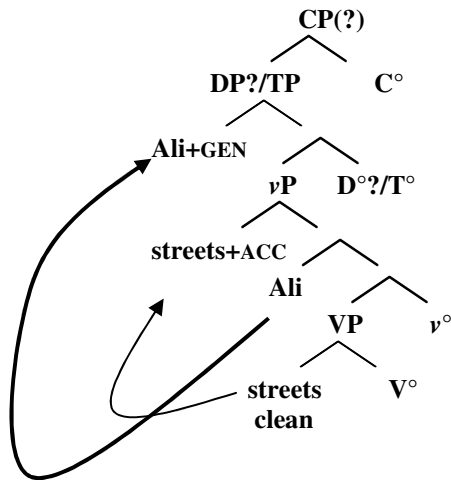


# 4  Taking stock

So now the question is how is it that whereas both structures are porous for

extraction, only the NP-like bare infinitive exhibits A-movement intervention effects

from PRO.  We saw no such effects from the DP-like inflected infinitive.

Let's readdress our assumptions about the structure of these two clauses.  It

would be preferable, of course, if the two could be as similar as possible.  One option

would be to postulate that the bare infinitive, like its inflected counterpart, also has a

TP projection.  We are assuming throughout that T° does not need to assign case.  To

account for the difference in raising of nominals within the infinitivals, we would

have to stipulate that the TP projection is such that no DP may raise above it unless

its EPP feature has been checked.  Thus, when there is a non-PRO subject in [Spec,

TP], other expressions may A-bar move to the infinitival [Spec, CP].  In the absence

of [Spec, TP] being occupied, a Wh-expression must first move to [Spec, TP] before it can move to the CP layer.

This scenario would account for the A-movement intervention from PRO in the *v*P, and the lack of intervention from inflected infinitivals with a non-PRO subject in [Spec, TP]. This assumption also implies that the NP/DP-like contrast of the infinitival is a reflex of the infinitive having assigned structural case to an external argument.

Of course, there is the evidence from OC PRO. If we assume that the subject of an OC infinitival is an expression that moves for case reasons, then positing a TP layer that would be capable of assigning case would not work. I am suggesting that because it is NP-like in its overt case and displacement restrictions, a bare infinitival cannot assign case to its external argument. If it were the contrary, and structural case was assigned to the subject of an OC infinitival, then certainly, that subject would be barred from moving to the Spec of a functional head in the matrix sentence whose case did not morphologically match. And here's the problem: The subject in the infinitival would be marked with genitive case prior to raising to the matrix clause. Once in the matrix, the subject would be assigned nominative case.[197] This would result in a structural case mismatch which, it was argued, results in a (PF) crash. Meeting the case-matching requirement in these circumstances is untenable as far as I can see.[198]

---

[197] This discussion makes sense only if one assumes the Inverse Case Filter. If T° did not have to discharge a Case feature, the problem of being assigned a second structural case in the matrix clause would be moot.

[198] In fact, this may be the reason there is no possessor-raising construction in Turkish. The structural case mismatch prohibition restricts possessor raising only to those constructions we have seen consistently throughout this work, that of a genitive possessor to a genitive subject position of an embedded clause.

In the absence of any other compelling factors, then, let's assume that the structure of a Turkish bare infinitival is at most a *v*P (although there may be other aspectual phrases, able to, for example, host a time adverbial, that are irrelevant for case and the EPP), and the inflected infinitival is at most a TP.[199]

With this in mind, let's look at the following examples from Kornfilt (1997):

63)     *[Çal-mak] bir  sonat
          play-**INF**   one sonata
        Intended: 'a sonata to play'

There are a number of reasons why (63) is bad.  If this is an OC infinitival, where is the antecedent of PRO, and how does that antecedent get case?  If it is a case of PRO$_{ARB}$ (as in an infinitival sentential subject), then a direct object can't be extracted. Furthermore, there are no RC verbal morphemes here; there is no CP layer in this structure.

64)     *[Cem-in    çal-ma-sı]   bir  sonat
          Cem-**GEN** play-**INF**-3s   one sonata
        Intended: 'A sonata for Cem to play'

Example (64) is unacceptable because the infinitive, being inflected, is a DP without case.  In addition, as with the previous example, there is no RC morphology here, so *sonata* could not have been relativized.  Example (64) is simply two unrelated phrases: one being [*a sonata*], and the other, [*Cem's playing*].

65)     [[[Çal-mağ]-a     başla-mak] iste-diğ-im]   bir sonat
          play-**INF**-DAT    start-**INF**     want-NSR-1s one sonata
        'a sonata I want to start to play'

---

In (65), we have two NP infinitivals with OC PRO one embedded in the other, with this structure embedded still in a relative clause. The derivation for (65) proceeds as shown in (66), as follows. Because I am assuming that OC infinitivals are derived via movement, I will refer to the subject of the infinitivals as 'PRO-1s' (PRO-1stPersonSingular). This is to say that the subject *ben* 'I' picks up its theta-role as PRO-1s in the infinitival, although technically there is no "PRO" at all. I merely use the term PRO out of convention.

