A UNIFORM ACCOUNT OF

PERSONAL AND IMPERSONAL PASSIVES IN TURKISH

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DECLARATION OF ORIGINALITY

I, Furkan Dikmen, certify that

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ABSTRACT

A Uniform Account of Personal and Impersonal Passives in Turkish

In the literature, the general assumption is that passives of unaccusative predicates, and therefore passives of passives, or double passives are cross-linguistically unavailable. Current theories of syntax and semantics rule out such constructions in various ways. The most recent advancement in this endeavor is to suggest that passivization is necessarily restricted to the Voice domain, which is only available to unergative and (di)transitive structures. However, Turkish systematically allows both passives of unaccusative predicates and double passives, which we argue to pose a serious problem to the syntactic and semantic theory because current theories are founded on the premise that such constructions are prohibited. In this thesis, we will show that passive clauses are not derived from their active counterparts. More specifically, we will suggest that passive clauses are formed with items merged from the passive domain. This domain may consist of more than one passive head, subject to different licensing conditions in a language or may not be available for independent reasons. Hence, we argue that some languages may allow passives of unaccusatives and double passives if they fulfill these conditions. Particularly, we will argue that the head not merged in the active structure may be compensated for in the passive domain. However, if a head must somehow be projected before the passive domain, its corresponding passive form cannot be merged in the passive domain because it would cause two predicates of the same semantic contribution to be present in the same structure.

ÖZET

Türkçede Kişili ve Kişisiz Edilgen Yapıların Bütünleşik Bir Analizi

Literatürde ayrık geçişsiz eylemlerin edilgen yapılarının ve ikili edilgen yapıların dilbilimsel olarak imkansız olduğu varsayılmaktadır. Güncel sözdizimsel ve anlambilimsel teoriler bu yapıları çeşitli yollarla yasaklamıştır. Bu amaçla yapılan en son girişimler edilgenleştirmenin Çatı alanıyla ilgili olduğunu savunup, Çatı alanının da sadece özneli-geçişsiz eylemlerle (çift)geçişli eylemlerin yapılarında bulunduğunu öne sürmüştür. Ancak, Türkçe sistematik olarak hem ayrık-geçişsiz eylemlerin edilgen formlarına hem de ikili edilgen yapılara izin vermektedir ki bu durum sözdizimsel ve anlambilimsel olarak kurama ciddi bir sorun teşkil etmektedir, çünkü güncel kuramlar bu tarz yapıların mümkün olmadığı varsayımı üzerine kurulmuştur. Bu tezde, biz edilgen yapıların etken karşılıklarından türetilmediğini önermekteyiz. Özellikle, edilgen yapıların, edilgen alandan çekilen sözdizimsel ögelerden oluştuğunu savunmaktayız. Bu alan bir dilde farklı lisanslama koşullarına tabii birden fazla edilgen ögeden oluşabilirken, bağımsız nedenlerden ötürü o dilde hiç var olmayabilir. Böylelikle, eğer herhangi bir dil bu lisanslama koşullarını yerine getiriyorsa, o dilde ayrık-geçişsiz eylemlerin edilgen yapıları ile ikili edilgen yapıların bulunabileceğini savunuyoruz. Özellikle, biz etken alanda yapısal olarak eklenmemiş ögelerin edilgen alanda telafisinin yapılabileceğini önermekteyiz. Ancak, eğer bir öge bir dilde zorunlu olarak edilgen alana gelmeden önce yapıya eklenmek zorundaysa, biz bu ögenin edilgen karşılığının, edilgen alanda yapıya hiçbir şekilde eklenemeyeceğini öngörüyorüz, çünkü böylesi bir durum aynı anlambilimsel katkısı olan iki ögenin aynı yapıda bulunmasına sebep olmaktadır.

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ABBREVIATIONS

1SG	First person singular
3PL	Third person plural
3SG	Third person singular
ABL	Ablative
ACC	Accusative
ACT	Active
AOR	Aorist
AUT	Autonomous form marker
CAUS	Causative
CL	Clitic
COM	Comitative
CV	Converb Marker
DAT	Dative
DEF	Definite
EZ	Ezâfe Particle
FUT	Future
GEN	Genitive
GER	Gerund
INF	Infinitive marker
LOC	Locative
MID	Middle
MOD	Modality marker
NEG	Negation

NMNZ	Nominalizer
NOM	Nominative
OPT	Optative
PASS	Passive
PART	Participle
PL	Plural
POSS	Possessive
PRNM	Pronominal *-ki*
PROG	Progressive
PST	Past
Q	Question particle
REF	Reflexive
REL	Relativizer

CHAPTER 1

INTRODUCTION

1.1 Goal

Passive clauses are typically categorized into two classes: personal and impersonal passives, the latter of which are also called subjectless passive clauses because they lack overt subjects or the subject position is filled by an expletive in the absence of a subject (Abraham; 2011, Kiparsky; 2013). According to this definition, Turkish allows both personal and impersonal passives (see (1a) and (1b) for examples of personal and impersonal passives in Turkish respectively).

(1) a. *Snape* *kovala-n-dı.*
Snape chase-PASS-PST
'Snape was chased.'

b. *Hogwarts-ta* *koş-ul-du.*
Hogwarts-LOC run-PASS-PST
Lit: 'It was run at Hogwarts.'

The distinction is important for certain languages because impersonal passivization is commonly used as a diagnostic to distinguish between unaccusative and unergative predicates. On the other hand, Turkish allows impersonal passives of not only simple unaccusatives (cf. (2a)), but also derived ones (cf. (2b)). In other words, Turkish allows passives of passives (double passives).

(2) a. *Savaş-ta* *öl-ün-ür.*
war-LOC die-PASS-AOR
'One dies in war.'

b. *Harp-te* *vur-ul-un-ur.*
war-LOC shoot-PASS-PASS-AOR
'One is shot (by one) at war.' (Özkaragöz, 1986, p. 76)

The double passive data in (2b) is particularly important for the following reasons.[1] Although passives of unaccusatives are cross-linguistically generally prohibited and the syntactic/semantic theories minimally try to capture this fact, if a language allows them, the theories might be made flexible such that they can allow such passives. However, the double passive data in (2b) is extremely difficult to accommodate within the current assumptions of the syntactic and semantic theory in Generative Grammar as we will discuss in the following chapters because double passives of Turkish involve the suppression of the lower argument (the internal one) only after the suppression of the higher argument (the external one). Hence the order of application is problematic because by the time the structure reaches to a level where the external or higher argument suppression takes place, the lower argument must already be merged to the syntactic structure. Once it is inserted to the system though, there is no mechanism to delete it without further repercussions.

Thus, in this thesis, we will be primarily concerned with the analysis of double passive constructions in Turkish. In doing so, we will first establish that impersonal constructions in Turkish are a type of passive voice and there is no real motivation to keep a distinction between personal and impersonal passives. Second, our discussion will provide evidence that passive clauses are not derived from their active counterparts. In other words, they are constructions on their own rights. In the process, we will propose another distinction between passive types in Turkish: Voice-related passive (Passive I) and non-Voice-related passive (Passive II). Finally, the discussion will naturally show that impersonal passivization is not a tool to

[1] I would like to note that although this thesis is primarily theoretically driven, when judgments for a clause type is controversial, I consulted with eight native speakers of Turkish who were mostly Boğaziçi University students aged between 18-26 as judgments for double passives may be varied.

distinguish between unergative and unaccusative predicates as it is possible to passivize both simple and derived unaccusatives (passivized transitives) in Turkish.

A note is in order here: In the rest of this thesis, we are going to see on several occasions that passives of unaccusatives and unergatives are possible in Turkish. While providing the relevant examples, oftentimes, we will simply assume that a verb is an unaccusative predicate if its sole argument is patient-like and unergative if it is agentive. Hence, I will not determine unaccusativity/unergativity based on the classical notions such as telicity or change of state ascribed to unaccusative predicates (but see Nakipoğlu, 1998). However, this does not necessarily mean that we determine whether a verb is unaccusative or unergative solely based on this semantic criterion. Although the distinction is not quite clear in Turkish anyway, we will still mention several tests to distinguish between unaccusative and unergative verbs as we discuss how double passives may be generated in Turkish. For example, the intentionality feature of subjects of 'verbs of directed motion' such as *gir* 'enter' may determine to which class a given verb belongs. *-ArAk* constructions as will be introduced in Chapter 2 are useful to in determining the class of a predicate. The availability of by-phrases in passives of intransitives will be shown to be a determining factor. Finally, whether the verb shows any aspectual restrictions when passivized will be shown to be indicative.

1.2 Properties of passive and impersonal constructions in Turkish

As pointed out in Kiparsky (2013), any theory of passivization will face the variation among languages with respect to the passive types that they present. He lists a number of typological questions that must be addressed to define the properties of passivization in a given language (p. 8). These questions are listed below:

(3) a. What verbs may passivize?

b. Are there subject-less (impersonal) passives?

c. Can there be an "agent phrase"?

d. Is lexical (quirky) case on objects preserved under passivization?

e. In ditransitives (including derived causatives) which object causativizes?

f. Do passives stack?

In the next two subsections, we are going to answer these questions for Turkish. While we describe which verbs may passivize in Turkish, we will answer not only (3a) but also (3b-c-d-e-f). While the next subsection will involve some description on which verbs can passivize in Turkish, in the subsection 1.2.2, we will answer which verb types cannot be targeted by passivization, as well.

1.2.1 What verbs may passivize in Turkish?

Ignoring the differences between passivization and impersonal passivization if there are any, most verbs in Turkish seem to be able to undergo passivization.

(4) a. *Cadı-lar* *büyücü-yü* *yakala-dı.*
witch-PL wizard-ACC catch-PST
'The witches captured the wizard.'

b. *Büyücü* (*cadı-lar* *tarafından/-ca*) *yakala-n-dı.*
wizard witch-PL by/by catch-PASS-PST
'The wizard was captured (by the witches).'

(4) shows that passivization can be applied to transitive verbs whose internal arguments are markable with the accusative case. In addition, in line with the implicational universal provided by Kiparsky (2013) that by phrases are optional if they are allowed in passives at all, Turkish optionally allows the postposition *tarafından* to retrieve the suppressed argument as in (4b). The postposition is of Arabic origin and literally means 'from/by the side of' as described in Göksel (1995).

One could also retrieve the suppressed argument with the agentive suffix, having a more Turkic origin, which is *-CA* (Göksel & Kerslake, 2005). In the rest of the thesis, we will be using both forms when necessary.

Quite predictably, passives of unergatives are also possible as is common in several languages (Perlmutter, 1978 for Dutch; Postal, 1986 for French and German; Reinhart & Siloni, 2004 for Dutch; Chierchia, 2004 for Italian, Abraham, 2011 for German) (cf. (5b)). Yet, unlike German, Dutch or Italian, Turkish also allows passives of unaccusatives (6b).

(5) a. *Dün* *insan-lar* *maraton-da* *koş-tu.*
yesterday person-PL marathon-LOC run-PST
'People ran in the marathon yesterday.'

b. *Dün* *maraton-da* *koş-ul-du.*
yesterday marathon-LOC run-PASS-PST
'There was running in the marathon yesterday.'

(6) a. *Eskiden* *insan-lar* *veba-dan* *öl-ür-dü.*
formerly person-PL plague-ABL die-AOR-PST
Bugün *de* *korona-dan* *öl-üyor-lar.*
today CL corona-ABL die-PROG-3PL
'In the past, people died of plague. As for today, they die of corona.'

b. *Eskiden* *veba-dan* *öl-ün-ür-dü.*
formerly age-LOC plague-ABL die-PASS-PST
Bugün *de* *korona-dan* *öl-ün-üyor.*
today CL corona-ABL die-PASS-PROG
'In the past, there was dying of the plague. As for today, there is dying of corona.

Furthermore, derived unaccusative predicates are also passivizable in Turkish, which creates double passives as in (7). The data in (5)-(7) show that there is not a language-internal restriction in Turkish on the passivization of unaccusative predicates (simple or derived) (contra Perlmutter, 1978).

(7) a. *Abi-yle* *gez-er-ken* *uzun* *süre-dir* *gör*[-ül]-*me-miş*
brother-COM travel-AOR-CV long time-for see[PASS]-NEG-PART
ol-an *akraba* *tarafından* *gör-ül-ün-ür.*
be-REL relative by see-PASS-PASS-AOR
'While walking around with the brother, one is seen by the relative who has not been seen for a long time.[2]'

b. *Bu* *oda-da* *döv-ül-ün-ür.*
this room-LOC beat-PASS-PASS-AOR
'One is beaten (by one) in this room.' (Özkaragöz, 1980, p. 77)

Transitive verbs which assign a lexical case to their complements can also undergo impersonal passivization. Their complements preserve the case assigned by the verb (cf. (8b)).

(8) a. *Dün* *asker-ler* *at-a* *bin-di.*
yesterday soldier-PL horse-DAT ride-PST
'Yesterday, soldiers rode a horse.'

b. *Dün* *at-a* *bin-il-di.*
yesterday horse-DAT ride-PASS-PST
'There was riding a horse yesterday.'

Impersonal passives in Turkish mostly yield a human interpretation. However, if there is enough contextual information, the implicit subjects of passives of unergatives might be understood to be non-human, as well (cf. (9a)). (9b) shows that it is not impossible to add a by-phrase to an impersonal passive construction unlike the common assumption. However, the reintroduction of the suppressed argument with a by-phrase in passive clauses involving unaccusative predicates generate semantically anomalous passive clauses (cf. (10)).

[2] Retrieved from https://www.uludagsozluk.com/k/abiden-ya-da-abladan-b%C3%BCy%C3%BCk-g%C3%B6stermek/2/

(9) a. *Yarın* *şu* *herif-i* *uyar-a-yım* *da*
tomorrow that guy-ACC warn-OPT-1SG CL
köpeğ-in-e *sahip* *ol-sun.*
dog-3SG.POSS-DAT owner be-OPT
Bu *saat-te* *havla-n-ır* *mı?*
this hour-LOC bark-PASS-AOR Q

'Let me tell this guy tomorrow to keep his dog under control. Is this the time for barking?[3]'

b. *Dün* *asker-ler* *tarafından/-ce* *mağara-ya*
yesterday soldier-PL by/by cave-DAT
gir-il-di.
enter-PASS-PST

'There was entering into the cave by the soldiers yesterday.'

(Adapted from Taneri, 1993)

(10) *#Orta* *Çağ-da* *köylü-ler* *tarafından/-ce* *veba-dan*
middle age-LOC villager-PL by/by plague-ABL
öl-ün-ür-dü.
die-PASS-AOR-PST

'There was dying by the villagers during the Middle Ages.'

It is also possible to passivize verbs that require sentential complements. (11b-c) show that the embedded verb can be in its active or passive form.

(11) a. *Suriyeli* *göçmen-ler* [*Avrupa-ya* *git-mek*] *ist-iyor.*
Syrian migrant-PL Europe-DAT go-INF want-PROG

'Syrian migrants want to go to Europe.'

b. [*Avrupa-ya* *git-mek*] *iste-n-iyor.*
Europe-DAT go-INF want-PASS-PROG

'There are people wanting to go to Europe.'
Lit: 'It is wanted to go to Europe.'

c. [*Avrupa-ya* *gid-il-mek*] *iste-n-iyor.*
Europe-DAT go-PASS-INF want-PASS-PROG

'There are people wanting to go to Europe'

Ditransitives can also passivize; yet only the direct object and subject can be targeted by passivization. Indirect objects cannot be suppressed in Turkish. (12b) shows that subjects may be targeted by passivization in clauses involving ditransitive

[3] Retrieved from the novel *Tohum* (*Seed*) by Muzaffer Oruçoğlu.

predicates. (12c) shows that direct objects can also be targeted by impersonal passivization after the grammatical subject is suppressed, which creates a double passive clause involving a ditransitive. Then, stacking passive morphology is possible in Turkish as long as the verb has at least two suppressible arguments.

(12) a. *Türkiye-de* *Milli* *Eğitim* *Bakanlığ-ı*
Turkey-LOC national education ministry-POSS
öğretmen-ler-i *zorunlu* *Doğu* *görev-in-e*
teacher-PL-ACC obligatory East duty-POSS-DAT
yolla-r.
send-AOR
'The Ministry of National Education in Turkey sends teachers to the East as part of their obligatory east service'

b. *Türkiye-de* *öğretmen-ler* *zorunlu* *Doğu*
Turkey-LOC teacher-PL obligatory East
görev-in-e *yolla-n-ır.*
duty-POSS-DAT send-PASS-AOR
'Teachers are sent to the obligatory East Service in Turkey.'

c. *Türkiye-de* *zorunlu* *Doğu* *görev-in-e*
Turkey-LOC obligatory East duty-POSS-DAT
yolla-n-ıl-ır.
send-PASS-PASS-AOR
'One is sent to the obligatory East Service in Turkey.'

Finally, it is also possible to stack passive morphology to a transitive verb derived via causativization. (13a) not only shows that it is possible to passivize an unaccusative predicate like *öl* 'die' but also indicates that is possible to double-passivize its causative form *öl-dür* 'kill'. Similarly, the causative form of the unergative predicate *koş* 'run' can be double passivized, in which case the higher causer argument is suppressed by the first passive and then the lower argument is targeted by the second passive operation as shown in (13b).

(13) a. *Bu* *oyun-da* *15.* *seviye-ye* *ulaş-a-ma-dan*
this game-LOC 15 level-DAT reach-MOD-NEG-ABL
muhakkak *bir* *kere* *öl-dür-ül-ün-ür.*
certainly one time die-CAUS-PASS-PASS
'In this game, one certainly gets killed once before reaching to the level 15.'

b. *Asker-de* (*komutan-lar* *tarafından*)
military-LOC commander-PL by
koş-tur-ul-un-ur.
run-CAUS-PASS-PASS-AOR
'People/Everyone are/is made to run by commanders in armies.'

A small note is in order now: Turkish apparently allows double passives where both passive markers correspond to a syntactic/semantic operation suppressing an argument. We have seen the examples of these in (2b), (7), (12c) and (13). As we have previously stated, our thesis will be primarily concerned with such constructions. However, Turkish also allows stacking of passive morphology without the second passive marker indicating the suppression of an argument. Hence, the morphological presence of the second passive marker is syntactically and semantically vacuous. See the examples in (14) and (15).

(14) a. *Beş dakika-da binom açılım-ı nasıl*
five minute-LOC binomial expansion-ACC how
anla-n-ıl-ır?
understand-PASS-PASS-AOR
'How can the binomial expansion be understood in five minutes?[4]'

b. *Beş dakika-da binom açılım-ı nasıl*
five minute-LOC binomial expansion-ACC how
anla-n-ır?
understand-PASS-AOR
'How can the binomial expansion be understood in five minutes?'

(15) a. *Konferans-tan sonra Adana-da bir porsiyon kebap*
conference-ABL after Adana-LOC one portion keban
ye-n-il-di.
eat-PASS-PASS-PST
'After the conference, one serving of kebab was eaten in Adana.'

b. *Konferans-tan sonra Adana-da bir porsiyon kebab*
conference-ABL after Adana-LOC one portion kebab
ye-n-di.
eat-PASS-PST
'After the conference, one serving of kebab was eaten in Adana.'

[4] Retrieved from https://www.youtube.com/watch?v=ecw04ZgNusA

In (14a) and (15a), the verbs bear two passive markers. However, when the second passive marker is absent as in (14b) and (15b), the meaning of the sentences does not change, or the clauses do not become ungrammatical. Hence, it is also possible to vacuously stack passive morphology in Turkish. This vacuous stacking may have certain pragmatic or discourse effects. However, it must be noted that in this thesis, we will not be concerned with the double passives of this latter type. We will examine only the first type where each passive morpheme indicates a suppression operation on the arguments (first the higher, then the lower argument).

1.2.2 What verbs cannot passivize in Turkish?

Turkish allows pseudo-incorporation of the subject to the verb. If the thematic subject of a verb is pseudo-incorporated to the verb creating a complex event whose only argument is the undergoer, the undergoer argument cannot be suppressed by impersonal passivization.

(16) a. *Bu* *bahçe-de* *insan-lar-ı* *arı* *sok-ar.*
this garden-LOC people-PL-ACC bee sting-AOR
Lit: 'Bees sting people in this garden/People are bee-stung in this garden.'

b. **Bu* *bahçe-de* *arı* *sok-ul-ur.*
this garden-LOC bee sting-PASS-AOR
Intended: 'There is bee-stinging in this garden

Second, it is impossible to target the lexically case-marked argument by passivization. (17a) shows an active construction involving a verb with a lexical case feature. In (17b), we have a passive version of the active clause in (17a). This passive clause involves the suppression of the grammatical subject only. On the other hand, (18) shows that it is impossible to generate double passives where a passive operation attempts to suppress a lexically case marked argument.

(17) a. *Draco* *Harry-e* *hep* *sataş-ır.*
Draco Harry-DAT always tease-AOR
'Draco always teases Harry.'

b. *Harry-e* *hep* *sataş-ıl-ır.*
Harry-DAT always teas-PASS-AOR
'Harry is always teased.'

(18) **Okul-da* *hep* *sataş-ıl-ın-ır.*
school-LOC always tease-PASS-PASS-AOR
Intended: 'One is always teased at school.'

1.3 Outline of the thesis

This thesis is organized as follows: In Chapter 2, we will review the approaches used to analyze passive clauses. At the end of Chapter 2, we will review a recent approach to personal and impersonal passives in Turkish by Legate *et al*. (to appear) , which suggests that impersonal passives are active constructions involving a $pro_{impersonal}$. Their argumentation will be more closely examined in Chapter 3 where we will show that their motivations for this conclusion are not empirically and theoretically well-grounded. In Chapter 4, we will provide an explicit mechanism to account for double passives, passives of unaccusatives/unergatives and single passives of transitives in Turkish while still preserving the power of the syntactic and semantic theory that it disallows passives of unaccusatives and double passives for other languages. Meanwhile, to ensure that double passivization is only possible with the suppression of the internal argument only when the higher argument is already suppressed by a passive operation, we will argue that there are passive and active domains in the syntactic structure and each domain is subject to its own hierarchical rules. This point will be discussed in Chapter 5. Chapter 6 will provide further research questions, discuss the theoretical implications of the proposal offered in this thesis and conclude this thesis.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

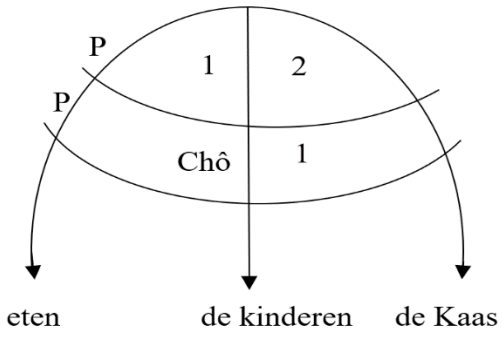
Before we start introducing our account of Turkish impersonal passives with a focus on double passive constructions, in this chapter we will provide a review of the theories regarding passivization proposed in the literature.

2.2 RG analyses of passive clauses: Perlmutter (1978)

Perlmutter (1978) is an attempt to establish that passivization can be universally characterized as the promotion of the object to the subject position as described in Perlmutter & Postal (1977), which in Relational Grammar terms is the advancement of 2 (object) to 1 (subject), referred to as the advancement analysis of passives.

(1) a. *De kaas werd door de kinderen gegeten.*
the cheese was by the children eaten
'The cheese was eaten by the children.'

b.



(Perlmutter, 1978, p. 159)

The passive sentence in (1a) is represented using relational arcs in (1b), which essentially shows that the thematic object (bearing the relation 2) of the verb 'eat' advances to the subject position indicated with the relation 1. In addition, the thematic subject is demoted (or put en chômage within Relation Grammar), which is

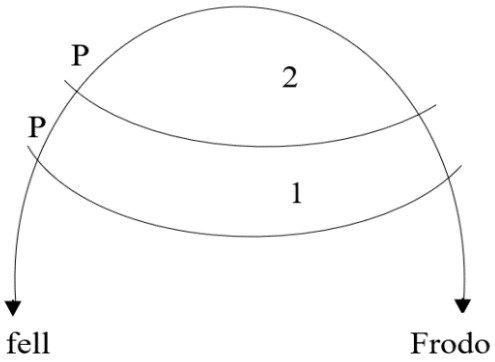
indicated with Chô in (1b). The question that emerges at this point is whether passivization is the demotion of the subject or also involves the object promotion.

The unaccusativity hypothesis is put forward in Perlmutter (1978) to motivate the advancement analysis. The idea is that intransitive verbs are not a homogenous group and are divided into two groups based on the relations that they bear with respect to the verb. For example, the sole argument of certain intransitive verbs initially bears the relation 2 whereas others have an argument bearing the relation 1. According to Perlmutter (1978), the former group include adjectival predicates, intransitive verbs whose sole arguments bear the patient θ-role, verbs of existence and so on whereas the latter group include verbs describing volitional actions or predicates expressing bodily processes, thus the former being named as unaccusatives and the latter unergatives.[5]

The distinction made among intransitive verbs bear a relation to the discussion on whether passivization is merely the demotion of the subject or involves the promotion of the object to the subject position only when two allegedly universal constraints stipulated within Relational Grammar are pointed out. The first one is The Final 1 Law, which is indeed similar to the Extended Projection Principe (EPP) (Chomsky, 1981). According to the Final 1 Law, all clauses will have a subject. Essentially, the proposal is that in the sentence 'Frodo fell', the sole argument of the verb bears the object relation to the verb, but it will advance to the subject position to fulfill the Final 1 Law as shown in (2).

[5] See pages 161-162 of Perlmutter (1978) for a full list.

(2)



The second constraint is called 1-Advancement Exclusiveness Law (1-AEX Law), which stipulates that sentences can involve only one advancement to the subject position. With these constraints, the theory predicts that under the advancement analysis of passives, unergative verbs can undergo passivization while the unaccusative class cannot for the following reasons. Passivization involves advancement to the subject position. Unergative predicates have initial subjects but no objects. To passivize them, a dummy must be inserted to the object position such that the structure becomes transitive, the dummy can advance to the subject position and the initial subject can get demoted. Perlmutter (1978) argues that the advancee is a dummy in such instances because it surfaces as an expletive in Dutch.

(3)

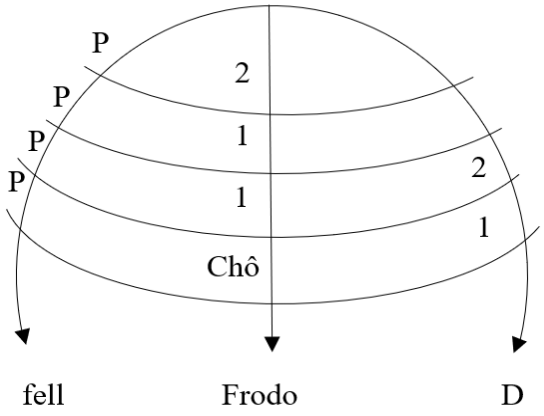
Er	*wordt*	*hier*	*door*	*de*	*jonge*	*lui*	*veel*	*gedanst.*
it	is	here	by	the	young	people	much	danced

'It is danced a lot by the young people.'

Crucially, unaccusative predicates cannot undergo passivization because they violate 1-AEX Law when they do. The sole arguments of unaccusative verbs bear the initial 2 = object relation. Because of the Final 1 Law, they already advance to 1 = subject relation. The operation makes their structure unergative-like in that the structure does not have an object anymore to be targeted for passivization. Therefore, a dummy is inserted to make the structure transitive such that it can advance to become the subject and the previous subject is demoted in the process. However, the

dummy advancement to the subject position becomes the second advancement to the subject position in violation of the 1-AEX Law.

(4)



The diagram in (4) shows that at the third stratum, the dummy is inserted to the object position. Because of passivization, the subject is demoted and the dummy object advances to the subject position, creating the second advancement to the subject position. 1-AEX Law rules out two advancements to subject positions and therefore passive clauses with unaccusative predicates are predicted to be ungrammatical within RG. Indeed, the examples from Dutch cited below are ungrammatical according to Perlmutter (1978). He also claims that the Turkish examples presented in (6) are ungrammatical, as well.

(5) Dutch (Perlmutter, 1978, p. 170)

a. *Zijn moeder alleen overleefde.*
his mother only survived
'Only his mother survived.'

b. **Er werd alleen door zijn moeder overlefd.*
he was only by his mother survived
'It was survived by his mother only.'

(6) Turkish examples (Perlmutter, 1978, p. 177)

a. **Sonbahar-da sarar-ıl-ır.*
fall-LOC yellow-PASS-AOR
'It is often yellowed in the fall.'

b. **Bu gibi durum-lar-da öl-ün-ür.*
this such situation-PL-LOC die-PASS-AOR
'It is died in such situations.'

Perlmutter argues that the demotion analysis can explain the ungrammaticality of passivized unaccusatives neither in Dutch nor in Turkish, for the demotion analysis does not have any restriction on demoting the subject of clauses involving unaccusative predicates. Therefore, he argues that passivization necessarily involves the advancement of the thematic object to the subject position.

2.3 RG analyses of passive clauses in Turkish

In the previous section, we have shown how Perlmutter (1978) discovered the split between unaccusative and unergative predicates. With his 1-AEX Law, he predicts the universal ungrammaticality of passive clauses derived via unaccusative verbs. However, although his conclusions might be correct for languages like Dutch or German, his Turkish data is not quite complete. Özkaragöz (1980; 1986) and Biktimir (1986) were among the first studies to question his argumentation.

2.3.1 Özkaragöz (1980)

Özkaragöz (1980) shows that the Turkish examples cited to be ungrammatical in Perlmutter (1978) are indeed grammatical.

(7) a. *Bura-da düş-ül-ür.*
here-LOC fall-PASS-AOR
'Here it is fallen.'

b. *Bu yetimhane-de çabuk büyü-n-ür.*
this orphanage-LOC quickly grow-PASS-AOR
'In this orphanage, it is grown quickly.'

The data in (7) shows that either the unaccusativity hypothesis has no bearing in Turkish or 1-AEX Law is not correct. She concludes that the unaccusativity

hypothesis cannot be incorrect as there is an independent evidence from a construction within the language that is sensitive to the unaccusative-unergative distinction: a gerundive construction formed with the sufix *-ArAk*. Henceforth, I will call the construction as *-ArAk* constructions. *-ArAk* is a productive suffix that is attached to the predicates of embedded sentences which denote simultaneous or consecutive action. Only the simultaneous reading is relevant to Özkaragöz. (8) shows an example of its use.

(8) *Ayşe* [PRO *gül-erek*] gel-di.
Ayşe laugh-GER come-PST
'Ayşe, while laughing, came.'

(Özkaragöz, 1980)

As is clear in (8), the subject of the predicate suffixed with *-ArAk* must be a PRO. According to Özkaragöz, PRO and its controller in such constructions have to bear the same initial relation and they must be final 1's. This predicts that unaccusative predicates cannot be used with unergatives in a clause involving the gerundive suffix. The prediction is borne out as shown in (9).[6]

(9) a. *Kız top oyna-yarak şarkı söyle-di.*
girl ball play-GER song sing-PST.
'The girl, while playing with a ball, sang.'

b. **Kız top oyna-yarak düş-tü.*
Girl ball play-GER fall-PST
'The girl, while playing with a ball, fell.'

(Özkaragöz, 1980)

Özkaragöz (1980) concludes that the unaccusative-unergative distinction is real in Turkish because there are independent semantic realizations of the distinction,

[6] In this sense, the verb *gel* 'come' in (8) behaves as an unergative predicate rather than an unaccusative because it is compatible with the undergative predicate *gül* 'laugh' in the *-ArAk* construction in (8).

separate from impersonalization. She suggests that impersonal passivization cannot be a test to distinguish between unergative/unaccusative predicates in Turkish. Finally, she proposes that either 1-AEX Law or the advancement analysis of passive clauses has to be abandoned.

2.3.2 Özkaragöz (1986)

Özkaragöz (1986) points out that it is possible to passivize derived unaccusatives in Turkish, as well.

(10) *Harp-te* *vur-ul-un-ur.*
war-LOC shoot-PASS-PASS-AOR
'One is shot (by one) in war.' (Özkaragöz, 1986, p. 1)

She shows that the construction in (10) is the impersonal passive of an already personally passivized verb (a derived unaccusative verb), which crucially means that either the advancement analysis of passivization was not correct or 1-AEX Law had to be abandoned within RG because the sentence involves two advancements to the subject position.

There is indeed a second way of dealing with the data in (10) assuming the advancement analysis of passives without violating the 1-AEX Law. Özkaragöz (1986) points out that the semantic interpretation of examples like (10) brings about a meaning such that the interpretation of the thematic object and thematic subject has to be a pro which she defines as an unspecified NP. Therefore, it may well be the case that the first operation is indeed the passive operation which demotes the thematic subject and advances the thematic object to the subject position where the thematic object is already an unspecified pro, and that there is a second homophonous suffix that marks the final 1 when it is an unspecified pro. In other words, one may claim that there is only one genuine passive operation in examples

like (10) and the second morpheme marks an unspecified pro occupying the subject position. However, she shows that relativization tests provide evidence that final subjects in passive clauses cannot be such a pro but has to be an expletive.[7] She shows that small pro's can be targeted by relativization in Turkish.

(11) *Sınıf-ta* *kal-an* *Ø* *ev-de* *azarla-n-ıyor.*
class-LOC fail-REL house-LOC scold-PASS-PROG
'The one(s) who failed his/her classes is/are being scolded at home'

(Özkaragöz, 1986, p. 86)

On the other hand, it is impossible to relativize subjects in such double passive constructions and in impersonalized intransitive verbs, which actually shows that their subject positions are not occupied by a nonspecific pro. In other words, the relativization test provides evidence that passivization suppresses the remaining arguments of verbs in (12) such that they can no longer be targeted by relativization unlike pro arguments, which are syntactically present but not visible.

(12) a. **Dans* *ed-il-en* *Ø* *bura-ya!*
dance do-PASS-REL here-DAT
Intended: 'The one(s) who dance, come here!'

b. **Boğ-ul-un-an* *Ø* *bura-ya!*
drown-PASS-PASS-REL here-DAT
Intended: 'The one(s) who drowned, bring them here!'

(Adapted from Özkaragöz, 1986, p.87)

Özkaragöz (1986) is a highly important work in that it is the first study that refers to the existence of stacked passives in Turkish. Furthermore, it shows that stacking is productive and functional in Turkish. Once the advancement analysis of passivization or 1-AEX Law is abandoned, it is quite easy to explain the process of double passivization or passivization of unaccusative verbs within RG. After all, the

[7] In RG, because of the Final 1 Law, no clause is assumed to be subjectless. When a clause is claimed to be subjectless in Generative Grammar, it would be assumed in RG that the subject position would be filled by an expletive.

process seems to be that the subject argument (whether derived or inherent) is demoted by passivization in Turkish. A theory that designates the primitives of grammar as grammatical relations can easily account for the process. However, the nature of demotion is not explicitly formalized in RG. RG assumes that passivization demotes subject arguments, however, it is not clear how.

Using *-ArAk* constructions, Özkaragöz (1980) shows that there are syntactic reflexes of the unaccusative-unergative distinction in Turkish independently of impersonal passivization. Then, passivization in Turkish does not care about the relevant distinction. If this is the case, either 1-AEX Law or the advancement analysis must be abandoned according to Özkaragöz (1980). However, she misses the point that these two principles are so interrelated to each other that once one is abandoned, one can no more motivate the other within the scope of passivization. Considering the sole aim of 1-AEX Law is to motivate the ungrammaticality of passivized clauses involving unaccusative predicates under the advancement analysis of passives, once 1-AEX Law is abandoned, there is no more motivation for the advancement analysis of passives. Conversely, once the advancement analysis is abandoned, there would be no need to assume 1-AEX Law to 'universally' account for the ungrammaticality of passive clauses with unaccusatives.

Now that it has been shown that passivizing unaccusatives is possible in Turkish, 1-AEX Law cannot be universally invoked to account for the ungrammaticality of impersonal passives with unaccusative predicates. If 1-AEX Law is no more relevant, there is no more motivation to assume the advancement analysis of passives over the demotion analysis.

2.3.3 Biktimir (1986)

Biktimir has two major proposals in this paper. First, she points out that passivization cannot be characterized as the advancement of 2 to 1. Second, she argues that the correct division between passive clauses is not between personal and impersonal passives, but between those which have specific initial subjects and those which have non-specific initial subjects. According to her, there is a null non-specific human pro subject in Turkish and whenever it is used in a clause, a passive operation must apply or there would be no other way for speakers to differentiate between clauses having subject-pro drops and sentences having initial non-specific null subjects.[8]

She arrives at the first proposal since there is no independent motivation to insert a dummy object which would advance to the subject position in passive clauses with intransitive predicates. The second proposal is more intricate to validate. Like Özkaragöz (1980), she derives evidence from *-ArAk* constructions. As you might remember, Özkaragöz observes that the controller and controlee of *-ArAk* constructions must have the same initial relations and they have to be final 1's. These conditions explain the (un)grammaticality of (13b) as opposed to (13a).

(13) a. *Adam* *sayıkla-yarak* *öl-dü.*
man rave-GER die-PST
'The man died raving.'

[8] Turkish allows both subject and object pro drop. You can see an example of subject pro-drop in Turkish in (ii).

i. *İnsan-lar* *Ankara-ya* *git-ti.*
person-PL Ankara-DAT go-PST
'People went to Ankara.'

ii. *Ø* *Ankara-ya* *git-ti.*
pro Ankara-DAT go-PST
'They went to Ankara.'

iii. *Ankara-ya* *gid-il-di.*
Ankara-DAT go-PASS-PST
'Some person went to Ankara.'

A comparison between (ii) and (iii) shows that the passive morpheme in (iii) is the only item that differentiates the latter sentence from the former.

b. **Adam* *konuş-arak* *öl-dü.*
man talk-GER die-PST
'The man died talking.'

(Adapted from Biktimir, 1986, p. 65)

(13a) is grammatical because the controller *adam* 'man', being the subject of *öl* 'die', is the initial object and final subject; and the controlee, being the subject of *sayıkla* 'rave' is also the initial object and final subject. Both the controller and the controlee bear the same initial and final relations in (13a). On the other hand, in (13b) the matrix subject is the initial object and the final subject whereas the embedded subject is both the initial and final subject since *konuş* 'talk' is an unergative predicate. Therefore, (13b) is ungrammatical. The same reasoning could also be applied to passive constructions (cf. (14)).

(14) a. **Kedi* *sakız* *çiğne-yerek* *öp-ül-dü.*
cat gum chew-GER kiss-PASS-PST
'The cat was kissed (while) chewing gum.'

b. *Kedi* *okşa-n-arak* *öp-ül-dü.*
cat caress-PASS-GER kiss-PASS-PST
'The cat was kissed (while) being caressed.'

(Adapted from Biktimir, 1986)

(14a) is ungrammatical because the controller *kedi* 'cat' is an initial object but advances to the subject position because of passivization whereas the controlee is the initial subject. (14b) is grammatical because both the controller and the controlee are initial objects and final subjects. However, Biktimir observed a counterexample to Özkaragöz (1986)'s generalization that both the controller and the controlee must bear the same initial and final relations (cf. (15)).

(15) a. *Sakız çiğne-yerek hoca-yla* *konuş-ul-maz.*
gum chew-GER teacher-COM talk-PASS-NEG.AOR
'One does not speak with the teacher while chewing gum.'

b. *Oku-yarak adam ol-un-maz.*
read-GER man be-PASS-NEG.AOR
'One does not become a man (a mature person) by studying.'

(Biktimir, 1986, p. 64)

In (15a), the controlee is an initial and final 1 as the agent of the event of gum chewing. The matrix predicate *konuş* 'talk' is an unergative verb which has an initial subject. However, because of the passivization, its subject is demoted and the dummy inserted to the object position advances to the subject position, which means that what is the final subject that is supposed to control the embedded PRO is a dummy. However, a dummy subject cannot control PRO because it is not referential, thus cannot be co-indexed with a PRO. If the examples in (15) are grammatical, then the only candidate that could control the embedded PRO would be the suppressed argument which does not bear the final 1 relation anymore because of the demotion.

Of course, one may suggest that when there is not a potential controller in a sentence, the suppressed argument can control PRO of *-ArAk* clauses. However, Biktimir (1986) shows that even in the presence of a potential controller, the suppressed argument can control PRO (cf. (16)).

(16) *Türkiye-de kahve* PRO *su yudumla-yarak*
Turkey-LOC coffee water gulp-GER
iç-il-ir.
drink-PASS-AOR
'In Turkey coffee is drunk while gulping water.'

(Biktimir, 1986, p. 67)

(16) indicates that even when there is a specific final subject that could control the PRO in the embedded clause, it is the suppressed argument that controls it. Therefore, Biktimir concludes that if the initial subject is non-specific, it will control PRO once demoted whereas if the initial subject is specific, the promoted

subject will control PRO after passivization. According to Biktimir (1986), this explains the ungrammaticality of (14a), which she assumes to have a specific subject. Thus, she concludes that in Turkish there is a second passive operation that demotes final subjects if they are non-specific pro's. The Passive II is obligatory according to her since otherwise sentences having non-specific pro's would be identical to those that have specific subject pro arguments.

She provides two more pieces of independent evidence to show that Passive II indeed exists in Turkish. According to her, by-phrases are never possible with passives having non-specific initial subjects. The idea is that passive constructions that allow the suppressed argument to control PRO in *-ArAk* constructions also do not allow by-phrases, which Bikmitir (1986) argues is because of the non-specificity of the initial subject as in (17a)-(17b) whereas those that only allow surface subject control over the embedded PRO in *-ArAk* constructions as in (17c) do not allow the suppressed argument to control PRO because their initial subjects are specific. That is why, they can be retrieved with a by-phrase.

(17) a. **Sakız* *çiğne-yerek* *hoca-yla* *öğrenci* *tarafından*
gum chew-GER teacher-COM student by
konuş-ul-maz.
speak-PASS-NEG.AOR
'It is not spoken with the teacher by the students while chewing gum.'

b. **Oku-yarak* *öğrenci* *tarafından* *adam* *ol-un-maz.*
read-GER student by man be-PASS-NEG.AOR
'It is not become a man (a mature person) by students by studying.'

c. *Kedi* *sahib-i* *tarafından* *okşa-n-arak*
cat owner-POSS by caress-PASS-GER
öp-ül-dü.
kiss-PASS-PST
'The cat was kissed by his owner while being caressed.'

The second motivation derives from the fact that initial subjects are always interpreted to be human when Passive II applies similar to impersonal passive constructions. However, this is not the case with regular passive constructions.

In summary, Biktimir shows that one would not need to stipulate the dummy insertion to the object position in intransitive clauses to make them transitive under the demotion analysis of passives. One could assume that dummies of impersonal passives in languages like Dutch appear in clauses that lack subjects for language internal reasons like EPP, which seems more reasonable because we do not find any visible dummy pronoun in Turkish in any construction including impersonal passives and we cannot motivate EPP for Turkish anyway (see Öztürk, 2005; 2006; Şener, 2010; Kamali, 2011; Gračanin-Yüksek & İşsever, 2011).

Another reason to prefer the demotion analysis would be that it makes no predictions as to the impossibility of passivizing clauses having unaccusative predicates in certain languages. For such languages, one can assume that passivization may be targeting only the VoiceP layer (Bruening, 2013; Alexiadou, 2014; Müller, 2014 and many others). Thus, the initial motivations to use impersonal passivization as a test to distinguish between unaccusative and unergative predicates are no more relevant and we do not need to assume that passivization distinguishes between these two predicate types, which is more or less the claim made by Biktimir (1986). However, her account is not without problems either.

Crucially, she suggests that the relevant distinction among passives in Turkish should not be personal/impersonal but should be those that have specific initial subjects and those that have non-specific ones. However, she is not really consistent with her arguments. First of all, considering that passivization is characterized to be the suppression of the final subjects, the question is how one can

test whether a clause has an initial specific subject or an initial non-specific null pronoun. Biktimir (1986) suggests that suppressed arguments of passive clauses having non-specific subjects should not be retrieved via by-phrases because they cannot be referential. That is why, (17a-b) are ungrammatical as opposed to (17c) according to her. However, note that in (17a), the passive clause is derived with an intransitive predicate, thus it is impersonally passivized. In (17b), the internal argument of the matrix predicate is pseudo-incorporated to the verb creating a complex event that behaves like the events denoted by unergative verbs. In essence, those predicates act like unergatives and thus are impersonally passivized (Öztürk, 2005). The use of by-phrases with impersonal passives is quite restricted anyway. My claim here is further supported by the grammaticality of (17c) in which the internal argument is moved to a higher position and thus acts like a true argument of the predicate that can be targeted by passivization and thus is compatible with a by-phrase as in most personal passives. In other words, the data in (17) does not motivate a distinction between passives other than personal/impersonal.

Furthermore, passive clauses that are claimed to have non-specific initial subjects in Turkish are always inflected with the aorist. Thus, it would be more natural to assume that the aorist adds the generic force to the suppressed argument rather than the passive, which is indeed further supported with the following examples adapted from Biktimir (1986).

(18) a. *Kraliçe-nin el-i halk tarafından öp-ül-ür.*
queen-GEN hand-POSS people by kiss-PASS-AOR
'The queen's hand is kissed by people.'

b. *Kraliçe-nin el-i halk tarafından öp-ül-dü.*
queen hand-POSS people by kiss-PASS-PST
'The queen's hand was kissed by the people.'

Biktimir claims that (18a) is ungrammatical whereas (18b) is not. For one thing, (18a) is totally grammatical. It may be odd to some speakers because of the generic force of the aorist, but in a context where one wants to contrast between those who should/can kiss the hand of the queen, (18a) would be one of the felicitous sentences to use. Second, when the aorist is replaced with the past tense, the sentence becomes even more acceptable, suggesting that the non-specificity ascribed to the initial subjects should be deriving from the generic force of the aorist.

However, even if Biktimir (1986)'s argumentation as to the division among passives were correct, it would raise another question. Considering that the use of by-phrases in passive clauses with intransitive predicates is much more restricted than others, why is it not common to have specific subjects with passive clauses with intransitive predicates then? In other words, why do intransitive predicates have always non-specific subjects when passivized? To account for this distribution, Biktimir (1986) proposes that regular passives have an in-built specification that requires a direct object to operate on whereas Passive II has no such restriction. Passive II does not have such a restriction as she considers examples like (16 and 18a) as instances of Passive II. However, under the demotion analysis of passives, no such requirement for regular passives can be motivated. Besides, her claim that examples like (16 and 18a) are also derived via Passive II is also left unmotivated considering that they are indeed grammatical with by-phrases.

Secondly, Biktimir suggests that Passive II always involves human subjects. However, the claim has also been shown to be partially wrong previously. Even if the claim were correct, it would not motivate a distinction other than personal vs. impersonal passives, for impersonal passives are also known to tend to have human

subjects anyway. Then, Biktimir (1986) cannot motivate the specific/non-specific initial subject distinction with respect to passivation in Turkish thus far.

Third, Biktimir used the control properties regarding *-ArAk* constructions to show that the relevant distinction among passives should concern specific or non-specific initial subjects. She concluded that non-specific initial subjects of passive matrix clauses can control the embedded PRO. If the initial subject of a passive clause is specific, the surface subject has to control the embedded PRO. However, it is a circular statement in that we do not have any other independent test to understand whether the initial subject of a passive clause is specific or not as shown above. This being the case, the only way to understand whether it is specific or non-specific would be looking at the control properties of *-ArAk* constructions. Yet, this is the starting point of Biktimir (1986) to propose the relevant distinction and it happens to be the only test.

In conclusion, the main argument regarding passives within RG was whether passivization can be more accurately characterized as the demotion of the subject or the promotion of the object. Considering the stipulations made by Perlmutter (1978), it has been shown that the advancement analysis does not universally work as it is possible to passivize unaccusative verbs in Turkish. Thus, we concluded that impersonal passivization cannot be used as a test to distinguish between unaccusative and unergative verbs in Turkish. Refuting personal/impersonal passive distinction, Biktimir (1986) came up with another distinction: passives with specific/non-specific initial subjects; however, we have shown that the distinction is unmotivated both theoretically and empirically.

2.4 Syntactic approaches of passive clauses in Generative Grammar

The initial approaches to passivization within theories derived from Generative Grammar was syntactic in nature. Syntactic theories to passivization asked the question of whether implicit arguments of passive clauses are actually syntactically represented or not. In each subsection below, we will review major syntactic theories to passivization and show that their understanding of passive clauses is also inadequate in explaining double passive phenomena in Turkish.

2.4.1 Jaeggli (1986)

Early syntactic approaches to passive clauses treated passivization as an operation that somehow prevents the regular mapping of external theta role to a DP/NP argument. One of the earliest syntactic accounts of pasivization in generative grammar is Jaeggli (1986), who observed that English passives involving verbs that have a sentential complement may have an expletive subject (cf. (19)), which cannot be assigned any theta role.

(19) It was believed that the conclusion was fake (Jaeggli, 1986, p. 590).

He concluded from (19) that there must be a mechanism that prevents the external theta role assignment to the subject position because it can be filled by an expletive in passive clauses. To account for the passive data, Jaeggli (1986) assumes that lexical information of a verb minimally contains the theta roles that it assigns and its subcategorization features. For example, a verb like ‘hit’ would have the lexical entry provided below.

(20) θs
θd = [NP]

The lexical entry in (20) shows that a verb like ‘hit’ is associated with two thematic roles. Jaeggli proposes that passivization blocks the external theta role

assignment to a syntactic position by absorbing it. The idea is that in a passive clause, the external theta role of a verb is assigned to the passive morpheme *-en*, thus cannot be assigned again because of the theta-criterion (Chomsky, 1981, p. 36). Therefore, passivization is predicted not to target verbs that do not assign an external theta-role as also argued by Perlmutter (1978). He further supports his theory of absorption by examining the semantic distribution of by-phrases as well. It is now well known that complements in by-phrases in passive clauses carry the theta-role that the relevant verb assigns to its external argument (cf. (21)).

(21) a. The danger was felt by Dumbledore. (Experiencer)

b. The ring was destroyed by Frodo. (Agent)

c. The wand was received by Harry. (Recipient)

Jaeggli proposes that DP/NP's reintroduced with by-phrases can bear the same thematic relation that the verb assigns to its external argument because the passive morpheme not only absorbs the external theta role but also may transfer it to the by-phrase such that the re-introduced argument can receive the external theta role. It is known that implicit arguments of passive clauses can be controllers of PRO subjects of embedded clauses or passive clauses are compatible with agentive adverbials unlike clauses with anti-causatives (cf. (22) and (23) respectively).

(22) a. The price was decreased [PRO to help the poor].

b. *The price decreased [PRO to help the poor].

(23) a. The price was decreased willingly.

b. The price decreased willingly.

(Jaeggli, 1986, p. 611)

Jaeegli (1986) argues that the availability of control does not necessarily mean that there is an empty category or a null element that is mapped on to syntax.

Indeed, he suggests that implicit arguments are not syntactically projected since depictive secondary predication is not possible in passive clauses whereas it is possible in sentences having PRO arguments (cf. (24)).

(24) a. They expected [PRO to leave the room sad].

b. *The room was left sad. (Jaeggli, 1986, p. 614).

He then shows that implicit arguments of passive clauses can participate in thematic control, but not in argument control, which requires the syntactic presence of an argument to achieve control. The verb 'promise' is a subject control verb as exemplified in (25a).

(25) a. I promised Bill to go to Disneyland.[9]

b. *Bill was promised to go to Disneyland (p. 615).[10]

According to Jaeggli (1986), since the external argument is not syntactically projected in an argument position in passive clauses, the only DP that can participate in argument control in (25b) is the surface subject 'Bill'. However, since it is the initial object, it cannot control the embedded PRO because 'promise' is a subject control verb. On the other hand, since the sentence is grammatical under the reading that whoever did the promising, he is going to Disneyland, Jaeggli (1986) concludes that there is thematic control in passive sentences, which does not require the syntactic presence of arguments.

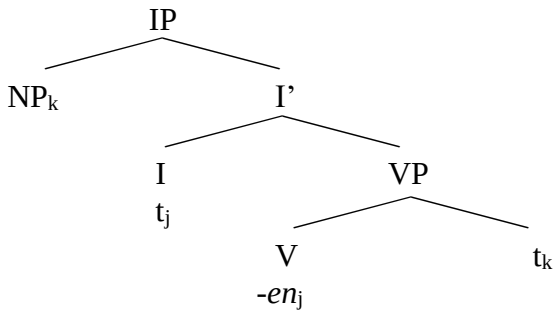
2.4.2 Baker *et al.* (1989)

Baker *et al.* (1989) argue that external arguments in passive clauses are syntactically represented because passive morphemes are arguments. The idea is that syntactically present passive morphemes behave like NPs that need to be assigned a theta role and

[9] The sentence is grammatical only under the reading that the speaker goes to Disneyland.
[10] The sentence is ungrammatical under the reading that Bill goes to Disneyland.

Case for the Visibility Condition (Chomsky, 1981). According to Baker *et al.* (1989), the passive morpheme is base generated at the head of IP and undergoes downward movement (cf. (26)).

(26)



Being base generated under I, which was then assumed to be a theta-marked position, the passive morpheme is assigned the external theta role. Then, it is cliticized to the verb for morphological reasons. As the passive morpheme has an argument status, it needs to be Case assigned to satisfy the Visibility Condition, thus assigned accusative case by the verb because it is the only Case assigner that governs the morpheme. The passive morpheme both receives the external theta role of the verb and the accusative case that it assigns, which means that the argument that receives the internal theta role can no longer be assigned Case by the verb. Therefore, it moves to [Spec, IP] to receive Case. Baker *et al.* (1989)'s analysis explains two general properties of passives. One is that only predicates assigning an external theta role can be passivized. Since the passive morpheme is assigned an external theta role, unaccusatives cannot be passivized, a prediction made by 1-AEX Law of Relational Grammar. The second one is the obligatory NP movement to the subject position. The idea is that since the VP internal NP in such cases cannot be assigned Case, it moves to a position where case assignment is possible. All arguments have to be assigned Case, therefore intransitive verbs cannot be passivized because the passive morpheme would not receive any case from an intransitive verb, which holds for English.

On the other hand, since it is possible to passivize unergative intransitives in languages like German or Dutch, Baker *et al.* (1989) suggest that passivization with respect to Visibility Condition is subject to parametric variation. In languages like English, all arguments have to be assigned Case. Thus, it is impossible to passivize intransitives in English because a passive morpheme could not be assigned Case by an intransitive verb. In languages like Dutch or German, if the head of an argument is morphologically united with an X^0, it would not need Case to become visible. Since the passive morpheme is cliticized to a verb head, it becomes visible and thus passivizing intransitives is possible in certain languages.

At this point, remember that passivizing unaccusatives is forbidden by theta theory since passive morphology is base generated at a position that is assigned an external theta role. No verb that cannot assign an external theta role can be passivized. Both Jaeggli (1986) and Baker *et al*. (1989) predict the unavailability of passive clauses with unaccusative predicates. However, Turkish not only allows passives of simple unaccusative predicates but also stacked passives; namely, passives of an already passivized verb. To account for such stacking, Baker *et al.* (2019) argue that passive morphemes in languages like Turkish are not base generated at I but are projected at argument positions, thus they are N elements. See the derivation in (27).

(27) a. [-pass [I [V -pass]]]

b. [e [I+pass [V+pass]]]

c. [-pass [I+pass[V t]]]

d. [e [I+pass+pass [V t]]]

e. [e [i [V+I+pass+pass t]]] (Baker *et al.*, 1989, p. 233)

According to the derivation in (27), arguments are first projected at argument positions where they receive their theta roles. Second, the highest argument incorporates to I head where it is made visible to other syntactic operations. Then, the passive morpheme moves to the emptied [Spec, Infl] position, from which it is also incorporated to the I head. It is cliticized to the verbal head at the final step.

The analysis solves the problem that in Turkish the first passive morpheme in double passive clauses indicates the suppression of the external argument. The second morpheme indicates the demotion of the remaining argument. Since the passive morpheme in languages like Turkish is analyzed to be N elements, in order for the internal passive morpheme to move to [Spec, IP], that position has to be empty, thus cannot be filled by a full NP/DP. In order to do that, the external argument has to be suppressed by the passive morpheme. Only then can the passive morpheme occupying the internal argument position move to [Spec, IP] and be incorporated to I.

However, if passive morphemes are argued to be N elements in Turkish, then their incorporation to I head must leave a trace behind, which should block the movement to [Spec, I] from the internal argument position in the first place. It is not very clear how the blocking is prevented. In addition, the morpheme ordering created in (27e) (i.e. V+I+pass+pass) is not correct as observed by Murphy (2014). In Turkish, tense inflection always comes after passive morphemes. Thus, the predicted ordering must be V+pass+pass+I.

2.4.3 Sternefeld (1995)

Sternefeld (1995) argues against the absorption approaches and instead suggests that implicit arguments are syntactically present as a small pro in passive clauses. He

suggests that the syntactic activeness of invisible elements in passive clauses was already acknowledged by many in GB era. For example, it was observed that the implicit argument of a passive clause can control PRO in embedded clauses (Manzini, 1983; Jaeggli, 1986; Baker *et al.*, 1989). The suggestion is that PRO subjects of embedded clauses can be controlled by a passive pro as in (28a) whereas in an anti-causative construction, no such pro is syntactically present to control the PRO. In this sense, a true absorption occurs in (28b) where the external argument position seems to be totally eliminated.

(28) a. The price pro_i was decreased [PRO_i to help the poor].

b. *The price decreased [PRO to help the poor].

The second motivation comes from subject oriented modifiers. Subjects can be modified with a secondary predication in German. (29a) is an active sentence where the adjective *nackt* 'nude' can be predicated to the subject. Although (29b) is a passive sentence that does not seem to have any argument on the surface, the adjective can still be predicated to the implicit argument. Sternefeld attributes the grammaticality of (29b) to the presence of a pro argument in the structure.

(29) a. *Die Mädchen haben die Cocktails nackt serviert.*
the girls have the cocktails nude served
'The girls have served the cocktails nude.'

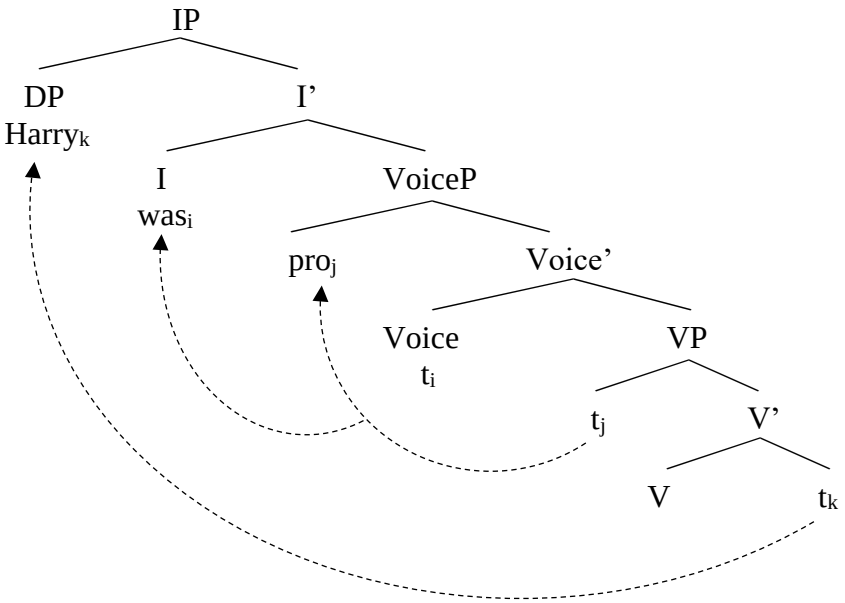
b. *Die Cocktails sind pro nackt serviert worden.*
the cocktails have nude served been
'The cocktails have been served by someone who was nude.'

(Sternefeld, 1995)

On the other hand, the question is what the exact syntactic mechanism that requires the presence of a pro is. According to Sternefeld, pro is generated in the syntactic position where regular external arguments in active sentences would receive their external theta roles, which he assumes to be the specifier position of the

lexical VP. However, in passive clauses there is also a passive projection above the lexical VP called Voice Phrase whose head has to license a pro that has an external theta role. The licensing must be achieved via Spec-head agreement (see (30)).

(30)



According to (30), [Spec, VP] is occupied by a pro which receives an external theta role. Then it moves to the [Spec, VoiceP] to get licensed by the Voice head, occupied by the auxiliary 'be'. The internal argument moves to [Spec, IP] and the passive auxiliary moves to I head to get tense-agreement inflection. Sternefeld (1995) suggests that passivization does not involve absorption at all. Indeed, a null syntactic element that participates in syntactic/semantic operations is syntactically projected as a pro at [Spec, VP], which is then licensed by the Voice head.

Since Voice head is assumed to license pro's that are assigned external theta roles only, the 1-AEX Law is naturally covered in this theory. Of course, it is not clear in this account what the properties of passive pro are and how it is exactly licensed by a higher functional projection. Indeed, the analysis as it is does not predict the unavailability of passivizing unaccusative predicates in languages like Dutch. In principle, a pro could be generated in the internal argument position which would be licensed by the Voice head. On the other hand, that type of availability is

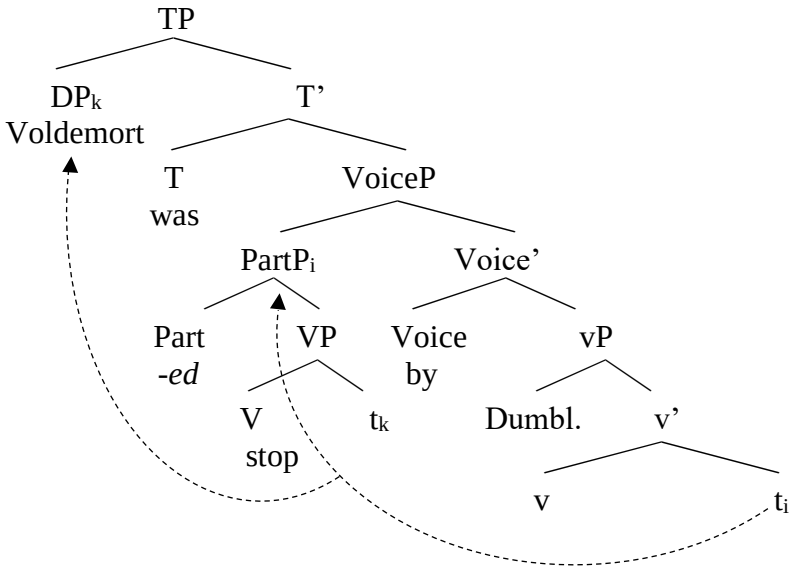
not totally undesirable since it is possible to passivize unaccusative predicates in Turkish. Indeed, the analysis here can account for stacked passives and passives of unaccusatives in Turkish to some extent. For example, in Sternefeld's terms, the first Voice projection would license the first pro that it encounters in the structure and attract it to the [Spec, Voice]. Then, one can propose another Voice projection for Turkish that needs to license another pro argument. In other words, Sterneld's analysis would nicely capture the fact that the first passive operation targets the external argument and then the second one is applied to operate on the internal one.

However, it would also be left unclear how the pro occupying the external argument position would not block the licensing of the pro occupying the internal argument position. Besides, there are also issues with the semantic interpretation of the whole structure and what the contribution of the Voice head is. Is it just a functional head that is simply not interpreted, or does it have a semantic contribution? Furthermore, we do not know where at the syntactic structure by-phrases of passive clauses are inserted. Finally, Sternefeld is not very clear about the nominative case assignment to the thematic object in passive clauses in languages like English, Turkish or German. If the external argument position in passive clauses is filled by a subject, the question is why the subject does not receive nominative case and the object does not receive accusative case just as they do in active clauses. Besides, any account of passive clauses which claim that implicit arguments are syntactically realized are faced with the question of how internal arguments can move to the subject position in languages that obligatorily A-moves objects to the subject position without being blocked by a higher pro element.

2.4.4 Collins (2005)

Collins (2005) nicely deals with the problem of movement and case assignment in passive clauses in his smuggling approach to passivization. Similar to Sternefeld (1995), Collins (2005) suggests that external arguments are indeed projected under a vP in passive clauses just like their active counterparts. However, while in active clauses, the function of little v is bundled such that it both checks accusative case and assigns external theta role, the two functions of little v are separated in passive clauses. The little v in passive clauses only assigns the external theta role whereas the passive Voice checks accusative case. Additionally, the participle in passive and perfect clauses is also represented in syntax proper with a separate projection called PartP. Considering these primitives of the theory, see (31) for a full representation of the passive clause 'Voldemort was stopped by Dumbledore'.

(31)



According to the representation above, a passive clause crucially starts off like its active counterpart. The only difference is that the lexical verb is transformed into a participle with a functional PartP projection. Later, the external argument is introduced via the little v head, which cannot check Case as the little v in passive clauses is assumed not to be able to do so by Collins (2005). Importantly, the

preposition ‘by’ is assumed to be the head of VoiceP, which essentially means that there is no such a constituent as [by NP] on its own. Therefore, the preposition can assign Case to the constituent in its complement’s specifier. Collins (2005) states that this is like the case assignment in embedded non-finite clauses where the C head is occupied by a preposition (e.g. [CP for John to win would be nice] (p. 95)).

VoiceP has another function. In English, participles can only be realized in either passive or perfect clauses. Thus, the participle must be licensed. Therefore, Collins (2005) assumes that one of the licensers of participles in English is the Voice head, which means that the whole PartP must move to [Spec, Voice]. In doing so, the PartP smuggles the VP internal DP argument of the verb over the external argument, which would block its movement to the subject position otherwise because of the Minimal Link Condition (Chomsky, 1995) or Relativized Minimality (Rizzi, 1990).

Now that the PartP occupies the specifier position of VoiceP, the VP internal argument inside the PartP can freely move to the subject position to receive Case, thus creating the surface form ‘Voldemort was stopped by Dumbledore’. Then, what happens with short passives, which do not have by-phrases? Collins (2005) assumes that they still project a VoiceP, but their head is null, thus the argument merged at [Spec, vP] is an empty category; more specifically an arbitrary PRO whose case feature needs checking by the Voice head.

Then, passivization is the partition of vP in active clauses into two separate functional heads whose duties are separated. In active clauses, the v head both checks accusative case and assigns external theta role whereas in passives, the passive Voice head checks accusative case and vP assigns external theta role. The partitioning of the external argument introducing head here entails that passives can only be derived from syntactic structures which have an external argument introducing head, which

nicely captures the unacceptability of passivizing unaccusatives in languages like Dutch. However, the analysis as it is, cannot be directly applied to Turkish. English uses participle forms of verbs in passive clauses along with a passive auxiliary. Yet, in Turkish no participle is available in passive clauses. Passivization is only indicated by the morpheme *-Il/In*. Thus, one can suggest that in Turkish, the passive head does not need to license a participle phrase.

However, the question is how the internal argument can move to the subject position without being blocked by the intervening PRO. There are several ways to solve the problem. One would be to posit that after being assigned the accusative case by the passive Voice head, the external argument is no longer an obstacle for movement (Chomsky, 2000). Another would be to suggest that Turkish NP/DPs in passive clauses do not A-move to the subject position. It does scramble for topicalization reasons; therefore, it could freely move to [Spec, TP]. Yet, there is a bigger problem with Collin (2005)'s approach if the obligatory movement of the internal argument is not assumed. It creates an incorrect linear ordering. Thus, if the post-position *tarafından* 'by' in Turkish heads the VoiceP as argued to be in English and if the internal arguments of verbs can stay and case-checked in situ, then the sentence in (32b) should have been grammatical. Since Turkish is a head-final language, the postposition *tarafından* 'by' would be on the right of the spec position that it immediately c-commands where the external argument 'Harry' would be merged. This would create the wrong ordering in (32b).

(32) a. *Harry Hogwarts-ta Voldemort-u dur-dur-du.*
Harry Hogwarts-LOC Voldemort-ACC stop-CAUS-PST
'Harry stopped Voldemort at Hogwarts.'

b. **Harry Voldemort Hogwarts-ta dur-dur-ul tarafından*
Harry Voldemort Hogwarts-LOC stop-CAUS-PASS by
Intended: 'Voldemort be (tense) stopped by Harry.'

2.4.5 Müller (2014)

Müller (2014) observes that implicit arguments of passive clauses can participate in certain syntactic operations and seem to be inaccessible for others in German. For example, an implicit external argument of a passive clause can control into the adverbial purpose clause in (33a) or be modified by a subject oriented secondary predicate in (33b).

(33) a. *Das Schiff wurde* DP_{ext1} *versenkt* $_{CP}$[um PRO_1
the ship was sunk in.order
die Versicherung zu kassieren].
the insurance to collect
'The ship was sunk in order to collect the insurance.'

b. *Die Daten wurden* DP_{ext1} $_{AP}$[PRO_1 nackt]
the data was naked
analysiert.
analyzed
'The data were analyzed by someone who was naked.'

(Müller, 2014, p. 2)

Furthermore, implicit arguments of passive clauses cannot bind an R-expression, showing Principle C effects in German. Principle C states that R-expressions must be free. Then, the ungrammaticality in (34) indicates that the implicit argument there binds the R-expression.

(34) **Gestern wurde* DP_{ext1} *Fritz*$_1$ *eingeladen.*
yesterday was Fritz invited
Intended: 'Yesterday Fritz invited himself.' (Müller, 2014, p. 3).

Finally, external arguments of German passive clauses show quantificational variability (cf. (35)). For an item to show a quantificational variability requires the adverb of quantification to c-command the item. In (35), it is the external argument that shows quantification variability. Hence, the adverb must be included in the vP domain harboring the external argument.

(35) *Dann wurde der Sprecher zum Teil DP_{ext} ausgebuht.*
then was the speaker partly booed
'Then a proper subset of the people booed the speaker.' (Müller, 2014, p. 8).

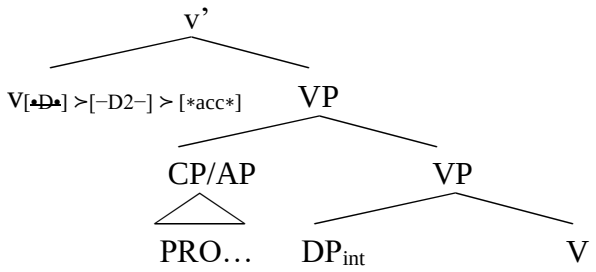
Considering the data then, it seems that the implicit argument of passive clauses is accessible to constituents that it m-commands. On the other hand, Müller suggests that implicit arguments of passives are not accessible to items higher up in the tree; the items that the external argument does not m-command. For example, the implicit arguments of passives cannot be bound by a quantification item in the matrix clause as shown in (36).

(36) **Kein $Student_1$ gibt zu* [$_{CP}$ *dass* DP_{ext1} *schlecht gearbeitet wurde*].
no student admit that badly worked was
'No student admits that he did not work well.' (p. 4)

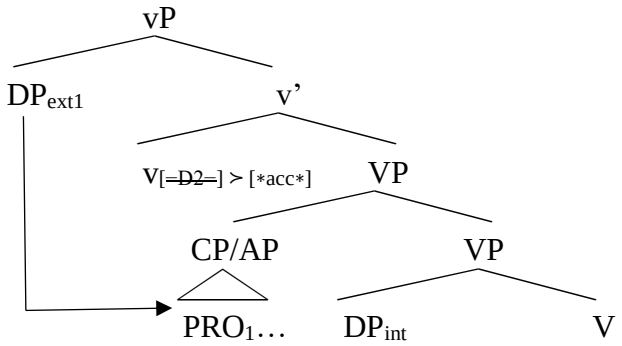
Furthermore, as the object movement to the subject position is not blocked by an intervening element in passive clauses, Müller (2014) argues that the implicit argument must not be accessible to block the movement.[11] In essence, he suggests that the syntactic system must have a feature that also removes the items from the phrase marker, sending them back to the workspace and that removing operation would be complementary to Merge. The removing operation would also be feature driven. See the following illustration to see how control can be established by the implicit external argument of a passive clause and then the external argument could be removed from the phrase marker.

[11] There are several other arguments that show that implicit arguments of passive clauses are invisible to some syntactic operations. However, I am going to skip them as they are not directly related for our purposes. What is important at this point is not those arguments, but the idea that the implicit arguments can participate in some syntactic operations and seem to be invisible to some others.

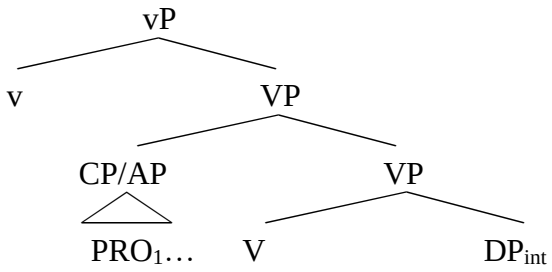
(37) a.



b.



c.



In (37a), little v is shown to have a D merge feature represented as [•D•], a D remove feature represented as [−D−], and an accusative case probe feature represented as [∗acc∗]. These features are ordered in the head. The ordering is represented with the 'greater than' sign. This means that in order for one feature to be discharged, the feature preceding it must be discharged first. The D merge feature of little v is discharged with the insertion of the DP_{ext} and then the control relation with the embedded PRO could be established as shown with the arrow in (37b). Then the Remove feature is discharged, as a consequence of which the DP_{ext} is sent back to the workspace, creating the structure in (37c). The accusative case probe feature is also removed in the process.

Since the analysis treats passivization as a peculiar feature of the little v, internal arguments cannot be targeted by it. In this sense, the theory predicts the

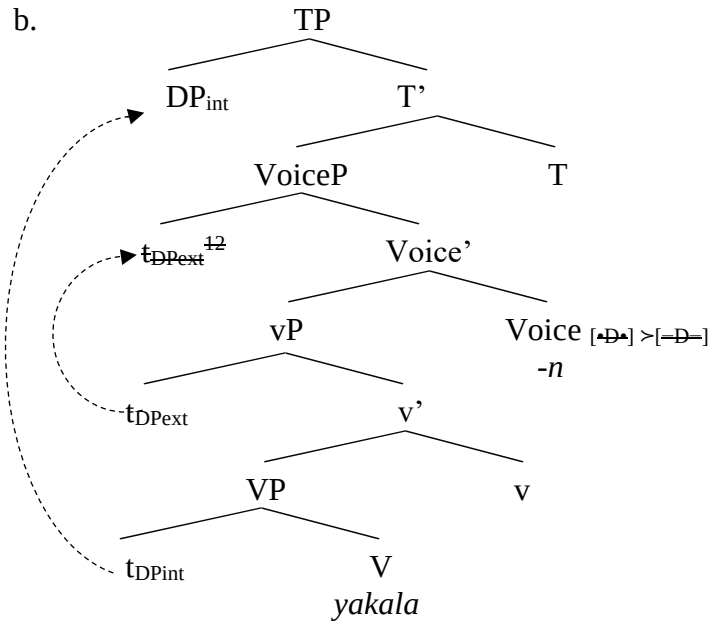
unavailability of passive clauses with unaccusative predicates. The theory, as it is, does not predict the stacked passives in languages like Turkish. However, Murphy (2014) modifies it such that the system can account for double passives in Turkish.

2.4.6 Murphy (2014)

Murphy (2014) is essentially an attempt to account for double passivization in Turkish by using Müller's (2014) *Remove* approach to passives. As stated previously, Müller (2014) treats passivization as a *Remove* feature on the external argument introducing head, which he assumed to be little v. Assuming that little v and Voice are separate heads contra Kratzer (1996) (see Merchant, 2006; Harley, 2013; 2017), Murphy suggests that passive is a *Slice* feature on the Voice head above vP.

(38) a. *Suçlu-lar* *yakala-n-dı-lar.*
Criminal-PL catch-PASS-PST-3PL
'The criminals were caught.'

b.



[12] I use strikethroughs on arguments to show that they are removed from the structure. However, note that the removal is also a movement from the phrase marker to the workspace, therefore removed items leave traces at their removal positions.

(38a) is a regular passive sentence and (38b) is its representation in Murphy's account. According to (38b), little v head introduces the semantics of initiation and thus introduces the external argument whereas Voice is an operation separate from vP. Murphy's representation of passive clauses is different from Müller's original representation in that Slice is not a feature on little v but on Voice. Since Slice (or Remove in Müller's terms) is subject to Strict Cycle Condition (Chomsky, 1995; 2000) as established in Müller (2014), Murphy assumes that Voice head first attracts the first DP that it encounters down in the derivation to its specifier and then discharges the Slice feature to remove it from the syntactic structure.

Internal merge causes the DP_{ext} to move to [Spec, Voice] and to leave a trace in [Spec, v]. Discharging the Slice feature causes DP_{ext} in [Spec, Voice] to move from the phrase marker back to the workspace. The movement to the workspace also causes the DP_{ext} to leave a trace, this time in [Spec, Voice]. Since the DP_{ext} is moved out of phrase marker, it can no longer block DP_{int} movement to [Spec, TP].

For cases of double-passivization, all the system needs to do is to project one more Voice projection with the merge and slice features to attract the argument left in the phrase marker and to remove it, respectively. The system thus beautifully captures the fact that in double passivization, the first passive operation always targets the external argument and that in Turkish there cannot be anti-passives.

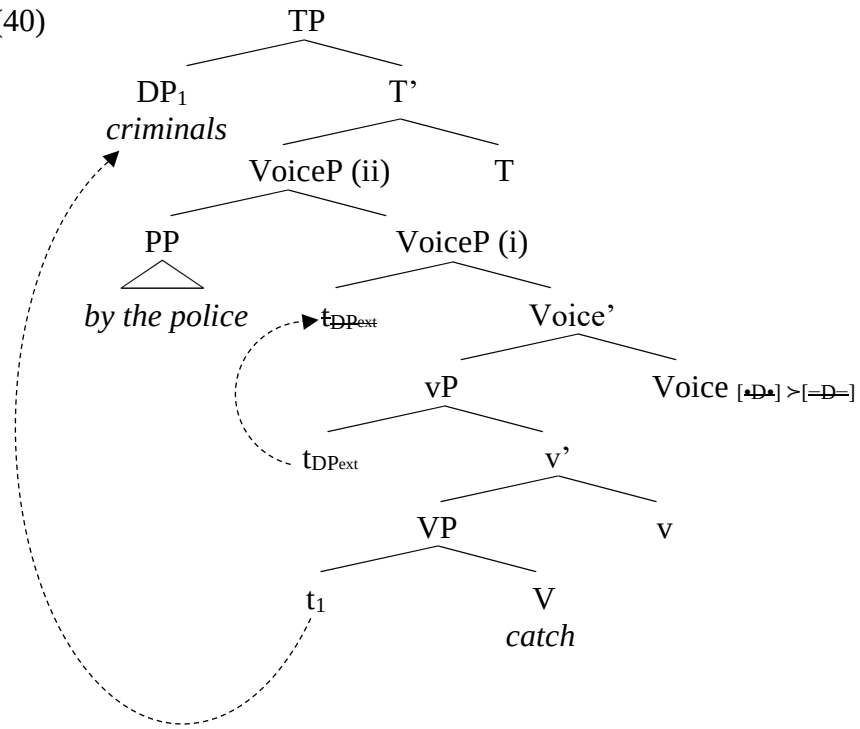
However, there are problems with the semantic interpretation of passivization in this system, particularly when a by-phrase is inserted to reintroduce the sliced argument. Müller (2014) suggests that reintroduction of the removed argument must be achieved before the phrase that it is removed is closed. This means that by-phrases in Turkish cannot be adjoined to the external argument introducing head, for vP is already closed by the time Slice feature is discharged at [Spec, Voice] in Murphy's

account. Since the external argument is sliced at [Spec, Voice], one could assume that by-phrases are adjoined to the VoiceP. This is not implausible since we mostly find by-phrases in passive clauses in the verbal domain in Turkish unlike English where a class of adjectives called tough-adjectives allow by-phrases in their infinitival complement clauses although they seem to be active. In Turkish, constructions like (39) are not grammatical without a passive morpheme. Thus, one may suggest that by-phrases are adjoined to the VoiceP in Turkish as in (40).[13]

(39) Not to mention that polls are so easy to manipulate by those who know how.

(Wood, 2013)

(40)



On the other hand, the problem is that the representation in (40) does not seem to be interpretable. Following Heim & Kratzer (1998), Murphy (2014) interprets traces as unbound variables and following Diesing (1992), he claims that unbound variables are bound by existential closure at the VP edge, which he assumes corresponds to anywhere below the T head in his system. Let us assume that the

[13] I am using English labels to represent Turkish words for the convenience of the reader here.

semantic contribution of a by-phrase is as described in Stechow (2008) and Wood (2013). The semantics for the by-phrase given below restrict the denotation of the external argument rather than saturate the external argument position. Restrictive denotation for by-phrases would be more compatible with Murphy's account because traces of the removed items already saturate argument slots semantically.

(41) ⟦by the police⟧ = $\lambda f_{<e,<v,t>>}. \lambda x. \lambda e. f(x)(e) \& x = the\ police$

With the tools available now, let us attempt to derive the semantic interpretation of the structure in (40).

(42) a. ⟦catch⟧ = $\lambda x. \lambda e. catch(e) \& Theme(x, e)$

b. ⟦VP⟧ = $\lambda e. catch(e) \& Theme(x', e)$

c. ⟦v⟧ = $\lambda f_{<v,t>}. \lambda y. \lambda e. f(e) \& Agent(y,e)$

d. ⟦v'⟧ = $\lambda y. \lambda e. catch(e) \& Theme(x', e) \& Agent(y, e)$

e. ⟦vP⟧ = $\lambda e. catch(e) \& Theme(x', e) \& Agent(y', e)$

f. ⟦Voice'⟧ = $\lambda y'. \lambda e. catch(e) \& Theme(x', e) \& Agent(y', e)$ (lambda abstraction over the highest variable with the assignment function g(c))

g. ⟦Voice (i)⟧ = $\lambda e. catch(e) \& Theme(x', e) \& Agent(y', e)$

h. ⟦by the police⟧(⟦Voice (i)⟧) = ⟦Voice (ii)⟧

i. [$\lambda f_{<e,<v,t>>}. \lambda x. \lambda e. f(x)(e) \& x = the\ police$] ([$\lambda e. catch(e) \& Theme(x', e) \& Agent(y', e)$]) = ? (The derivation clashes because of type-mismatch.)

The derivation in (42) shows that semantically it is not possible to successfully derive a passive clause with a by-phrase in the removal approach. Any theory of passivization must correctly account for the availability of by-phrases in passive clauses. Even if we could correctly derive the semantic interpretation of by-phrases in a removal approach, there is still one more problem. The second passive operation does not allow the reintroduction of the suppressed argument with a by-

phrase as will be detailed in Chapter 4. Murphy (2014)'s characterization of double passives in Turkish does not predict the non-availability of by-phrases to the second Voice head.

2.5 Syntactico-semantic accounts of passive clauses in Generative Grammar

In this section, we are going to review syntactico-semantic accounts of passive clauses, which consider passivization to be a different flavor of a head that is only present in external argument bearing structures. Hence, they can easily explain why we can only passivize unergatives and (di)transitives in certain languages.

2.5.1 Kratzer (1996)

In the works presented so far, it has been implicitly assumed that what is called the external argument of a verb does not have the same status as the internal one. For example, Jaeggli (1986) suggested that passivization targets external arguments because they are unlinked to a theta position in the lexical entry of a verb. Essentially, Kratzer (1996) is the formalization of these intuitions. Although the work is not about passive clauses specifically, the semantic and syntactic formalization of the introduction of external arguments has led to various analyses of passivization. Therefore, I am going to summarize Kratzer (1996) first.

There are at least two ways of forming a lexical entry for a verb in terms of the number of arguments that it can take. The classical understanding of argument structure in GB era was that the lexical entry of a verb like 'throw' contains one argument slot for the external argument and one for the internal one, in addition to an event argument in the sense of Davidson (1967) and later Parsons (1990).

(43) ⟦throw⟧ = *λx. λy. λe. throw(e) & Theme(x, e) & Agent(y, e)*

The item in (43) essentially states that the verb 'throw' is a function for three arguments: one is the theme argument, the other one is the agent argument and lastly the event argument. However, the problem with such an approach is that the theta role of the external argument might be different from the one specified in the lexical entry after the verb merges with its internal argument (see Marantz, 1984).