First, note that the +Wh-sonata is the complement of Verb1 *çal* 'play'. PRO-1s merges as the subject, and sonata raises to [Spec, *v*P]. This is NP1, (66)a.

66) a.  [$_{VP}$ sonata + play ]

[$_{vP}$ PRO-1s$_1$ [$_{VP}$ sonata + play ] $v$°]

[$_{vP}$ sonata+ACC [$_{vP}$ PRO-1s$_1$ [$_{VP}$ sonata + play ] $v$°]

**[NP1 [$_{vP}$ sonata+ACC [$_{vP}$ PRO-1s$_1$ [$_{VP}$ sonata + play ] $v$°]]**
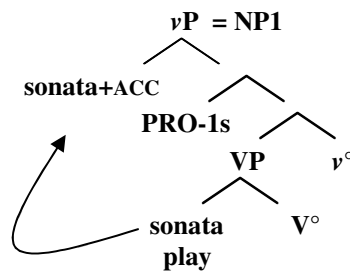


NP1 merges as the complement of *başla* 'start'. PRO-1s raises from [Spec, *v*P] to the agentive theta position in [Spec, *v*P] of *start*. *sonata* raises from [Spec, *v*P] of NP1 to [Spec, *v*P] of *start*, which is now NP2, as in (66)b.

65)    b.   [VP [NP1 [vP sonata+ACC [vP PRO [VP sonata + play ]]]-DAT] + start]

[vP PRO-1s₁ [VP [vP sonata+ACC [vP PRO-1s₁ [VP sonata + play ]]-DAT +
      start] v° ]

[vP sonata+ACC [vP PRO-1s₁ [VP ...
   ... [NP1 [vP sonata+ACC [vP PRO-1s₁ [VP sonata + play ]]]-DAT]+ start]
      v° ]

**[NP2 [vP sonata+ACC [vP PRO-1s₁ [VP ...**
   **... [NP1 [vP sonata+ACC [vP PRO-1s₁ [VP sonata + play]]]-DAT] +**
      start] v° ]]
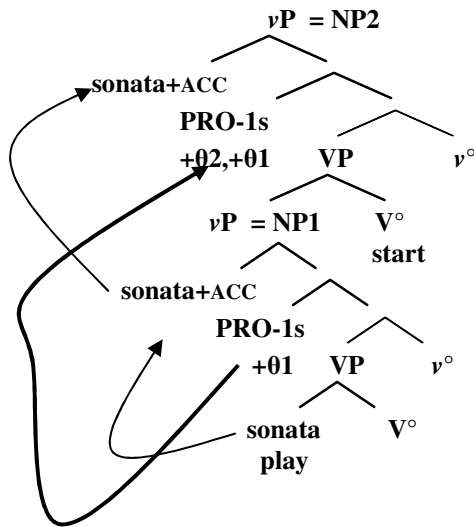


NP2 merges as the complement to *iste* 'want'. PRO-1s raises from [Spec, vP] of NP2

to another theta position in [Spec, vP] of *want*. *sonata* raises from [Spec, vP] of NP2

to [Spec, vP] of *want*.

T° merges with this vP, and 'I' raises to [Spec, TP] to be assigned genitive

case. *sonata* raises to [Spec, CP] and the NSR relative clause is triggered when T°

moves to C°. Finally, *sonata* is promoted to the external head of the RC.

65)    c.  [$_{VP}$ **[NP2** [$_{vP}$ sonata+ACC [$_{vP}$ PRO-1s$_1$ ...
...[$_{VP}$ [NP1 [$_{vP}$ PRO-1s$_1$ [$_{VP}$ sonata + play ]]-DAT + start] $v°$ ]] **]** + want ]

[$_{vP}$ I$_1$ [$_{VP}$ [NP2 [$_{vP}$ PRO-1s$_1$ [$_{VP}$ ...
... [NP1 [$_{vP}$ PRO-1s$_1$ [$_{VP}$ sonata + play ]]-DAT] + start] $v°$ ]] + want ] $v°$ ]

[$_{vP}$ sonata+ACC [$_{vP}$ I [$_{VP}$ [NP2 [$_{vP}$ PRO-1s$_1$ [$_{VP}$ NP1[$_{vP}$ PRO-1s$_1$ [$_{VP}$ sonata + play ]]-DAT] + start] $v°$ ]] + want ] $v°$ ]

[$_{TP}$ I+GEN [$_{vP}$ sonata+ACC [$_{vP}$ I$_1$ [$_{VP}$ [NP [$_{vP}$ PRO-1s$_1$ [$_{VP}$ [$_{vP}$ PRO-1s$_1$ [$_{VP}$ sonata + play ]]-DAT + start] $v°$ ]] + want ] $v°$ ] T° ]