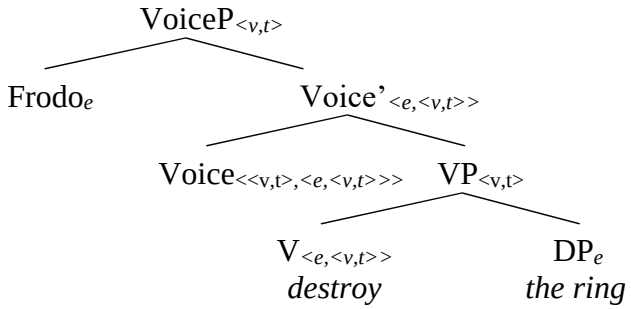
(44) a. throw a baseball (external argument is an agent)

b. throw a fit (external argument is an experiencer)

Kratzer (1996) concludes from the facts in (44) that external arguments are not true arguments, thus are not part of the semantic entries of verbs; that they are introduced by a separate projection that she calls as VoiceP; that the VoiceP layer would be the target of several verbal alternations. VoiceP would be right above the lexical VP and introduce that external argument via event identification, which takes two functions and creates another function. The relevant functions here would be of type <*e*,<*v*, *t*>> and <*v*, *t*>. See the following example as an illustration.

(45) a. Frodo destroyed the ring.

b.



(46) a. ⟦destroy⟧ = *λx. λe. destroy(e) & Theme(x, e)*

b. ⟦destroy the ring⟧ = *λe. destroy(e) & Theme(the ring, e)*

c. ⟦Voice⟧ = *λx. λe. Agent(x, e)*

d. ⟦Voice + VP⟧ = *λx. λe. destroy(e) & Theme(the ring, e) & Agent(x, e)* (*by event identification*)

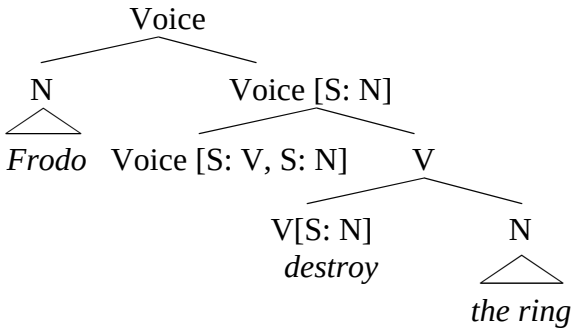
e. ⟦VoiceP⟧ = *λe. destroy(e) & Theme(the ring, e) & Agent(Frodo, e)*

Although the discussion in Kratzer (1996) does not directly concern itself with passivization, later theories of passivization hugely benefited from her VoiceP projection. Some will be reviewed in this chapter as well. The general consensus among these theories is that VoiceP has different flavors and passive is one of them. Thus, passivization could be subsumed under a Voice analysis in which the lexical entry of a passive Voice would involve existential quantification whereas the active Voice would introduce an argument. For example, if (45b) had a passive Voice head, the Agent argument slot would be existentially quantified instead of being bound by a lambda operator. With the new tools available now, I am going to review Bruening (2013) in the next subsection.

2.5.2 Bruening (2013)

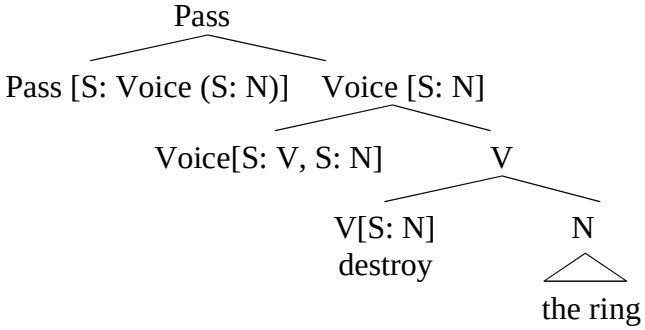
Following Kratzer (1996), Bruening (2013) assumes that external arguments are introduced by a separate Voice head. However, there are mainly two important facets of his theory. One is that unlike the general assumption that passive voice is one of the realizations of the Voice head, Bruening (2013) suggests that Passive is a separate head on top of Voice. Second, there are no maximal labels in his system, but everything is governed by selectional features of heads. Thus, the sentence in (45) can be represented as in (47).

(47)



According to the representation (47), heads have selectional features that must be satisfied until they have no more of them. For example, in the derivation above, the lexical verb has an unchecked N feature that is checked by the noun 'the ring'. Then, the V head projects without any more features to be checked and is selected by the Voice head that selects a V (having checked all its features). Once the V feature of the Voice is checked by the verb, then Voice projects with its N feature which is checked by the noun 'Frodo'. Essentially, the semantic contribution of Voice head is parallel to its syntactic contribution. Just like the syntactic feature that introduces the external argument, Voice semantically introduces the argument slot to be saturated by the syntactically introduced argument. Importantly, Bruening (2013) proposes that passive clauses are formed with a Pass head that syntactically selects a Voice head whose N feature has not been checked, namely a Voice [S: N]. On the semantic side, Pass head saturates the argument position introduced via the Voice by existentially quantifying it.

(48)



The semantic contribution of Pass head is as described below. (50) is a sample derivation for the structure in (48).

(49) ⟦Pass⟧ = $\lambda f_{<e,<v,t>>}$. λe. ($\exists x$): $f((x))(e)$

(50) a. ⟦destroy⟧ = λx. λe. *destroy(e) & Theme(x, e)*

b. ⟦destroy the ring⟧ = λe. *destroy(e) & Theme(the ring, e)*

c. ⟦Voice (i)⟧ = $\lambda f_{<v,t>}$. λx. λe. *f(e) & Initiator(x, e)*

d. [$\lambda f_{<v,t>}$. λx. λe. *f(e) & Initiator(x, e)*]([λe. *destroy(e) & Theme(x, e)*])

e. ⟦Voice (ii)⟧ = λx. λe. *destroy(e) & Theme(the ring, e) & Initiator(x, e)*

f. ⟦Pass⟧ (⟦Voice (ii)⟧) = [$\lambda f_{<e,<v,t>>}$. λe. $\exists x$: *f(x)(e)*] ([λx. λe. *destroy(e) & Theme(the ring, e) & Initiator(x, e)*])

g. = λe. $\exists x$: *destroy(e) & Theme(the ring, e) & Initiator(x, e)*

According to (49), the lexical entry of a passive head optionally encodes existential quantification. The existential binding of the variable corresponding to the external argument is achieved when there is no by-phrase in the structure. If there is a by-phrase, the by-phrase already saturates the external argument position and therefore no existential quantification is invoked. Since (48) does not involve a by-phrase, I used the version of the passive head with the existential quantification.

With this account of passivization, Bruening (2013) can capture many of the cross-linguistic generalizations made for passivization. For example, he captures that in some languages, passivization cannot target unaccusatives by positing that the Pass head strictly selects a Voice head whose N feature has not been checked off. Thus, structures without the Voice layer will not be selected by passivization. He also notes that for languages that allow passivization of unaccusative structures, the strict selectional features of the Pass head can be made more flexible. In other words, one can assume for these languages that Pass head may also select a V head whose N

feature has not been saturated. However, a more problematic case is double passives in Turkish. In such cases, we would have to assume that the Pass head merges first with a V whose N feature has not been checked off. Then, there would be a second Pass head that is merged with a Voice head whose N feature has not been checked off. However, the problems of such an analysis are apparent: The first passive head targets the internal argument and the second one targets the external argument. On the other hand, the Turkish data show us the reverse order of application. The first passive morpheme indicates an operation on the external argument whereas the second one on the internal one. Assuming Baker (1985)'s Mirror Principle, the morpheme ordering also indicates the syntactic ordering of the operations. Thus, we need a syntactic level which first targets the external argument and then another one targeting the internal argument.

Of course, one may suggest that there is no way to test whether the first morpheme targets the internal or external argument in double passive constructions. After all, in double passive constructions, all arguments of a verb are somehow suppressed. However, note that in Turkish, a clause with a single passive morpheme always targets the external one. Thus, there is no motivation to posit otherwise in double passive constructions. Besides, even if it were the case that in double passive constructions, there is a lower pass head selecting a V[S:N] and a higher one selecting a Voice[S:N], the theory would predict the availability of a structure where there is a Pass head selecting a [V:N] independently of the presence of a higher Pass head selecting a Voice head. In other words, we would predict anti-passive constructions to exist in Turkish. However, there are no anti-passives in Turkish.

(51) *İnsan-lar* *vur-ul-uyor.*
person-PL shoot-PASS-PROG
'People are being shot.'
NOT: 'People shoot somebody.

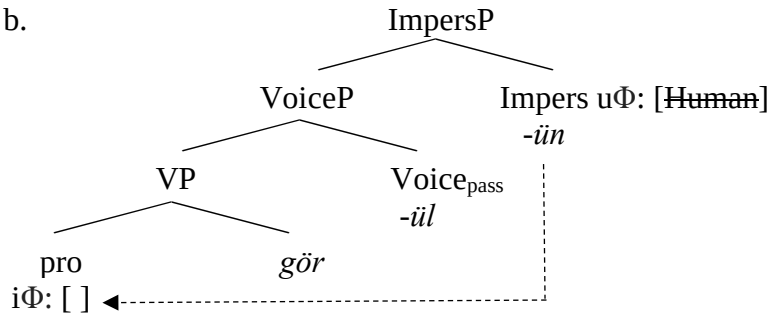
In conclusion, Bruening (2013)'s account cannot correctly predict passives of unaccusatives and double passives in Turkish. More generally, his account cannot capture that fact that the lower argument can be suppressed only after the suppression of the external argument. The internal argument is lower both from a semantic and syntactic point of view. Therefore, double passives have turned out to be problematic both for syntactic and semantic theories of passive clauses.

2.5.3 Legate *et al*. (to appear)

According to Legate *et al*. (to appear), double passives are constructions involving two separate structural levels: one is the passive head, the other is the impersonal head. They argue that the passive head does not syntactically project its implicit argument but only existentially quantifies over the variable corresponding to the relevant argument position. Impersonal constructions on the other hand are not passive structures. They are constructions in which argument positions are filled by an empty category $pro_{impersonal}$ which bears an interpretable unvalued feature that needs to be valued by a higher impersonal head via Agree, which in turn checks off the uninterpretable valued human feature of the Impers head. See the following illustration to see how the sentence in (52) can be derived via the system proposed by Legate *et al*. (to appear).

(52) a. *Bura-da* *gör-ül-ün-ür.*
here-LOC see-PASS-PASS-AOR
Lit: 'It is seen here.
'One can be seen here.'

b.

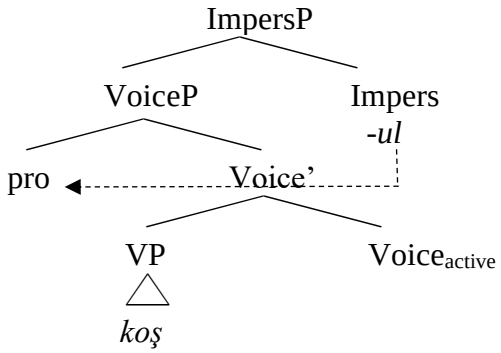


The structure in (52b) does rule out anti-passive structures in Turkish. Since Impers head values the unvalued human feature of pro by Agree, it probes down the tree to find a DP to agree with. If the structure contains an active Voice head, it will project an argument onto its specifier position. Therefore, the first DP that the Impersonal head encounters first would be the DP occupying [Spec, $Voice_{active}$]. However, since the DP would have its own person, number, or gender features, impersonal head cannot agree with such a DP and the derivation would crash.

The upshot of their proposal is that only verbs whose complements can be assigned an accusative case are truly passivized in Turkish. They claim that passivization is the advancement of the object argument to the subject position along with the suppression of the subject with the $Voice_{pass}$. Unergative verbs do not have complements but only agents. Therefore, they do not have an object that could be assigned accusative case. That is why, they cannot be passivized, but can be used in an impersonal construction as shown in (53b). Unaccusative verbs have complements but they do not have a Voice level to be used for passivization. Besides, they are not assigned accusative case. Therefore, they are not applicable for passivization and can only be used in impersonal constructions as shown in (54b).

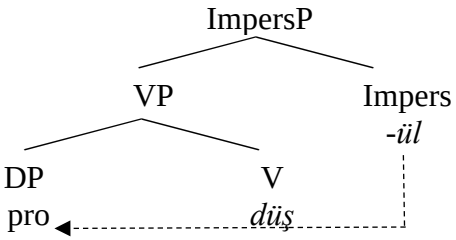
(53) a. *Dün* *marathon-da* *koş-ul-du.*
yesterday marathon-LOC run-PASS-PST
'There was running in the marathon yesterday.'

b.



(54) a. *Bu* *çukur-a* *düş-ül-ür.*
this pit-DAT fall-PASS-AOR
Lit: 'It may be fallen to this pit.'

b.



I will review the empirical arguments from Turkish that they put forward to support such a distinction between passive clauses and impersonal constructions in the next chapter and state potential problems with their arguments. However, I would like to focus more on the theory internal problems of their account now. First, Legate *et al*. (to appear)'s treatment of passive clauses is an appealing analysis in that it saves all the theoretical problems that we have pointed out so far. However, such an analysis which treats passives of intransitives as active constructions is problematic because we know that there are indeed languages where the impersonal constructions as they describe exist. However, such constructions are not restricted to intransitive verbs. They can also occur in transitive structures where the external argument position is occupied by a pro$_{impersonal}$ argument. On the other hand, when it is the case that the external argument position is occupied by a pro$_{impersonal}$, we also observe that the thematic object is marked with the objective case just like in regular active transitive constructions as in the Irish example in (55a), where the thematic object cannot surface with the nominative case marking as shown in (55b).

(55) Irish (McCloskey, 2007, p. 827)

a. *Cuirfear* *é* *sa* *reilg* *áitiúil.*
bury [FUT-AUT] him [ACC] in-the graveyard local
'He will be buried in the local graveyard.'

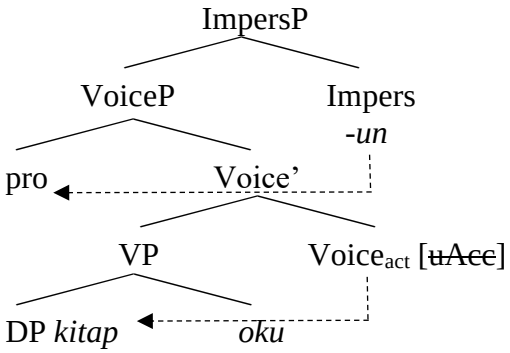
b. **Cuirfear* *sé* *sa* *reilg* *áitiúil.*
bury [FUT-AUT] him [NOM] in-the graveyard local
'He will be buried in the local graveyard.'

Now, Legate *et al*. (to appear) assume Kratzer (1996)'s formulation of Voice, which is responsible for accusative case assignment. When Voice head is an active voice, the internal argument can receive accusative case. However, when the Voice at hand is passive, it cannot because a passive Voice head does not have a Case feature to be checked. That is why, in languages like Turkish or English, we never find a thematic object marked with the accusative case in passive clauses.

On the other hand, considering that the impersonal constructions as described by them are actually active constructions where a $pro_{impersonal}$ agreeing with a higher impersonal head occupies an argument position, such impersonal constructions would have an active Voice head, which would predict Irish type impersonal constructions for Turkish; namely transitive impersonal constructions, where there is an impersonal $pro_{impersonal}$ occupying [Spec, VoiceP] and agreeing with a higher Impers head, and there is a fully referential DP at the internal argument position, bearing accusative case as in (56a), represented in (56b). Yet, in Turkish, we never find constructions with the passive morphology where the thematic object is marked with the accusative case, which increases the possibility that there are no active impersonal constructions in Turkish as described by Legate *et al*. (to appear).

(56) a. **Kitab-ı* *oku-n-du.*
book-ACC read-PASS-PST
Intended: 'Somebody read the book.'

b.



To account for the unavailability of (56a), Legate *et al*. (to appear) stipulate that the Impersonal head selects a Voice head that cannot check Case. However, it is also problematic to ensure that the Impersonal head selects the correct Voice type since once a Voice head reaches to its maximal projection, there is absolutely no way of knowing whether it can assign Case or not, for its case feature would already be discharged by the time it reaches up to its maximal projection. Thus, the big question is why the stipulation even has to work in the first place.[14]

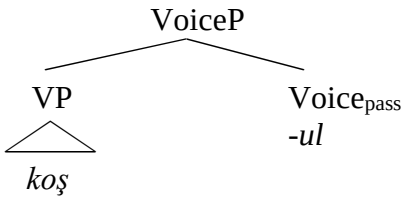
Second, they suggest that only verbs whose complements can bear an overt accusative case can be passivized. However, it is not clear why this must be the case. They adopt a Kratzerian way of formulating the passive voice, which suggests that a passive Voice does not have a case feature to be checked in the first place. Hence, Kratzer (1996)'s account of passivization is not dependent on the object being able to receive accusative case but, on the structure, having a Voice level. In other words, passive clauses do not involve accusative case marking in the first place. Then, why does it have to be the case that only those verbs whose objects can bear accusative case can be truly passivized or what would be the mechanism that associates the accusative case assignability with passivizability?

[14] Jelinek & Harley (2014) also conclude that Hiaki (Yaqui) impersonal passives cannot be of the type found in Irish because Hiaki also does not allow thematic object to be marked with the objective case in transitive constructions marked with the impersonal marker *-wa* 'lit: exist'. Hence, our point here is also cross-linguistically well-established/motivated.

One potential solution to conundrum might be to posit that what Legate *et al*. (to appear) mean with the relationship between the accusative case assignability and passivization is the object promotability to the subject position. Hence, they might be subsuming object advancement to the subject position under passivization along with the demotion of the subject argument. However, the problem is that the operation as described by Kratzer (1996) or Bruening (2018) is independent of the ability of the object to move to the subject position. Indeed, Kratzer's characterization of Voice is more in line with the demotion analyses of passives.

Then, the question is what makes the passive operation in Turkish involve the object promotion. As suggested in Biktimir (1986), it would be better to argue that passivization is only the demotion of the subject. Objects may move to the subject position for independent reasons like EPP. Indeed, Öztürk (2006) has shown that Turkish passives do not have to involve object advancement to the subject position. Then, the question is why (53a) has to be represented as in (53b) but not as in (57).

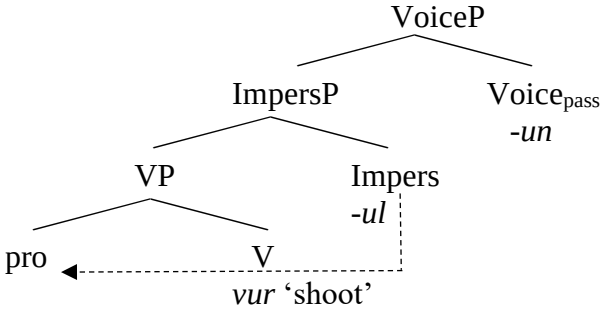
(57)



Besides, the impersonal head is in the structure merely for syntactic purposes. It does not make any semantic contribution to the interpretation of the construction. Since the impersonal pro is going to be interpreted as a free variable, it will indeed fill out an argument position. Then, what is the function of impersonal head? One may argue that it values the unvalued human feature of the impersonal head. However, it could as well be the case that impersonal constructions that they refer to are indeed passive clauses and therefore they involve existential quantification over a variable. However, the variable that is existentially bound is such that it only ranges

over sets of people, namely x_{arb} as described in Chierchia (1995). Finally, as explained previously, Legate *et al*. (to appear) treats impersonal passives as active constructions. They suggest that only verbs whose objects can be assigned accusative case can be passivized. However, if this is the case, it would be curious why the impersonal head has to follow a passive Voice when they co-occur. After all, the only function of the impersonal construction in double passive constructions is to value the unvalued human feature of the impersonal pro. It could also do it at a lower level in the syntactic structure as represented below.

(58)



When one assumes that impersonal passive is also a passive type, it is naturally accounted for why the impersonal passive operation follows the first passive. To derive an impersonal passive from a transitive structure, one first needs to suppress the initial subject with a regular passive. Then the second passive suppresses the remaining argument, creating an impersonal structure. Superficially, passives of passives are on a par with passives of intransitives. Once one assumes that both personal and impersonal passives are passives, their ordering becomes natural because both being passives, they occupy the same syntactic domain.

However, once one assumes that the second passive of double passives is not a passive operation, the syntactic ordering is also questionable. After all, the feature checking property of an active impersonal head could also be achieved lower than the Voice$_{pass}$ in the syntactic structure as shown in (58). In the next chapter, I am

going to provide the arguments that Legate *et al*. (to appear) posit to suggest that impersonal passives are not passives. There, I am going to show that their arguments do not hold both theoretically and empirically.

2.6 Conclusion

Since no syntactic or syntactico-semantic accounts of passivization reviewed in this chapter can satisfactorily account for double passives or passives of unaccusatives, one may wonder whether passivization in Turkish can be a lexical rule operating at a component of Language distinct from syntax. I am going to show that passivization in Turkish cannot be a lexical rule. However, in order to even start entertaining such a possibility, one has to make sure that instances of double passivization in Turkish are indeed double passives involving a personal passive and an impersonal one contra Legate *et al*. (to appear) . Therefore, the first subsection of the next chapter is going to concern itself with the arguments that impersonal passives are on a par with personal passives. Only after showing that they are, will we be able to entertain the possibility that passivization may be pre-syntactic in Turkish. Our discussion is going to show that passivization in Turkish cannot be pre-syntactic.

CHAPTER 3

WHAT IS THE DISTINCTION BETWEEN PERSONAL AND IMPERSONAL PASSIVES?

3.1 Introduction

This chapter concerns itself with a detailed discussion on the argumentation brought by Legate *et al*. (to appear) to motivate a partition between personal and impersonal passives. I will argue that their data is not complete and does not lead us towards a partition. However, I will show that it does not lead us towards a unification, either. Detailing each of their arguments by providing more data, I will conclude that what is called impersonal & personal passive are phenomena showing identical behaviour.

In this chapter, we are also going to deal with the question of whether passivization in Turkish can be a lexical process. We will entertain this possibility because all the previous syntactic and semantic analyses of passive clauses somehow failed to explain double passive clauses in Turkish. This chapter is structured as follows. First, we will review Legate *et al*. (to appear)'s motivation for a partition between personal and impersonal passives. Then, we will discuss whether passivization can be a lexical process in Turkish.

3.2 Legate *et al*. (to appear)'s motivations

This section is concerned with Legate *et al*. (to appear)'s motivations to differentiate between personal and impersonal passives in Turkish. As has been previously mentioned, they suggest that impersonal passives are active constructions involving the presence of a $pro_{impersonal}$ agreeing with a higher impersonal head in its humanness features. Furthermore, they suggest that passivization can only apply to

structures where objects are accusatively case marked. In the following subsections, we are going to detail their motivations for such a split. In each subsection, we are also going to provide empirical and theoretical evidence for why their characterization of passive and impersonal clauses cannot be accurate for Turkish.

3.2.1 By-phrases and impersonal passives

One of the central claims of Legate *et al*. (to appear) was that only objects that can be marked with the accusative case can undergo passivizaton. Those that do not have such an object cannot undergo passivization; but can be used in impersonal constructions where *argument* positions are occupied by an empty category impersonal pronoun. The prediction of their theory is that since argument positions are already occupied by an impersonal pronoun in such constructions, they should not be compatible with a by-phrase. However, by-phrases are grammatical with intransitive impersonal constructions as shown in (1).

(1) a. *Bölge-ye* *icra* *müdürlüğ-ü*
area-DAT execution directorate-POSS
tarafından *gel-in-di.*
by come-PASS-PST
Lit: 'It was come to the area by the directorate of execution.[15]'

b. *Güneş* *sistem-in-de-ki* *gezegen-ler-in*
sun system-POSS-LOC-PRNM planet-PL-GEN
çoğ-un-a *NASA* *tarafından* *gid-il-di.*
most-POSS-DAT NASA by go-PASS-PST
Lit: 'It was gone to most of the planets in the solar system by NASA.[16]

[15] Retrieved from https://www.alanyapostasi.com.tr/politika/baraja-icra-soku-h20787.html
[16] Retrieved from http://www.haber7.com/yorum/oku/378058

The availability of by-phrases in impersonal passives is also noted by Taneri (1993).

(2) a. *Kömür maden-in-e* *askeri* *kuvvet-ler* *tarafından*
coal mine-POSS-DAT military force-PL by
in-il-di.
go.down-PASS-PST
'It was gone down to the coal mine by the military forces.'

b. *Biz-e* *Oya tarafından* *haber* *gönder-il-di.*
we-DAT Oya by news send-PASS-PST
(i) 'There was news sending to us by Oya.'
(ii) 'The news was sent to us by Oya.'

Of course, one may argue that the predicates in (1) and (2a) are not intransitive, but transitive verbs that assign a lexical dative case to their path complements. However, note that according to Legate *et al*. (to appear) , if a verb assigns a lexical case to its complement, it cannot be passivized because the complement is not accusative case assignable. Thus, they are impersonal constructions according to their descriptions. (2b) has two readings. In one reading, *haber* 'news' would be interpreted referentially; thus, would describe the sentence to be an instance of passive. The second reading is where the thematic object is interpreted to be non-referential and pseudo-incorporated to its verb in which case Legate *et al*. (to appear) would regard it as an impersonal construction because they follow Öztürk (2005) suggesting that pseudo-incorporation creates a complex event.

The question arising now is why by-phrases are not as common with impersonal passives as other passive clauses. Taneri (1993) notes that her informants "expressed considerable reluctance in forming any type of passives with underlying subjects appearing as adjuncts" (p. 54), which shows that there is already a limitation on the use of by-phrases even in personal passives. She further points out that certain discourse conditions must be met to reintroduce an argument as a PP adjunct to the discourse context.

Considering that the very aim of impersonal passives is to accentuate the event rather than the subject of a clause, it would be very rare to use a by-phrase with an impersonal passive clause. However, the implication of such an explanation for the use of impersonal passives with by-phrases is that they should be compatible with by-phrases under certain conditions. We already showed that it is indeed possible to use by-phrases in what is commonly referred to as impersonal passive clauses of unergative predicates There are also other examples (cf. (3)).

(3) Context: What happened when the inflation skyrocketed?

Ekonomi-de	*Merkez Banka-sı*	*ve*	*geçici*
economy-LOC	central bank-POSS	and	interim
hükümet	*tarafından*	*fren-e*	*bas-ıl-dı.*
government	by	brake-DAT	step-PASS-PST

Lit: 'It was stepped on the brake on the economy by the Central Bank and the interim government.' (Legate *et al.*, 2019)

Legate *et al*. (to appear) use the example in (3) to show that even when such discourse conditions are met, it is still ungrammatical to use a by-phrase in an impersonal passive construction. Thus, according to them, (3) is ungrammatical. However, the clause in (3) was judged to be grammatical when asked to eight native speakers of Turkish for this study.

3.2.2 Humanness restriction of impersonal passives

A common diagnostic to distinguish between an impersonal passive and a personal one is the +human restriction on the implicit arguments of impersonal passives (Özkaragöz, 1980; Nakipoğlu-Demiralp, 2001; Özsoy, 2009; Legate *et al*., 2019). However, note that the humanness restriction on impersonal passivization is not a valid motivation to posit that an impersonal passive is not a passive at all because it is known that impersonal passives have already such restrictions cross-linguistically

(Abraham & Leiss, 2006; Abraham, 2011). Besides, it may be possible to use non-human agents in impersonal constructions in Turkish (cf. (4)).

(4) a. *Yarın* *şu* *herif-i* *uyar-a-yım* *da*
tomorrow that guy-ACC warn-OPT-1SG CL
köpeğ-in-e *sahip* *ol-sun.* *Bu* *saat-te*
dog-POSS.3SG-DAT owner be-OPT.3SG this hour-LOC
havla-n-ır *mı?*
bark-PASS-AOR Q

'Let me tell that guy tomorrow to keep his dog under control. Is this the time for barking.[17]'

b. *Hava* *sıcaklığ-ı* *art-tıkça* *yayıcı-lar-dan*
weather heat-POSS rise-GER spreader-PL-ABL
daha *fazla* *koku* *sal-ın-ır.*
much more odour emit-PASS-AOR

'There is much more odour emitting by the spreaders as it gets warmer.[18]'

c. *Mağara-ya* *önce* *narkotik* *köpek-ler-i* *tarafından,*
cave-DAT first narcotic dog-PL-POSS by
daha *sonra* *da* *asker-ler* *tarafından* *gir-il-di.*
more then CL soldier-PL by enter-PASS-PST

Lit: 'It was entered into the cave by the drug dogs first, then by the soldiers.'

(4b) is uttered in a context that describes the properties of a sub-kind of insects that stinks even more when the weather gets warmer. Since the predicate denotes a complex event *koku sal* 'emit odour' (i.e. *koku* 'odour' is pseudo-incorporated to the predicate), the object is non-referential, thus is not promotable to the subject position, therefore, cannot be passivized according to Legate *et al*. (to appear) . Therefore, the logical subject must be a human in (4b); however, it is perfectly grammatical under a reading where the thematic subject is an insect or a group of larvae. Although (4c) is an impersonal construction because *gir* 'enter' is an intransitive predicate, it is possible to use both a by-phrase with it and a by-phrase which reintroduces a non-human underlying subject.

[17] Retrieved from the novel *Tohum* 'Seed' by Muzaffer Oruçoğlu.

[18] http://www.tarimkutuphanesi.com/bag_zararlilari_ile_mucadelede_biyoteknik_yontemler_00622.html

At this point, it is important to note that regular passive clauses also tend to denote human underlying subjects unless a non-human reading is very salient in each context or specified with a by-phrase. For example, the following event would only be understood to be carried out by a human underlying subject out of context although it is a regular passive whose object is promoted.

(5) *Bu* *kitap* *dün* *yırt-ıl-dı.*
this book yesterday tear-PASS-PST
'This book was torn up yesterday.'

Of course, it is also possible to understand the underlying subject to be cats if I am known to have left my book at a cat shelter yesterday or I specify that the event was carried out by a cat yesterday with a by-phrase. However, out of context, it would be understood to be carried out by a human. Considering that there is always a tendency for a human agent reading even in regular passive clauses and that the use of by-phrases, which is one of the tools to indicate that the underlying subject is a human or not, is very restricted in impersonal passives, one must be careful in using humanness test to distinguish between personal and impersonal passives.

Indeed, we will see that what is referred to as the impersonal passives of unergative predicates and regular passives seem to pattern together in terms of humanness conditions and use of by-phrases. For now, I am leaving the discussion on such issues to be detailed in Chapter 4, however, they will be crucial in my modelling of impersonal passives.

3.2.3 Binding of *birbirleri* 'each other'

Impersonal constructions are argued to have a syntactically projected null pronoun whereas passive clauses do not. Therefore, Legate *et al.* (to appear) argue that the anaphor *birbirleri* 'each other' can be bound in impersonal constructions by the

$pro_{impersonal}$ (cf. (6a)) whereas it cannot in passive clauses (cf. (6b)) because passives do not involve a syntactic binder.

(6) a. *Düğün-ler-de* *birbirleri-ne* *dans* *ed-il-ir.*
wedding-PL-LOC each.other-DAT dance do-PASS-AOR
'During weddings, it is danced for each other.'

b. **Birbirleri* *döv-ül-dü(ler).*
each.other beat-PASS-PST-PL
'Each other was/were beaten.'

(Legate *et al*., 2019)

However, my informants (eight native speakers of Turkish) stated that (6a) is as ungrammatical as (6b). The ungrammaticality is expected for both sentences if they are instances of passivization, for it is known that implicit arguments of passive clauses cannot generally bind an anaphor unless the anaphor is generic (Baker *et al*., 1989; Landau, 2010; Collins, 2017).

(7) Such privileges should be kept to oneself (Baker *et al.*, 1989, p. 229).

3.2.4 Subject oriented secondary predicates and passive clauses

Legate *et al*. (to appear) suggest that subject oriented secondary predicates are ungrammatical to use in passive clauses because passive clauses do not have syntactically present empty categories to be predicated of whereas the pro in impersonal constructions can be modified by a secondary predicate. In fact, the fact that secondary predication cannot modify the implicit arguments of passive clauses has been proposed in the literature already by Williams (1985) and Landau (2010). However, there are also others who showed that secondary predicates can modify implicit arguments in passive clauses (Müller, 2014; Collins, 2017). I argue that implicit arguments in passive/impersonal clauses can control into subject oriented depictives in Turkish.

(8) a. *Yemek-ler* *parti-de* *çıplak* *servis* *ed-il-di.*
food-PL party-LOC naked service do-PASS-PST
'Foods were served by a person who was naked.'
b. *Maraton-da* *çıplak* *koş-ul-du.*
Marathon-LOC naked run-PASS-PST
'There was naked-running in the marathon.'

Secondary modification behaves identically with respect to passivization (8a) and impersonalization as in (8b). If it were the case that secondary modification did not work with passive clauses, but work with impersonals, then one could argue that the operation of modification requires syntactic binding and the relevant binder is not syntactically present in passive clauses, but present in impersonal constructions. However, because they are both compatible with secondary predicates, one cannot argue for such a partition based on secondary modification. For example, predication in both passives and impersonals could be achieved semantically (Pylkkänen, 2008).

3.2.5 Quantificational variability and passive clauses

Quantificational variability, which is assumed to occur when an adverb of quantification semantically binds a free variable, is argued to occur in impersonal constructions that syntactically projects a null argument whereas in passive clauses no quantificational variability arises (see Heim, 1982; Kamp, 2002; Sharvit, 2004 for quantificational variability). Müller (2014) shows that in German quantificational variability occurs in passive clauses.

(9) *Es* *wurde* *größtenteils* DP_{ext} *geschlafen* *beim* *Vortrag.*
it was mostly sleep at talk
(i) 'Most people slept during the talk.'
(ii) People slept at most times during the talk.' (Adapted from Müller, 2014)

I argue that Turkish also allows quantificational variability in passive clauses including impersonal passives.[19]

(10) a. *Konser-de* *şarkıcı* *genellikle* *yuhala-n-dı.*
concert-LOC singer usually boo-PASS-PST
'The singer was usually booed at the concert.'

Available Readings:

(i) Most people booed the singer at the concert.
(ii) People booed the singer at most times at the concert.

b. *Konser-de* *genellikle* *uyu-n-du.*
concert-LOC usually sleep-PASS-PST
'There was usually sleeping at the concert.'

Available Readings:

(i) Most people slept during the concert.
(ii) People slept at the concert at most times.

Having established that both personal and impersonal passives are subject to quantificational variability effects, I would also like to state that the test itself would not actually show that there is a syntactically projected argument in impersonal constructions and there is not any in passive clauses. Quantificational variability occurs when an adverb of quantification semantically binds a free variable. Since in impersonal constructions, there is a syntactically projected pro according to Legate *et al*. (to appear), which would be interpreted as a free variable by the semantic system, they suggest that an adverb of quantification can indeed bind it. On the other hand, in passive clauses, since there is not a syntactically projected pro that could be interpreted as a free variable, there is nothing to be bound by the adverb of quantification. Although, in passive clauses, there is still a variable that semantically

[19] In some speakers' dialects, no quantificational variability effect is observed in personal passive clauses. However, note that their dialects not only prohibit the quantified subject reading for the implicit arguments of personal passive clauses but also for the implicit arguments of impersonal passive clauses. Hence, in any scenario, there is no motivation to opt for a syntactic split between personal and impersonal passives in Turkish.

but not syntactically stands for the implicit argument, that variable is generally assumed to be bound by the passive Voice operator. Therefore, Legate *et al*. (to appear) does not expect to find quantificational variability in passive clauses.

However, Chierchia (1995) shows that one could still argue for a lexical entry of a passive head with an in-built existential closure and assume that an existentially closed element could be existentially disclosed (existential disclosure) when it faces another operator like adverbs of quantification. Considering that both personal and impersonal passives allow quantificational variability and that one could also opt for an analysis that assumes existential disclosure, the quantificational variability by itself is not enough to suggest that impersonal passives are not passives. Of course, the availability of quantificational variability does not by itself support the idea that personal and impersonal passives are the same structurally, either. However, considering the commonalities between the two as shown previously, the motivation to opt for a separationist analysis becomes even less motivated.

3.2.6 Is object movement an obligatory process in passive clauses in Turkish?

There is also a theoretical problem in the statement that only clauses having accusative marked objects can be passivized. First, in the structure proposed by Legate *et al*. (to appear), passives involve a Voice head that does not introduce a DP, thus does not project an external argument and the external argument position is existentially quantified. Since there is no external argument projected in passive clauses, the Voice head does not check accusative case either (which captures Burzio (1986)'s generalization in this way). Thus, passive clauses never involve assigning accusative case anyway. Therefore, the functional head responsible for passivization

has no way of knowing whether the object is assigned accusative case or not. It only demotes the thematic subject by not projecting it in the first place.

However, one could state that what is meant by the accusative case assignability is the promotability of the object argument to the subject position since the nominals that could advance to the subject position and trigger agreement are only those that can morphologically carry accusative case. On the other hand, the explanation implies that passivization is not a single operation but involves two processes. One is the demotion of the thematic subject and the other one is the obligatory movement of the object to the subject position.

Yet, we know that cross-linguistically passivization only involves the demotion of the subject. The advancement of the object can occur for language internal reasons such as case and EPP. Indeed, in Turkish it has been suggested that object to subject movement does not have to take place in passive clauses. For example, Öztürk (2006) concludes that passive clauses do not have to involve movement to the subject position by examining the scopal relationships between the universal quantifier and negation. See the following examples.

(11) a. [TP [NegP [ThemeP *Bütün çocuk-lar* [VP *gel*]-*me*]-*di*].
all child-PL come-NEG-PST

'All children did not come.' (*all>not, not>all)

b. [TP *Bütün çocuk-lar*$_i$ [NegP [ThemeP t_i] [VP *gel*]-*me*]-*di*]-*ler*].
all child-PL come-NEG-PST-3PL

'All children were such that they did not come.' (all>not, *not>all)

(Öztürk, 2006, p. 389)

Since the negation phrase is generally assumed to be above the external argument introducing head, the event is already formed before it is merged at the structure. However, depending on the scopal position of the quantifier, we get different meanings from surface-wise identical sentences. In (11a), the universally

quantified element is below negation such that only narrow scope reading is available. However, once the quantifier takes wide scope, moving to the subject position as represented in (11b), it triggers the reading that none of the students came. We know that it moves to the subject position in (11b) because it triggers the plural agreement on the verb and when it does, the only available reading is the wide scope reading. One could indeed use the scopal interaction between the universal quantifier and negation to test whether the object does move to the subject position, which is what Öztürk (2006) does exactly. See the following examples.

(12) a. [TP [NegP [AgentP [ThemeP *Bütün çocuk-lar*] [VP *çağr*]-*ıl*]-*ma*]-*dı*].
all child-PL call-PASS-NEG-PST

'All children were not invited.' (*all>not, not>all)

b. [TP *Bütün çocuk-lar*$_i$ [NegP [AgentP [ThemeP t_i]
all child-PL
[VP *çağr*]-*ıl*]-*ma*]-*dı*]-*lar*].
call-PASS-NEG-PST-3PL

'All children were such that they were not invited.' (all>not, *not>all)

We see the same asymmetry in (12). In (12a), when the plural subject does not trigger agreement on the verb, it stays below negation, thus the universal quantifier can only take narrow scope with respect to the negation. However, once we see the plural agreement on the verb, we necessarily get the wide scope reading of the quantifier, which means that it has moved somewhere above the Negation Phrase. Since it also triggers agreement on the verb, the natural assumption would be that it moves to the subject position. However, what is important for our purposes is that both (12a) and (12b) are regular passive clauses whose objects are promotable to the subject position. But in (12a), we see that the quantified object does not move to a position above the Negation Phrase, thus cannot have moved to the subject position which is associated with the Tense Phrase.

3.2.7 Control, and personal and impersonal passives

I would like to show that both personal and impersonal passives behave identically when it comes to control constructions. Legate *et al*. (to appear) argue that since passive clauses do not project a syntactic argument, their implicit arguments cannot be controlled whereas in impersonal constructions, the implicit arguments are syntactically available impersonal pro's and therefore can be bound (cf. (13)).

(13) a. IMP_i [PRO_i *otobüs-e* *bin-il-mek*] *iste-n-di*.
bus-DAT board-PASS-INF want-PASS-PST

'One wanted to board the bus.'

b. **Hasan* [*kitap hızlı oku-n-mak*] *iste-di.*
Hasan book fast read-PASS-INF want-PST

'Hasan wanted to read the books quickly.'

(Legate *et al.*, to appear)

However, the two pieces of data in (13) are not comparable to each other. Both the matrix and the embedded clauses in (13a) are passive whereas in (13b) the matrix clause is active and therefore has a fully referential subject while the embedded clause is passive that has an implicit argument. It has already been observed that implicit arguments of passive clauses cannot be co-referential with another argument unless the binder is also a passive implicit argument (Müller, 2014; Landau, 2010). In other words, one might as well argue that both the matrix and embedded clauses in (13a) are passive, hence their implicit arguments may be coreferential with each other whereas such co-referentiality with the matrix subject is not possible because it is a fully referential DP.

Indeed, the latter argument seems more coherent with the data because the impersonal subject of impersonal passive clauses cannot be coreferential with a full DP, either. In this sense, impersonal passives and personal ones behave on a par with each other again. (14) shows that the referential subject of the matrix clause is

co-indexed with the implicit argument of the embedded impersonal clause. However, such co-indexation results in ungrammaticality.

(14) *$İnsan\text{-}lar_k$ [PRO_k *otobüs-e* *bin-il-mek*] *iste-di.*
person-PL bus-DAT board-PASS-INF want-PST
'People wanted to board the bus.'

Up until now, we have shown that when a referential DP is attempted to bind the implicit argument of a passive clause, both personal and impersonal, the sentence becomes ungrammatical. Furthermore, when both matrix and embedded clauses are impersonal as in (13a), co-referentiality is not a problem. Now, let us try a sentence where the matrix clause is passive and embedded clause is impersonal. However, note that Legate *et al*. (to appear) argue that no verbs having infinitival sentential complements can be passivized because they are not accusative case marked according to them. Therefore, I will use another construction which has an embedded clause showing control properties but is not a complement to its verb such that we can make sure that the matrix clause is indisputably a passive clause. I am going to use *-ArAk* clauses used by Özkaragöz (1980; 1986) and Biktimir (1986), partly because Legate *et al*. (to appear) also use these clauses to motivate the distinction between passive clauses and impersonal constructions.

Remember that *-ArAk* clauses generally require coreference between the matrix and embedded subjects. For now, I am going to follow Taneri (1993) in using the symbol 'e' standing for 'empty category' not to commit myself to any technical analysis of the construction. Showing coreferences this way suffices for our purposes for now since the aim of the whole section is to show that passives and impersonals behave similarly. Now consider the following data.

(15) a. *Korra* [*(e_i)/(**Korra*$_i$) *su* *bük-erek*] balık tut-tu.
Korra water bend-GER fish catch-PST
'Korra caught fish while bending water.'

b. *Asami*$_i$ *ayrılıkçı-lar-ı*$_k$ [e$_i$ e$_k$ *öp-erek*] *döv-dü.*
Asami separationist-PL kiss-GER beat-PST
'Asami beat the separationists while kissing them.'

c. **Korra*$_i$ [e$_i$ *boğul-arak*] *su* *bük-tü.*
Korra drown-GER water *bend*-PST
'Korra bent water while drowning.'

The sentence in (15a) shows that the matrix and embedded subject must be coreferential and the co-referentiality must be between a matrix subject and a null element in the embedded clause. (15b) shows that the matrix object can also be coreferential with the embedded object; but this is not obligatory for the grammaticality of the sentence since there is no object co-referentiality in (15a). (15c) indicates that thematic roles of the coreferential arguments must be comparable; thus, the matrix subject is an agent in (15c), yet the embedded subject is a patient; hence, the ungrammaticality arises. We have previously shown that the configurations in Table 1 below are ungrammatical. Table 1 summarizes our point that the subject DP of an active matrix clause can bind the implicit argument of neither personal nor impersonal passives.

Table 1. Active matrix clause configurations

Item	Matrix Subject	Embedded Clause	Matrix Predicate
1	*DP_1	e_{pass1} passive	active
2	*DP_1	$e_{impersonal1}$ impersonal	active

Now let us see whether the implicit argument of an impersonal and passive clause can bind the empty category of an embedded active clause. Consider the data presented in (16) now.

(16) a. $e_{impersonal1}$ [e$_1$ *sakız çiğne-yerek*] *hoca-yla* *konuş-ul-maz.*
gum chew-GER teacher-COM speak-PASS-NEG.AOR
'One does not speak with the teacher while chewing gum.'

(Biktimir, 1986, p. 64)

b. *Ali*$_1$ e$_{pass2}$ [e$_2$ *slogan at-arak*] *döv-ül-dü.*
Ali slogan throw-GER beat-PASS-PST
'Ali was beaten up by those who were uttering slogans.'

c. **Ali*$_1$ e$_{pass2}$ [e$_1$ *slogan at-arak*] *döv-ül-dü.*
Ali slogan throw-GER beat-PASS-PST
Intended: 'Ali was beaten up, uttering slogans.'

(Taneri, 1993, pp. 86-89)

(16a) shows that the implicit argument of an impersonal passive clause can be coreferential with the null subject of an *-ArAk* clause. Similarly, the implicit argument of a passive clause can bind the empty category of the embedded clause as shown in (16b). Finally, the surface subject of the matrix passive clause cannot be co-referential with the embedded subject because such co-referentiality causes the controlee and the controller to bear different thematic roles. It has been shown in (15c) that they must bear the same theta roles. Now let us summarize our data observations in Table 2.

Table 2. Active embedded clause configurations

Item	Matrix Subject	Embedded Clause	Matrix Predicate
1	e$_{impersonal1}$	e$_1$ active	impersonal
2	DP$_1$ e$_{passive2}$	e$_2$ active	passive

Table 2 shows that passives and impersonal passives show the same behaviour once again when the embedded clause is active. Once the embedded clauses are active, the implicit arguments of both matrix passive and impersonal clauses can control the implicit arguments of embedded active clauses.

(17) shows that once the embedded clauses are either impersonal or personal passives, the implicit argument of the matrix passive or impersonal clauses can be co-referential with the implicit arguments of the embedded clauses.

(17) a. *Ahmet*$_2$ e_{pass1} *her* *gün* [e_{pass1} *bir* *şarkı* *söyle-n-erek*
Ahmet every day one song sing-PASS-GER
döv-ül-ür.
beat-PASS-AOR
'Ahmet is beaten every day by those who sing songs.'

b. $e_{impersonal1}$ *Trafik-te* [$e_{impersonal1}$ *müzik* *dinle-n-erek*]
traffic music listen-PASS-GER
yürü-n-mez.
walk-PASS-NEG.AOR
Lit: 'It is not walked in the traffic, listening to music.'

Note that the surface subject of the embedded clause in (17a) is *bir şarkı* 'a song'. As an indefinite DP, that argument cannot be pseudo-incorporated to the verb. Therefore, the embedded clause cannot be an impersonal construction as it is accusative case assignable. Thus, in (17a), when the co-referentiality is ensured between the implicit argument of the matrix and embedded clauses, the beaters of Ahmet are those that sing a song every day. Similarly, in (17b), the listeners are those that walk in the traffic. The relevant configurations are represented below. The data show that passive and impersonal passives behave identically. Once both the matrix and embedded clauses are impersonal, the implicit argument of the matrix clause can be co-referential with the implicit argument of the embedded clause. Similarly, when the matrix and embedded clauses are both personal passives, the coreferentiality between the implicit arguments can easily be established. Table 3 summarizes the data in (17).

Table 3. Passive matrix-embedded & impersonal matrix-embedded configurations

Item	Matrix Subject	Embedded Clause	Matrix Predicate
1	$e_{impersonal1}$	e_1 impersonal	impersonal
2	DP_1 $e_{passive2}$	e_2 passive	passive

Finally, let us check what happens when we have an embedded passive clause whose implicit argument is coreferential with the implicit argument of a matrix impersonal clause or vice versa. The data in (18) show that co-referentiality between

the implicit arguments of matrix impersonal clauses and embedded passive clauses or vice versa is possible. Table 4 summarizes the data in (18).

(18) a. *Bu* *kahve*$_2$ $e_{passive1}$ [$e_{impersonal1}$ *otur-ul-arak*] *iç-il-ir.*
this coffee sit-PASS-GER drink-PASS-AOR
'This coffee is drunk while sitting.'

b. *Her* *gün* $e_{impersonal1}$ [$e_{passive1}$ *bir* *şarkı* *söyle-n-erek*]
every day one song sing-PASS-GER
dans *ed-il-ir.*
dance do-PASS-AOR
'Every day it is danced while singing one song.'

Table 4. The mixed configurations

Item	Matrix Subject	Embedded Clause	Matrix Predicate
1	DP_2 $e_{passive1}$	e_1 impersonal	passive
2	$e_{impersonal2}$	e_2 DP_1 passive	impersonal

Then, our data has thus far shown that implicit arguments of passive clauses show identical behaviour to the implicit arguments of impersonal clauses when it comes to control structures. If it were the case that implicit arguments of passive clauses could never control a PRO in an embedded clauses, but the implicit argument of impersonal constructions would, then we could suggest that control is primarily a syntactic process in Turkish and because of the syntactic presence of an impersonal pro argument in impersonal constructions, control relations could be easily established between the implicit arguments of impersonal passives and PRO subjects of embedded clauses. However, now that we have found no difference between the implicit arguments of passive and impersonal clauses within the scope of control, then we have no evidence from control that they are different structures. After all, one could suggest that the coreferentiality between the implicit arguments of matrix passive or impersonal clauses and the embedded active/passive/impersonal clauses is achieved at the semantic level by ensuring that the implicit argument of the

embedded clauses (which is a variable bound by a lambda operator) is bound by the same lambda operator that binds the implicit argument of the matrix clauses.

3.2.8 Summary

The data in this section show that there is no motivation based on by-phrases, humanness restrictions, binding relations, subject oriented secondary modifications, quantificational variability and control constructions to suggest that impersonal passives in Turkish cannot be subsumed under passivization but must be rendered as active clauses with a null element. Our results indicate that whatever is the structural and semantic representation of passive clauses, impersonal passives must have the same representation, since thus far, our data have not provided us any evidence to opt for a separate representation for impersonal passives.

Importantly, the data from *-ArAk* constructions supported a unified analysis of personal and impersonal passives. When we passivize the matrix clause and we have an embedded impersonal passive clause or when we impersonally passivize the matrix clause and we have a personal passive in the embedded clause, we have observed that both passive and impersonal clauses behaved identically with respect to control and co-referentiality. In the next chapter, we will modify our understanding of impersonal passives and therefore our terminology. But for now, what is generally referred to as impersonal passives in the literature does not seem to show major differences from regular passives. Table 5 compiles all the data on *-ArAk* constructions, showing that they behave on a par with each other. Table 6 summarizes all the properties of personal and impersonal passives. Based on the data, I conclude that impersonal passives are on a par with regular passives.

Table 5. *-ArAk* constructions and passive clauses

Item	Matrix Subject	Embedded Subject	Matrix Predicate
1	*DP_1	e_{pass1} passive	active
2	*DP_2	$e_{impers2}$ impersonal	active
3	$e_{impersonal1}$	e_1 active	impersonal
4	DP_1 $e_{passive1}$	e_2 active	passive
5	$e_{impersonal1}$	e_1 impersonal	impersonal
6	DP_1 $e_{passive2}$	e_2 passive	passive
7	DP_2 $e_{passive1}$	e_1 impersonal	passive
8	$e_{impersonal2}$	e_2 DP_1 passive	impersonal

Table 6. Properties of passives and impersonals

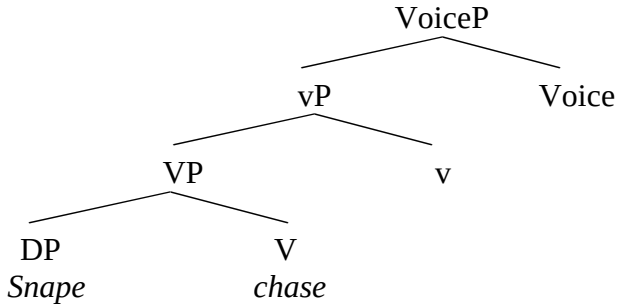
Properties	Regular Passives	Impersonal Passives
by-phrases	Available	Available
humanness restriction	NO	NO (partially)
Anaphora binding	NO	NO
Bound implicit arguments	NO	NO
Secondary predicates	Available	Available
Quantificational Variab.	Available	Available
Object movement	Available	N/A
can control?	YES	YES

3.3 Is passivization a lexical rule in Turkish?

So far, we have seen that personal and impersonal passives must be represented in the same way as there is no motivation to separate one from the other. If they are to be represented equally, then we face with the question of what we do with instances of double passivization in Turkish. If passivization is a syntactic/semantic process, we are led to the following problem. In standard accounts of passive clauses, passivization is taken to be a flavour of Kratzer's VoiceP, which does not introduce the external argument, but existentially binds the external argument position. Recently, the syntactic head introducing the semantics of causation (vP) has been separated from the head that introduces the external argument (VoiceP) for languages that are non-voice bundling (Pylkkännen, 2008; Harley, 2017; Key, 2013). Harley (2017) argued that Turkish is a non-voice bundling language.

(19) a. *Snape* *kovala-n-dı.*
Snape chase-PASS-PST
'Snape was chased.'

b.



(20) a. ⟦VP⟧ = *λe. chase(e) & Theme(Snape, e)*

b. ⟦v⟧ = $\lambda f_{<v,t>}.\lambda x.\ \lambda e.\ f(e)$ & *Initiator(x, e)*

c. ⟦vP⟧ = *λx. λe. chase(e) & Theme(Snape, e) & Initiator(x, e)*

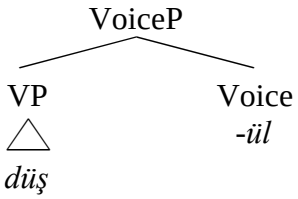
d. ⟦Voice⟧ = $\lambda f_{<e,<v,t>>}.\ \lambda e.\ \exists y$: *f(y)(e)*

e. ⟦VoiceP⟧ = *λe.* ∃*y*: *chase(e) & Theme(Snape, e) & Initiator(y, e)*

The assumption is that the v head introduces the semantics of initiation, but Voice is the actual head that syntactically projects the external argument. Of course, when $\text{Voice}_{\text{act}}$ is replaced with its passive counterpart, it does not syntactically introduce the external argument, but existentially quantifies over the variable introduced by the v head. Since Voice is the locus of external argument introduction and passivization at the same time, the system predicts that unaccusative predicates cannot be passivized, for they lack external arguments, namely VoiceP's. However, this thesis has established that both unergatives and unaccusatives can indeed be passivized in Turkish. Then, one could relax the requirement that passive is strictly local to VoiceP level and suggest that the internal argument of a verb could be suppressed too for some languages like Turkish. See the following for an illustration.

(21) a. *Buz-da* *düş-ül-ür.*
ice-LOC fall-PASS-AOR
Lit: 'It is fallen on ice.'

b.



(22) a. ⟦VP⟧ = *λx. λe. fall(e) & Theme(x, e)*

b. ⟦VoiceP⟧ = *λe.* ∃*x*: *fall(e) & Theme(x, e)*

Of course, the syntax in (21b) would not be desirable for the standard assumptions of Minimalist Program because the V head cannot usually reach up to its maximal projection without its N category feature being checked off by a noun.[20] Furthermore, the structure is not desirable because it makes the syntax of impersonal passives of unaccusatives look like unergative structures; yet we know that (21) does not have to refer to an agentive falling event. However, we are encountered with an even bigger problem once double passives come into the picture. Double passives are those constructions where the first passive suppresses the external argument and then the second one the internal argument.

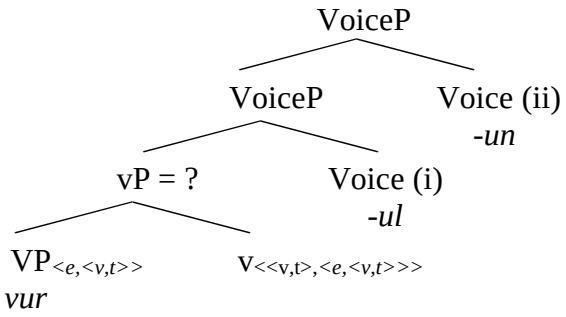
(23) *Harp-te* *vur-ul-un-ur.*
war-LOC shoot-PASS-PASS-AOR
'One is shot (by one) in war.' (Özkaragöz, 1986, p. 77)

The problem that double passive constructions pose to the theory of passivization is that to eliminate the internal argument, the system first needs to eliminate the external argument; but by the time the external argument is eliminated at the VoiceP level, the internal argument is already introduced to the system. Once it is introduced, there is no way to eliminate a merged argument. One could suggest that the internal argument is not projected at all and then later at the Voice domain,

[20] But note that it is still manageable in some versions of MP, where there are no maximal projections, but everything is feature driven (cf. Bruening, 2013). For example. in Bruening's system, the lower passive Voice head may be assumed to choose a lexical verb whose N category feature has not been discharged.

the arguments are respectively suppressed semantically as encountered by Voice heads. Since the Voice (i) head first encounters the external argument in the syntactic derivation, it first targets the external argument position and only when it is eliminated, can the internal argument be eliminated. However, such a system would be semantically uninterpretable even if we do away with syntactic category requirements of the heads. Consider the following syntactic representation for (23).

(24)



The above structure is semantically uninterpretable. It has been shown that the semantics of initiation is introduced at the v level, which takes event arguments (arguments of type *<v,t>*. However, once the internal argument of the verb *vur* 'shoot' is not syntactically projected, the semantic type of the whole VP remains to be *<e,<v, t>>*. Thus, the v head cannot take the VP as its argument because of a type-mismatch and the semantic derivation collapses. Surely, one could argue that the little v can bear two semantic types: one being *<v, t>* and the other one being *<e,<v,t>>*. However, such an ambiguity analysis would result in Voice being ambiguous with respect to its type as well, since sometimes it would take event arguments and sometimes arguments of type *<e,<v,t>>*, which is not elegant.

To avoid the syntactic and semantic problems explicated in this section, one could argue that passivization in Turkish may be a lexical process. I would like to explain why a lexical approach to passivization is not desirable for Turkish. First of all, as Murphy (2014) explains, a lexical approach to passivation means that

arguments are deleted pre-syntactically at the lexicon. Hence, if *vur* 'shoot' is assumed to be a three-place predicate in a lexical approach with two individual arguments and one event argument, with double passivization, it becomes a one-place predicate with only an event argument.

Consider that the sole individual argument of two-place predicates (one individual and one event argument) in Turkish is assigned nominative case; the internal argument of a three-place predicates (two individual, one event argument) is assigned accusative case and external arguments nominative. Finally, the direct object of a four-place predicate (three individual arguments, one event argument) is assigned accusative case, indirect objects dative case and the subject nominative.

Now, in a lexical approach, since *vur* 'shoot' is deprived of all its arguments once double passivized, there is no case assignment, which is plausible considering that Case is assigned for Visibility reasons (Chomsky, 1995, 2000). *kovala* 'chase' is a three-place predicate (two individual arguments, one event argument) and when it is passivized once, it loses one of its arguments in a lexicalist approach and thus is mapped to syntax as a two-place predicate. Therefore, the only individual argument gets nominative case as in simple two-place predicates. Consider now four place predicates like *yolla* 'send' (three individual arguments, one event argument). It is possible to double passivize them as in the following example.

(25) *Türkiye-de* *zorunlu* *Doğu* *görev-in-e* *yolla-n-ıl-ır.*
Turkey obligatory East duty-POSS-DAT send-PASS-PASS-AOR
'One is sent to the obligatory East service in Turkey.'

According to a lexicalist approach, after double passivization, the verb would be mapped to syntax as a two-place predicate (one individual and one event argument). However, we have established that the sole individual arguments of two place predicates whether derived or simple are assigned nominative case. On the

other hand, the remaining argument is mapped to syntax as an indirect object and is assigned dative case in (25), which shows that we are not dealing with a lexical approach where argument positions are completely deleted.

One could suggest that maybe the operation is still lexical yet does not completely delete arguments of a verb but existentially closes the argument positions pre-syntactically. However, in that scenario, it would be impossible to account for the availability of subject oriented secondary predication in passive clauses in Turkish, for the relevant variable would already come as quantified over and thus cannot be predicated of any adjective. Besides, since such a lexical approach to passivization means existentially binding the argument position pre-syntactically, then the reintroduction of the suppressed argument with a by-phrase becomes problematic. Considering that in such cases, argument positions would already be bound, one can neither use a restrictive semantics in the spirit of Wood (2013) to specify the variable existentially quantified over, nor use a saturation analysis where the argument position is filled with the adjunct introduced with the by-phrase. This is the case because both approaches to by-phrases would need an argument of type $<e,<v,t>>$, where the individual argument position would correspond to the external argument. However, since the existential quantification would occur over the external argument position pre-syntactically in a lexicalist approach, the type requirements of by-phrases can never be met in a lexical view.

On the other hand, even if the abovementioned problems are accommodated in some way or another under a lexicalist approach, there is one final problem that cannot be accounted for without a stipulation. In cases like double passivization, the first suppressed argument is always the external argument; we know that it is the external argument because we never find anti-passives in Turkish. Only after the

external argument, could the internal argument be suppressed by passivization. The pattern mimics a strict syntactic ordering operating in a top-down syntactic fashion. A lexicalist approach would have to stipulate that passivization, as a lexical operation, must first target the external argument and then the remaining argument can be existentially quantified. However, in a syntactic approach, the fact that external arguments are introduced higher than internal arguments, and Voice is an operation that can be higher than the argumental domain is already independently motivated. In other words, it would be easy to claim that Voice as a syntactic operation first deals with the first argument that it encounters top-down in a syntactic tree, which is the external argument and then if double passivization is possible in a certain language, it will target the remaining argument.

We also observe a similar strict syntactic ordering once we look at the interaction between causativization and passivization. For example, one can only passivize after causativization and one can never causativize after passivization in Turkish. Thus (26a) is possible, but (26b) is not.

(26) a. *Asker-de koş-tur-ul-un-ur.*
army-LOC run-CAUS-PASS-PASS-AOR
'People are made to run in armies.'

b. **Asker-de koş-ul-dur-ul-ur.*
army-LOC run-PASS-CAUS-PASS-AOR
Intended: 'People are made to run in armies.'

(26b) would be legitimately produced in a lexical approach; you first existentially quantify over the sole individual argument of *koş* 'run' and then you add another participant (a causer) to the output event. In other words, causativization may take an event and introduce an argument position to be filled by the causer in syntax. Yet, before mapping the predicate to syntax, another passive can apply to existentially bind the argument position introduced by causativization. Then, the

whole formation would be mapped onto syntax as a 1-place predicate (with only an event argument), which is totally conceivable within a lexical approach. However, (26b) is not grammatical.

Finally, a lexical approach to voice operations would have to embrace a semantic type ambiguity for the same operation for different verb types. For example, we have shown that passivization is applicable to almost every verb type in Turkish. It can apply to transitives, intransitives and ditransitives which would be assumed to have different semantic types. Thus, one would have to stipulate for each verb type a different semantics for passivization. One passive could take arguments of type $<e,<v,t>>$ whereas another one would take arguments of type $<e,<e,<v,t>>>$ and so on, which would not be a very elegant analysis.

3.4 Conclusion

In this chapter, we have discussed various tests used in the literature to show that impersonal passivization is different from regular passivization. The tests involved control, the use of by-phrases, humanness restrictions, anaphora binding, binding of the implicit argument, the use of secondary predicates, quantificational variability, object movement to the subject position and whether the implicit arguments of passive clauses can control PRO. We have provided data that show that both personal and impersonal passives behave uniformly when it comes to these tests. Therefore, the tests do not lead towards a partition.

Considering that we do not have any motivation to suggest a partition between personal and impersonal passives, we are left with the problem posed by double passives to the linguistic theory: the suppression of the internal arguments, particularly only after the suppression of the external arguments. We have argued

that there is no way to remove arguments after they are syntactically merged. Therefore, we entertained the possibility that passivization may be a pre-syntactic operation in Turkish that involves the deletion/suppresion of arguments even before they are merged. Yet, we have introduced some evidence in favour of the fact that such an analysis would be undesirable for several reasons like case, interpretability, control, and the adjunction of by-phrases.

Since passivization cannot be a lexical operation, we are left with our initial question: How do we deal with double passivization in syntax considering the problem of suppressing the internal argument which has to happen after the suppression of the external argument? Remember that the identical behaviour of personal and impersonal passives under the aforementioned tests shows that they cannot be two different constructions as presented by Legate *et al*. (to appear). However, also note that there are both syntactic and semantic ways of understanding passive clauses, both of which could account for the properties associated with passives. Hence, we cannot decide whether personal and impersonal passives are structurally or semantically identical, either. After all, they might happen to have different structures that behave identically under the above-mentioned tests. For example, it is indeed possible to account for how the implicit arguments of passive clauses can control into the embedded clauses either by assuming that they are syntactically present or semantically active in the form of a variable to be bound by an existential quantification; or one could account for how secondary predication in passive clauses is possible either in semantics or syntax.

The problem is that these tests lead towards a partition between passives and impersonals only in so far as there is a difference between the behaviour of passive clauses and impersonals under the relevant test. For example, if it were really the

case that unergative impersonal passives were never compatible with by-phrases, we could argue that it is because the relevant syntactic position is already filled by an impersonal pronoun. However, showing that they are indeed compatible with by-phrases, one cannot determine whether there is an empty category occupying the relevant argument position or not. In either case, we could account for the presence of by-phrases in passive clauses. In the scenario where there is a syntactically present empty category occupying the argument position, the by phrase would have a restrictive semantics whereas under the scenario in which the implicit arguments are only semantically active, the by phrase can either be argued to saturate the argument positions as in Bruening (2013) or restrict the denotation of the variable as argued in Wood (2013) and Stechow (2008).

Therefore, there has been a huge discussion on whether implicit arguments of passive clauses are syntactically projected as well. We have shown that both possibilities have been proposed in the literature. However, since one could explain the availability of all the properties listed in Table 5 and 6 in either account, one cannot make sure that implicit arguments are present or absent in passive clauses (see Bhatt & Pancheva, 2006, also Ackema & Schoorlemmer, 2006). This leads us towards three different scenarios. The first one is that passives involve the syntactic presence of an empty category bound by a higher passive head. In this scenario, both argument positions in double passives would be filled by an empty category. In the second scenario, argument positions would not be occupied by a syntactic element, but they can be semantically saturated. Finally, one can suggest that maybe the lower passive operation targeting the external argument involves a semantic saturation of the argument slot but not a syntactic projection of the implicit argument, and the

higher passive operation targeting the lower argument involves the syntactic presence of an argument.

I conclude the current chapter suggesting that impersonal passives are not active constructions. In other words, they are passives. In the next chapter, I will first entertain each of the possibilities accounting for passive clauses and conclude that the second option must be exhausted. Then, I will provide an analysis of passives providing two semantically separate passive operations in Turkish. More specifically, I will suggest that the passive operation targeting unergative predicates and the external arguments of (di)transitives are the same whereas the passive operation targeting unaccusatives and the internal arguments of (di)transitives are identical. We will provide empirical evidence to opt for such a partition.

CHAPTER 4

ANALYSIS

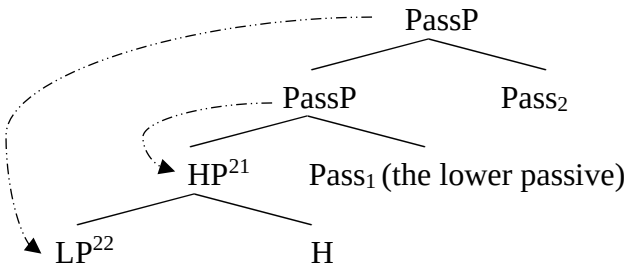
4.1 Introduction

In the previous chapters, we have discussed the syntactic and semantic analyses of passive clauses. Our main concern was the double passive data in Turkish. A piece of the data is repeated below.

(1) *Bu* *semt-te* *döv-ül-ün-ür.*
this district-LOC beat-PASS-PASS-AOR
'One can be beaten in this district.'

We have shown that the data is interesting because the higher passive operation targets the lower argument whereas the lower passive operation, the higher argument. Let us schematize the ordering below.

(2)



The representation in (2) essentially suggests that the lower argument can be targeted only after the higher one. However, there is nothing in the system that ensures that the lower argument is not merged to the system until the higher argument can be targeted by passivization. Our current system forces the lower argument to be present in the syntactic structure. But, once it is introduced to the system, there is no way of deleting it either syntactically or semantically.

[21] HP stands for 'higher argument phrase' whatever it is.
[22] LP stands for 'lower argument phrase' whatever it is.

In this chapter, we are going to provide an explicit mechanism to account for instances of double passivization particularly. However, our account will naturally extend to the formation of passive clauses in general. To do this, we will go over the possibilities with which each of the previous accounts to passivization provides us. So far, we have examined two major types of accounts to passive clauses. First, we have investigated syntactic accounts of passive clauses where empty categories are merged to the syntactic system. Second, we have reviewed the semantic accounts. Logically then, we have three ways of approaching to double passives. One would be to suggest that both the lower and the higher argument positions are occupied by syntactically projected empty categories in accordance with syntactic accounts. Or one could suggest that no syntactic arguments are present in any types of passive clauses. That would comply with the semantic accounts. Finally, one could suggest that a language may make use of both strategies. These three possibilities bring about the question of whether implicit arguments of passive clauses are syntactically projected or not. In the next section, we will investigate the question while examining these three possibilities.

4.2 Are the implicit arguments of passives syntactically represented?

In the following subsections, I will entertain the above-mentioned three approaches to double passives in Turkish, which will have immediate implications for passivization in general.

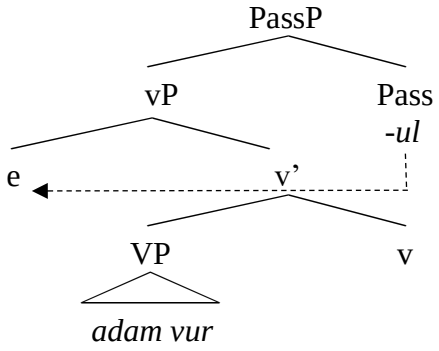
4.2.1 An absolute syntactic approach to double passives

In a completely syntactic approach, passive clauses would have syntactically projected empty categories. Thus, the passive clause in (3a) would be represented as

in (3b). I am using ‘e’ to indicate the presence of an empty category regardless of whether it is a pro or PRO:

(3) a. *Adam* *vur-ul-du.*
man shoot-PASS-PST
‘The man was shot.’

b.

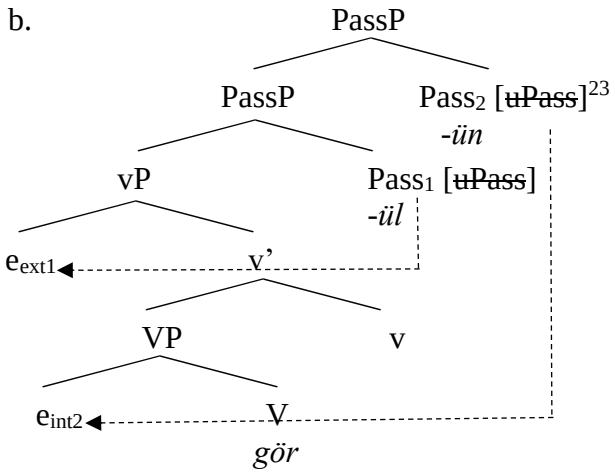


In (3b), the empty category occupies the external argument position and therefore it would already saturate the argument slot brought about by little v. Then, the question is what the function of the passive head could be. There are several options. One would be to assume that it is the place where the default existential quantification over free variables occur. Another alternative would be to suggest that it syntactically functions as the head that values the empty category with passive features via Agree and semantically it is the edge where existential quantification occurs. We would opt for the second alternative because otherwise, the second passive morpheme would be functionless in double passive constructions. Considering these, in double passive constructions then, both argument positions would be filled by an empty category bound by a higher passive head. The functions of passive heads would be to value an unvalued passive feature of the empty category and potentially bind it in the process via Agree. I will use the standard assumption that Agree is an operation carried out with a probe targeting the first goal that it encounters down in the tree:

Agree: A higher head X° or phrase XP values the features of the closest Y°/YP that has unvalued features. X°/XP optionally values the features of a farther away Z°/ZP that bears the same index as Y°/YP iff Z°/ZP is visible for feature valuation. Agree between X°/XP and Z°/ZP is licensed only if there is no intervening head or phrase that bears an index distinct from Z°/ZP (Ussery, 2008).

(4) a. *Bura-da* *gör-ül-ün-ür.*
here-LOC see-PASS-PASS-AOR
'One can be seen here.'

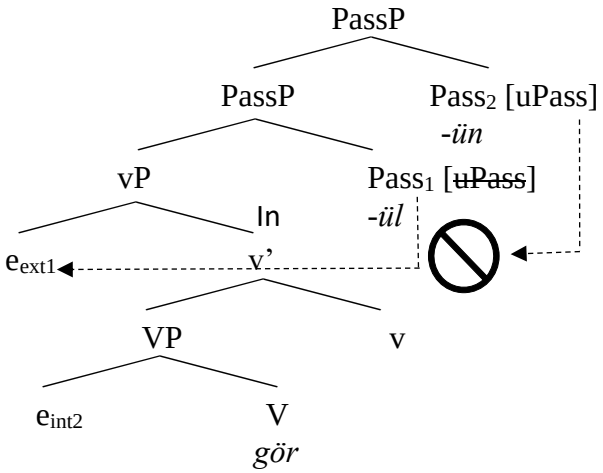
b.



In the ideal scenario, the first passive head would agree with the first empty category that it encounters down in the tree and the second passive head would agree with the lower one. However, this cannot be achieved according to the definition of Agree provided by Ussery. According to her definition, a head, or a phrase probes down to the tree to agree with the closest goal with the same index as the probe itself and there should not be an intervening goal with a different index. Thus, the lower passive head will agree with the higher empty category with the index 1. However, the higher passive head cannot agree with the lower empty category with the index 2 because there is an intervening empty category with a different index. Therefore, the following syntactic crash would occur in an account where both argument positions are occupied by an empty category in double passive constructions.

[23] I am using the label 'uninterpretable passive feature' on the passive heads to represent the feature valuing agreement operation whatever it might be. Its content is not important for our purposes. What is important is the mechanism and how it cannot work.

(5)

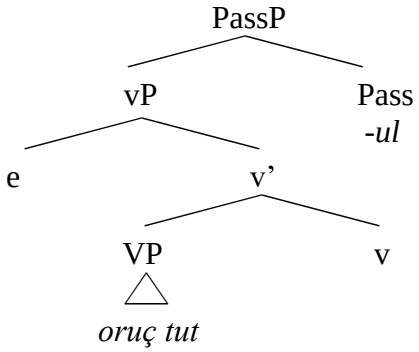


One could suggest that since both probes are passive heads, they could have the same index. Therefore, the intervening empty category does not block the agreement between the higher passive head and the lower empty category. However, this cannot be the case because the internal and external arguments in double passive constructions are never understood as referring to the same individual. Besides, in this scenario, the higher passive head would be unnecessary because one probe could agree with two goals with the same index.

There is a second problem with an analysis where argument positions are occupied by syntactically projected empty categories. Now consider (6a) and (6b) for its potential representation.

(6) a. *Ramazan-da* *oruç* *tut-ul-du.*
Ramadan-LOC fasting hold-PASS-PST
'There was fasting in Ramadan.[24]'

b.



[24] I am taking *oruç tut* 'fast' as a complex predicate where the theme argument is incorporated to its complement.

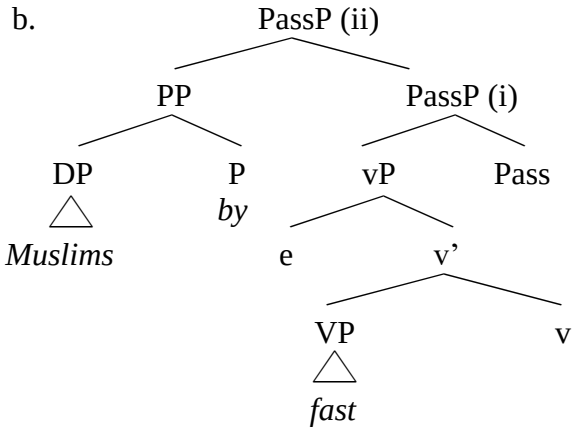
We have established that it is possible to adjoin a by-phrase to passive clauses in Turkish. An account of passive clauses where argument positions are assumed to be filled by syntactically projected arguments, the function of a by-phrase would not be to semantically saturate the argument positions but would be to restrict the denotation of the empty category, for argument positions are already saturated by the empty categories which are interpreted as free variables. See (7) for a potential denotation of a restrictive by-phrase.

(7) ⟦by⟧ = $\lambda x.\ \lambda f_{<e,<v,t>>}.\ \lambda y.\ \lambda e.\ f(y)(e)\ \&\ y = x$ (Wood, 2013)

In this scenario, since the empty category occupying the external argument position can saturate the variable position introduced by little v, there is no way to adjoin a by-phrase to vP. We first need to lambda abstract over the variable saturating the external argument slot. Let us assume that by-phrases are adjoined to PassP's in Turkish and that Pass head is the locus of lambda abstraction.

(8) a. *Ramazan-da* *Müslüman-lar* *tarafından* *oruç* *tut-ul-du.*
Ramadan-LOC Muslim-PL by fasting hold-PASS-PST
'There was fasting by Muslims during Ramadan.'

b.



(9) a. ⟦VP⟧ = $\lambda e.\ fast(e)$

b. ⟦v'⟧ = $\lambda x.\ \lambda e.\ fast(e)\ \&\ Initiator(x, e)$

c. ⟦vP⟧ = $\lambda e.\ fast(e)\ \&\ Initiator(x', e)$

d. ⟦PassP(i)⟧ = $\lambda x'.\ \lambda e.\ fast(e)\ \&\ Initiator(x', e)$

e. ⟦by the Muslims⟧ = $\lambda f_{<e,<v,t>>}.\ \lambda y.\ \lambda e.\ f(y)(e)\ \&\ y = Muslims$

f. ⟦PassP(ii)⟧ = $\lambda y.\ \lambda e.\ fast(e)\ \&\ Initiator(y,e)\ \&\ y = Muslims$

g. In the absence of another operator, let us assume that lambda bound variables are existentially closed by default:

h. ⟦PassP(ii)⟧ = $\lambda e.\ \exists y$: $fast(e)\ \&\ Initiator(y,e)\ \&\ y = Muslims$

However, note that in this system, the lambda abstraction over the free variable is semantically a vacuous move in that if one did not assume that argument positions are syntactically filled in passive clauses in the first place, the same variable already comes as bound by a lambda operator. Besides, existential closure could also target the free variable without it being abstracted by a lambda in the first place. Therefore, in the absence of a by-phrase, the Pass head would not have any semantic contribution since free variables could be bound by existential quantification by default.

Now, note that whether there is a by-phrase or not, there is a variable that may be bound by an operator in the end in this account. Also recall that implicit arguments of impersonal passive clauses show quantificational variability (QV) under an adverb of quantification (cf. (11)). QV occurs when an adverb of quantification seems to affect the quantificational force of a singular indefinite or a bare plural (Lewis, 1975; Heim, 1982; Chierchia, 1995; Kamp, 2002 among others).

(10) a. A cat is usually smart ≅ Most cats are smart.

b. A cat is always smart ≅ All cats are smart.

c. Dogs are usually stupid ≅ Most dogs are stupid.

(Endriss & Hinterwimmer, 2005)

As you see from the contrast between (10a) & (10b), the quantificational force of the singular indefinites depends on the adverb of quantification selected. The

same holds for bare plurals as well. Legate *et al*. (to appear) suggests that quantificational variability also occurs in Turkish so called 'impersonal passives' and it is indeed the case. *oruç tut* 'fast' is a complex event where the object is pseudo-incorporated to its head. According to Legate *et al*. (to appear) 's account, (11) would be regarded as an impersonal construction, for the thematic object is not promotable to the subject position. Hence, it is subject to quantificational variability.

(11) *Ramazan-da* *genellikle* *oruç* *tut-ul-du.*
Ramadan-LOC usually fasting hold-PASS-PST
'There was usually fasting during the Ramadan.'

Available Readings:
(i): Most people fasted during the Ramadan.'
(ii): People fasted at most times during the Ramadan.'

Similar to the English examples in (10), when an adverb of quantification is present in (11), the quantificational force of the implicit argument (semantically a variable) is dependent on whether it is bound by the adverb of quantification or not. Interestingly though, when a by-phrase is adjoined to the clause, the reading (i) of the example (11) is not available anymore (cf. (12)):

(12) *Ramazan-da* (*genellikle*) *Müslüman-lar* *tarafından* (*genellikle*)
Ramadan-LOC usually Muslim-PL by usually
oruç *tut-ul-du.*
fasting hold-PASS-PST
'There was usually fasting by Muslims during the Ramadan.'

Available Readings:
(i): *Most Muslims fasted during the Ramadan.
(i): Muslims fasted at most times during the Ramadan.

What is curious is that whether you place the adverb of quantification before or after the agentive phrase, the 'most Muslims' reading is not available anymore. If the by-phrase were not adjoined to (12), the 'most Muslims' reading would be available as shown in (11). Since the 'most Muslims' reading is derived when the adverb of quantification binds the variable corresponding to the external argument

slot, I take its unavailability as a piece of evidence that there is no such variable to be bound by the adverb when a by-phrase is adjoined because the by-phrase already saturates the relevant argument position as argued in Bruening (2013).

Under a restrictive semantics for by-phrases, it would be curious why an adverb of quantification cannot quantify over the argument position in (9f) since there is a variable that can be bound by the existential quantification. An adverb of quantification could also bind the same variable, but apparently this is not an option. Crucially, to account for the data on quantificational variability in relation to by-phrases, we must use a saturation analysis. Once we opt for such an analysis though, we can no longer motivate a syntactic analysis of passive clauses, where the external argument position is filled with an empty category because under a saturation analysis of by-phrases, assuming that argument positions are also filled by empty categories create extremely vacuous semantic operations, which would be undesirable based on several principles of grammar such as economy (Siddiqi, 2009).

In summary, if in a passive clause, the implicit argument is syntactically present, we would prefer to use a restrictive semantics for the by-phrases since the empty categories already saturate the external argument slot. However, a restrictive semantics for passive clauses do not eliminate the variable from the semantic computation because the syntactically present empty category is interpreted as a variable. Thus, when you use a restrictive semantics for by-phrases, there is still a variable to be quantified over by an adverb of quantification. On the other hand, our data have shown that when a by-phrase is present in a passive clause, no quantificational variability occurs. This seems to suggest that when a by-phrase is present in a passive clause, there is no variable be quantified over in the structure, which in turn leads us to a saturation analysis for by-phrases in the spirit of Bruening

(2013). However, if by-phrases saturate argument slots already rather than restrict them, then no syntactically projected argument must be present in the structure because if there are empty categories occupying a syntactic position in passive clauses, argument positions are also semantically saturated by them. Therefore, we abandon the analysis of double passives where both argument positions are filled by an empty category.

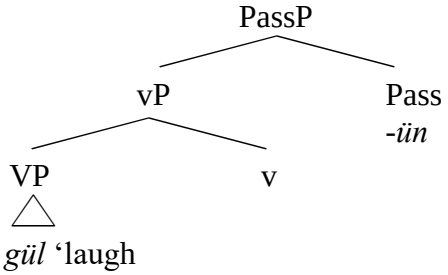
4.2.2 A mixed approach to passive clauses

In the previous subsection, we showed that we do not want to have a structure where both argument positions are occupied by empty categories for passive clauses. More specifically, we argued that the external argument position targeted by regular passives must not be occupied by an empty category. However, note that our discussion seems to be relevant only to cases where external argument positions are occupied by empty categories. In (5), if the external argument position were empty but the internal one were occupied by an empty category, the syntactic agreement would work because the higher passive head would not encounter an intervening empty category in the process.