[$_{CP}$ sonata+ACC [$_{TP}$ I+GEN [$_{vP}$ sonata+ACC [$_{vP}$ I [$_{VP}$ [NP [$_{vP}$ PRO [$_{VP}$ [$_{vP}$ PRO [$_{VP}$ sonata + play ]]-DAT + start] $v°$ ]] + want ] $v°$ ] T° ] C°]

[NP [$_{CP}$ ~~sonata~~ [$_{TP}$ I+GEN [$_{vP}$ I [$_{VP}$ [NP [$_{vP}$ ~~sonata~~ PRO [$_{VP}$ [$_{vP}$ PRO [$_{VP}$ ~~sonata~~ + play ]]-DAT + start] $v°$ ]] + want ] $v°$ ] T° ] C°] one sonata]
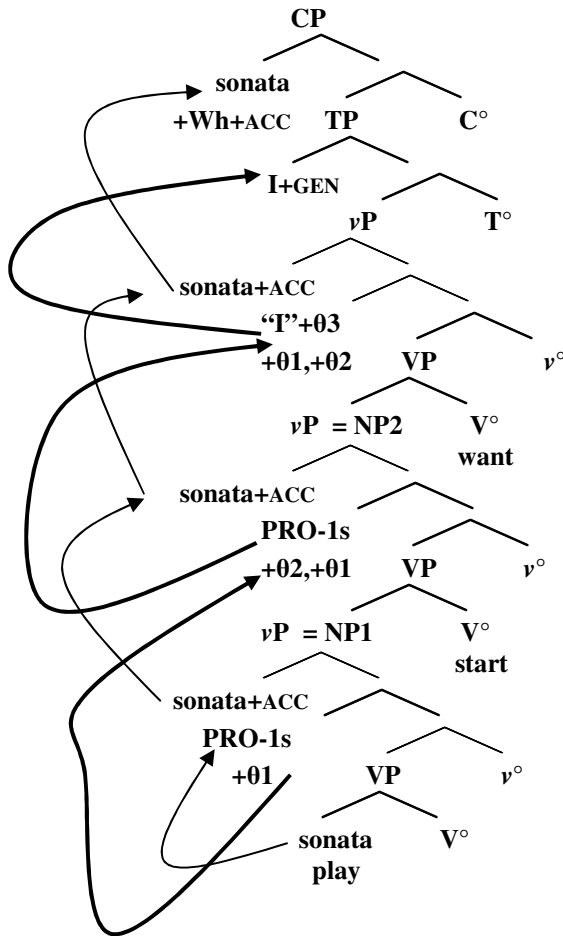
This derivation is possible because the point where the object and the subject raise from one infinitival to the next, there are no interveners, and (if one adopts a theory of phases) at each strong phase, they are at the edge of the phase. There are no strong phases between the *v*Ps, and thus there is no reason movement should be barred from the most deeply embedded infinitival clause to outermost relative clause.

Note also that the movement of the structurally case-marked accusative to the [Spec, *v*P] positions of the two outer clauses is possible because there is no case mismatch. We are assuming that movement of a structural case-marked expression to a structural case-marking position is barred for PF reasons. What drives this movement? The EPP feature of $v°$. On the other hand, if the accusative object is satisfying the EPP of $v°$, something else must be motivating the movement of PRO-1s-*ben*. I assume PRO moves to the intermediate positions to pick up a theta role and for enlightened self-interest. It is moving toward a case-marking position—although I do not assume look-ahead. Movement of PRO-*ben* to a theta position in $v°$ does not satisfy the EPP of $v°$. The +Wh-sonata still has Wh-features to be checked but movement through the intermediate [Spec, *v*P] positions is driven by other factors. One is that these intermediate $v°$s have a theta role which must be discharged; other factors may be Economy (shorter moves), and phases.[200]

---

[200] A discussion as to the viability of either of these would take us too far afield here. I mention them merely as possible motivators, depending on one's particular theory.

# Chapter 8: Conclusion

The goal of this dissertation has been to show that the variation in Turkish relative clauses can be accounted for with a minimum of technology. Within the Minimalist Program, concepts such as the EPP, Minimality, Case, and the structure of nominals are recurring themes. An attempt has been made to remain in the spirit of Minimalism, and refrain from constructing new and unnecessary or redundant grammatical rules. The evidence in this work seems to confirm that Minimality is a vital design feature in the grammar as we saw its effects throughout the Turkish examples. We concluded that it was indeed Minimality or intervention effects we were observing because for almost every bad example, we were able to construct an alternative good derivation that included scrambling around the blocking expression and leaving behind a remnant. We assumed that the +Wh-relative head evacuated the scrambled expression because it bore the theta role of the gap site and left behind possessive agreement on the head noun in the remnant. My use of the EPP was more pragmatic. By showing that specificity is encoded in Turkish by D, and that DPs must raise, it was both convenient and expeditious that I would rely on the EPP, i.e. a discrete feature that triggers movement of a DP into the Spec of a functional head. I have admitted that other accounts may be possible but all the anti-EPP accounts (such as movement for case, movement for Topic, base-generation and lowering at LF) I have seen thus far, lack the elegance of the account presented here, at best, or fail to explain the facts.