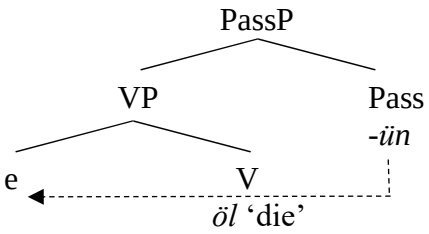
Since by-phrases are only compatible with agentive events, we cannot test whether we observe quantificational variability under an adverb of quantification in passive clauses with by-phrases if their relevant arguments occupy the internal argument position. Therefore, although our discussion so far shows that external arguments in passive clauses cannot be occupied by an empty category, it does not have any claim about the status of internal arguments in passive clauses. In other words, Turkish could be utilizing two separate strategies of creating passive clauses: one would be the semantic method where argument positions are not occupied by an

empty category but bound by the passive head that has an in-built existential quantification, or a syntactic method where argument positions are occupied by an empty category which must agree with a higher passive head. Thus, an unergative passive clause could be represented as in (13a) and an unaccusative passive clause could be represented as in (13b). Considering the two representations, then a double passive clause would involve both strategies as represented in (13c).

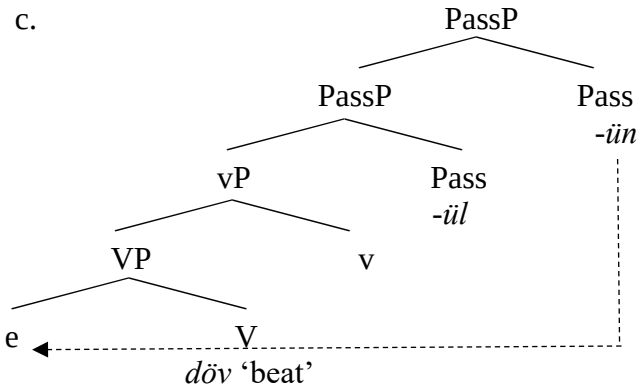
(13) a.



b.



c.



The bottom line of such a proposal is that Turkish can use a semantic passive operation to target higher arguments and a syntactic one to target lower ones as represented in (13c). However, the problem is that the domain of application for these two passive types cannot be restricted to cover the Turkish data without over-generating. Let us discuss the problem more closely. In such an account, a semantic

passive could only target external arguments because internal ones are too low in the structure and by the time external arguments are suppressed by a semantic passive operation, internal ones are already merged and thus cannot be demerged because they already discharge the merge features of the relevant heads, occupy argument slots and saturate them semantically. This shows that the domain of application for semantic passives is quite restricted. We must apply them before arguments are merged so that their inbuilt existential quantification can saturate the argument positions. Therefore, they can only target the highest argument position in a syntactic derivation, for we can only prevent the highest argument from being merged to the syntactic system. By the time you reach to the higher head, the lower arguments must have been merged to discharge the merge features of the lower heads.

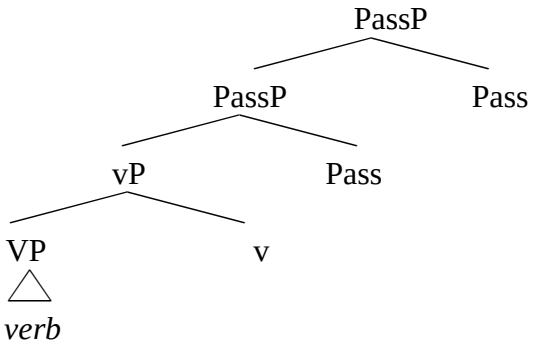
Now, consider the higher syntactic passive (the second passive head) in (13c). It could target the internal argument via Agree if the internal argument position is occupied by an empty category. However, the problem is that it can also target an empty category, potentially occupying the external argument position, which would create an active transitive construction whose internal argument could be assigned accusative case. As mentioned previously, we never find such structures in Turkish (e.g. *kitab-ı oku-n-du,* book-ACC read-PASS-PST, meaning 'Somebody read the book.'). Hence it is not preferable to have two distinct operations to create passive clauses in a language unless you can restrict their domain of application in a systematic way that could cover the data at hand and would not over-generate.

Considering that the two options which involve the syntactic projection of empty categories in passive clauses are faced with the above-detailed problems, we have only one option left to exhaust to account for passives and double passives in Turkish: the semantic account where no arguments are syntactically present. We

have previously detailed how the current semantic accounts of passive clauses cannot deal with the suppression of internal arguments because the whole theory is based on the generalization that unaccusative predicates cannot be passivized and thus no passive stacking is expected. Therefore, we must modify the theory in such a way that the availability of passives of unaccusatives (simplex or derived) can be explained for some languages whereas it is still impossible for others.

Now that we are left with the semantic analysis of passives, we have a structure like (14) for double passives. (14) is the representation that one must modify and detail to explain the availability of passives of unaccusatives in Turkish on the one hand, and the impossibility of passive clauses with unaccusative predicates in languages like German or Dutch on the other. In the rest of the chapter, I am going to detail (14) by deriving more data from Turkish.

(14)



4.3 Passivization and Impersonal Passivization: What is the distinction?

The current section concerns itself with the analysis of passives, impersonal passives and their combination, namely double passives. In the previous chapters, we have shown that impersonal passives are on a par with personal passives, for they show identical behaviour. In doing so, we used the term ‘impersonal passive’ quite generously, labelling all passive clauses involving intransitive verbs as impersonal passives. In this chapter, we are going to differentiate between the two passive types

in a more systematic way so that we will not use the terms impersonal and personal anymore. We will suggest that in Turkish there is a passive operation that we call Passive I that refers to passive clauses where passivization is derived via an external argument introducing head, that is VoiceP. We will use the term Passive II to refer to passive clauses where passivization is not derived via VoiceP. This second passive head will be labelled as PassP.

We will derive our motivation from the distribution of by-phrases, humanness restriction and aspectual constraints observed among passive clauses, including what is commonly referred to as impersonal passives. The bottom-line of the discussion will be that unergative predicates are not impersonally passivized contrary to the common assumption. They are indeed personally passivized (Passive I), which makes them on a par with passives of (di)transitives (Passive I). This is both theoretically and empirically motivated. Furthermore, the discussion will show that passives of unaccusatives are impersonally passivized in Turkish (Passive II) and cannot be personally passivized. Such a partition will allow us to account for double passives. We will be able to account for double passives in Turkish by suggesting that Turkish verbs do neither have internal arguments nor external arguments specified in their semantic entries. Their arguments are identified with the verb via syntactic functional heads.

Thus, in the current section, we will deal with the passive domain of the structure given in (14). The section is structured as follows. First, we will look at the distribution of by-phrases in passive clauses. Then, we will examine the humanness condition attributed to impersonal passives. Finally, we will observe some aspectual constraints between passive types. These three components to passive clauses will enable us to modify the passive domain of the structure in (14).

4.3.1 by-phrases and passive clauses

One of the most common tests to distinguish between personal and impersonal passives is using the passive clause with a by-phrase. It has been argued that by-phrases are not compatible with impersonal passives. However, it is not clear why it must be. To my knowledge, there is no formalization of the non-availability of by-phrases with impersonal passives. Indeed, we have shown that impersonal passives of unergative predicates allow by-phrases as seen in (15).

(15) a. Context: You are giving a speech about crying and state that it is crucial to being human. You state that one cries even from the start of his/her life when s/he is born and others cry for him/her when s/he dies, and you say:

[*İnsan-ın*]	*ölüm-ün-de*	*ise*	*başkaları*	*tarafından*
person-GEN	death-POSS-LOC	CL	others	by
ağla-n-ır.				
cry-PASS-AOR				

Lit: 'It is cried by others after one's death.[25]'

b. Context: One of your friends go to school on April 23rd, an official holiday in Turkey and goes back home once he realizes that it is holiday. He tells this story to others in a circle of friends. With his telling the story, his friends begin to laugh. Later, you talk about this story and the laughing event saying:

Bu-nu	*anlat-ma-sı-yla*	*birlikte*	*arkadaş-lar-*[*ı*]	*tarafından*
this-ACC	tell-NMNZ-POSS-COM	with	friend-PL-[POSS]	by
gül-ün-ür.				
laugh-PASS-AOR				

Lit: 'It is laughed by the friends once he tells this.[26]'

Note that the both *ağla* 'cry' and *gül* 'laugh' are true unergative predicates but a quick search on Google reveals that they are compatible with by-phrases. We have also shown previously that simple intransitive verbs like *gir* 'enter' or *in* 'go down' are grammatical with by phrases. The claim was that there is no syntactic or semantic restriction on the availability of by-phrases with impersonal passives. However, speakers are reluctant to use them with passives, particularly impersonal

[25] Retrieved from https://www.hakikat.com/hakikat-dergisi/muminin-inci-taneleri
[26] Retrieved from https://www.uludagsozluk.com/e/19073600/

ones, because they find no motivation to reintroduce a back-grounded argument unless it has a pragmatic or informational contribution (Ingason *et al.,* 2016).

On the other hand, note that by-phrases are never compatible with passives that does not target the initiator of the event. What do we mean by that? First, by-phrases cannot be used in passive clauses with unaccusative predicates. One may claim that it is the agentivity requirement of by-phrases that they are incompatible with passives derived from unaccusatives. However, the question is what it is that structurally or semantically forces them to reintroduce agentive arguments only. Then, our point is that one cannot use by-phrases as a test to differentiate between personal and impersonal passives based on their compatibility with personal passives and their incompatibility with impersonal ones only by looking at unergative and simple unaccusative predicates because it is indeed possible to use by-phrases with unergatives and at this point we do not know the reason why they have to occur with agentive events. Our discussion on the structure and semantics of Passive I and Passive II will also account for this latter question and explain why by-phrases, when they occur with unaccusative passives, can be compatible with them only under the agentive interpretation of the predicate as in (16).

(16) *#Çocuk-lar* *tarafından* *kuyu-ya* *düş-ül-dü.*
child-PL by pit-DAT fall-PASS-PST
'There was falling to the pit by the children.'

At this point, one may be curious how verbs like *gir* 'enter, *çık* 'exit' are compatible with by-phrases although they are generally classified as unaccusative predicates in the literature (Levin & Rappaport-Hovav, 1995). I suggest that these verbs behave like unergative predicates once their subjects are +intentional. They pass the tests for unergativity in such cases. For example, as we have already pointed out, the sentence in (16) can only be understood to denote an agentive event of

falling where children deliberately fall to the pit. If the event cannot be construed as agentive, the resulting clause is ungrammatical. On the other hand, the verb *in* 'go down' in (17) is totally compatible with the by-phrase without a meaning extension.

(17) *Kömür* *maden-in-e* *askeri* *kuvvet-ler* *tarafından*
coal mine-POSS-DAT military force-PL by
in-il-di.
go.down-PASS-PST
'It was gone down to the coal mine by the military forces.' (Taneri, 1993).

Özkaragöz (1980) and Taneri (1993) also argue that *-ArAk* clauses can be used as a diagnostic for unaccusativity/unergativity. They show that the controllers and contollees in *-ArAk* constructions must bear the same thematic relations. According to their diagnostic, the verb *in* 'go down' passes the test for unergativity.

(18) a. *Çocuk-lar* *müzik* *dinle-yerek* *kuyu-ya* *in-di.*
child-PL music listen-GER pit-DAT fall-PST
'The children went down to the pit, listening to music.'

b. **Çocuk-lar* *müzik* *dinle-yerek* *kuyu-ya* *düş-tü.*
child-PL music listen-GER pit-DAT fall-PST
'The children fell to the pit, listening to music.'

(18a) is a grammatical sentence where the controlee is agentive because its predicate is agentive (*müzik dinle* 'listen to music'), which shows that the controller must bear an agentive theta role as well. Therefore, the matrix predicate *in* 'go down' must be unergative. The conclusion is further corroborated by the fact that once you replace the matrix predicate with *düş* 'fall', an unaccusative one, the sentence becomes ungrammatical (cf. (18b)).

Having established that unergative predicates are indeed compatible with by-phrases, one could also examine the behaviour of by-phrases in double passives where the higher passive is generally thought to be different from the lower one. First, the implicit argument of the first passive operation in double passive

constructions can be reintroduced to the syntactic system with a by-phrase as shown previously. I provide more examples retrieved from websites in (19a-b).

(19) a. *Düşman-ın* *silah-ın-ı* *al-mak* *için* *hamle*
enemy-GEN gun-POSS-ACC take-INF to move
yap-ıl-dığ-ın-da *düşman* *tank-lar-ı*
do-PASS-NMNZ-POSS-LOC enemy tank-PL-POSS
tarafından *vur-ul-un-ur.*
by shoot-PASS-PASS-AOR
'When one makes a move to take the weapon of the enemy, he gets shot by the enemy tanks.[27]'

b. *Lvl.* *16-ya* *düş-en-e* *kadar* *DownHang* *East*
level 16-DAT fall-REL-DAT until DownHang east
Gate-de-ki *Earth* *Ghost-lar* *tarafından* *kasten*
gate-LOC-PRNM earth ghost-PL by intentionally
öl-dür-ül-ün-ür.
die-CAUS-PASS-PASS-AOR
'One gets intentionally killed by Earth Ghosts in Downhang East Gate by the time s/he reaches to the Level 16.[28]'

c. Asker-de *komutan-lar* *tarafından* *koş-tur-ul-un-ur.*
military-LOC commander-PL by run-CAUS-PASS-PASS-AOR
'One is made to run by commanders in military.'

Once we attempt to re-introduce the second suppressed argument of double passive constructions though, unlike their first suppressed arguments, we derive an ungrammatical sentence (cf. (20)).

(20) **Asker-de* *komutan-lar* *tarafından* *asker-ler-ce*
military-LOC commander-PL by soldier-PL-by
koş-tur-ul-un-ur.
run-CAUS-PASS-PASS-AOR
Intended: 'There is running by the soldiers in the military forced by the commanders.'

Thus, the data in (15-20) show us that passives of unergatives, the first passives of double passives and single passives of (di)transitives must have a structure such that they allow the adjunction of by-phrases whereas the adjunction is

[27] Retrieved from https://eksisozluk.com/battlefield-2–862304?p=3
[28] https://kopukgenclik.forumdizini.com/t2959-karakter-yaplandrma-sistemleri

disallowed for other passives. Here note that in terms of the availability of by-phrases, the first passive of double passives aligns with passives of unergatives and single passives of (di)transitives.[29] Our system of passives must somehow prohibit the adjunction of by-phrases to the second passive and it must allow the adjunction of by-phrases to unaccusative predicates only with a meaning extension, without which our system must render such sentences as purely ungrammatical, as well just like (20). Conversely, it should enable their adjunction to the first passives of double passives, single passives of (di)transitives and passives of unergatives.

4.3.2 Humanness restriction of impersonal passives

A second test used to distinguish between impersonal passives and personal ones is the obligatory humanness property of impersonal passives as opposed to personal passives, which can have non-human implicit arguments as well. The claim is that impersonal passive clauses obligatorily involve an implicit human argument. However, in Chapter 1, we have shown that it is indeed possible to have non-human implicit arguments in passives of unergatives. In (21), we present more data.

(21) a. *Ben-im* *kız-ım-ın* *yüz-ün-e* *tükür-ül-dü.*
1-GEN girl-POSS.1SG-GEN face-POSS-DAT spat-PASS-PST
Özür *bekl-iyor-um.*
apology wait-PROG-1SG
'My daughter's face was spat at! I expect an apology.'

(Legate *et al.*, to appear)

[29] Legate *et al.* (to appear) can account for the unavailability of by-phrases with the second passive under the saturation analysis of by-phrases since they claim that the second passive operation in double passives requires a syntactically projected $pro_{impersonal}$. However, unfortunately they also rule out by-phrases with passives of unergatives under the saturation analysis of by-phrases. Once they use the restrictive analysis though, they would predict by-phrases to be available not only with passives of unergatives and but also with the second passives of double passives. However, the data show us that second passives in double passives are not compatible with by-phrases. Moreover, if they use a mixed account, they cannot determine when to use a syntactic passive and when to use a semantic passive when it comes to transitive and unergative predicates as shown in the previous section.

b. *Narkotik* *köpek-ler-i* *tarafından* *depo-ya* *gir-il-di.*
narcotic dog-PL-POSS by warehouse-DAT enter-PASS-PST
Lit: 'It was entered into the warehouse by the narcotic dogs.'

According to Legate *et al*. (to appear), (21a) can be uttered in a context where you visit a zoo with your daughter; however, the llamas spit at your daughter's face and you go to the manager of the zoo to complain about the event. They indicate that (21a) is only grammatical for some dialects. According to the eight native speakers of Turkish that I consulted with, (21a) is felicitous to use in the relevant context.

(21b) is the shortened version of one of my previously mentioned data. The example not only shows that impersonal passives are compatible with non-human implicit arguments, but also by-phrases that introduce them. Given the evidence, we argued that there is no motivation to suggest that impersonal passives do not behave on a par with regular passives. However, note that the availability of non-human interpretation of passives derived from intransitive predicates is restricted to unergative predicates. Implicit arguments of passive clauses with unaccusative verbs are obligatorily understood to be human. Non-human readings of regular passives and passives of unergatives are not available to passives of unaccusatives (cf. (22)).

(22) a. *#Bu* *çukur-a* *akşam* *karanlık-ta* *çok* *düş-ül-üyor.*
this pit-DAT evening darkness-LOC much fall-PASS-PROG
Intended: 'There is much falling (by animals) to this pit in the evenings when it is dark.'

b. Context: You are a hunter and you have a special way of designing a trap for wild animals. You set it up and say to your friend:

#Bu *tuzağ-a* *çok* *düş-ül-üyor.*
this trap-DAT much fall-PASS-PROG
Intended: 'There is much falling (by wild animals) to this trap.'

c. *#Kış* *ay-lar-ın-da* *daha* *çok* *öl-ün-ür.*
winter month-PL-POSS-LOC much more die-PASS-AOR
Intended: 'There is much more dying (by animals) in winters.'

The examples in (22) are anomalous in their non-human readings. In (22a), the fallers cannot be cats/dogs. In (22b), the fallers may be marginally understood to be wild animals. However, most speakers that I consulted with found it unacceptable. Finally, the entities that die in winters in (22c) are humans, but not street cats. The data in (22) are in sharp contrast with (21) where we have unergative predicates which allow non-human implicit arguments. The contrast shows that there is something in the grammar that forces unaccusative passives to have human implicit arguments whereas in passives of transitives or unergatives there is no such restriction. Our account must capture these two properties of passive clauses.

As for double passive constructions, implicit arguments of the first passive operation can be anything. This is in line with the implicit arguments of single passives of (di)transitives and passives of unergatives. On the other hand, implicit arguments of the second passive of double passives seem to be restricted to humans. For example, in (23a), the implicit causer of the event, can be either a human or a wild animal as indicated with the by-phrases in parentheses. However, the theme argument must be human. In (23b), the initiator of the event can be an animal, however the theme argument cannot be another cat at home.

(23) a. *Orman-da* *(vahşi* *hayvan-lar/avcı-lar* *tarafından)*
forest-LOC wild animal-PL/hunter-PL by
ısır-ıl-ın-ır.
bite-PASS-PASS-AOR
YES: 'Any person is bitten by an animal/hunter in the forest.'
NO: 'Any animal is bitten by another animal/hunter in the forest.'

b. *Ev-de* *Fırfır* *tarafından* *tırmıkla-n-ıl-ır.*
house-LOC Fırfır by scratch-PASS-PASS-AOR
YES: 'One gets scratched by Fırfır at home.'
NO: 'Another cat gets scratched by Fırfır at home.'

In terms of the humannesses requirement, the second passive operation of double passives aligns with passives of unaccusatives whereas the first passive

operation aligns with passives of unergatives as well as passives of (di)transitives. The alignment must be captured by our account of passivization as well. Our conclusions in this subsection are summarized in Table 7.

Table 7. Humanness restriction and passive clauses

	Unaccusative	Second pass.	Unergative	First passive
Humanness	YES	YES	NO	NO

4.3.3 Aspectual constraints

Passives of unaccusatives and double passives show some aspectual restrictions whereas single passives of (di)transitive predicates do not seem to have such restrictions. For example, passives of unergatives and (di)transitives can be easily used in past tense to refer to a specific past event whose actor is backgrounded.

(24) a. *Dün* *marathon-da* *koş-ul-du.*
yesterday marathon-LOC run-PASS-PST
'Yesterday, there was running in the marathon.'

b. *Adam* *dün* *koş-tur-ul-du.*
man yesterday run-CAUS-PASS-PST
'The man was made to run yesterday.'

c. *Adam* *dün* *vur-ul-du.*
man yesterday shoot-PASS-PST
'The man was shot yesterday.'

However, the same does not hold for passives of unaccusatives (cf. (25a)); double passives (cf. (25c); (25e)).

(25) a. **Dün* *Paris-te* *öl-ün-dü.*
yesterday Paris-LOC die-PASS-PST
'There was dying in Paris yesterday'

b. *Şehr-in* *kirli* *hava-sın-dan* *erken* *öl-ün-ür.*
city-POSS dirty weather-GEN-ABL early die-PASS-AOR
'One dies early from the polluted air of the city.'

c. **Dün* *asker-de* *koş-tur-ul-un-du.*
yesterday military-LOC run-CAUS-PASS-PASS-PST
'Yesterday, there was running forced by somebody.'

d. *Asker-de* *koş-tur-ul-un-ur.*
military-LOC run-CAUS-PASS-PASS-AOR
'One is made to run in militaries.'

e. **Dün* *savaş-ta* *vur-ul-un-du.*
yesterday war-LOC shoot-PASS-PASS-PST
'Yesterday, somebody was shot in war.'

f. *Savaş-ta* *vur-ul-un-ur.*
war-LOC shoot-PASS-PASS-AOR
'One is shot in war.'

(25a-c-e) are ungrammatical as they are used in eventive/episodic contexts, namely in past tense. However, as you can see from the examples in (25b-d-f), when these predicates are used in aorist, a non-eventive/non-episodic context, they become completely grammatical. (25c) and (25e) becomes compatible with past tense once the second passive operation is not applied as shown in (24b) and (24c). Yavaş (1982) argues that the Turkish aorist construes stage level predicates as individual level predicates.[30] Since individual level predicates have to be true for all stages of an individual, the Turkish aorist, by default, forms a non-eventive/non-episodic context, for only stages can be episodic. Besides, all the aorist examples in (25) are generic statements about an item in the sentence. For example, (25d) is a generic statement about militaries. As Erguvanlı-Taylan (1996) points out, generic statements are stative/non-eventive in nature because they "have a homogenous, non-changing internal structure" (p. 154) whereas events have differentiated stages. Therefore, the aorist examples in (25) are non-eventive or stative. Regarding the distribution of passives of unaccusatives and double passives in terms of aspectual restrictions, we

[30] Stage/Inividual level predicate distinction is due Carlson (1977).

will argue that the second passive of double passives aligns with the passives of unaccusative predicates whereas the single passive of (di)transitives aligns with unergatives. We summarize our observations in Table 8 below.

Table 8. Properties of passives with respect to verb types

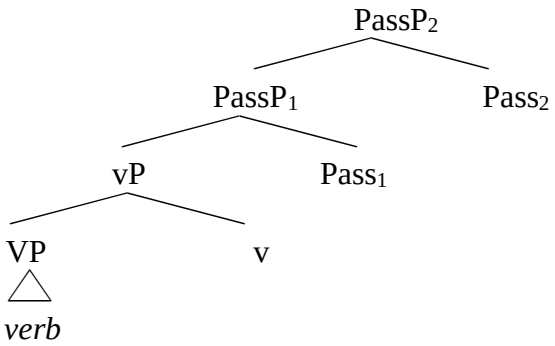
SET	Type	Humanness	By-Phrases	Asp. Restr.
1	Unaccusative	YES	NO	YES
1	2nd passive	YES	NO	YES
2	Unergative	NO	YES	NO
2	Single passive	NO	YES	NO

The Set 1 in the table clearly shows that passives of unaccusatives and the second passive of double passives align with each other with respect to all the properties mentioned. Conversely, passives of unergatives align with personal passives of (di)transitives in this respect. The data suggest that Turkish has two types of passives, subject to different conditions. Passives applying to unergatives and (di)transitives are one type labelled as Set 2 in the table. Passives applying to unaccusatives and forms which are already passivized via the Set 2 passives are another type. Our conclusion is further corroborated by the aspectual constraints that are present in Set 1 passives but lacking in Set 2. The properties of the Set 1 passives must be such that they require certain aspectual conditions to be met to be felicitously used in a sentence, as opposed to Set 2 passives. Besides, Set 1 passives must be characterized in such a way that they only allow human interpretations for their implicit arguments and must disallow by-phrases. Such a partition may explain Postal (1986)'s generalization that double passives are possible only with transitive verbs because they have two arguments that correspond to two types of passives. Of course, this does not mean that ditransitives cannot be double passivized since they also have two necessary arguments corresponding to two passives.

Finally, let us go back to our initial question: What is the distinction between personal and impersonal passives? Considering that the Set 1 passives show all the properties ascribed to impersonal passives and Set 2 passives do not, one can conclude that unergative predicates are subject to regular passivization. Impersonal passivization is a separate passive operation that only applies to Set 1. Thus, if we are to keep the distinction between personal and impersonal passives, impersonal passives would belong to Set 1 whereas personal passives to Set 2.

However, all intransitives that are passivized are generally called impersonal. Passives where the logical object could advance to the subject position are generally called personal. Yet, there is no real motivation for such a labelling. Since the distinction that I am making here is motivated by data observations that show that there are really two types of passives subject to distinct conditions, I will not use the terms personal and impersonal in my actual analysis anymore. I will use Passive I and Passive II henceforth to refer to Set 2 and Set 1, respectively. Combining our conclusion from the discussion in the previous section with the current findings, we can modify our syntactic representation as in (26).

(26)



4.2.4 Summary

In this section, we have shown that there is indeed a distinction between the lower and higher passives of double passives; yet the relevant distinction is not the classical

understanding of personal/impersonal distinction. Our examination of the data has established that passives applying to unaccusative predicates and the higher passives of double passives behave identically whereas passives of unergatives and single passives of (di)transitives are identical. In the next section, I will start with the analysis of passives involving unergative and (di)transitive predicates. Then, I will provide an account of passives of unaccusatives and double passives.

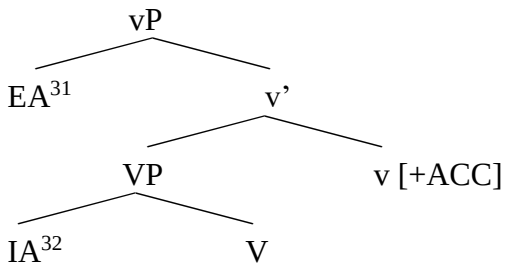
4.4 Voice bundling or non-bundling?

We have observed that passives of unergatives and single passives of (di)transitives behave identically with respect to by-phrases, humanness restriction and aspectual constraints. Their alignment with each other is not unexpected considering that both unergatives and agentive (di)transitives have an external argument introducing head labelled as VoiceP (Kratzer, 1996; Doron, 2003; Schäfer, 2017).

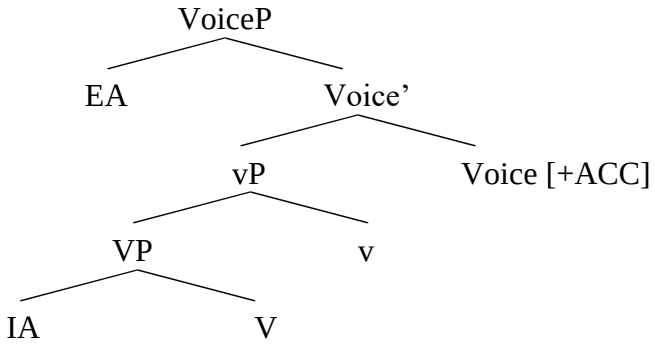
However, certain accounts suggested that VoiceP is also decomposable into two separate heads called vP and VoiceP. They suggest that the semantics of agency/causation is achieved at the vP domain whereas actual agents or causers are introduced at the VoiceP domain as suggested by Key (2013) and Harley (2017). The idea is that some languages are Voice bundling such that checking off accusative case, introducing the agent, hence the semantics of agency and the locus of voice operations are bundled into one head, potentially a vP whereas in other languages, the case assignment and external argument introducing functions of this vP are separated from its semantics of agency introducing function such that a separate Voice head is responsible for case assignment, introducing the actual causer/agent and hence it is the locus of voice alternations. Positing Voice-bundling parametrization, Harley (2017) predicts two types of structures for the two language

types. A Voice bundling language would have a structure as in (27a) whereas a Voice non-bundling language would have the Voice domain split as in (27b).

(27) a.



b.



The implication of each structure for a given language is that if a language has the bundling structure in (27a), when a voice operation is applied to a clause, the whole vP level must change whereas a language with a voice non-bundling structure can have a passive voice without affecting the v level. For example, Harley (2017) shows that Persian, being a voice-bundling language, must change the whole light verb to generate a passive sentence (cf. 28).

(28) a. *tim-e* *mâ unâ-ro* *shekast* *dâd*
team-EZ we they-râ defeat gave
'Our team defeated them.'

b. *tim-e* *mâ* *az* *unâ* *shekast* *xord*
team-EZ we of they defeat collided
'Our team was defeated by them.'
(Lit-ish: 'Our team encountered defeat from them.')

(Harley, 2017, p. 7-8)

[31] EA stands for External Argument.
[32] IA stands for Internal Argument.

On the other hand, Harley (2017) states that transitive structures are marked with the suffix *-ta* in Hiaki, which would be positioned under the little v because the v level determines whether a structure is transitive or not (cf. (29)).

(29) *Maria* *vaso-ta* *ham-ta-k.*
Mary glass-ACC break-TR-PRF
'Mary broke the glass.'

(Harley, 2017, p. 10)

If Hiaki is a voice bundling language, we would predict that once (29) is passivized, the suffix *-ta* would also be replaced with another suffix or verbal element. If it is a voice non-bundling language, then on top of the transitivity marker *-ta*, we would expect to find an additional suffix marking the passive voice, for the locus of the verbal alternations is not the vP, but VoiceP in voice non-bundling languages. Harley (2017) shows that the latter is the case for Hiaki as in (30). Therefore, she suggests that Hiaki must be a non-voice bundling language. As you see from the example in (30), although the transitivity marker is present on the verb, once you change the sentence from active to passive voice, the logical object bears the nominative case, which shows that the Voice, responsible for case assignment, changed from active voice to passive voice in (30).

(30) *Uu* *vaaso* *ham-ta-wa-k.*
the.NOM glass break-TR-PASS-PRF
'The glass was broken/Someone broke the glass.'

4.4.1 Is Turkish Voice-bundling or not?

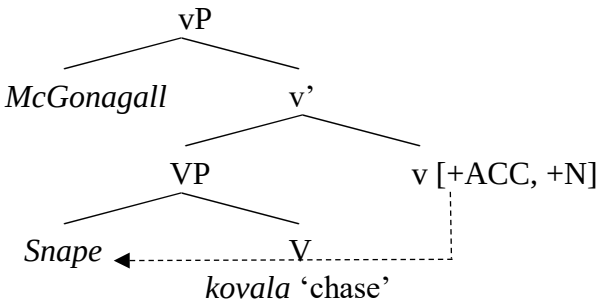
Now the question is whether we will treat Turkish as a voice-bundling language or a voice non-bundling language. As is clear by now, Turkish marks the objects of transitive verbs with the accusative case and the grammatical subject is marked with the nominative case. Once passivized, the logical object is no longer marked with the

accusative case. Hence, if we assume that Turkish is a voice bundling language, we could simply suggest that an active head can check accusative case whereas its passive counterpart lacks this feature such that the sole argument of a passivized transitive verb receives nominative case from the finite T.

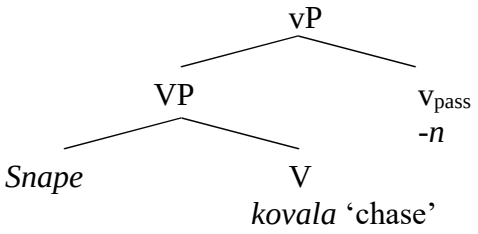
(31) a. *McGonagall* *Snape-i* *kovala-dı.*
McGonagall Snape-ACC chase-PST
'McGonagall chased Snape.'

b. *Snape* *kovala-n-dı.*
Snape chase-PASS-PAST
'Snape was chased.'

(32) a.



b.



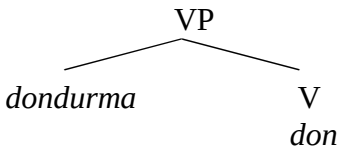
On the other hand, the sole arguments of simple intransitive verbs are never marked with the objective case in Turkish as in (33a). However, when the verb is causativized, quite expectedly the previous subject behaves like the object and receives accusative case as shown in (33b).

(33) a. *Dondurma* *don-du.*
ice-cream freeze-PST
'The ice-cream froze.'

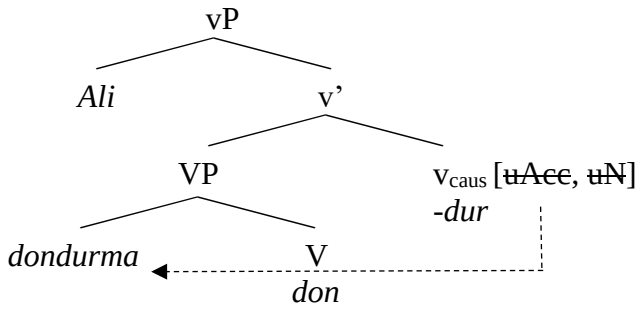
b. *Ali* *dondurma-yı* *don-dur-du.*
Ali ice-cream-ACC freeze-CAUS-PST
'Ali froze the ice-cream.'

The idea is that if little v is responsible for accusative case assignment in voice-bundling languages, then in intransitives like (33a), it is either absent or defective such that it cannot assign accusative case. Let us simply assume that the structure lacks the vP level in (33a) as in (34a). Conversely, if the object can receive accusative case in (33b), one can assume that the little v is headed by the causative such that it assigns accusative case to the object as in (34b).

(34) a.

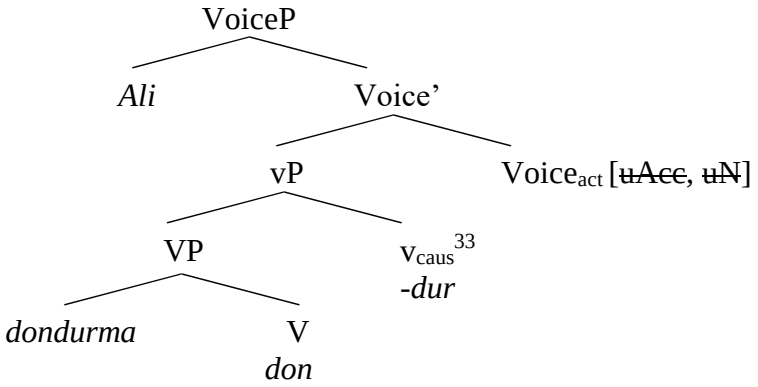


b.



If (34b) is the structure that we are looking for, our prediction would be that once passivized, the structure in (34b) would lose the causative morphology and be replaced with something else totally. However, in Turkish just like Hiaki transitive constructions where the transitivity marker is not lost when the structure is passivized, we have to add the passive morphology on top of the causative marker, which shows that we can affect the voice domain without affecting the locus of agency/causation. Hence, we need to assume that Turkish is also a voice non-bundling language just like Hiaki.

(35) a.



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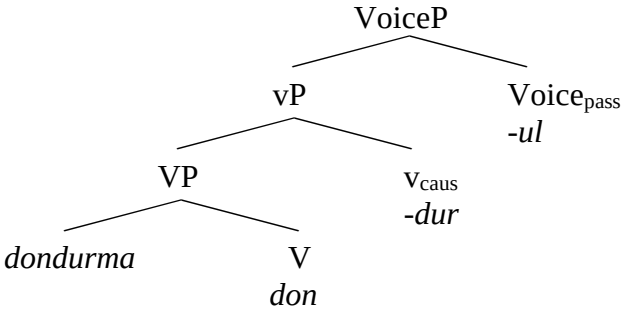
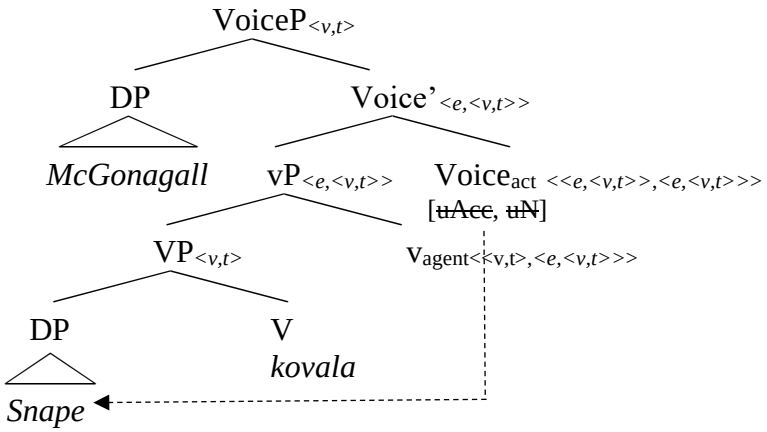


Understandably, a simple transitive structure would involve a vP introducing the semantics of agency and a separate VoiceP such that voice-related operations could be located at the Voice domain. See the examples below.

(36) a. *McGonagall* *Snape-i* *kovala-dı.*
McGonagall Snape-ACC chase-PST
'McGonagall chased Snape.'

b.



[33] Our representation for causative structures assumes that Turkish causative constructions are mono-eventive. Hence, they do introduce caus arguments along with the relevant caus predicate rather than denoting a caus relation as shown in Pylkännen (2008). We will discuss such issues in Section 4.5.

Thus, in the structure in (36b), the external argument checks off the nominative case feature of a higher head, potentially the T head, whereas the lower argument checks off the accusative case feature of the active Voice head. The Voice head syntactically merges the external argument because of its N merge feature to be checked off. On the other hand, the little v is only responsible for bringing about the semantics of agency and introducing the semantic slot that the external argument merged at VoiceP can saturate. Since little v does not have an N feature to be checked off, it does not project a specifier position. Let us assume for now that internal arguments are parts of the lexical entries of transitive verbs and $\text{Voice}_{\text{act}}$ is an identity function. Then, we can semantically derive (36a) as in the following.

(37) a. $[\![\text{V}]\!] = \lambda x.\ \lambda e.\ chase(e)\ \&\ theme(x,e)$

b. $[\![\text{VP}]\!] = \lambda e.\ chase(e)\ \&\ theme(Snape,\ e)$

c. $[\![\text{v}]\!] = \lambda f_{<v,t>}.\ \lambda x.\ \lambda e.\ f(e)\ \&\ agent(x,\ e)$

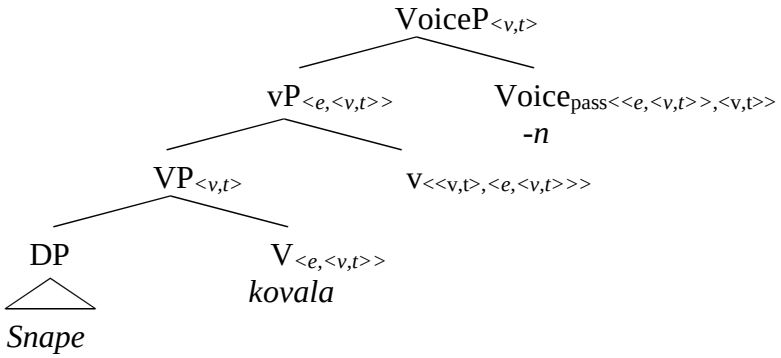
d. $[\![\text{vP}]\!] = \lambda x.\ \lambda e.\ chase(e)\ \&\ theme(Snape,\ e)\ \&\ agent(x,\ e)$

e. $[\![\text{VoiceP}]\!] = \lambda e.\ chase(e)\ \&\ theme(Snape,\ e)\ \&\ agent(McGonagall,\ e)$

Crucially, the position which is occupied by a $\text{Voice}_{\text{act}}$ could be replaced with a $\text{Voice}_{\text{pass}}$ which does not bear an N merge feature and thus does not project a specifier position. Therefore, such a head would not carry an accusative case feature, either. Thus, it does not have a case feature to be checked off and the internal argument receives nominative case from the finite T.

(38) a. *Snape* *kovala-n-dı.*
Snape chase-PASS-PST
'Snape was chased.'

b.



Although $\text{Voice}_{\text{pass}}$ does not have a significant syntactic function, semantically it is very important in that it saturates the external argument slot opened by the little v by existentially quantifying it. Thus, a passive Voice head takes a function of type $\langle e,\langle v,t\rangle\rangle$ and returns an event function contrary to its active counterpart which works as an identity function over functions of type $\langle e,\langle v,t\rangle\rangle$ and therefore can only saturate the external argument slot after the introduction of the external argument. Below is a sample derivation for a regular passive clause.

(39) a. $[\![\text{V}]\!] = \lambda x.\ \lambda e.\ chase(e)\ \&\ theme(x,e)$

b. $[\![\text{VP}]\!] = \lambda e.\ chase(e)\ \&\ theme(Snape,\ e)$

c. $[\![\text{v}]\!] = \lambda f_{\langle v,t\rangle}.\ \lambda x.\ \lambda e.\ f(e)\ \&\ agent(x,\ e)$

d. $[\![\text{vP}]\!] = \lambda x.\ \lambda e.\ chase(e)\ \&\ theme(Snape,\ e)\ \&\ agent(x,\ e)$

e. $[\![\text{Voice}_{\text{pass}}]\!] = \lambda f_{\langle e,\langle v,t\rangle\rangle}.\ \lambda e.\ \exists x\text{: } f(x)(e)$

f. $[\![\text{VoiceP}]\!] = \lambda e.\ \exists x\text{: } chase(e)\ \&\ theme(Snape,\ e)\ \&\ agent(x,e)$

4.4.2 By-phrases and little v

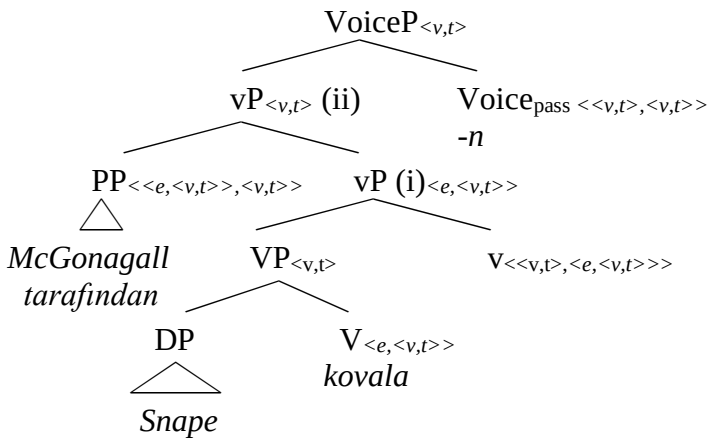
As mentioned previously, I will assume Bruening (2013)'s characterization of by-phrases in passive clauses. Bruening (2013) shows that by-phrases saturate argument positions rather than restrict them. Therefore, he states that once a by-phrase is adjoined to a passive structure, the existential quantification introduced with the passive head cannot be utilized because the argument slot is already saturated via the

by-phrase. We have also shown that this must be the case because we do not observe quantificational variability when there is a by-phrase in the structure. Since by-phrases only re-introduce agentive/causal arguments, Bruening (2013) shows that they must be adjoined to an agentivity/causation introducing head, hence vP's in our account. Since by-phrases saturate argument positions, we have stated that no existential quantification must take place in passives with by phrases. Therefore, once there is a by-phrase, Bruening (2013) suggests that the passive head must be interpreted to be an identity function over functions of the semantic type <v,t>. Hence, existential quantification must be optionally specified in the semantic entry of passive head. See the entry in (40) and a sample derivation in (42).

(40) $[\![\text{Voice}_{\text{pass}}]\!] = \lambda f_{<(e),<v,t>>}.\ \lambda e.\ (\exists x)\text{: } f((x))(e)$

(41) a. *Snape McGonagall tarafından kovala-n-dı.*
Snape McGonagall by chase-PASS-PST
'Snape was chased by McGonagall.'

b.



(42) a. $[\![\text{vP}]\!] = \lambda x.\ \lambda e.\ chase(e)\ \&\ theme(Snape, e)\ \&\ agent(x, e)$

b. $[\![\text{PP}]\!] = \lambda f_{<e,<v,t>>}.\ \lambda e.\ f(Mcgonagall)(e)$ (under the saturation analysis of by phrases as described in Bruening, 2013)

c. $[\![\text{vP (ii)}]\!] = \lambda e.\ chase(e)\ \&\ theme(Snape, e)\ \&\ agent(McGonagall, e)$

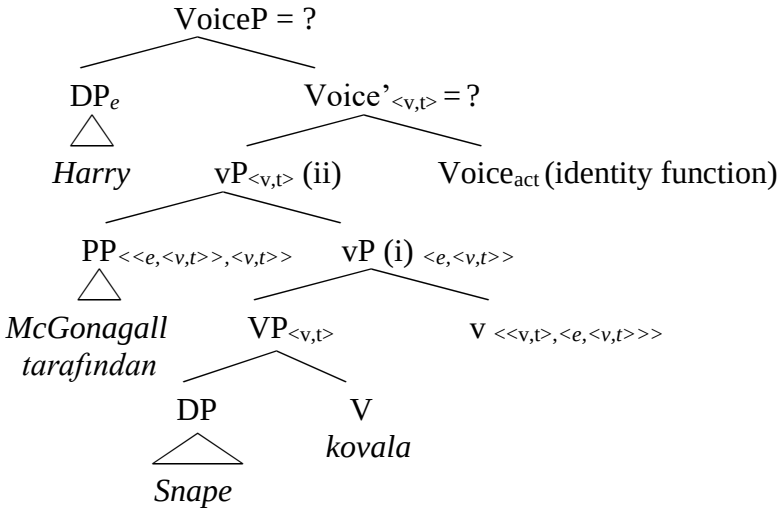
d. $[\![\text{Voice}_{\text{pass}}]\!] = \lambda f_{<v,t>}.\ \lambda e.\ f(e)$

e. $[\![\text{VoiceP}]\!] = \lambda e.\ chase(e)\ \&\ theme(Snape, e)\ \&\ agent(McGonagall, e)$

According to the derivation in (42), since the by-phrase already saturates the argument position at the vP (ii) level as shown in (42c), we use the $Voice_{pass}$ version without the existential quantification; the version functioning as the identity function over the arguments of type <v,t>. However, at this point the question is why a passive head must be structurally present in the first place in long passives (passives with by-phrases) if the external argument position is semantically saturated via the agentive phrase already. I suggest that using the passive head in such instances is syntactically obligatory because otherwise an active Voice head would be merged to the structure and potentially introduce an external argument to a passive clause. In other words, the presence of $Voice_{pass}$ is not totally unmotivated in long passives.

If one assumes that all non-unaccusative structures must have a Voice layer, in passives with by-phrases, the grammar has to use a $Voice_{pass}$ rather than a $Voice_{act}$ because otherwise the N merge feature of the $Voice_{act}$ would cause an argument projection on to its specifier. Since by-phrases already saturate the external argument position, the input function to the Voice heads would be a function of type <*v*,*t*> as shown in (43). However, once the $Voice_{act}$ merges a DP argument to its specifier, the function denoted by Voice' cannot take the DP as its argument and the derivation would crash because of a type mismatch. Hence, to prevent an argument projection on [Spec Voice], the system must choose a Voice head that does not introduce an argument in its specifier.

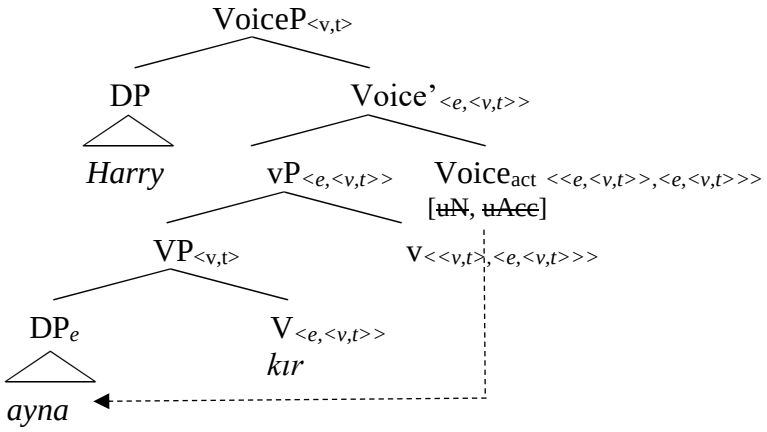
(43)



Of course, one may be sceptical about the presence of semantically 'vacuous' heads in the syntactic structure. However, note that it is not unusual to have syntactic heads that seem to be semantically vacuous, but their absence could potentially create another structure. For example, Key (2013) shows that Turkish anti-causatives syntactically project a $\text{Voice}_{\text{middle}}$ morphologically marked with the same suffix *-Il* used in passive clauses. However, $\text{Voice}_{\text{middle}}$ in such instances do not have a semantic contribution to the creation of middles. They do not suppress or delete an argument position (deletion from syntax does not seem to be possible anyway). However, it blocks the introduction of a causing head to the structure so that the structure does not become a causative structure where the semantics of causation is introduced to the system. Although the presence of a $\text{Voice}_{\text{middle}}$ seems to be syntactically/semantically vacuous, its presence as opposed to its absence makes sure that a complementary structure is not derived. See (44) and (45) for an illustration.

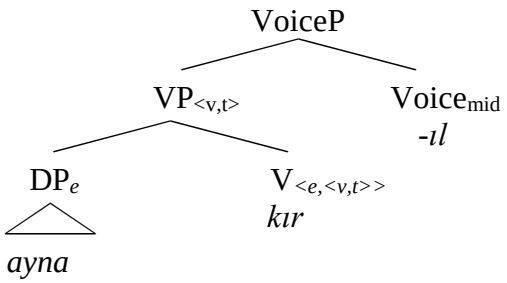
(44) a. *Harry* *ayna-yı* *kır-dı.*
Harry mirror-ACC break-PST
'Harry broke the mirror.'

b.



(45) a. *Ayna* *kır-ıl-dı.*[34]
mirror break-MID-PST
'The mirror broke.'

b.



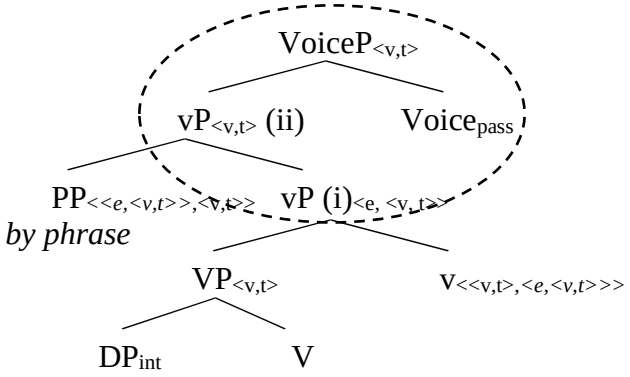
In (44a), 'Harry' is the syntactically projected and semantically interpreted agent. On the other hand, no such agent is projected in (45) because once it is projected, it cannot be de-projected, and the semantics brought with it cannot be annihilated. Therefore, Key (2013) suggests that it is never projected because the projection of causation is blocked by the projection of $\text{Voice}_{\text{mid}}$. Although $\text{Voice}_{\text{mid}}$ does not syntactically or semantically introduce anything, it contributes to the syntactic and semantic derivations with its mere presence, because its absence would open the possibility for a causative structure.

Just like the function of $\text{Voice}_{\text{mid}}$, $\text{Voice}_{\text{pass}}$ must project in passives with by-phrases as well because its absence may cause the structure to have an active Voice

[34] Key (2013) uses a distributed morphology account. Therefore, he is using an additional verbalizer v head on top of the root which would correspond to the VP domain in my representation. I am not using an additional verbalizer head, because I already specify the root as a VP.

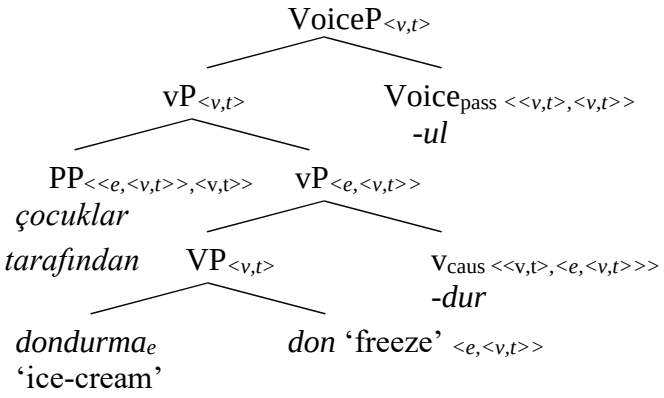
head that introduces a full DP. Under the saturation analysis of by-phrases, which we supported with the evidence from quantificational variability effects, the projection of a DP onto [Spec, $Voice_{act}$] would render the whole structure uninterpretable. Therefore, the presence of a $Voice_{pass}$ with by-phrases is not vacuous. So far, we have established that regular passives are formed with the structure represented in (46).

(46)



Now, note that by-phrases select arguments of type $<e,<v,t>>$ such that they can saturate the individual variable position. Indeed, this makes sure that it is attached to the vP domain which has an agentivity/causation introducing function in our account. This naturally explains why by-phrases seem to have the requirements of agentivity or causation. More specifically, I argue that it is not because of an internal presupposition of *tarafından* 'by' phrases that the arguments that they introduce must be agentive/causal but because of their attachment sites have the semantics of agency/causation. That is why, by-phrases do not only introduce agentive arguments but also causers in passive clauses because the semantics of both agents and causers are introduced at the vP domain.

(47)



Since unaccusative predicates do not have vP's or phrases denoting functions of type *<e,<v,t>>*, they do not harbour attachment sites for by-phrases in Turkish. Hence, their passive forms cannot involve by-phrases without a vP, in which case those predicates are converted into unergatives and thus we arrive at the meaning extension or semantic anomaly observed in (16) repeated below. Hence, the meaning extension causing the semantic anomaly in (48) is because of the structural change in the representation of the predicate *düş* such that an agentive vP level is added to its syntax, causing its semantics to have an agent predicate along with the Voice.

(48)

#Çocuk-lar	*tarafından*	*kuyu-ya*	*düş-ül-dü.*
child-PL	by	pit-DAT	fall-PASS-PST

'There was falling to the pit by the children.'

Of course, if unaccusative predicates do not involve vP's in their regular representations, they also cannot have a VoiceP. Then, the question is how they are passivized without causing anomalies or meaning extensions. We are going to give an answer to this question in Section 4.5.

For now, returning to our discussion on Passive I, recall that we have previously mentioned that there must be two different passive types in Turkish. Structurally, one type allowed by-phrases and non-human interpretations of its implicit argument and did not show any aspectual constraints. The passive operation working with the combined effort of vP and $Voice_{pass}$ is the Passive I. It allows by-

phrases because by-phrases are attached to a projection that introduces the semantic position for an argument but does not project an argument to saturate that position. Therefore, a by-phrase could be adjoined to that projection to semantically saturate the relevant argument position, which is shown to be vP in this subsection.

Passive I was shown to have no restriction as to the quality of its implicit argument. For example, we have provided evidence that it can be a human or a non-human entity. Since there is no specification in the lexical entry of the $\text{Voice}_{\text{pass}}$ that the variable that it existentially binds is a human or non-human, this property of Passive I is also expected. As for the aspectual constraints, we do not have a definite answer yet, but we will discuss a potential analysis in Section 4.5.

4.4.3 Passives involving unergative predicates

Now remember that passives of unergative predicates are also compatible with by-phrases, they can also have non-human implicit arguments and they are not subject to aspectual limitations, either. That is why, we have established that passives of unergative predicates are also achieved via Passive I. Furthermore, we have established in the last two subsections that Passive I is the passive operation encircled in (46) where we have a vP that introduces the semantics of agency/causation and a $\text{Voice}_{\text{pass}}$ which may existentially quantify over the individual variable if it is not already saturated with a by-phrase. Then, the commonality between single passives of (di)transitives and unergatives can be straightforwardly accounted for. The sole arguments of unergatives are also agentive and this external argument must be introduced in the same manner as the external arguments of (di)transitives. In other words, the semantics of agency denoted by the unergative

predicates must be introduced at the vP level whereas the actual external argument must be syntactically projected at [Spec, Voice].

Considering that unergatives have only one argument, which is not marked with the accusative case and that the only function of an active Voice head is to check accusative case along with merging the external argument, how can we motivate a Voice level in unergative structures?

First, since both (di)transitives and unergatives have agentive external arguments, and if (di)transitives have a Voice level split from the little v, then for issues regarding theoretical consistency and elegance, we would assume that the sole argument of unergative predicates are projected in the same manner.

Second, it is commonly known that in most instances, unergative predicates can freely take cognate or path objects and when they do, we know that these cognate objects must receive (abstract) objective case because the subject receives nominative case. Furthermore, once such constructions are passivized, the path object, for example, receives nominative case, just like the objects of regular transitives, showing that in their non-active forms, they must have received accusative case, albeit not overtly marked (cf. (49c)). These facts show the parallelism between transitive and unergative structures in terms of the availability of a Voice level in each structure (cf. (49a-b)), for if cognate or path objects of unergative predicates may receive accusative case, there must be a higher projection, ready to assign Case to these objects, which we consider as the Voice level.

(49) a. *Ahmet* *koş-u/-ma* *koş-tu.*
Ahmet run-NMNZ run-PST
'Ahmet did the running/Ahmet ran a run.'

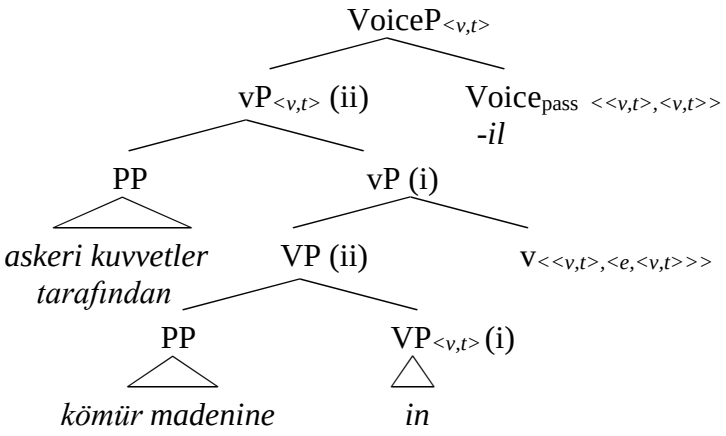
b. *Ahmet* *yol-u* *koş-tu.*
Ahmet road-ACC run-PST
'Ahmet ran the road.'

c. *Yol/Koş-u* *koş-ul-du.*
road/run-NMNZ run-PASS-PST
'The road was run/The running was done.'

Finally, Öztürk & Erguvanlı-Taylan (2017) suggest that unergatives in Laz are transitive. For example, the sole argument of an unergative verb like 'work' in Laz behaves syntactically both as the initiator and undergoer. In other words, the semantics of 'work' can be understood as 'cause oneself to work'. In this respect, the parallelism between unergative and (di)transitive predicates are also cross-linguistically well-motivated. Then, if unergative structures also involve the level that introduces the semantics of causation and a Voice head that introduces the external argument in Turkish, the passive operation targeting the Voice level must be the same as the one used for (di)transitives. In other words, we do not need an additional impersonal head when it comes to passives of unergatives. Consider the sentence involving an unergative predicate in (50a) and its structure in (50b).[35]

(50) a. *Kömür maden-in-e* *askeri* *kuvvet-ler* *tarafından*
coal mine-POSS-DAT military force-PL by
in-il-di.
go.down-PASS-PST
'It was gone down to the coal mine by the military forces.' (Taneri, 1993).

b.



[35] Remember that the verb *in* 'go down' behaves like an unergative predicate in Turkish although verbs of directed motion are generally classified as unaccusative. We derived evidence that they behave like unergative predicates from the compatibility of agentive-phrases with their passive forms and their distribution in *-ArAk* constructions.

Then, unergative passives naturally allow by-phrases and non-human implicit arguments because they are formed with the same passive operation as the passives of (di)transitives contra certain accounts which posit a different operation for passives of unergatives. Our unified analysis is theoretically desirable as well because unergatives align with (di)transitives in having a vP and VoiceP in sharp contrast to unaccusatives. Therefore, I conclude that by-phrases are system-wise available. There is no grammatical restriction on the use of by-phrases in passives of unergatives. There is a structural position where one can adjoin the by-phrase in an interpretable manner when it comes to passives of unergatives. However, there may be further pragmatic restrictions on its use considering that by-phrases are not preferred by Turkish speakers in general. I leave this issue to further research. On the other hand, we saw that by-phrases are never allowed in clauses involving Passive II. Therefore, we cannot simply attribute their unavailability to pragmatic factors when it comes to Passive II. Hence, we must form our syntactic and semantic representation for Passive II's such that it will systematically disallow by-phrases. This issue will be covered in the next section

4.4.4 Quantificational variability and by-phrases

I would like to devote the current subsection to a discussion on how quantificational variability might be captured in unergative passive clauses. Although the current study is not primarily concerned with the study of quantificational variability, we could still show that it can be accounted for even when we do not assume a syntactically projected argument in passives of unergatives. For our purposes, let us assume that the adverb of quantification *genellikle* 'usually' has two meanings: One is the 'at most times' reading labelled as 1 whereas the other one is the 'most x'

reading labelled as 2 in (51) below. Although the entries in (51) are very simplistic, they will do for our purposes. For the first meaning of *genellikle* 'generally', I will modify the definition given for French *souvent* 'often' by Doetjes (2007).

(51) a. $[\![\text{genellikle}]\!]_1 = \lambda f_{<v,t>}.\ \lambda e.\ f(e)$ & *e occurs more than n times where n is contextually determined by a norm/what we expect*.

b. $[\![\text{genellikle}]\!]_2 = \lambda f_{<e,<v,t>>}.\ \lambda e.\ MOST(x).\ f(x)(e)$

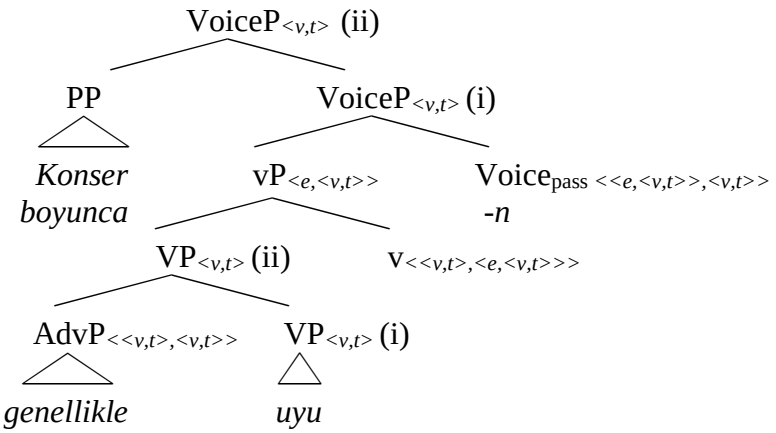
The lexical entries in (51) show that the adverb *genellikle* can come with two different meanings and semantic types accordingly. In the 'at most times' reading, it takes an event function and specifies how often the event occurs. The relevant semantics is minimally defined in (51a). The adverb can also come with the 'most x' reading where the adverb quantifies over the individual variable. Therefore, it takes a function from individuals to events to truth values $<e,<v,t>>$. Then, let us assume that in its 'at most times' reading, the adverb is adjoined to the VP domain.

(52) a.

Konser	*boyunca*	*genellikle*	*uyu-n-du.*
concert	during	generally	sleep-PASS-PST

'There was sleeping at most times during the concert.

b.



(53) a. $[\![\text{VP (i)}]\!] = \lambda e.\ sleep(e)$

b. $[\![\text{VP (ii)}]\!] = \lambda e.\ sleep(e)$ & *e occurs more than n times where n is contextually determined by a norm/what we expect*.

c. ⟦vP⟧ = *λx. λe. sleep(e) & agent(x,e) & e occurs more than n times where n is contextually determined by a norm/what we expect*.

d. ⟦VoiceP(i)⟧ = *λe. ∃x*: *sleep(e) & agent(x,e) & e occurs more than n times where n is contextually determined by a norm/what we expect*.

e. ⟦boyunca⟧ = *λp. λf. λe. f(e) & e ° p* (where the variable *p* stands for the time period. The ° symbol represents the overlap relation between the time period and the event).

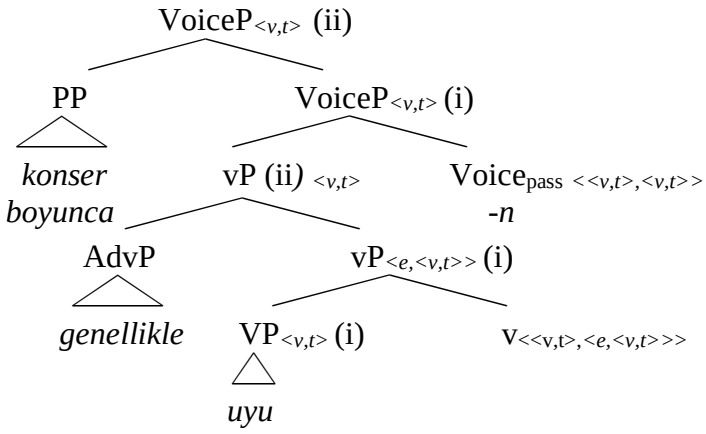
f. ⟦PP⟧ = *λf. λe. f(e) & e ° the concert*

g. ⟦VoiceP(i)⟧ = *λe. ∃x*: *sleep(e) & agent(x,e) & e occurs more than n times where n is contextually determined by a norm/what we expect & e ° the concert.*

The above derivation provides us with the 'at most times' reading. Since the variable introduced at the vP domain is not saturated with a by-phrase, we have used the semantics of $\text{Voice}_{\text{pass}}$ which comes with the existential quantification. Now, let us see how the 'most x' reading could be derived. Since in its 'most x' meaning, the denotation of *genellikle* 'generally' takes a function of type <*e*,<*v*,*t*>>, I will assume that it is attached to the vP edge (cf. (54-55)).

(54) a. *Konser* *boyunca* *genellikle* *uyu-n-du.*
concert during generally sleep-PASS-PST
'Most people slept during the concert.'

b.



(55) a. ⟦VP⟧ = *λe. sleep(e)*

b. ⟦vP (i)⟧ = *λx. λe. sleep(e) & agent(x,e)*

c. ⟦AdvP⟧ = $\lambda f_{<e,<v,t>>}$. *λe. MOST(x). f(x)(e)*

d. ⟦vP (ii)⟧ = *λe. MOST(x). sleep(e) & agent(x,e)*

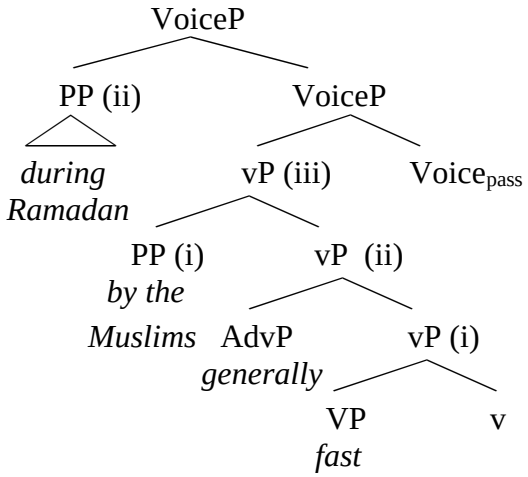
e. ⟦Voice (ii)⟧ = *λe. MOST(x). sleep(e) & agent(x,e) & e ° the concert.*

The derivation in (55) shows that the individual variable introduced at vP (i) is already bound by the adverb of quantification at the vP (ii) level as seen in (55d); therefore, we have used the passive version which does not have the existential quantification specified in its lexical entry. This gives us the form in (55e), which means that among the contextually relevant entities, most of them were the initiators of the sleeping event, which overlapped with the concert period.

Now, let us explain why we cannot see quantificational variability in the presence of a by-phrase. We have established that by-phrases have the semantics of saturation.[36] Thus, they saturate the external argument slot; that is why they are attached to vP's. We have also assumed that *genellikle* 'generally' is adjoined to the vP under its 'most x' reading. This gives us two logical possibilities with respect to the order of adjunction. The first one is that the adverb of quantification is adjoined to the vP first and then the by-phrase is attached; or vice versa. Now let us observe each of the possibilities. Consider the following structure first.

[36] One could also opt for a restrictive semantics for by-phrases under a semantic account of passives rather than a syntactic account. It does not make much of a difference to choose one over the other once a semantic account of passivization is assumed. However, under the restrictive semantics for by-phrases, one cannot merge the by-phrase before the adverb of quantification because this creates a structure where there is still a variable to be quantified over by the adverb of quantification. If one assumes that adjuncts are also strictly ordered such that in the presence of a by-phrase and an adverb of quantification, the latter may be assumed to merge first such that the resulting function does not have a free or lambda-bound variable to be quantified by the adverb of quantification. This way, we could prevent the adverb of quantification binding the variable corresponding to the implicit arguments of passive clauses. However, note that in this thesis, we would not like to commit ourselves to a specific analysis of adjunction or quantificational variability; therefore, we will use the saturation analysis as it brings about the desired result in either ordering without further complications.

(56)



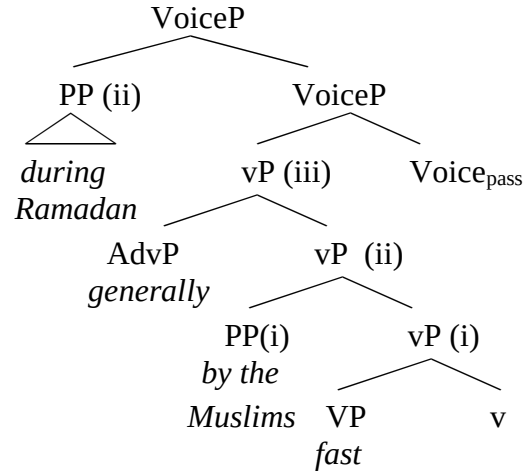
(57) a. ⟦vP(ii)⟧ = *λe. MOST(x). fast(e) & agent(x,e)*

b. ⟦PP(i)⟧ = $\lambda f_{<e,<v,t>>}$. *λe. f(the Muslims)(e)*

c. ⟦vP(iii)⟧ = [$\lambda f_{<e,<v,t>>}$. *λe. f(the Muslims)(e)*]([*λe. MOST(x). fast(e) & agent(x,e)*]) = ? (clashes because of type mismatch)

Since the adverb of quantification already closes the variable position, the by-phrase cannot be applied because it requires a function of type <*e*,<*v*,*t*>>. Then, let us try to adjoin the by phrase first and see what happens. Consider (58-59) now.

(58)



(59) a. ⟦vP(i)⟧ = *λx. λe. fast(e) & agent(x,e)*

b. ⟦vP(ii)⟧ = [$\lambda f_{<e,<v,t>>}$. *λe. f(the Muslims)(e)*] ([*λx. λe. fast(e) & agent(x,e)*])

c. ⟦vP(ii)⟧ = *λe. fast(e) & Initiator(the Muslims, e)*

d. ⟦vP(iii)⟧ = [*λf*$_{<e,<v,t>>}$*. λe. MOST(x). f(x)(e)*] ([*λe. fast(e) & agent(the Muslims, e)*]) = ? (clashes because of type mismatch)

We are encountered with the same problem even if we change the order of application. Since in (58), we first apply the by-phrase to the vP (i), we already saturate the argument position opened by vP (i). As there is no more variable to be quantified by the adverb of quantification, the function ascribed to the 'most x' denotation of the adverb cannot be applied to the vP (ii) because it requires arguments of type *<e,<v,t>>* while vP (ii) denotes a function of type *<v,t>*.[37]

4.4.5 Summary

In this section, we have formalized why passives of unergatives must pattern with passives of (di)transitives. Our analysis is that passives of unergative predicates are not impersonal and they are not derived via a distinct impersonal head. They are formed in the same way that passives of (di)transitives are formed, namely by combining the vP projection with a Voice$_{pass}$. Therefore, we have established that the system allows the adjunction of by-phrases to passive clauses with unergative predicates contrary to the common assumption.

Besides, we have shown why implicit arguments of passive clauses do not have to be humans. Passives of unergatives do not have implicit human subjects just like passives of (di)transitives do not. The pattern is expected because they are derived in the same manner with a Voice$_{pass}$ in whose lexical entry there is no specification as to the nature of the implicit argument. On the other hand, we have

[37] But note that the denotation of the adverb *genellikle* meaning 'at most times' can be applied in the second order because it only requires arguments of type *<v,t>*. However, it cannot be applied before the adjunction of the by-phrase because it is faced with a function of type *<e,<v,t>>* then.

shown that there is a bias towards understanding implicit arguments of passives of both unergatives and (di)transitives as humans, which I consider a general linguistic property of humans; yet, our linguistic formalization does not prohibit a non-human interpretation for the implicit arguments of passive clauses with unergatives.

Finally, we have formalized why no quantificational variability is observed when a by-phrase is present in the syntactic structure of a passive clause. Our formalization has shown that once a by-phrase fills the external argument slot, an adverb of quantification can no longer find a variable to quantify over. Therefore, the only interpretation available for a passive clause involving a by-phrase and an adverb of quantification is the event-time/frequency reading of the adverb of quantification. This section concerned itself with the use of Passive I in Turkish, which targets structures that involves VoiceP. In the next section, we will deal with Passive II and explain how double passives are formed in the process.

4.5 Passives involving no VoiceP

We have previously shown that Turkish has passives of unaccusatives and double passives. We repeat the relevant data below.

(60) a. *Bu çukur-a düş-ül-ür.*
this pit-DAT fall-PASS-AOR
'One may fall to this pit.'

b. *Harp-te vur-ul-un-ur.*
war-LOC shoot-PASS-PASS-AOR
'One is shot in war.' (Özkaragöz, 1986)

c. *Asker-de koş-tur-ul-un-ur.*
military-LOC run-CAUS-PASS-PASS-AOR
'One is made to run in military.'

We have established that passives of unaccusatives and the second passive of double passives behave on a par with each other in that they show the same aspectual

restrictions and their implicit arguments can only be human. Besides, we have shown that they are not compatible with by-phrases. Therefore, our formalization of this type of passive, namely Passive II, needs to capture all the three properties mentioned above. Also remember that these properties are in sharp contrast with the passives of unergatives and passives of (di)transitives. Thus, we must not use the same $Voice_{pass}$ system to formalize Passive II because $Voice_{pass}$ has the opposite properties to Passive II in the three features mentioned in this chapter: by-phrases, humanness conditions and aspectual constraints. The next subsection will start with the problem of suppressing internal arguments.

4.5.1 The minimum requirement for suppressing internal arguments

Perlmutter (1978) prohibits the suppression of internal arguments with his 1-AEX Law, which was later shown to be partially wrong. However, the data that he presented were interesting in that it is indeed the case that most languages do not allow passives of unaccusative predicates. Double passives are even rarer. Therefore, current theories of syntax/semantics naturally try to rule out passives targeting lower arguments. Currently, they do so by positing that passivization is one of the flavours of the v/Voice head and therefore can only be available to structures having a v/Voice head. Unaccusatives lack the relevant structure; they cannot be passivized.

On the other hand, there is a second component of a v/Voice analysis of passives which disallows passives of unaccusatives or double passives for that manner even if one assumes that passivization does not have to be restricted to $v_{pass}/Voice_{pass}$. While external arguments are introduced via separate functional heads in syntax proper, thus severed from the argument structure of a verb, internal arguments are still part of the lexical entries of verbs and therefore they are

obligatorily introduced at the VP level. Once internal arguments are not severed from the lexical entries of verbs during their mapping to syntax, they must be introduced at the VP domain because without their projection, a lexical V cannot reach up to its maximal projection. Furthermore, their non-projection renders the whole structure uninterpretable because of type-mismatches.

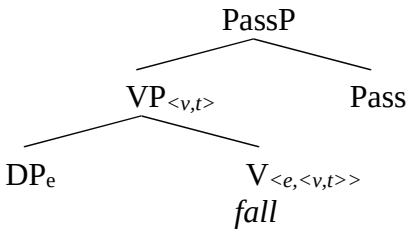
Remember that one could assume that a passive head projecting on top of a lexical VP distinct from Voice can target the internal argument position in some languages if one does away with the requirement that heads must discharge all their categorical features to reach up to their maximal projections. In a system which does not make use of maximal projections as in Bruening (2013), this could easily be achieved. Such a passive operation would strictly select a lexical V head whose N feature is not discharged for example. However, then it would be curious how double passive constructions are derived considering that the internal arguments of double passive constructions can only be targeted once the external argument is suppressed.

Since arguments merged into a syntactic structure cannot be demerged, the only way to achieve a double passive construction where the first passive targets the external argument, would be to assume that internal arguments are not merged to the syntactic system in the first place. However, remember that internal arguments are assumed to be introduced at the VP domain and therefore verbs taking internal arguments denote functions of type $<e,<v,t>>$. Once their internal arguments are merged, they create VPs that denote only events, which could be proper arguments to the little v head that introduces the semantics of agentivity/causation. But, once their internal arguments are assumed not to be projected in double passive constructions, the resulting V or VP would still denote a function of type $<e,<v,t>>$, which cannot be taken as an argument by the little v.

Specifying internal arguments as parts of the lexical entries of verbs therefore makes sure that a language would not have double passive constructions and possibly passives of unaccusatives. This characterization of internal arguments was indeed exhausted even in the early periods of Generative Grammar where they explained the unavailability of passives of unaccusatives suggesting that internal arguments are linked to a subcategorization frame in which they have to be theta-role assigned and thus must be projected obligatorily whereas external arguments are delinked from a subcategorization frame and therefore can be suppressed (e.g. see Jaeggli, 1986).

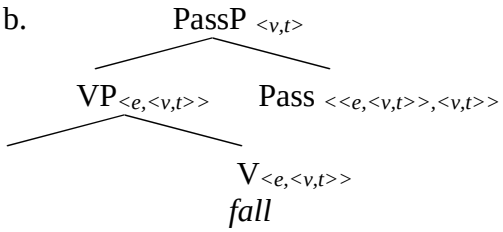
Let us summarize the problem once again for the convenience of the reader with the syntactic trees provided in (61). Recall that only external arguments are introduced or suppressed via a Voice head. Hence, if a structure does not have an external argument in the first place, there is no Voice to be represented. To differentiate the external argument related head, a Voice head, from the passive head applying to non-external arguments, I am going to use a different label, Pass head in my representative summary below.

(61) a.



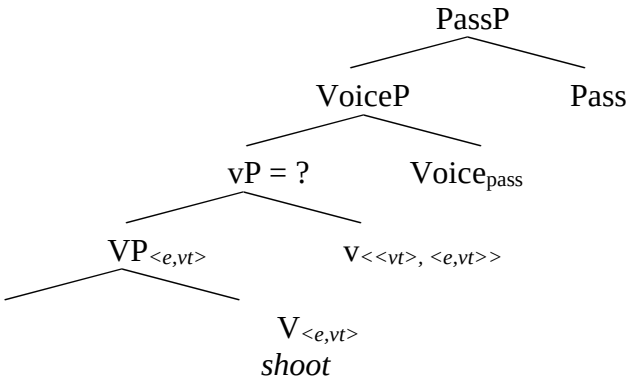
In this configuration, there is nothing to suppress. Once inserted, an internal argument cannot be deleted either semantically or syntactically.

b.



In this configuration, we do not merge the internal argument in the first place. This way, we derive correct semantic types. However, we do not know how the V reaches up to its maximal projection. Let us assume that it is possible if the semantic computation works.

(62)



But if we assume that it is possible, we are faced with the type mismatch problem in double passive constructions.

Once one assumes that reaching to a maximal projection without the insertion of the internal argument is possible in passives targeting the lower argument position, we are faced with the type mismatch presented in (62). We have established in our previous discussion that since Turkish does not have anti-passive structures where the object is suppressed but the external argument is still projected, double passive constructions must involve the suppression of the external argument first and then the internal one. The reverse order of application (first internal then external) would potentially create an anti-passive configuration. Therefore, the passive targeting the internal argument position must project on top of the passive that targets the external one. However, once we merge the internal argument at the VP domain, there is nothing to suppress anymore as in (61a). Once it is not merged though, the VP's semantic type remains *<e,<v,t>>*, which is not a proper input to little v.

On the other hand, it is nice that the system with the current assumptions does not allow passives targeting internal arguments because it is built on the assumption that passives of unaccusatives or double passives cannot be possible. The problem then is that it cannot explain how such constructions are possible in Turkish, which calls for a parametrization for our understanding of argument structure and passive clauses. If the assumption that internal arguments are part of the lexical entries of verbs and thus must be projected at the VP domain prohibits passives of unaccusatives and double passives, the natural assumption for languages which allow

passives of unaccusatives and double passives is that their verbs only denote events. In other words, internal arguments must also be severed from the lexical entries of verbs and are introduced by syntactic heads in these languages. But the question is whether we do have any independent motivation to propose that internal arguments are not part of the VP domain.

Note that following Lin (2001) and Borer (2005), Öztürk (2005) has proposed a syntactic system where both internal and external arguments are introduced by functional projections that she calls ThemeP and AgentP respectively, projecting outside the VP domain. One of the most important motivations to severe the internal argument from the verb's lexical specification is that Turkish allows VP internal external arguments to the exclusion of the internal ones.

(63) *Ali-yi* *Allah* *çarp-tı.*
Ali-ACC God strike-PST
'Ali got cursed.' (Öztürk, 2005)

Note that Marantz (1984) and Kratzer (1996) argue that external arguments are not part of the lexical specifications of a verb because a verb can combine with its internal argument (or form an idiom for example) to the exclusion of the external one whose theta role becomes dependent on the verb + internal argument combination, meaning the whole VP. However, if Turkish allows idioms formed with the combination of the external argument and the verb, then internal arguments must not be a core part of the VP complex.

Second, Turkish allows pseudo-incorporation of subject arguments to the exclusion of the internal arguments again. If pseudo-incorporation occurs at the complement position to the verb at the VP domain, it would be curious how it is achieved once internal arguments are also assumed to be introduced at the complement position to the verb (cf. (64)).

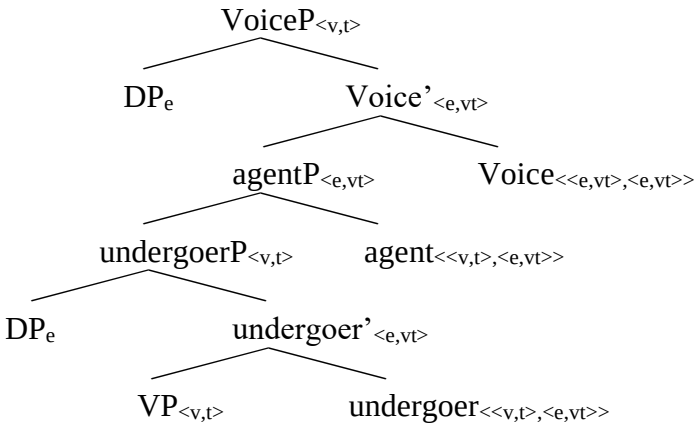
(64) *Ali-yi* *arı* *sok-tu.*
Ali-ACC bee sting-PST
'Ali got bee-stung.'

Third, remember our previous discussion on the meaning extension of an unaccusative verb *düş* 'fall' in Turkish such that it can have an unergative structure. In order for this to happen, the sole argument of this unaccusative verb must not be merged at the VP domain such that it could be projected at the [Spec, Voice] level once the structure is converted into an unergative configuration. However, for that argument not to be projected at the VP domain, the verb semantically needs to denote a function of type <*v*,*t*> only. If we assume that it denotes a function of type <*e*,<*v*,*t*>>, then its argument must be merged at the VP domain as a theme argument such that the semantic requirement of the verb is fulfilled and it would not pose type-mismatch problems for further semantic/syntactic operations.