In addition, my aim was to keep the analysis completely within overt syntax. Little or no appeals were made to lexical or semantic processes. In fact, the lexicon was appealed to for selection only, prior to Merge into a derivation, and the semantic component was referred to for interpretation only, after Spell-Out. The semantic interpretations of the data were meant to be reflexes of the syntactic operations, as there was no LF operation or constraint affecting the syntax. The same goes for PF. No PF constraint was appealed to until after Spell-Out when a derivation would either converge or crash at PF.

This research project was an exercise in uncovering the clausal structure of Turkish by using the SR RC form as a diagnostic. We found affirmation that the structure we had posited for unaccusatives and unergatives was essentially correct. Or at least, the intervention phenomena we saw in Turkish seemed to indicate that subjects of unergatives "were in the way" while those of unaccusatives were not. We also saw that infinitivals seemed to have a smaller structure than was supposed. The evidence indicated that they may not even contain a TP projection. Furthermore, it was interesting that all PRO subjects created intervention effects (which could be skirted by scrambling and remnant movement) except subject control PRO. How is it that only subject control PRO is a different animal from the others?

The chapters on infinitivals and psych verbs offered analytic tools with which to probe underlying syntactic structure. Consider the following examples from Kornfilt (2004). The psych verb *üz-* 'sadden' permits an inflected infinitival as a subject, but not a factive clause, (1). On the other hand, we see the opposite in the minimally different sentence with *söylenti* 'rumor' as the subject. Now the factive is

253

acceptable as the complement of *rumor*, but not the infinitival, (2). It may be that referentiality, i.e. a categorial difference in the nominal, imposed by selectional restrictions is the culprit here, but these kinds of minimal pairs need to be examined more closely in light of the work here.

1) a. [Ali-nin ev-den kaç-ma-sı] ben-i üz-dü
      Ali-GEN home-ABL run.away-INF-AGR me-ACC saddened
      'Ali's running away from home saddened me'

   b. *[Ali-nin ev-den kaç-tığ-ı] ben-i üzdü
       Ali-GEN home-ABL run.away-**NSR**-AGR me-ACC saddened
      Intended: 'Ali's running away from home saddened me'

2) a. *[Ali-nin ev-den kaç-ma(-sı)] söylenti-si] ben-i üz-dü
       Ali-GEN home-ABL run.away-INF-AGR rumor-AGR me-ACC saddened
      Intended: 'the rumor that Ali ran away from home saddened me'

   b. [[Ali-nin ev-den kaç-tığ-ı] söylenti-si] ben-i üzdü
       Ali-GEN home-ABL run.away-**NSR**-AGR rumor-AGR me-ACC saddened
      'the rumor that Ali ran away from home saddened me'

On another note, we concluded that human nominals required φ-features which are encoded in D. Because they are DPs, +human subjects bar the use of the SR form for relativization of any other nominal in the clause. Similar effects were observed with subject experiencers of psych verbs. They too, it seems, must be DPs. We conclude that the D feature does a lot of work in Turkish. It is the locus of specificity, it encodes φ-features, it can satisfy the EPP, it can enter into agree relations with a verb, it requires case, and its projection can scramble.

If the analysis presented here is on the right track, it raises a host of questions, some of which I have alluded to and speculated answers to above. There are other

questions.  For example, one wonders why the SR form is licensed when relativizing a subject, i.e. an expression from the syntactic position of the subject which is [Spec, TP].  Along these lines, it is interesting that the Turkish facts resemble Wh-extraction facts in Tagalog, where the generalization seems to be that Wh-extraction is allowed only if the expression has a trace in [Spec, IP].  It was though that only subjects could be extracted in Tagalog, but Nakamura (1993) shows that, in fact, it is the "structural" subject or topic that can be extracted.  Certainly, movement in Tagalog and in Malagasy, a language with similar properties, could be reexamined in view of the evidence presented here.

We also saw that accusative DPs could not move to [Spec, TP] whereas other case-marked expressions could.  Is it really because the accusative object is "frozen" for further A-movement?  I have discussed the Inverse Case Filter throughout this work at times presenting arguments in its favor and at times rejecting it.  If T° has a Case feature it must discharge, then why is it that only structurally case-marked expressions are barred from moving to T°.  I offered one possible reason: a crash at the PF interface due to morphological mismatch.

Another puzzling phenomenon we encountered was that scrambled expressions can neither scramble again nor move further.  I presented some ideas as to why this should be, but these need to be fully worked out or disproved. Furthermore, what kind of movement is scrambling?  Although J. Kornfilt, G. Aygen, and M. Kural, among others, have worked on scrambling in Turkish, the facts here shed new light on this phenomenon.  Certainly it does not seem to be the case that scrambling is EPP driven.  I mildly concurred with Kural that scrambling seemed to

be A-bar movement, but if this is so, a range of questions emerge: where is the projection, what features are checked, why not to the higher CP, why not successive cyclic?