Finally, the very construction, double passivization, is a piece of evidence that internal arguments must be severed from their verbs in Turkish because anything that is supposed to be introduced at the VP domain must be introduced at the VP domain either because of syntactic or semantic requirements. If a DP is merged to the syntactic system, there is no legitimate mechanism to demerge it. Since Turkish allows the suppression of the internal arguments and double passives, the lower argument cannot be specified in the semantic entry of a verb because this forces the DP to be projected at the VP level. Therefore, we conclude that the minimum requirement for those languages that allow passives of unaccusatives and double passives must be that their internal arguments are severed from their lexical entries during the mapping to syntax. We revise our representation for an active transitive clause as in (65) where internal arguments in general are introduced with the macro-role 'undergoer', introduced with the functional projection, labelled as undergoerP. I

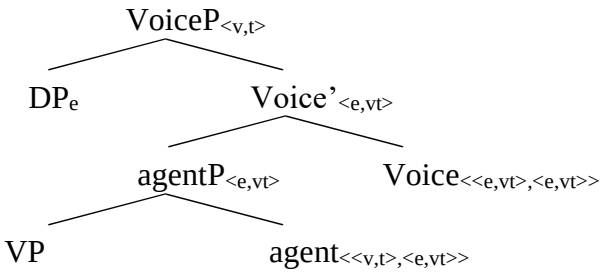
also replace vP with agentP for consistency now that we are using predicative names for the functional heads. However, note that the semantic and syntactic functions of vP and agentP are the same (cf. (65)).[38]

(65)



According to the representation above, a VP will always denote an event, whether simplex or complex. Generally, lower arguments are introduced with a functional undergoerP. External arguments may be introduced with the functional projection agentP. Therefore, an unergative predicate such as *koş* 'run' would be represented as in (66), which shows that the agentP brings about the semantics of agency; yet, the actual agent is introduced by a higher active Voice head in line with Harley (2019)'s non-bundling approach to the vP domain.[39]

(66)



[38] In causative constructions, instead of agentP, I am going to use causP, the motivations of which I detail in Section 4.5.3.

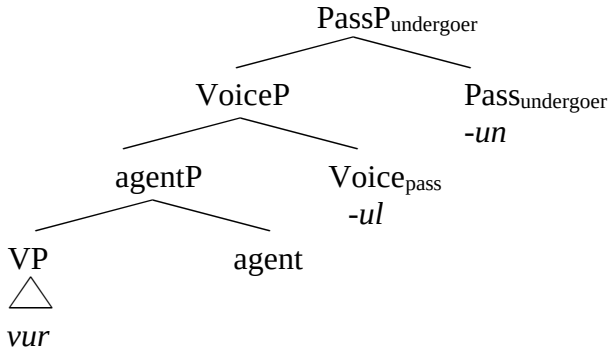
[39] I also assume that Turkish has DPs following Turgay (2019) contra Öztürk (2005). Thus, regular arguments introduced via functional heads must be DPs, but pseudo-incorporated ones must be NPs. Therefore, DP arguments are introduced outside the VP domain whereas VP internal arguments must be NPs. This follows from the semantics attributed to pseudo-incorporation by Sağ-Parvardeh (2019) as we will discuss in the later sections.

4.5.2 Double passive constructions and Passive II

Our discussion has so far shown that if an argument is inserted to a structure, there is no way to delete it semantically and syntactically. Therefore, we have severed internal arguments from the lexical entries because making them a part of the lexical entries forces us to merge them at the VP domain. Now, we assume that they are projected by a functional head that we call 'undergoerP'. However, the move by itself does not guarantee the availability of double passives. Once an argument is introduced to the syntactic system, deleting it is impossible again even if it is introduced by a functional head. Therefore, I suggest that double passive constructions do not involve the projection of the internal arguments in the first place. The internal argument semantics is due to the Passive II.

(67) a. *Bura-da* *vur-ul-un-ur.*[40]
here-LOC shoot-PASS-PASS-AOR
'One can be shot here.'

b.



According to the representation in (67b), the double passive construction has a Voice level. However, it is not an argument introducing Voice head. It is a passive Voice head, which existentially closes the argument position introduced at the agentP level. When the undergoerP is not present in the structure, I suggest that the structure

[40] We are aware that the structure in (67b) is against theta hierarchies (Jackendoff, 1990; Speas, 1990; Van Valin, 1990 among others). However, a neo-Davidsonian syntactic model allows such formations. Hence, theory internally, there is no blocking of such orderings. Besides, it may be possible to find hierarchies as in (67b) by observing more (double) passive data in other languages considering that thematic hierarchies are mostly dependent on data observations.

compensates for the absence of the undergoer semantics with the Passive II head, for the Passive II head has the undergoer semantics in it. The difference between a passive Voice and Pass head is that the former does not introduce a predicate of its own whereas the latter does. More generally, I propose that argument introducing heads in Turkish have their corresponding passive heads. Hence, $Voice_{act}$ is an argument introducing head; therefore, it must have a corresponding non-argument-introducing head, a $Voice_{pass}$. A $Voice_{act}$ does not introduce a predicate of its own but takes agentP/causP as its input such that the semantics of agency/causation is transferred to the Voice level. Similarly, a $Voice_{pass}$ does not introduce a predicate but only saturates the argument position corresponding to the agentP/causP level via existential quantification.

In a similar manner, I argue that an undergoerP, which is an active phrase that hosts an argument at its specifier position, has a corresponding passive head. This passive head does not syntactically introduce an argument, either. An active undergoer head takes an event and introduces the undergoer semantics to that event. Similarly, its passive counterpart also introduces the undergoer semantics to the event that it takes. However, differently from its active counterpart, it saturates the subject position of the undergoer predicate via existential quantification. In Table 9, I provide the semantic entries that I ascribe to Passive I and Passive II heads.

Table 9. Semantic entries for Passive I and Passive II

	Active Forms	Passive Forms
Passive I	$[\![Voice_{act}]\!] = \lambda f_{<e,vt>}.\ \lambda x.\ \lambda e.\ f(x)(e)$	$[\![Voice_{pass}]\!] = \lambda f_{<(e),vt>}.\ \lambda e.\ (\exists x)$: $f((x))(e)$
Passive II	$[\![undergoer_{act}]\!] = \lambda f_{<v,t>}.\ \lambda x.\ \lambda e.\ f(e)\ \&\ undergoer(x, e)$	$[\![Pass_{undergoer}]\!] = \lambda f_{<vt>}.\ \lambda e.\ \exists x_{arb}$: $f(e)\ \&\ undergoer(x_{arb}, e)$

Table 9 provides the semantic entries that I ascribe to active and passive forms. An active Voice head basically works like an identity function over functions

of type <*e*,<*v*,*t*>>. The external argument that it syntactically introduces saturates the external argument position introduced at the agentP/causP level. The passive counterpart of $\text{Voice}_{\text{act}}$ does not introduce the external argument but existentially quantifies over the relevant argument slot. To do this, it also takes arguments of type <*e*,<*v*,*t*>>. If the external argument position is already saturated with a by-phrase, the $\text{Voice}_{\text{pass}}$ form without the existential quantification is chosen as argued in Bruening (2013). In this latter case, the $\text{Voice}_{\text{pass}}$ takes events as its argument.[41]

Crucially, just like $\text{Voice}_{\text{act}}$ has a corresponding non-argument-projecting head, namely $\text{Voice}_{\text{pass}}$, I argue that an active undergoerP has a corresponding non-argument-projecting passive head. I label the relevant head as $\text{Pass}_{\text{undergoer}}$ head. The Pass head take events, and introduce the undergoer predicate whose argument position comes as bound by existential quantification already. In other words, a Pass head cannot syntactically introduce a full DP because it lacks a merge feature and accordingly existentially bind the variable position that would be saturated with a full DP in an active structure.

Furthermore, I argue that active and corresponding passive heads are complementary to one another. Once one is used, its complementary operation cannot be used. The idea can be implemented in two ways. One can assume that the active and passive forms of an operation cannot be used at the same structure because that would introduce two predicates of the same semantic contribution, which would cause a semantic incongruity. In other words, an event cannot involve

[41] One might also wonder whether $\text{Voice}_{\text{act}}$ has also a version without the lambda operator; a function taking event arguments only. I will argue in Chapter 5 that it may have it only under subject pseudo-incorporation where the case assignment and argument introduction functions of $\text{Voice}_{\text{act}}$ is non-bundling. Otherwise, $\text{Voice}_{\text{act}}$ always projects arguments and takes arguments of type <*e*,<*v*,*t*>>.

two undergoer predicates. To put it in GB terminology, this would create a violation of the theta criterion (Chomsky, 1981).

Our data have shown us that Passive I always precedes Passive II. We will examine the ordering between Voice types more closely in the next section. Therefore, for now let us focus on another property of Passive II functions. They obligatorily involve existential quantification and the variable that they quantify over is x_{arb}, a variable ranging over groups of people as defined in Chierchia (1995). This allows us to explain why Passive II always renders +human effects for the implicit arguments as opposed to Passive I, which does not have such a specification. The obligatoriness of the in-built existential quantification of Passive II also accounts for the non-availability of by-phrases with them. We will also examine by-phrases and how they are disallowed in Passive II in the next section. For now, let us provide the semantic derivations for (67a) in (68).

(68) a. $[\![\text{VP}]\!] = \lambda e.\ vur(e)$

b. $[\![\text{agentP}]\!] = \lambda x.\ \lambda e.\ vur(e)\ \&\ agent(x,e)$

c. $[\![\text{VoiceP}]\!] = \lambda e.\ \exists x\text{: } vur(e)\ \&\ agent(x,e)$

d. $[\![\text{Pass}]\!] = \lambda f_{<v,t>}.\ \lambda e.\ \exists x_{arb}\text{: } f(e)\ \&\ undergoer(x_{arb}, e)$

e. $[\![\text{Pass}_{\text{undergoer}}]\!] = \lambda e.\ \exists x_{arb}\ \exists x\text{: } vur(e)\ \&\ agent(x,e)\ \&\ undergoer(x_{arb}, e)$

4.5.3 Causatives of unergatives and double passives

We have previously shown that double passives of clauses involving causativization of unergatives are also possible in Turkish. In order to understand the full range of Passive II, we also need to examine such double passive constructions because one may argue that the non-causer argument of these constructions are not necessarily undergoers. Let us recall the data again.

(69) a. *Komutan-lar* *asker-ler-i* *koş-tur-du.*
commander-PL soldier-PL-ACC run-CAUS-PST
'The commanders made the soldiers run.'

b. *Asker-ler* *koş-tur-ul-du.*
soldier-PL run-CAUS-PASS-PST
'The soldiers were made to run.'

c. *Asker-de* *koş-tur-ul-un-ur.*
military-LOC run-CAUS-PASS-PASS-AOR
'One is made to run in military.'

(69a) is a causativized form of an unergative verb *koş* 'run'. (69b) is the Passive I form of the sentence in (69a). Hence, only the runners are syntactically present in (69b). (69c) shows that both the causer and the runner are implicitly present. However, they are not syntactically represented. To provide a syntactic and semantic representation for (69c), we need to make certain assumptions regarding the syntactic and semantic representation of the active causative clause in (69a).[42]

Causation is generally understood in two ways in the literature. One is that the caus predicate is understood to denote a causal relation between two events (Pylkkänen, 2008). Hence, a causative construction as in (69a) would have a bi-eventive semantic representation such that one event would be in a causal relationship with the other. In other words, the relationship between the causing and caused events would also be represented in the semantic formalization of a causativized clause. Hence (69a) can be formalized as in (70) in the bi-eventive view.

(70) ⟦69a⟧ = *λe.* ∃*e'*: *run(e') & agent(the soldiers, e') & caus(e',e) & agent(commanders, e)* (caus-relational model)

[42] Of course, providing a full description of causative structures in general and particularly causatives of unergatives is way beyond the scope of this thesis. There are a lot of discussions on the precise characterization of such constructions (see Pylkkänen, 2008; Key, 2013; Lyutikova & Tatevosov, 2014; Nie, 2020).

(70) essentially refers to an event *e* such that the agent of this event is the commanders and this event caused another event *e'* to take place whose agent is the soldiers. Note that the entry in (70) has two agent predicates; yet this does not cause a theta violation because the agent arguments belong to different events. The caus-relational analysis for causative constructions basically formalizes the intuition that in causative constructions, there must be minimally a causing and caused event.

However, there is a second approach to causativization. Following Reinhart (2003), Neeleman & Koot (2012) argue that although all causative constructions conceptually involve a causing and a caused event, our linguistic representations do not have to involve a separate causing event. In other words, for the event denoted by (69a), while our general cognitive conceptual models may have the representation that the commanders must have done something so that the soldiers carried out the event of running, our semantic formalization may leave out the exact representation of this mental model.

In this latter camp, the causing individual is introduced with the predicate 'caus', which introduces an individual with the causer theta role. Then, the speakers might have the pragmatic inference that if there is an individual introduced with the caus predicate, then that individual must have carried out an action such that the relevant event took place; yet importantly, in this theta role model, the causing event is not semantically represented as a separate event; hence causative structures are necessarily understood to be mono-eventive. According to this description then, the sentence in (69a) can be represented with the theta role model as in (71). Note that since the theta-role model for causative structures posits a cause theta role different from the agent theta role, we could prevent the theta violation in (71), as well.[43]

[43] We will modify our predicate label for the lower argument by the end of this section.

(71) ⟦69a⟧ = *λe. run(e) & agent(the soldiers, e') & caus(commanders, e)*

Now, the question is whether Turkish causatives must be analysed based on the first or the second approach. To start with, let us ask the question of whether Turkish causative constructions are mono-clausal or bi-clausal. Answering this question is important at this point because if they are bi-clausal, then they will also have to be bi-eventive. If they are bi-eventive, we will not have to spend time on entertaining the second possibility, namely the theta role approach. According to Key (2013), Turkish causative structures are mono-clausal. Key (2013) arrives at this conclusion for the following reasons. First, if there were a lower clause in Turkish causative structures, the subject of this clause could be modified by an agentive adverbial. However, such a modification is not possible (cf. (72)). His second motivation comes from binding principles. As is known, pronouns must be free in their binding domains, which can be defined as the minimal clause containing them. Hence, (73a) is ungrammatical because the third person singular pronoun is bound by the R-expression *Tarkan,* which violates Principle B. Key (2013) shows that we observe the same condition B effect once the most external subject of a causativized unergative binds the sentence internal pronoun, indicating that subjects and objects share the same binding domain in causativized unergatives (cf. (73b)). Finally, if Turkish causatives were bi-clausal, the coordination of the caused events would be possible. The data then show that Turkish causatives are mono-clausal.

(72) *Tarkan Hakan-ı bil-erek koş-tur-du.*
Tarkan Hakan-ACC know-PART run-CAUS-PAST
'Tarkan made Hakan run on purpose.'
('on purpose' must refer to Tarkan, not Hakan)

(73) a. *Hakan$_i$ on-u*$_i$ döv-dü*
Hakan 3SG.ACC beat-PST
'Hakan beat him.'

b. *Tarkan$_i$ Hakan-a$_j$ on-u*$_i$/*$_j$ döv-dür-dü*
Tarkan Hakan-DAT 3SG beat-CAUS-PST
'Tarkan made Hakan beat him.'

(74) **Hakan Mahmut-a ev-i temiz-le- veya kira*
Hakan Mahmut-DAT house-ACC clean-v- or rent
öde-t-me-ye karar ver-di.
pay-CAUS-NOM-DAT decision give-PAST
Intended: 'Hakan decided to make Mahmut clean the house or pay rent.'

(Key, 2013, p. 175-176)

Now, we have established that Turkish causatives are mono-clausal. Note that we have tested whether they are mono-clausal or not in the first place because if they were, we could straightforwardly provide an answer to our main question; namely, whether they are bi-eventive or not. Hence, our primary question persists with the conclusion that they are mono-clausal because after all, mono-clausal causative constructions can still be either mono-eventive or bi-eventive.

One of the most common tests to check whether a clause is mono-eventive or not is to try to modify each event with an adverbial. For example, periphrastic causatives both in English (75a) and Turkish (75b) are bi-clausal; hence they involve more than one event variable in their semantic representation. This entails that each event be modified by a separate time adverbial as in (75).

(75) a. On Monday I caused Mehmet to run on Tuesday.

b. *Pazartesi ben Mehmet-in Salı*
Monday 1SG[NOM] Mehmet-GEN Tuesday
gün-ü koş-ma-sın-a sebep ol-du-m.
day-POSS run-NMNZ-POSS-DAT cause be-PST-1SG
'On Monday, I caused Mehmet to run on Tuesday.'

On the other hand, morphological causatives in Turkish never allow such modification. Hence, (76) is ungrammatical to the native speakers of Turkish. One common response from the native speakers to sentences like (76) was that if somebody causes another person to run on Monday as specified in the sentence in

(76), how is it that s/he runs on Tuesday? Needless to say, no such responses were given for such periphrastic causative constructions as (75b).

(76) **Pazartesi* *ben* *Mehmet-i* *Salı*
Monday 1SG[NOM] Mehmet-ACC Tuesday
gün-ü *koş-tur-du-m.*
day-POSS run-CAUS-PST-1SG
Intended: 'On Monday, I made Mehmet run on Tuesday.'

Indeed, native speaker responses to sentences like (76) further corroborate the fact that Turkish causatives are mono-eventive because once modified by only one time adverbial, such sentences entail that the caused event happened on the time denoted by the time adverbial. For example, in (77), the running event cannot have taken place on a day other than Monday. If there were a causing event represented separately from the running event (caused event) as formalized in (70), then the time adverbial could modify the causing event independently of whether the caused event occurs on the time specified by the time adverbial or not. On the other hand, wherever you place the adverb of time in morphological causatives in Turkish, the running event has to have occurred on Monday in the example in (77).

(77) *(Pazartesi)* *Ben* *(Pazartesi)* *Mehmet-i*
(Monday) 1SG[NOM] Monday Mehmet-ACC
(Pazartesi) *koş-tur-du-m.*
(Monday) run-CAUS-PST-1SG
'I made Mehmet run on Monday.'
(Mehmet has to have run on Monday)

Hence, from the short discussion here, we conclude that Turkish causative constructions are both mono-clausal and mono-eventive. Therefore, we need to formalize the sentence in (69a) as in (71), repeated below as (78).

(78) ⟦69a⟧ = *λe. run(e) & agent(the soldiers, e) & caus(commanders, e)*

However, this conclusion causes one potential problem for us. If causative constructions involve only one event variable, then if we assume that the higher argument is an agent, we cannot assume that the lower argument is also an agent

because this would create a theta violation. To prevent this, we already assumed that there is a theta predicate ‘caus’ distinct from the agent predicate as represented in (78). Yet, in our syntactic representation, predicates are introduced via functional heads and we have previously established that an agent head does not have a merge feature. Therefore, it cannot project an argument in its specifier; and hence actual agent arguments are introduced via the functional Voice head, which is positioned on top of an agentP. On the other hand, if we assume that a lower VoiceP exists in Turkish causative structures, then we would also predict a lower passive Voice independent of the higher causer argument (e.g. **Ali koş-ul-dur-du/*Ali run-PASS-CAUS-PST/ Intended: ‘Ali made someone run’), which is never possible in Turkish. To prevent a lower Voice projection, an agentP may be argued to project a specifier position in causative environments. However, this would not be desirable because it would be mysterious how come an agentP happens to merge an argument in some environments and does not in others.

Then, our data, with the theoretical apparatuses that we have posited so far, force us to suggest that the lower arguments of causativized unergatives are merged as undergoers rather than agents. This essentially means that a causative form of an unergative is structurally equal to a causativized form of an unaccusative. Considering our discussion thus far, it is desirable to merge the lower arguments in causativized unergatives as undergoers.

However, the question is whether we have empirical evidence that they are really undergoers. Indeed, we have several pieces of evidence that they function as undergoers rather than agents. First, Nie (2020) shows that one way to understand whether both arguments in a causativized unergative structure behave like agents is to try to associate them with an agentive adverbial. Note here that by agentive, we

refer to both causers and agents. If this agentive adverbial can be associated with both arguments, this would entail that both arguments are agentive and hence the causativized unergatives must be either bi-eventive, in which case the caus head would function as a relation between the two events or mono-eventive, in which case the higher argument would have the theta-role 'causer' and the lower one would have the theta role 'agent' to prevent a theta violation. We have already established that Turkish causative constructions are mono-eventive. Hence, if we can associate the agentive modifier with both arguments in a causativized unergative, then we predict that both arguments must be agentive. If we can associate it only with one argument, then only that argument can be agentive. Considering that the theoretical apparatuses that we have used thus far force us to posit that the lower arguments of causativized unergatives must be undergoers rather than agents, we expect an agentive adverbial to be associated only with the highest cause argument in a causativized unergative construction. Our prediction is borne out as shown in (79).

(79) *Tarkan Hakan-ı* *bil-erek* *koş-tur-du.*
Tarkan Hakan-ACC know-PART run-CAUS-PAST
'Tarkan made Hakan run on purpose.'
('on purpose' must refer to Tarkan, not Hakan) (Key, 2013)

Second, Legate (2014) suggests that in Acehnese the single arguments of unergative predicates behave more patient-like when their predicates are causativized. "For example, peu-grôp 'cause-jump' in (225) [80] receives the interpretation in which a parent is holding a baby, moving the baby up and down" (Legate, 2014, p. 120).

(80) *Lôn* *peu-grôp* *aneuk* *nyan.*
1SG CAUS-jump child DEM
'I made the child jump.'

Similarly, in Turkish, in the sentence in (81), the lower argument cannot be interpreted to be agentive but must be understood to be the one affected by

somebody moving him/her up and down. Note that the sense of being a more patient-like for the lower argument in (81) cannot be attributed to the lower argument being inanimate because being a human, a child is an animate entity.

(81) *Anne-si* *çocuğ-u* *hopla-t-tı.*
mother-POSS child-ACC hop-CAUS-PST
'His/her mother made the child jump/His/her mother moved the child up and down.'

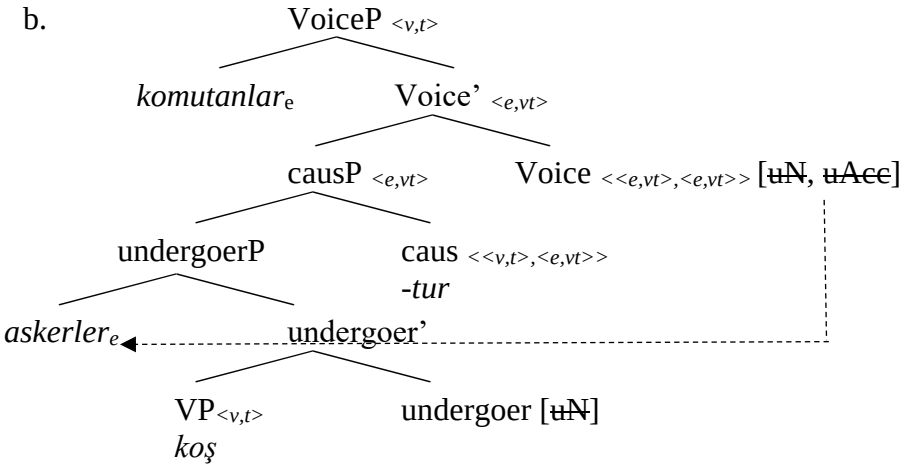
Then, we have evidence that causativized forms of unergative predicates involve one undergoer and one causer. Since our causativized structures involve one event and there is one causer and one undergoer to this event, we can simply assume that the input to the Voice level is causP. Hence, we can also suggest that this causP does not project a specifier, either, just like the agentP. This way, we could argue that the relevant causer can be introduced or suppressed by a higher Voice head. In this analysis, the caus head, just like the agent head, could introduce a predicate of its own, hence introduce an individual theta-marked with the cause theta role.

Based on the discussions so far, we could present the semantic contribution of the 'caus' head as in (82). Basically, (82) is a function with which we can refer to an event *e* involving a cause predicate introducing the causer *komutan-lar* 'the commanders' and the undergoer of the running event would be *askerler* 'soldiers' if applied as in (83b), which is our representation for the sentence in (69a), repeated as (83a). Finally, (84) is a sample semantic derivation for (83b).

(82) $[\![\text{caus}]\!] = \lambda f_{<v,t>}.\ \lambda x.\ \lambda e.\ \&\ f(e)\ \&\ caus(x,e)$

(83) a. *Komutan-lar* *asker-ler-i* *koş-tur-du.*
commander-PL soldier-PL-ACC run-CAUS-PST
'The commanders made the soldiers run.'

b.



(84) a. ⟦VP⟧ = *λe. run(e)*

b. ⟦undergoer'⟧ = ⟦undergoer⟧ (⟦VP⟧)

c. ⟦undergoer'⟧ = [*λf*$_{<v,t>}$*. λx. λe. f(e) & undergoer(x,e)*]([*λe. run(e)*])

d. ⟦undergoer'⟧ = *λx. λe. run(e) & undergoer(x,e)*

e. ⟦undergoerP⟧ = *λe. run(e) & undergoer(the soldiers,e)*

f. ⟦caus⟧ = ⟦caus⟧(⟦undergoerP⟧)

g. ⟦causP⟧ = [*λf*$_{<v,t>}$*. λx. λe. f(e) & caus(x,e)*]([*λe. run(e) & undergoer(the soldiers,e)*])

h. ⟦causP⟧ = *λx. λe. run(e) & undergoer(the soldiers,e) & caus(e,x)*

i. ⟦Voice'⟧ = ⟦Voice⟧(⟦causP⟧) (Voice$_{act}$ is an identity function over arguments of type *<e,<v,t>>*.)

j. ⟦VoiceP⟧ = *λe. run(e) & undergoer(the soldiers,e) & caus(the commanders,e)*

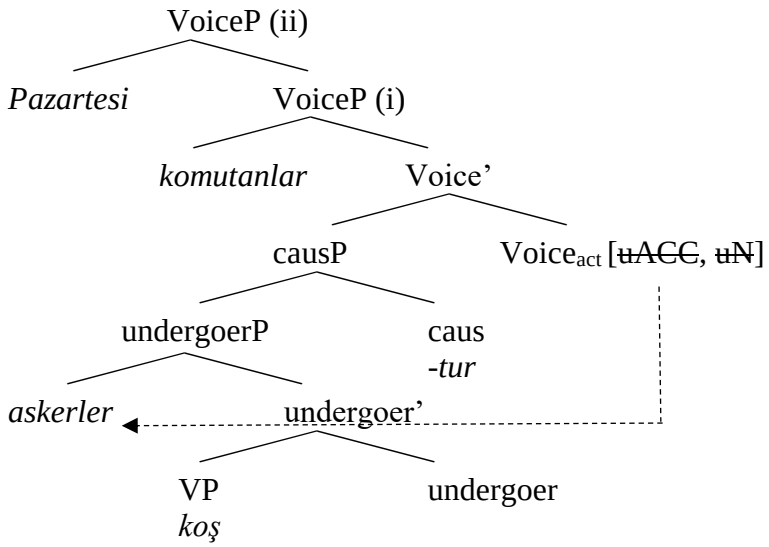
The semantic derivation in (84) also clearly shows us why the running event has to have occurred on Monday in (86). (84j) shows that we cannot associate the time adverbial in (86) with another event because there is only one event variable in its semantic representation. Whether you adjoin the time adverbial to the VP edge or VoiceP edge, or undergoerP edge, the time adverbial can only be associated with the

running event. Let us interpret ‘on Monday’ at the highest level, at the VoiceP level. Let us assume that ‘on Monday’ denotes the function in (85). (87) provides a sample derivation for (86a).

(85) ⟦on Monday⟧ = $\lambda f_{<v,t>}$. $\lambda e.\ f(e)$ & *time(Monday, e)*

(86) a. *Pazartesi* *komutan-lar* *asker-ler-i* *koş-tur-du.*
Monday commander-PL soldier-PL-ACC run-CAUS-PST
‘The commanders make the soldiers run on Monday’
(The soldiers must have run on Monday)

b.



(87) a. ⟦VP⟧ = $\lambda e.\ run(e)$

b. ⟦undergoerP⟧ = $\lambda e.\ run(e)$ & *undergoer(askerler,e)*

c. ⟦causP⟧ = $\lambda x.\ \lambda e.\ run(e)$ & *undergoer(askerler,e)* & *caus(x,e)*

d. ⟦VoiceP (i)⟧ = $\lambda e.\ run(e)$ & *undergoer(askerler,e)* & *caus(komutanlar,e)*

e. ⟦VoiceP (ii)⟧ = $\lambda e.\ run(e)$ & *undergoer(askerler,e)* & *caus(komutanlar,e)* & *time(Monday, e)*

Finally, one may be curious how the causing relation is exactly established in the semantic derivations proposed above considering that they only involve an event with a causer to this event. In bi-eventive analyses of causation, positing two separate events straightforwarly accounts for how the relation can be established between the causing and caused as we have stated previously. In essence, in such accounts, a

separate causing event is available in the semantic derivation such that one can explicitly indicate the causing event. Considering that this causing event has been shown to be absent in Turkish morphological causatives as evidenced with adverbial modification, then how can we represent causality? According to this theta-role view, causality is expressed with the individual that has the causer role in virtue of being the subject of the caus predicate. Then, once there is an individual occupying the subject position of a caus predicate in a construction in Turkish, Turkish speakers might be making the pragmatic inference that the causer must have done something such that the relevant event occurred in a given context. In other words, they might be pragmatically construing the presence of a causer argument as an indication of the presence of a causing event, which does not have to be necessarily semantically present.[44] I leave this last part of my discussion to further research.

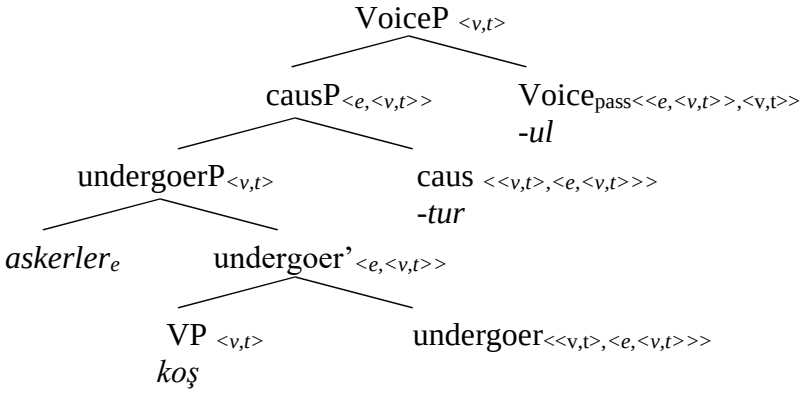
Now, I would like to note that the theta role model for Turkish causatives is desirable because it makes causatives of unergatives on a par with simplex transitives such that we can account for double passives of causativized unergatives uniformly with double passives of transitives. We will see shortly that a bi-eventive analysis of causative constructions do not work with the double passive analysis defended in this thesis. This is actually desirable because it shows that Turkish causatives must be mono-clausal, for they allow double passives. Conversely, if there are double passives in a language and they work in the same way defended in this thesis, then we expect to find mono-eventive causatives. Let us finally start with passives of causatives. Recall that a $\text{Voice}_{\text{act}}$ has a corresponding passive form because a $\text{Voice}_{\text{act}}$ is an argument introducing head. Hence, to passivize the construction in (83a), we must use the passive form of the Voice head, namely $\text{Voice}_{\text{pass}}$ as in (88b). As argued

[44] I would like to thank Dr. Ömer Demirok for this point.

previously, this passive Voice head would existentially close the argument slot opened by the caus level.

(88) a. *Asker-ler* *komutan-lar* *tarafından* *koş-tur-ul-ur.*
soldier-PL commander-PL by run-CAUS-PASS-AOR
'The soldiers are made to run by the commanders.'

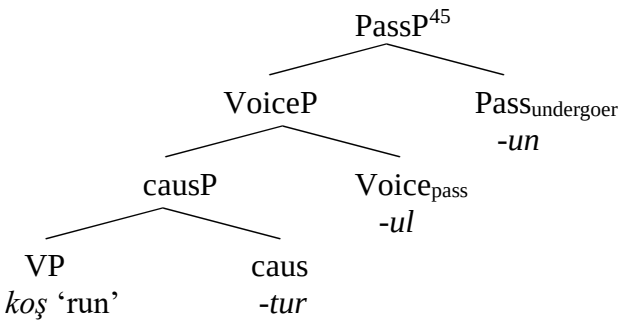
b.



Crucially, an undergoer is also an argument introducing head, therefore it has a corresponding passive form. Also remember that passive constructions are formed when the relevant argument introducing head is never merged to the syntactic structure. Then, we have to argue that the double passive construction in (89a) is formed when the relevant active undergoer head is never merged to the syntactic structure so that its absence could be compensated for by the Pass II head (cf. (89b)). (90) is a sample derivation for (89b).

(89) a. *Asker-de* *koş-tur-ul-un-ur.*
military-LOC run-CAUS-PASS-PASS-AOR
'One is made to run in the military.'

b.



[45] Remember that a Passive II head always follows a Passive I head. Therefore, we merge the $Pass_{undergoer}$ after $Voice_{pass}$. We will discuss the issues of ordering in more detail in the coming chapter.

(90) a. ⟦VP⟧ = $\lambda e.\ run(e)$

b. ⟦causP⟧ = $\lambda x.\ \lambda e.\ run(e)\ \&\ caus(e,x)$

c. ⟦$\text{Voice}_{\text{pass}}$⟧ = $\lambda f_{<e,<v,t>>}.\ \lambda e.\ \exists x\text{: } f(x)(e)$

d. ⟦VoiceP⟧ = $\lambda e.\ \exists x\text{: } run(e)\ \&\ caus(x,e)$

e. ⟦$\text{Pass}_{\text{unergoer}}$⟧ = $\lambda f_{<v,t>}.\ \lambda e.\ \exists x_{arb}\text{: } f(e)\ \&\ undergoer(x_{arb},\ e)$

f. ⟦PassP⟧ = $\lambda e.\ \exists x_{arb}\ \ \exists x\text{: } run(e)\ \&\ caus(x,e)\ \&\ undergoer\ (x_{arb},e)$

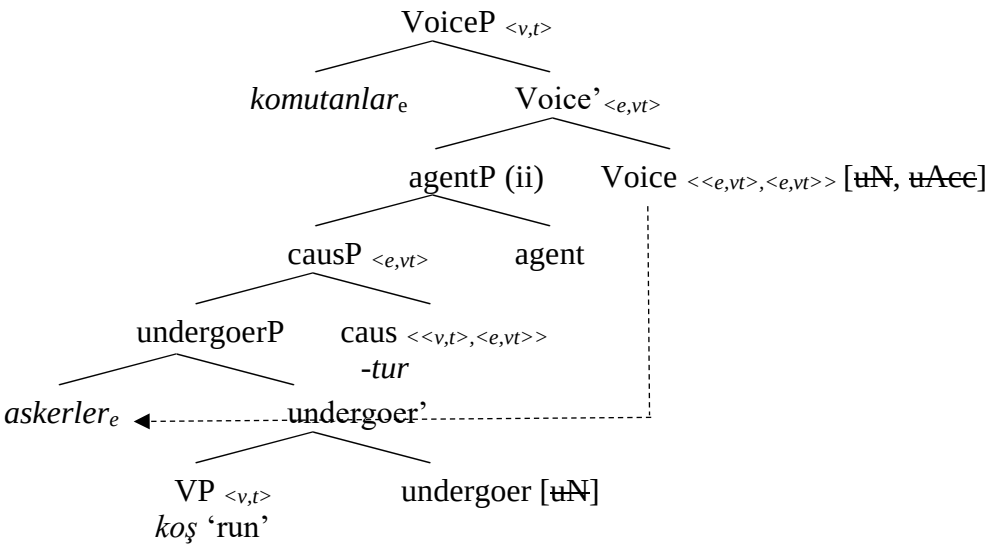
According to the derivation in (90), a caus head introduces the semantic slot for the individual with the causer theta role. However, the passive Voice head existentially binds that argument position. Since the structure also needs an undergoer which undergoes the running activity, the lack of the undergoer is compensated for by the $\text{Pass}_{\text{undergoer}}$ head. This passive predicate introduces the predicate 'undergoer', but existentially closes its argument position. (90f) essentially states that we have an event *e*, which is a running event involving an undergoer $x_{arb,}$ or a group of people and this event is caused by an individual *x*.

At this point, I would like to note that the very characterization of double passives in this thesis is essentially another piece of evidence that Turkish causatives must be mono-eventive. Remember that since the causative constructions in Turkish have only one event variable, one can merge the relevant predicates in any order if there are no syntactic requirements. For example, we could add the passive undergoer predicate after the merging of the cause as we were forming double passives such as *asker-de koş-tur-ul-un-ur* 'one is made to run in militaries'.

However, we will see shortly that this would not be possible if Turkish causatives were bi-eventive. In other words, if our characterization of double passive constructions is correct, and if double passives involving causatives of unergatives is possible, then Turkish causatives cannot be bi-eventive. Remember that if causative

constructions are construed to be bi-eventive, their semantic representation involves two event variables corresponding to two events and these events are related to each other via a causal relation. Hence, the causative operation could be taken as a relation between these two events as argued in Pylkännen (2008). According to that then, we could argue that (91) would be the representation for an active causative construction, where semantically the caus would not bring about the cause theta role but introduce a causal relation between the higher and lower event.

(91)



The semantic derivation of (91) could be minimally presented as in (92).

(92) a. ⟦VP⟧ = *λe. run(e)*

b. ⟦undergoer⟧ = *λe. run(e) & undergoer(the soldiers,e)*

c. ⟦caus⟧ = *λf*$_{<v,t>}$*. λe. ∃e'*: *f(e'). & caus(e',e)*

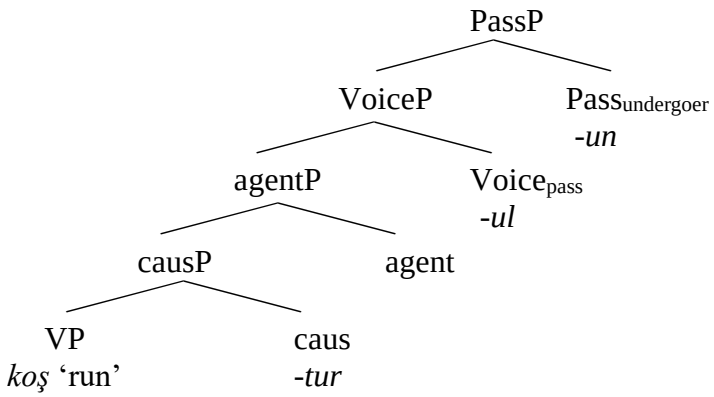
d. ⟦causP⟧ = *λe. ∃e'*: *run(e') & undergoer(the soldiers, e') & caus(e',e)*

d. ⟦agentP (ii)⟧ = *λx. λe. ∃e'*: *run(e') & undergoer(the soldiers, e') & caus(e',e) & agent(x,e)*

e. ⟦VoiceP⟧ = *λe. ∃e'*: *run(e') & undergoer(the soldiers, e') & cause(e',e) & agent(the commanders,e)*

(92e) could potentially refer to a proposition involving two events. One subevent is the running event *e'* whose undergoer is the soldiers. The other one is the matrix event *e* such that this event is related to the soldiers' running via a causal relation where *e* is the cause of the event *e'* and the agent of the causing event is the commanders. In the double passive version of the structure in (91), we need to first merge the causal relation and the Passive I voice such that the highest argument can be suppressed first. Then, we should add the passive form of the undergoer head. In this scenario, we would have the syntactic structure below for a double passive of a causative unergative structure. (94) would be a sample derivation for (93).

(93)



(94) a. ⟦VP⟧ = $\lambda e.\ run(e)$

b. ⟦caus⟧ = $\lambda f_{<v,t>}.\ \lambda e.\ \exists e'\text{: } f(e') \ \&\ caus(e',e)$

c. ⟦causP⟧ = $\lambda e.\ \exists e'\text{: } run(e') \ \&\ caus(e',e)$

d. ⟦agent⟧ = $\lambda f_{<v,t>}.\ \lambda x.\ \lambda e.\ f(e) \ \&\ agent(x,e)$

e. ⟦agentP⟧ = $\lambda x.\ \lambda e.\ \exists e'\text{: } run(e') \ \&\ caus(e',e) \ \&\ agent(x,e)$

f. ⟦Voice$_{pass}$⟧ = $\lambda f_{<v,t>}.\ \lambda e.\ \exists x\text{: } f(x)(e)$

g. ⟦VoiceP⟧ = $\lambda e.\ \exists x\ \exists e'\text{: } run(e') \ \&\ caus(e',e) \ \&\ agent(x,e)$

h. ⟦Pass$_{agent}$⟧ = $\lambda f_{<v,t>}.\ \lambda e.\ \exists x_{arb}\text{: } f(e) \ \&\ undergoer(x_{arb},e)$

i. ⟦PassP⟧ = $\lambda e.\ \exists x_{arb}\ \exists x\ \exists e'\text{: } run(e') \ \&\ caus(e',e) \ \&\ agent(x,e) \ \&$ $undergoer(x_{arb},e)$

As is apparent from (94i), a bi-eventive analysis of causatives coupled with the double passive analysis defended in this thesis causes a theta violation. Essentially, (94i) states that there is an event of running and this event is in a causal relationship with a causing event *e* which has an agent x and an undergoer x_{arb}. However, this is problematic because informally it states that the causing event has two arguments: one agent and one undergoer and there is no argument for running. Since the lower event is already bound by the existential closure at the cause level, once its agent is introduced above caus, there is no way to bind it under the running event later. However, in double passive constructions, we know that the first passive targets the argument of the causing event, hence the argument of the caused event must be targeted later. Once it is merged later though, the outcome is a theta violation in that one theta role of the running event cannot be assigned.

On the other hand, recall that in a mono-eventive analysis of causatives, we can simply add the cause predicate first and add another predicate; namely an undergoer predicate for example, to the same event such that we derive the correct result. In this sense, our representation for the double passives of causatives derived from unergative predicates is exactly the same as simple transitives such as *vur* 'shoot', which is a desirable property of our characterization of double passives because essentially the causatives of unergatives are also transitives, and hence are subject to double passivization just like simple transitives.