Other questions that I have barely addressed concern Case: How is genitive case licensed in embedded contexts? Is genitive case structural or inherent? Can it be either, depending on whether it is fulfilling a thematic or functional purpose? How is it that DPs need case but not NPs? Could it be that in Turkish only φ-features must satisfy the Case Filter? Is this something that can be parametric? Could it be correct that structural case mis-match causes a PF crash. How is it that +human nominals must have case and raise *unless they are contrastively focused*? I offered an account in Chapter 5, but it was tenuous at best and certainly deserves more investigation. What is it about contrastive focus that makes the expression bearing it immune to certain overt requirements?

I expect that the proposals made in this dissertation will need to be altered as a result of future research. On the other hand, the analysis provided machinery with which to conduct an investigation which has led to the unmasking of other phenomena that were not so obvious. Thus, if the solutions presented do not completely hold, the hope is the questions they raised and the logic of the argumentation will prove valuable.

# Bibliography

Abney, Steven. 1987. The English noun phrase in its sentential aspect. Ph.D. dissertation, MIT.

Aoun, J. and A. Li. 1989. Constituency and Scope. *Linguistic Inquiry* 20:141-172.

Aygen-Tosun, Gülşat. 1999. Specificity and Subject-Object Positions/Scope Interactions in Turkish. Ms. Harvard University, Cambridge, MA.

Aygen, Gülşat. 2001. Extractability and the nominative case feature on tense. In Harvard Working Papers in Linguistics.

Aygen, Gülşat. 2001. Are there "Non-Restrictive Prerelatives" in Turkish? In Harvard Working Papers in Linguistics.

Baker, Mark. 1988. *Incorporation*. Chicago: University of Chicago Press.

Baker, Mark and Osamuyimen T. Stewart. 2002. A Serial Verb Construction Without Constructions. Ms, Rutgers University.

Barker, Chris, Jorge Hankamer, and John Moore. 1990. *Wa and Ga in Turkish*. Syntax Research Center, Linguistics, Cowell College, UCSC, Santa Cruz.

Belletti & Rizzi. 1988. Psych Verbs and θ-Theory. *Natural Language and Linguistic Theory* 6:291-352. Dordrecht: Kluwer Academic Publishers.

Benincà, Paula. 1980. Nomi senza articulo. *Rivista di grammatica generativa* 5:51-63.

Bianchi, Valentina. 1999. *Consequences of antisymmentry: Headed relative clauses*. Berlin: Mouton de Gruyter.

Bianchi, Valentina. 2000. The Raising Analysis of Relative Clauses: A Reply to Borsley. *Linguistic Inquiry* 31:123-140.

Borer, Hagit. 1984. Restrictive relative clauses in Modern Hebrew. *Natural Language and Linguistic Theory* 2:219-260.

Borsley, Robert D. 1997. Relative clauses and the theory of phrase structure. *Linguistic Inquiry* 28:629-647.

Bošković Željko. 2002. A-movement and the EPP. *Syntax* 5:167-218.

Bošković Željko. 2005. On the locality and driving force of wh-movement. Talk presented at the 2005 Mayfest, University of Maryland, College Park.

Brame, Michael K. 1968. A new analysis of the relative clause: Evidence for an interpretive theory. Unpublished Manuscript, MIT, Cambridge, MA.

Burzio, Luigi. 1986. *Italian Syntax*. Dordrecht: Reidel.

Burzio, Luigi. 2000. Anatomy of a generalization.  In Eric Reuland (ed.), *Arguments and case: Explaining Burzio's generalization*. Amsterdam: John Benjamins. pp. 195-240.

Chomsky, Noam. 1965. *Aspects of the Theory of Syntax*. Cambridge, MA: MIT Press.

Chomsky, Noam. 1981. *Lectures on government and binding*. Dordrecht: Foris.

Chomsky, Noam. 1982. Some concepts and consequences of the theory of government and binding. Cambridge, MA: MIT Press.

Chomsky, Noam. 1986. *Barriers*. Cambridge, MA: MIT Press.

Chomsky, Noam. 1995. Categories and transformations. In *The Minimalist Program* (Chapter 4), 219-394. Cambridge, MA: MIT Press.

Chomsky, Noam. 1999. Derivation by Phase. MIT Occasional Papers in Linguistics, No. 18.  MITWPL, Cambridge, MA. (Reprinted in Michael Kenstowicz (ed.) *Ken Hale: A Life in Language*, 1-52. Cambridge, MA: MIT Press, 2001.)

Chomsky, Noam. 2000. Minimalist Inquiries: The Framework. In R. Martin, D. Michaels, and J. Uriagereka (eds.) *Step by Step Essays on Minimalist Syntax in Honor of Howard Lasnik*. Cambridge, MA: MIT Press.

Chomsky, Noam. 2001. Beyond Explanatory Adequacy. MIT Occasional Paper in Linguistics 20. MITWPL, Cambridge, MA.

Chomsky, Noam. 2005. Lecture presented at LSA Summer Institute, MIT.

Colline, Chris, and Höskuldur Thráinsson. 1996. VP-Internal Structure and Object Shift in Icelandic. *Linguistics Inquiry* 27:391-444.

Csató, Eva A. 1985. A syntactic analysis of participle constructions in Modern Turkish. In *Beşinci Milletler Arası Türkoloji Kongresi, 23-28 Eylül 1985, Tebliğler 1, Türk dili,* İstanbul: İstanbul Üniversitesi, 1985. 39-56.

Del Gobbo, Francesca. 2003. Appositives at the Interface. Ph.D. dissertation, University of California, Irvine.

Deising, Molly. 1992. *Indefinites*. Cambridge, MA: MIT Press.

Diesing, Molly. 1996. Semantic Variables and Object Shift. In H. Thrainsson, S.D. Epstein and S. Peter (eds.) *Studies in Comparative Germanic Syntax, Vol. II.* 66-84. Dordrecht: Kluwer Academic Publishers.

Enç, Mürvet. 1991. The Semantics of Specificity. *Linguistic Inquiry* 22:1-25.

Erguvanlı, Eser E. 1984. *The Function of Word Order in Turkish Grammar.* Berkeley: University of California Press.

Frank, Robert. 2002. Phrase Structure Composition and Syntactic Dependencies. Cambridge, MA: MIT Press.

Freeze, R. 1992. Existentials and Other Locatives. *Language* 68(3):553-595.

Freidin, Robert and Rex Sprouse. 1991. Lexical Case Phenomena. In R. Freidin (ed.) *Principles and Parameters in Comparative Grammar*. Cambridge, MA: MIT Press. pp. 392-416.

George, Leland M. and Jaklin Kornfilt. 1981. Finiteness and Boundedness in Turkish. In Frank Heny (ed.) *Binding and Filtering*, Cambridge, MA: MIT Press. pp. 105-127.

Hankamer J. and L. Knecht. 1976. The Role of the Subject/Non-Subject Distinction in Determining the Choice of Relative Clause Participle in Turkish. North East Linguistic Society, McGill University

Heim, Irene. 1982. *The Semantics of Definite and Indefinite Noun Phrases*, Doctoral dissertation, University of Massachussetts, Amherst.

Higginbotham, James. (1987) Indefiniteness and Predication, in E. J. Reuland and A. G. B. ter Meulen (eds.) *The Representation of (In)definiteness*. Cambridge, MA: MIT Press, 43-70.

Hiraiwa, Ken. 2001. On Nominative-Genitive Conversion. In O. Matushansky and E. Guerzoni (eds.) *A Few From Building E-39*, MIT Working Paper in Linguistics 39. MITWPL. Cambridge, MA, pp.66-123.

Hoji, Hajime. 1985. Logical form constraints and configurational structures in Japanese. University of Washington Ph.D. dissertation. Seattle, WA.

Holmberg, Anders, and Christer Platzack. 1995. Object Shift and the Role of Case. In *The Role of Inflection in Scandinavian Syntax*. Oxford: Oxford University Press.

Hong, Soo-min. 2002. Multiple Case Stacking in Korean. Ms. Univ. of Maryland, College Park.

Hornstein Norbert. 1999. Movement and Control. *Linguistic Inquiry* 30(1), pp. 69-96.

Hornstein, Norbert and Jacek Witkos. 2001. *Yet Another Approach to Existential Constructions.* Ms. University of MD, College Park.

Işsever, Selçuk. 2003. Information structure in Turkish: the word order-prosody interface. *Lingua* 113: 1025-1053.

Jonas, Dianne, and Jonathan D. Bobaljik. 1993. Specs for Subjects: The role of TP in Icelandic. In *MIT working papers in linguistics 18: Papers on Case and agreement I*, 59-98. MITWPL, MIT, Cambridge, MA.

Kamp, H. 1981. A Theory of Truth and Semantic Interpretation. In J. Groenendijk, T. Janssen, and M. Stockhof (eds.) *Formal Methods in the Study of Language*, Mathematisch Centrum, Amsterdam.

Karimi, Simin. 2003. On object positions, specificity, and scrambling in Persian. In S. Karimi (ed.) *Word Order and Scrambling*. Oxford: Blackwell Publishers. pp. 91-124.

Karimi, Simin. 2005. A Minimalist Approach to Scrambling Evidence from Persian. Berlin: Mouton de Gruyter.

Kayne, Richard S. 1994. *The Antisymmetry of Syntax*. Cambridge, MA: MIT Press.

Kelepir, Meltem. 2001. Topics in Turkish Syntax: Clausal Structure and Scope. MIT Ph.D. dissertation. Cambridge, MA.

Kennelly, Sarah. 2003. The implications of quantification for the role of focus in discourse structure. *Lingua* 113:1055-1088.

Kiparsky, P. and Kiparsky C. 1971. Fact. In L. Jakobovits and D. Steinberg (eds.), *Semantics: An Interdisciplinary Reader.* Cambridge: Cambridge University Press.

Knecht, Laura. 1985. Subject and Object in Turkish. Ph.D. Dissertation. MIT, Cambridge, MA.

Kornfilt, Jaklin, 1984. Case Marking, Agreement and Empty Catagories in Turkish. Harvard University Ph. D. dissertation. Cambridge, MA.

Kornfilt, Jaklin, 1984. Case Marking, Agreement and Empty Catagories in Turkish. Harvard University Ph. D. dissertation. Cambridge, MA.

Kornfilt, Jaklin, 1991. Some current issues in Turkish syntax. In Hendrik Boeschoten and Ludo Verhoeven, E. J. Brill (eds.), *Turkish Linguistics Today*. Leiden: The Netherlands.

Kornfilt, Jaklin. 1988. A typology of morphological agreement and its synactic consequences. In Proceedings of the Chicago Linguistics Society, 24: 117-134.

Kornfilt, Jaklin. 1997a. *Turkish*. Routledge: New York.

Kornfilt, Jaklin. 1997b. On the Syntax and Morphology of Relative Clauses in Turkish. In Dilbilim Araştırmaları. Kebiçek Yayıları: Ankara.

Kornfilt, Jaklin. 2003. Scrambling, Subscrambling, and Case in Turkish. In S. Karimi (ed.) *Word Order and Scrambling*. Oxford: Blackwell Publishers. pp. 125-155.

Kornfilt, Jaklin. 2005. Agr in Turkish as an expression of categorial features. MIT Working Papers in Linguistics: Proceedings of WAFL 2 Conference 2004 in Istanbul, Turkey.

Kural, Murat. 1992. Properties of Scrambling in Turkish. Ms., UCLA.

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

Kural, Murat. 1993. V-TO(-I-TO)-C in Turkish. In Filippo Beghelli & Murat Kural (eds.) UCLA Occasional Papers in Linguistics, v.11.

Kural, Murat. 1997. Postverbal Constituents in Turkish and the Linear Correspondence Axiom. *Linguistics Inquiry* 28:3 pp. 498-519.

Lasnik, Howard. 1998. Exceptional Case marking: Perspectives old and new. In Z. Boskovic, S. Franks, and W. Snyder (eds.) *Formal Approaches to Slavic Linguistics: The Connecticut Meeting 1997*. Michigan Slavic Publications, pp. 187-211.

Lasnik, Howard. 2001. A note on the EPP. *Linguistic Inquiry* 32:356-362.

Lasnik, Howard. 2002. On exceptional Case marking constructions. In Korean Linguistics Today and Tomorrow: Proceedings of the 2002 Association for Korean Linguistics, International Conference on Korean Linguistics, pp. 39-54.

Lavine, James, and Freidin, Robert. 2002. The Subject of Defective T(ense) in Slavic. *Journal of Slavic Linguistics* 10: 253-89.

Levin, Beth. 1993. English Verb Classes and Alternations A Preliminary Investigation. Chicago: University of Chicago Press.

Longobardi, Guiseppe. 1994. Reference and Proper Names: A Theory of N-Movement in Syntax and Logical Form. *Linguistics Inquiry* 25:609-665.

Mandelbaum, D. 1994. Syntactic Conditions on Saturation. Ph.D. dissertation, CUNY.

McCloskey, James. 1990. Resumptive pronouns, A'-binding and levels of representation in Irish. In Randall Hendrick (ed.). Syntax & Semantics, vol. 32. *The Syntax of the Modern Celtic Languages*. New York; Academic Press.

Meral, Hasan Mesud. 2004. *Resumptive Pronouns in Turkish*. Master's Thesis, Boğaziçi University, Istanbul.

Miyagawa, S. 2001. EPP, scrambling and wh-in-situ. In Michael Kenstowicz (ed.) *Ken Hale: A Life in Language*. Cambridge, MA: MIT Press.

Moore, John. 1998. Turkish Copy-Raising and A-Chain Locality. *Natural Language and Linguistic Theory* 16: 149-189. .

Murasugi, Keiko. 2000. Japanese Complex NP's and Antisymmetry. In R. Marton, D. Michaels, and J. Uriagereka (eds.) *Step by Step: Essays in Minimalist Syntax in Honor of Howard Lasnik*. Cambridge, MA: MIT Press.

Nakamura, Masanori. 1993. An economy account of Wh-extraction in Tagalog. In Proceedings of WCCFL 12. Stanford: CSLI.

Ortega-Santos, Iván. 2005. On Locative Inversion and the EPP in Spanish. Paper presented at the VIII Encuentro Internacional de Lingüística del Noroeste, University of Sonora, Mexico.

Ouhalla, Jamal. 1993. Negation, Focus and Tense: The Arabic Maa and Laa. *Rivista di Linguistica* 5.275-300.

Özsoy, Sümrü. 1994. Türkçe'de Ortaç Yapısı. Dilbilim Araştırmaları. Ankara: Hitit.

Perlmutter, D. 1978. Impersonal Passives and the Unaccusative Hypothesis. In Berkeley Linguistic Society IV, 157-189. University of California.

Perlmutter, D. 1969. *Deep and Surface Constraints in Syntax*. New York: Holt, Rinehart & Winston.

Pesetsky, David and Esther Torrego. 2001. Tense to C:Causes and Consequences. In Michael Kenstowicz (ed.) *Ken Hale: A Life in Language*. Cambridge, MA: MIT Press.

Pesetsky, David. 1994. *Zero Syntax Experiencers and Cascades*. Cambridge, MA: MIT Press.

Postal, Paul. 1966. "On So-Called Pronouns in English", in F. Dineen S.J. (ed.), *Report of the 17th Annual Round Table Meeting on Languages and Linguistics*, Georgetown University Press, Washington, D.C. Reprinted in D. A. Reibel and S. A. Schane (eds.), *Modern Studies in English: Readings in Transformational Grammar*. NJ: Prentice-Hall (1969).

Rackowski, Andrea. 2002. Subject and Specificity: The Case of Tagalog, NELS 32.

Richards, Norvin. 2005. The Agreement sequence for successive-cyclic movement in Tagalog and English. Talk presented at Mayfest, Univ. of Maryland, College Park.

Rizzi, Luigi. 1990. *Relativized Minimality*. Cambridge: MIT Press.

Rizzi, Luigi. 1996. Residual Verb Second and the Wh-Criterion. In Adriana Belletti and Luigi Rizzi (eds.) *Parameters and Functional Heads Essays in Comparative Syntax*. New York: Oxford University Press.

Rizzi, Luigi. 1997. The Fine Structure of the Left Periphery. In L. Haegeman (ed.), *Elements of Grammar. Handbook in Generative Syntax*. Dortrecht: Kluwer Academic Publishers, 281-337.

Ross, John R. 1967. *Constraints on Variables in Syntax*. Ph.D. dissertation. MIT.

Sauerland, Uli. 2002. "Unpronounced Heads in Relative Clauses". In K. Schwabe and S. Winkler (eds.) *The Interfaces*. Amsterdam: John Bejamins.

Schutze, Carson. 2001. On Korean "Case Stacking": The varied functions of the particles *ka* and *lul*. *The Linguistics Review* 18(3), 193-232.

Schachter, Paul. 1973. Focus and relativization. *Language* 49(1):19–46.

Sezer, Engin. 1986. The Unmarked Sentential Subject Constraint in Turkish. In D. Slobin and K. Zimmer (eds.) *Studies in Turkish Linguistics Vol. 8*, pp. 123-135. Philadelphia: John Benjamins Publishing Co.

Sigur☆sson, Halldór. 1992. The Case of Quirky Subjects. In *Working Papers in Scandinavian Syntax* 49:1-26.

Siloni, Tai. 1996. Hebrew Noun Phrases: Generalized Noun Raising. In A. Belleti and L. Rizzi (eds.) *Parameters and Functional Heads*, 239-267.

Stowell, Tim. 1989. Subjects, Specifiers, and X'-Theory. In M.R. Baltin and A.S. Kroch (eds.) *Alternative Concepts of Phrase Structure*, pp.232-262. Chicago: University of Chicago Press.

Stowell, Tim. 1991. Small Clause Restructuring. In Robert Freidin (ed.) *Principles and Parameters in Comparative Grammar*. Cambridge, MA: MIT Press. pp. 182-218.

Svenonius, Peter. 2002. *Subjects, Expletives, and the EPP*. NY: Oxford University Press. 3-27.

Szabolcsi, Anna. 1987. "On Combinatory Categorial Grammar". In *Proceedings of the Symposium on Logic and Language*, Debrecen, Budapest: Akademiai Kiado, pp. 151-162.

Takahashi, Daiko. 1994. Minimality of Movement. Ph.D. Dissertation, University of Connecticut

Travis, Lisa 1984. Parameters and Effects of Word Order Variation. Ph. D. Dissertation, MIT.

Underhill, R. 1972. Turkish Participles. *Linguistic Inquiry* 3:87-99.

Vergnaud, Jean-Roger. 1974. French Relative Clauses. Ph.D. Dissertation, MIT.

Yükseker, Hitay. 2003. Bir 'One' in  A. Özsoy, D. Akar, M. Nakipoğlu-Demiralp, E. Erguvanlı-Taylan, A. Aksu-Koç (eds.) *Studies in Turkish Linguistics, Proceedings of the Tenth International Conference in Turkish Linguistics, 2000.* Istanbul:Boğaziçi Univ. Press

Zimmer, Karl. 1987. "Turkish Relativization Revisited".  In H. E. Boeschoten and L. Th. Verhoeven (eds.)  *Studies on Modern Turkish: Proceedings of the third Conference on Turkish Linguistics*, 57-61. Den Haag: Tilbury University Press.