4.5.4 By-phrases and Passive II

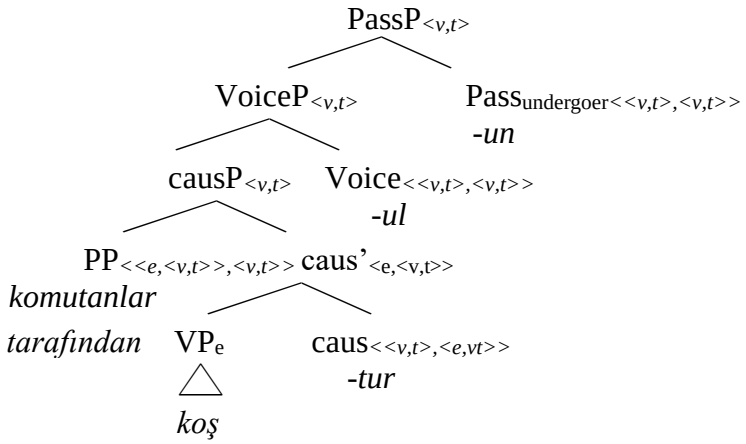
Our data have shown that it is not possible to have by-phrases with Passive II clauses. This is expected because by-phrases adjoin to phrases that denote functions of type $<e,<v,t>>$ such that they can saturate the argument slot introduced by their

heads. Passive I is characterized to take such phrases as its inputs. Hence, once there is no by-phrase, Passive I can existentially close the relevant argument position and when there is a by-phrase, Passive I works like an identity function. However, what is important is that Passive I does not introduce a predicate on its own. The predicative information comes from a lower agentP or a causP to which a by-phrase can be attached. Therefore, the first passive of double passive constructions will always be compatible with by-phrases.

Remember that Passive I is the passive operation corresponding to $\text{Voice}_{\text{act}}$. Furthermore, note that agentP/causP and VoiceP are the divided or non-bundling (see Harley (2017)) forms of the functions of vP. Let us recall that little vP is generally assumed to have three functions: introduce the semantics of agency/causation, introduce the actual initiator/causer argument, check accusative case. In the non-bundling approaches to vP, these functions are shared between two heads: agentP/causP responsible for introducing the semantics of agency/causation, and $\text{VoiceP}_{\text{act}}$, responsible for syntactically merging the actual agent or causer and checking accusative case. If the voice type is not $\text{Voice}_{\text{act}}$, but $\text{Voice}_{\text{pass}}$, then the external argument is not syntactically merged, and the relevant semantic slot introduced by agentP/causP is existentially closed by $\text{Voice}_{\text{pass}}$. Needless to say, accusative case is not assigned, either. Now, see the following example.

(95) a. *Asker-de* *komutan-lar* *tarafından* *koş-tur-ul-un-ur.*
military-LOC commander-PL by run-CAUS-PASS-PASS-AOR
'One is made to run by the commanders in military.'

b.



For the first passive, there is an attachment site for the by-phrase. The attachment site is the causP. Since by-phrases take arguments of type *<e,<v,t>>*, causP is an appropriate attachment site for them. However, there is no attachment site for a by-phrase for the second passive operation. Whether we adjoin it to VoiceP or $PassP_{undergoer}$, we get a type mismatch and thus an uninterpretability arises because both of these heads are functions of type *<v,t>* and by-phrases take functions of type *<e,<v,t>>*. Our account of double passives naturally accounts for why a second by-phrase is disallowed in double passives (cf. (96)).

(96) **Asker-de komutan-lar tarafından asker-ler -ce/tarafından*
military-LOC commander-PL by soldier-PL by
koş-tur-ul-un-ur.
run-CAUS-PASS-PASS-AOR
Intended: 'Forced by the commanders, there is running by the soldiers in military.'

Our characterization of Passive I and Passive II has one final interesting prediction with regard to the use of by-phrases. As mentioned previously, one can use by-phrases with the passives of unaccusatives only when the unaccusative predicate is interpreted to be agentive. We have argued that this is because unaccusative verbs in such instances earn the status of unergativity. In other words, the presence of by-phrases in these examples indicates the availability of an attachment site for the by-phrase, which is designated to be agentP/causP in our

analysis. The Voice on top of these levels make sure that a passive Voice head is selected, as well. The idea was that a meaning extension for unaccusative predicates was possible because verbs in Turkish only denote events. Hence, rather than an undergoerP, one can associate an agentP with an unaccusative predicate. Thus, the resulting structure would have an unergative interpretation and open up the possibility of attaching a by-phrase to the structure if the Voice is passive.

However, in double passives no such meaning extension or structural change is possible because double passives are derived from (di)transitive structures which already have an agentP/causP and VoiceP levels. When the Voice head is passive, the by-phrase is compatible with the structure, hence the first passives of double passives can have by-phrases in their structral representations because these by-phrases can be attached to agentP/causP of the (di)transitive structure. On the other hand, for the second passive, one cannot iterate another an agentP/causP and VoiceP level. We know that this is the case because we never find more than one passivization in a causativized unergative in Turkish.[46]

Hence, the point is that with unaccusatives, adding by-phrases may be possible with semantic anomalies because you can modify their structural representation such that rather than an unergoerP, an agentP-VoiceP can be inserted to their structure, resulting in a structure changing the meaning of the verb, thus generating an attachment site for by-phrases. The very fact that you derive a semantic anamoly with by-phrases implies the possibility of adding an agentP-VoiceP level to an unaccusative predicate. Yet, adding a new agentP/causP-VoiceP to a structure which already has them is not possible; therefore, attempting to reintroduce the argument suppressed by the second passive in double passive clauses

[46] Hence, it seems that in Turkish there can only be one Voice level per clause.

with a second by-phrase simply forms an ungrammatical string of words as in (96) because in such constructions there is no attachment site for a second by-phrase. Crucially, one cannot even add a second attachment site to these structures at the cost of semantic anomalies as can be done with unaccusative predicates.

In summary, creating a syntactically grammatical but semantically anomalous passive sentence formed with an unaccusative predicate with a by-phrase is possible because one can associate an agentP-VoiceP with an unaccusative predicate. However, trying to add a second by phrase to a structure like (95b) is grammatically futile, for no attachment site is available there, which generates a syntactically ungrammatical sentence, not even an anamalous one. (95b) shows us that there is only one level that is of the correct type for the by-phrase; the causP level. On the other hand, both VoiceP and PassP denote functions of type <*v*,*t*>.[47]

4.5.5 A note on aspectual restrictions of Passive II

Sezer (1991) observes that passives of unergatives behave differently from passives of unaccusatives in that the former can occur in a variety of temporal/aspectual environments whereas the latter's distribution is more restricted (cf. (97)).

(97) a. Unergatives

Dün burada ne oldu?
'What happened here yesterday?'

-- *oyna-n-dı* 'it was played.'

çalış-ıl-dı 'it was studied.'

hayal kur-ul-du 'it was daydreamed.'

[47] One cannot iterate agentP/causP-VoiceP in a structure because this would essentially correspond to a causative structure. However, we have established following Key (2013)'s argumentation that Turkish causatives are mono-eventive. Hence, we could associate only one theta role/predicate with the relevant structure. Turkish also seems to have reduplicated causatives on the surface; however, Key (2013) shows that the reduplication is just morphological, hence there is no real reduplication in the language. We will discuss these issues in the next chapter, as well.

b. Unaccusatives

Dün burada ne oldu?
'What happened here yesterday?'

-- **öl-ün-dü* 'it was died.'

**kaybol-un-du* 'it was gotten lost.'

**ihtiyarla-n-dı* 'it was gotten old.'

(Sezer, 1991, p. 65)

(98) a. *Dikkat et, burada çok fena kay-ıl-ır.*
attention do here very badly skid-PASS-AOR
'Be careful, one skids here very badly.'

b. **Ay, dün burada çok fena kay-ıl-dı.*
oh yesterday here very badly skid-PASS-PST
'Oh, yesterday, it was skidded here very badly.'

(Sezer, 1991, p.64)

(99) a. *Bu yetimhanede çabuk büyü-n-ür.*
this orphanage fast grow-PASS-AOR
'One grows fast in this orphanage.'

b. **Şimdi-ye kadar bu yetimhanede çabuk büyü-n-dü.*
now-DAT until this orphanage quickly grow-PASS-PST
'Until now one grew fast in this orphanage.'

c. **Tabii ki bun-dan sonra da çabuk büyü-n-ecek-tir.*
surely this-ABL after also quickly grow-PASS-FUT-COP
'Surely from now on one will grow fast also.'

(Sezer, 1991, p. 64)

The data in (97) show that passives of unergatives (Passive I) can be felicitously used in episodic contexts whereas passives of unaccusatives (Passive II) are unacceptable in the same environments. Similarly, the data in (98) show that while an episodic context is unavailable for passives of unaccusatives (cf. (98b)), they can be easily used in non-episodic or generic contexts as in (98a). Furthermore, while (99a) is totally acceptable as it is used in aorist, the eventive context in (99b),

referring to a past event and (99c), referring to a future event, are not compatible with passives of unaccusatives.

Based on these data, Sezer (1991) concludes that passives of unaccusatives cannot be derived in the same manner as the passives of unergatives. More specifically, he suggests that while passives of unergatives behave like true dynamic events, passives of unaccusatives seem more adjectival or stative. He cannot point to a specific way of deriving passives of unaccusatives, however, in this thesis we have shown that his data intuitions and observations are correct. We derived passives of unaccusatives differently from passives of unergatives. More specifically, we suggested that while passives of unergatives are formed by involving the Voice projection, passives of unaccusatives are derived via a Passive II head, or passive form of the head introducing the undergoers. We have further supported our proposals examining the distribution of by-phrases and the humanness condition.

Crucially, we have also observed that the second passive of double passive clauses is subject to the same restrictions of passives of unaccusatives or more generally passives derived via non-Voice projections, or Passive II heads. We have therefore argued that the second passive of double passives must be the same passive operation as in passives of unaccusatives whereas the single passive of (di)transitives, unergatives and the first passive of double passives must be the same operations. In other words, we have classified passive operations as those that are derived via a Voice projection and those that are derived via a non-Voice projection. Indeed, by such classification and the lexical entries given for each passive class, we could easily account for the non-availability of by-phrases and the obligatory +human reading of passive clauses derived with Passive II as opposed to those derived in Passive I. However, we delayed providing a satisfactory analysis for the

aspectual restrictions observed in Passive II clauses until now. In this subsection, we will try to catch a glimpse of the aspectual distribution of Passive II clauses and why it might be the case that they are not allowed in eventive contexts.

However, note that tense, aspect, and modality in Turkish is a multifaceted issue and our small discussion here will not do justice to its full complexity. Therefore, the issue to be discussed here must be scrutinized in future research. On the other hand, since one of our tests to align the second passives of double passives and passives of unaccusatives with each other was their aspectual distribution as opposed to passives of unergatives and (di)transitives, we should minimally provide a direction for further research in this section. To do this, we will primarily benefit from Fábregas & Putnam (2014), which is a work on middle constructions, particularly in Swedish and Norwegian.

Now, note that Sezer (1991)'s conclusion from the distribution of passives of unaccusatives is that they are not derived in the same manner as the passives of unergatives and they cannot be eventive. Özkaragöz (1986) also observed that double passives can only be used in aorist. If the second passive of double passives align with passives of unaccusatives, one can also conclude that double passives are non-eventive as well. Remember the data below.

(100) a. *Asker-de* *Ahmet* *koş-tur-ul-du.*
military-LOC Ahmet run-CAUS-PASS-PST
'Ahmet was made to run in military.'

b. **Asker-de* *koş-tur-ul-un-du.*
military-LOC run-CAUS-PASS-PASS-PST
'One was made to run in military.'

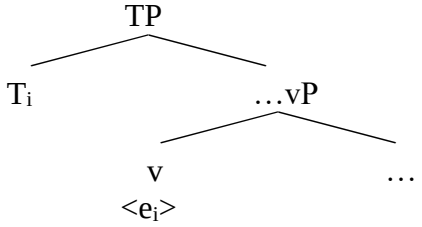
c. *Asker-de* *koş-tur-ul-un-ur.*
military-LOC run-CAUS-PASS-PASS-AOR
'One is made to run in military.'

(100a) shows that Passive I has no aspectual restrictions. It can freely occur with past tense and refer to a specific event having taken place yesterday. On the other hand, a Passive II clause as in (100b) cannot refer to a specific event in the past. Once it is used with the aorist, it becomes acceptable as shown in (100c). The contrast between the double passives in (100b) and (100c) shows that the cause of unacceptability must be Passive II in (100b) because without it, the sentence becomes grammatical in past tense as in (100a). Hence, there is some type of limitation in the use of Passive II with past tense or more generally with episodic contexts. Similarly, double passive constructions formed with simple transitive predicates cannot be used in episodic contexts, either (cf. (101)).

(101) *Harp-te vur-ul-un-ur/*-du/*-acak.*
war-LOC shoot-PASS-PASS-AOR/PST/FUT
'One is/was/will be shot in war.'

To further understand why Passive II complexes are not compatible with tenses, which refer to events, one needs to understand what a tense head does semantically. Enç (1987) and Roeper & Van Hout (1998) as cited in Fábregas & Putnam (2014) state that the T head in syntax semantically anchors an event to a specific point in the time axis. Thus, Fábregas & Putnam (2014) state that there has to be an event variable in the semantic derivation for a tense to bind the variable such that the event is situated at a time interval at, before or after the utterance time. They suggest that what tense does can be simplistically represented as in (102b).

(102) a.



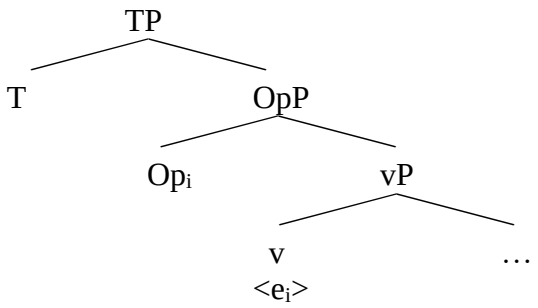
b. ∃e[P(e) & T(e)]

Crucially, middles are constructions where tense cannot bind the event variable either because it is absent in the structure or it is already bound by an intervening operator. They suggest that there is not one type of middle structure but all the constructions where the event variable cannot be bound by tense for some reason or another is interpreted to be non-eventive, thus middle. Crucially, they suggest that middles can be derived from passive constructions as well (cf. (103)).

(103) *Denne* *bandasjen* *fjerne-s* *let* *fra* *huden.*
this bandage-DEF removes-PASS easily from skin-DEF
'This bandage is easy to remove from the skin.'

According to Fábregas & Putnam (2014), (103) is a middle construction which also involves passivization. They suggest that (103) must be a middle construction because the event referred to by the verb *fierne-s* 'remove-PASS' is understood to have never occurred. The only thing that (103) does is attributing a dispositional property to the surface subject, which is generally assumed to be a property associated with middle constructions (Alexiadou, 2014). Thus, they propose that all verbal middle statements involve a modal operator before tense such that the modal operator binds the event variable, and hence tense cannot directly situate the event to a time interval at the time axis. This way, they generate a derived stative.

(104)



Importantly for our purposes, there seems to be a striking similarity between what they describe as middles in examples like (103) and passives of unaccusatives and double passives in Turkish. First, both (103), and passives of unaccusatives and double passives are non-eventive. Thus, the event denoted by the verb in both

instances is understood not to have taken place. Second, both constructions involve an ascription of disposition to an item in the sentence. This item is the logical object or grammatical subject in (103) whereas in our double passive or passive of unaccusative examples, it is a locative object. For example, in (100c), the speaker attributes a property to militaries in general that there is an event of making people run in every situation involving militaries. Understandably, the event of making people run is not necessarily interpreted to have occurred.

By highlighting the similarities between these two constructions, I am not making the claim that double passive constructions and passives of unaccusatives are indeed middle constructions. Discussing middles and their properties are beyond the scope of this thesis. However, based on the similarities between middles as described in Fábregas & Putnam (2014) and Passive II constructions in Turkish, I would like to suggest that Passive II sentences necessarily involve the binding of the event variable such that the tense operator cannot existentially bind it. More specifically, I would like to argue that since the non-eventivity observed in double passive constructions is strictly dependent on the presence of the second passive operator (since otherwise, the structure becomes compatible with eventivity), a Passive II head existentially quantifies not only over the individual variable but also the event variable. Hence, we need to slightly modify the semantic entry provided for Passive II heads as in (105).

(105) $[\![\text{Passive II}]\!] = \lambda f_{<v,t>}.\ \exists e\ \exists x_{arb}\text{: } f(e) \ \&\ undergoer(x_{arb}, e)$

Since the event variable is already bound by the existential quantification at the Passive II level, the past tense cannot anchor the event to a specific point at a time axis because there is no event variable to be quantified by the tense head. Therefore, we suggest that passive clauses derived with Passive II heads are never

compatible with eventive contexts, for eventive contexts require the presence of a lambda-bound event variable to be bound by the tense operator.

The entry in (105) does not seem to have a variable to be taken as an input to the aorist, either. Yet, remember that since situation and world variables are not directly relevant to my purposes, I have left them out thus far. However, they are part of the lexical entries provided in this thesis; hence the aorist can work with the situation variable such that it could universally quantify over the situation variable. Since the event variable is already closed by the Passive II head, the meaning that 'in all situations involving militaries, there is an event of making people run' can easily be derived (e.g. $\forall s$, *military(s)* $\rightarrow \exists e\ \exists x\ \exists x_{arb}$: *cause(x,e) & undergoer(*x_{arb}*, e)*). We may achieve this result once we assume that aorist, or the generic operator may have a form such that it only operates over the situations.

A small note is in order here. Fábregas & Putnam (2014) are not very explicit with their characterization of the binding of the event variable by a modal operator on top of the vP domain. I simply assumed that the event variable is bound by existential quantification. Therefore, binding the event variable and its relation to aspectual markers such as the aorist require further research. What is important for us at this point is that if Passive II heads also bind the event variable, there is no way for a tense to existentially bind the event variable anymore and therefore it cannot place it at a reference point in the time axis. Since I assume that a tense operator cannot anchor an event to a reference point in any other way, then aspectual or modal operators can interact with the Passive II and anchor it to a reference point by other means. That is why, it is often the case that we find the aorist with Passive II clauses.

The analysis pursued here has one natural implication. Passive II's cannot be interpreted under tense markers but can be found with other aspectual markers

including, but not necessarily the aorist. For example, the past tense morpheme *-DI* in Turkish can be used with the clitic *-mI* in its conditional sense, in which case the past tense marker brings about a generic/quasi-universal reading on par with the use of aorist as shown in (106) rather than the past tense. In this scenario, it is possible to use the past tense morpheme with Passive II projections.

(106) a. *Bu* *çukur* *çok* *derin. Bir* *kez* *düş-ül-dü* *mü,*
this pit very deep. one time fall-PASS-PST CL
geri *çık-ıl-maz.*
back go.up-PASS-NEG.AOR
'This pit is too deep. Once one has fallen into it, s/he cannot go up.'

b. *Savaş-lar* *çetin-dir.* *Bir* *kere* *vur-ul-un-du* *mu*
war-PL hard-MOD one time shoot-PASS-PASS-PST CL
geri *dön-üş* *ol-maz.*
back turn-NOM be-NEG.AOR
'Wars are difficult. Once one is shot, there is no turning back.'

In summary, in this section, following Fábregas & Putnam (2014), we have suggested that Passive II heads may bind the event variable, as a result of which the tense operators cannot existentially bind the event and thus cannot situate the event at a reference point in the time axis. Hence, we have argued that this might be the underlying reason why Passive II clauses are not compatible with tense markers involving past or future reference. However, as we have stated previously, there is no way to do justice to the aspectual constraints on the use of Passive II and temporal/aspectual properties brought by it in this thesis. The aim of this section was to share our observations with respect to the aspectual constraints of Passive II and a potential way to go for in the exposition of these constraints.

I conclude this section by stating that coupled with our previous tests to differentiate between Passive I and Passive II, the aspectual patterns that we have observed in Passive II as opposed to Passive I show us that the distinction made between Passive I and Passive II is empirically well grounded in any scenario. There

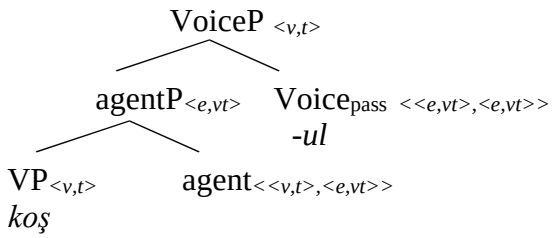
must be a reason why clauses involving Passive II cannot be used in eventive and episodic contexts. I leave the issue here for a more detailed further research.

Finally, I would like to note that although Sezer (1991) claims that passives of unaccusatives are completely unacceptable in eventive contexts, they become compatible with the tense markers if the event is stated to be iterated in passive clauses involving unaccusative predicates. In this subsection, I am not going to provide the relevant examples. However, the last chapter, Chapter 6, of this thesis will also touch upon them as materials to be investigated in future research.

4.5.6 Passives of unaccusatives and unergatives

We have previously shown that passives of unergatives must involve Passive I because they behave on a par with passives of (di)transitives which we have established to involve Passive I. Thus, passives of unergative predicates involve the use of $\text{Voice}_{\text{pass}}$ on top of agentP as represented in (107). We have concluded that when a by-phrase is needed, there is an attachment site for it, which is the agentP. Therefore, unergative passives are structurally/semantically compatible with by-phrases; yet there might be further pragmatic licensing conditions for their use.

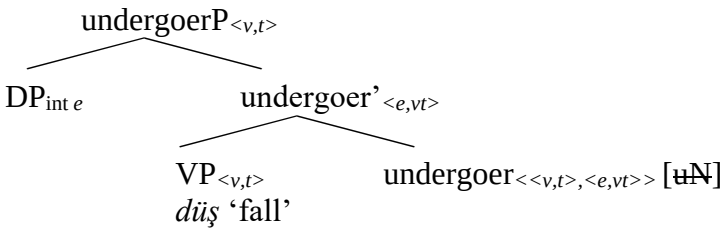
(107)



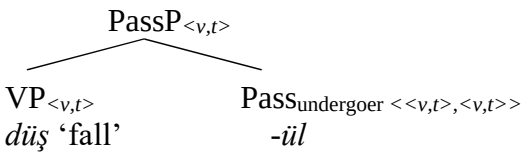
On the other hand, in its active form, an unaccusative predicate could be represented as in (108a). In (108a), the undergoer head takes a function of type <*v*,*t*> as its argument and introduces the undergoer predicate to the event. An active undergoer head merges a full DP which saturates the subject of the undergoer. Syntactically, that DP checks off the N feature of the undergoer head.

Its corresponding passive form does not have a merge feature, thus does not merge a DP syntactically as shown in (108b). However, it still takes functions of type *<v,t>* as arguments and introduces the undergoer predicate. The passive undergoer head comes with an in-built existential quantification over the subject position of the undergoer predicate. This is the case because no DP is present in the structure; hence, the passive form must existentially close the open undergoer position as in (108b). As is clear in the structure in (108a), unaccusative predicates do not naturally involve an agentP-VoiceP level. Hence, their passive forms cannot be derived using these projections. This entails that they cannot be compatible with by-phrases (unless there is a meaning extension), for their passive forms do not harbour an attachment site for by-phrases as seen in (108b).

(108) a.



b.



To summarize, we suggest that just like active heads may introduce predicates, passive heads can also do the same. Active heads have syntactic merge features. On the other hand, their corresponding passive heads do not have merge features; therefore, they do not syntactically introduce arguments. Instead, they directly existentially quantify over the argument slots occupying the predicative positions introduced by the passive heads. In other words, an active undergoer head introduces the predicate 'undergoer'; however, it does not directly close the argument position opened by the introduction of the predicate. It first merges the

syntactic undergoer, which in turn saturates the subject position of the predicate. On the other hand, its passive counterpart $Pass_{undergoer}$, does not introduce the undergoer argument syntactically. Just like its active counterpart, it introduces the predicate 'undergoer'. The difference between the two is that the latter already comes with the existential quantification over the subject of the predicate.

4.6 Conclusion

In this chapter, we have discussed potential approaches to double passivization; namely, whether it can be better represented with syntactic, semantic, or mixed accounts. We have concluded that semantic accounts must be exhausted because of the evidence deriving from the Agree mechanism and quantificational variability.

In the previous chapter, we showed that Turkish personal passives behave on a par with impersonal ones in many respects. For example, Turkish passive clauses all show quantificational variability, behave similarly under control constructions like *-ArAk* clauses, show identical binding properties and so on. Hence, we have established that both personal and impersonal passive clauses must be derived in the same manner contra Legate *et al*. (to appear). On the other hand, in this chapter, we have established that there are minor differences between the passives of unaccusatives and the second passives of double passives on the one hand, and the passives of unergatives and passives of (di)transitives on the other hand.

For example, we have shown that by-phrases are available to passives of unergatives and single passives of (di)transitives, but not to the passives of unaccusatives and the second passive of double passives. We have also observed that implicit arguments of passives of unergatives and single passives of (di)transitives can be understood to be non-human whereas they must be human in passives of

unaccusatives and the second passive of double passives. Finally, we have indicated that passives of unaccusatives and double passives cannot be used in eventive contexts whereas passives of unergatives and single passives of (di)transitives can.

With these data, we have aligned the passives of unergatives and single passives of (di)transitives with each other because both structures commonly involve the presence of a Voice level, from which we argued that Passive I clauses are derived. A passive Voice head does not incur aspectual constraints potentially because it does not bind the event variable. A passive clause derived via a passive Voice head is compatible with a by-phrase because a passive Voice head is merged on top of an agentive phrase such as agentP or causP that denotes functions of type $<e,<v,t>>$, which is compatible with the semantic type requirements of by-phrases. Finally, the implicit argument of a passive clause derived with a passive Voice head does not have to be a human because the variable that a passive Voice head existentially quantifies over is not defined exclusively for humans.

We have also aligned passives of unaccusatives and the second passive of double passives together because they are formed via a non-Voice related passive head. We have labelled it as the Passive II head, which is argued to project higher than the $\text{Voice}_{\text{pass}}$ head. We have argued that double passives are formed when a (di)transitive structure involves the projection of a passive VoiceP and a Passive II head (a $\text{Pass}_{\text{undergoer}}$ head).

CHAPTER 5

VOICE DOMAINS, PASSIVE I AND PASSIVE II

5.1 Introduction

In the previous chapter, we have argued that double passive constructions do not involve the syntactic presence of an implicit argument. More specifically, we have argued that there are two ways of forming a passive clause depending on the structural properties of an event. If the structure involves an unergative verb, it must necessarily have an agentP-VoiceP level. We have argued that passives of unergatives are generated via the merging of the passive form of a Voice head. Like its active counterpart, a passive Voice also takes an agentP/causP as its argument. However, unlike its active counterpart, it does not project an argument onto its specifier. Rather, it existentially closes that argument position. Since a lower agentP/causP is its input, a passive Voice, like its active counterpart, cannot introduce an event predicate. It may only manipulate its semantics. Such a split between the agentP/causP and VoiceP level enables us to locate an attachment site for by-phrases. They can attach to the edge of agentP/causP's, in which case we have argued that a passive Voice behaves like an identity function over events.

On the other hand, we have argued that there is a second passive head corresponding to the other argument introducing head, the undergoer head. An active undergoer head introduces an undergoer argument onto its specifier. We have shown that its passive counterpart introduces the predicate 'undergoer', as well. However, the subject of this predicate comes as being existentially closed in the lexical entry of $\text{Pass}_{\text{undergoer}}$. More generally, we have argued that these active and passive pairs are comparable to each other in terms of their functions and meanings. For example, we

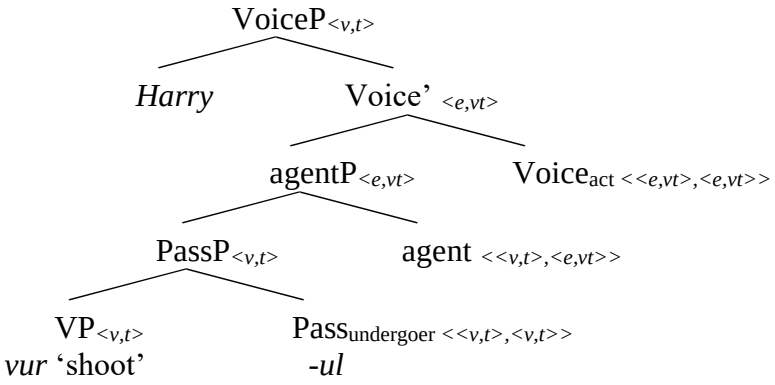
have shown that a Voice_{act} takes a function of type $<e,<v,t>>$; then returns the same function such that the argument projected in its specifier can saturate the argument position of the input function. Similarly, its passive form also takes functions of type $<e,<v,t>>$, yet since a passive Voice does not introduce arguments, it saturates the argument position of the input function by existentially closing it.

An active undergoer head takes arguments of type $<v,t>$ and introduces an undergoer to the event. Similarly, its passive form introduces the predicate 'undergoer' to the event. However, since passive heads do not introduce syntactic arguments, the lexical entry of a passive undergoer head comes with an in-built existential closure over the subject of the undergoer. This way, we could account for why Passive II cannot be compatible with by-phrases because both the input to and the output of the Passive II functions are of the type $<v,t>$, which is not compatible with the semantics of by-phrases because they take functions of the type $<e,<v,t>>$.

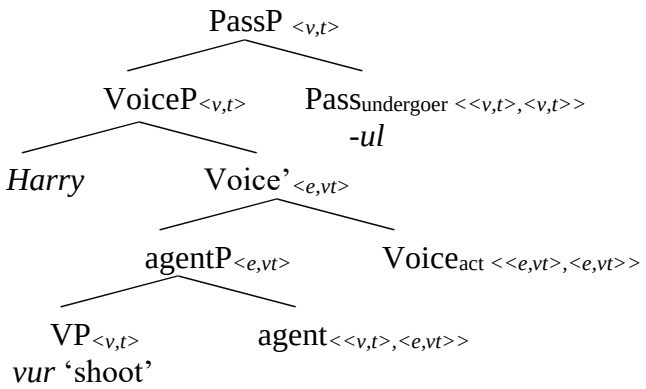
However, at this point, a careful reader might ask how our approach to double passive constructions does not over-generate anti-passive forms. Note that our approach to passivization as it is now is very weak in that one can actually derive a structure where an active Voice head is first merged to the structure such that the external argument is projected, but the internal argument semantics can be provided by a higher Passive II head as either in (1b) or (1c) . Such a representation would correspond to the anti-passive clause in (1a).

(1) a. **Harry* *vur-ul-du.*
Harry shoot-PASS-PST
Intended: 'Harry shot somebody.'

b.



c.



Both (1b) and (1c) are generatable under our approach to passivization; yet anti-passive structures are never available in Turkish. Therefore, we need to define a strict order of application for how passive heads can be merged given an event and its structure. Hence, I devote the current chapter to the Voice and Pass heads and their order of application depending on the active and passive domains. To prevent such formations with the system defended in this thesis, we are going to restrict the way that we apply functional heads related to the argument introduction or suppression. In the next section, we are going to introduce concepts such as voice domains (e.g. active and passive domains) and internal hierarchies within each domain. In Section 5.3, we are going to posit a further motivation for the presence such domains. Then, we are going to make further points about certain remaining issues in Section 5.4. Section 5.5 is going to conclude this chapter.

5.2 Voice domains and their order of application

As discussed previously, we have assumed that just like $Voice_{act}$ has a corresponding non-argument-introducing head, namely Passive I, an active undergoer head has a corresponding passive form, which we labelled as a Passive II head. By assuming that much, we could account for how passives of unaccusatives or double passives are possible. However, we have not restricted their domains of application. Therefore, our theory predicts anti-passive structures in (1b) or (1c).

The constructions like (1a) are conceivable within the approach that I am following. They are syntactically derivable, for we have not assumed any strict selectional features in this neo-Davidsonian syntax. Furthermore, the potential syntactic derivations in (1b)-(1c) for (1a) are also semantically interpretable since there are no type-mismatch problems. Thus, both structures in (1) would refer to the anti-passive construction in (1a). However, the problem is that Turkish does not allow the anti-passive reading specified in (1a). The only interpretation available to that sentence is the regular passive meaning where *Harry* is the undergoer rather than the agent. Therefore, our system must rule out structures like (1b-c).

To do this, we must examine our data once again. We have observed that Passive II always follows Passive I when they co-occur in a structure. Thus, it must be the case that Passive II is syntactically strictly projected higher than Passive I. Therefore, I propose that the following configuration must hold: $Voice_{pass}$ (Passive I) $\prec$ Passive II where '$\prec$' shows the strict precedence relation between Passive I and Passive II. On the other hand, we know that $Voice_{act}$ and $Voice_{pass}$ project at the same position; thus they are in complementary distribution, for they are the different flavors of the same head; hence I propose that the following configuration must hold: $Voice_{act} = Voice_{pass}$ where = represents the complementarity between the two Voice

heads. If $Voice_{act}$ = $Voice_{pass}$ and $Voice_{pass}$ (Passive I) ≺ Passive II, then logically, $Voice_{act}$ ≺ Passive II must hold, as well. The ordering here naturally rules out structures like (1b) where Passive II precedes $Voice_{act}$. However, it still allows structures like (1c) where Passive II is higher than $Voice_{act}$.

To rule out structures like (1c), I will propose that syntactic structures also have their domain of application. More specifically, I will propose that active and passive heads do not belong to the same domain. Thus, a structure may be derived from the inventories chosen from the active domain, which would create a fully active sentence (e.g. *Askerler düşmanları vurdu.* 'The soldiers shot the enemies.') or those chosen from the passive domain, which would create a fully passive sentence (e.g. *Harpte vurulunur.* 'One can be shot in war.') Alternatively, one could mix the domains in a very ordered way to get a clause which involves an active head as well as the Passive I only (*Düşmanlar vuruldu.* 'The enemies were shot.').

An active domain would involve argument introducing heads like the undergoerP and agentP-$VoiceP_{act}$ whereas the passive domain would include heads like agentP-$VoiceP_{pass}$ and $Pass_{undergoer}$. Note that agentP belongs both to the passive and active domains because it is the input to the voice heads (e.g. $Voice_{act/pass}$). Crucially, heads belonging to a domain are also hierarchically ordered. For example, the Turkish data have shown us that Passive I always precedes Passive II. Conversely in the active domain, an undergoerP always precedes agentP-$VoiceP_{act.}$ Thus, if the derived event needs to express an undergoerP and an agentP-VoiceP for example, the undergoerP must precede the agentP-VoiceP sequence.

Of course, such a strict hierarchical ordering within a domain entails that if a higher head is projected within a syntactic structure in a certain domain, the lower head must have been merged as well. At this point note that what I am proposing is

not an extra stipulation to the syntactic system. Indeed, it is not even a stipulation. I am using already-available tools to motivate the strict hierarchy among heads in a certain domain. The strict ordering is already a general assumption of the syntactic theory. We know that recent cartographic approaches to syntax assumes that certain heads have to be ordered in a certain way (see Baunaz *et al.* (2018) for nano-syntactic approaches). For example, the event decomposition of Ramchand (2008) presupposes that events are formed with three basic heads resP, procP and initP in the syntax and these heads are ordered in a way that cannot be made upside down.

Indeed, such orderings in syntax were captured by thematic hierarchies even in the early periods of syntactic theory (Fillmore, 1968; 1971; Belletti & Rizzi, 1988; Bresnan & Kanerva, 1989; Jackendoff, 1990; Speas, 1990; Van Valin, 1990 as collected by Rappaport-Hovav & Levin, 2007). The only aspect of my proposal that is less motivated are the domains. We will provide additional evidence that passive/active voices indeed belong to different domains. Yet, for now let us just assume that there are domains, and, in each domain, there is a strict hierarchical ordering between the heads. Thus, let us provide the orders.

Our data have shown that Passive II always follows Passive I when they co-occur in a structure. Since they both belong to the passive domain, they will be ordered in the following way.

(2) $\text{agentP/causP} \prec \text{VoiceP}_{\text{pass}} \prec \text{PassP}_{\text{undergoer}}$

Then, what happens in the active domain? All structures having a Voice level will have an agentP right below the Voice level. VoiceP is the highest head in an active structure. In a structure that requires the presence of a goal and an undergoer argument, I will assume that goal is lower in the structure than the undergoer following Larson (1988) (see Tonyalı, 2015 for Turkish datives).

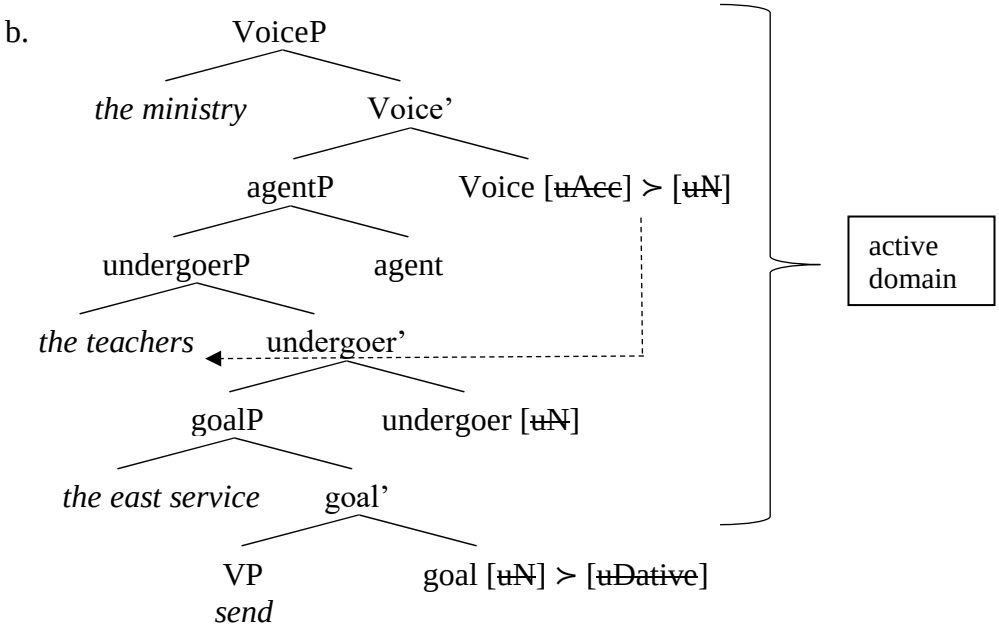
(3) goalP ≺ undergoer ≺ agentP ≺ $\text{VoiceP}_{\text{active}}$

Domains are argued to have their internal hierarchy. However, I also propose that domains are ordered with respect to each other, as well. Hence, the active domain precedes the passive domain. We know that this is the case because in the presence of an active undergoer head, a $\text{Voice}_{\text{pass}}$ is always projected later than the undergoerP. This gives us the precedence relation provided below. What is crucial is that just as a head that follows another head in the hierarchy cannot be merged lower than the relevant head, once you leave the domain of active heads for the passive ones, you cannot go back to the active heads or you cannot project passive heads lower than the active ones.

(4) Domain of active heads ≺ Domain of passive heads

Then, let us apply our reasoning to a real example. The event denoted by *gönder* 'send' requires the presence of three arguments. One goal, one undergoer and an agent. These are respectively introduced with the functional heads goalP, undergoerP and agentP with the hierarchical order given below.

(5) a. *Türkiye-de* *Milli* *Eğitim* *Bakanlığ-ı* *öğretmen-ler-i*
Turkey-LOC national education ministry-POSS teacher-PL-ACC
zorunlu *Doğu* *Görev-in-e* *yoll-uyor.*
obligatory east duty-POSS-DAT send-PROG
'The Ministry of National Education sends the teachers to the obligatory East Service in Turkey.



The tree in (5b) is the syntactic representation that I propose for the sentence in (5a), which is a fully active sentence, meaning all heads syntactically project their arguments. We make sure that they project their arguments because active heads are assumed to have uninterpretable N features. Following Müller (2014), I also assume that these categorical features are ordered with respect to the case features of the heads if there are any.

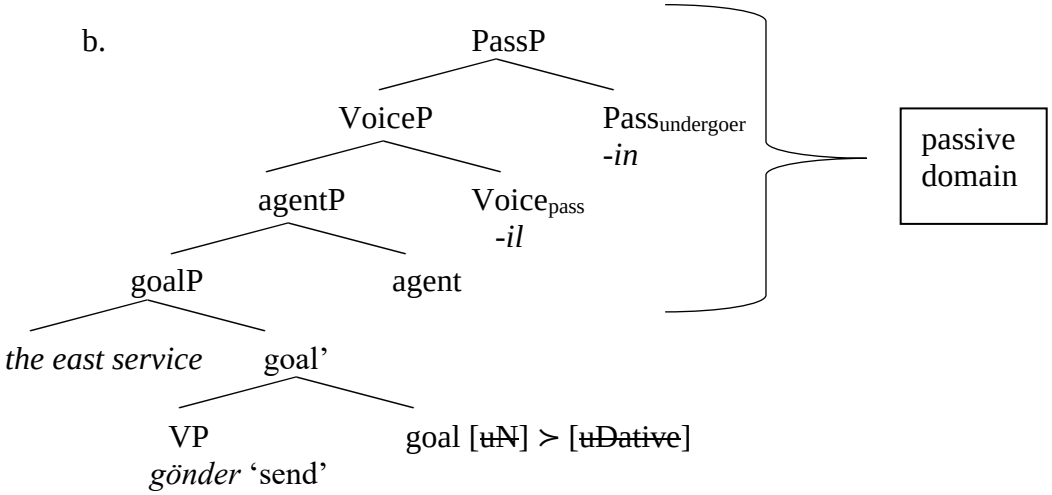
Since three-place predicates inherently involve a goal argument that is marked by the semantic dative case, I assume that the goal argument receives its dative case from the head that introduces the goal argument; namely goalP. By placing the N feature of the head before the dative feature, we make sure that the first feature to discharge is the N feature, which ensures that the goal argument is merged, after which the dative case feature of the goal head is checked by the goal argument via the spec-head agreement. For the Voice head, we place the accusative case feature before its N merge feature, which makes sure that accusative case is not assigned to the argument at [Spec, Voice]. After discharging its accusative case

feature via long distance Agree down with the lower argument, the active Voice head projects the external argument.

Crucially all these operations occur in the active domain. One could also switch to the passive domain without distorting the internal order of the heads in a domain. For example, one could switch to the passive domain at the undergoerP level, which means that undergoerP will not be projected in the active domain and the derivation will continue according to the hierarchy imposed by the passive domain. This configuration derives the double passive form of (6a).

(6) a. *Türkiye-de* *zorunlu* *Doğu* *Görev-in-e*
Turkey-LOC obligatory east service-POSS-DAT
gönder-il-in-ir.
send-PASS-PASS-AOR
'One is sent to the obligatory East Service in Turkey.'

b.

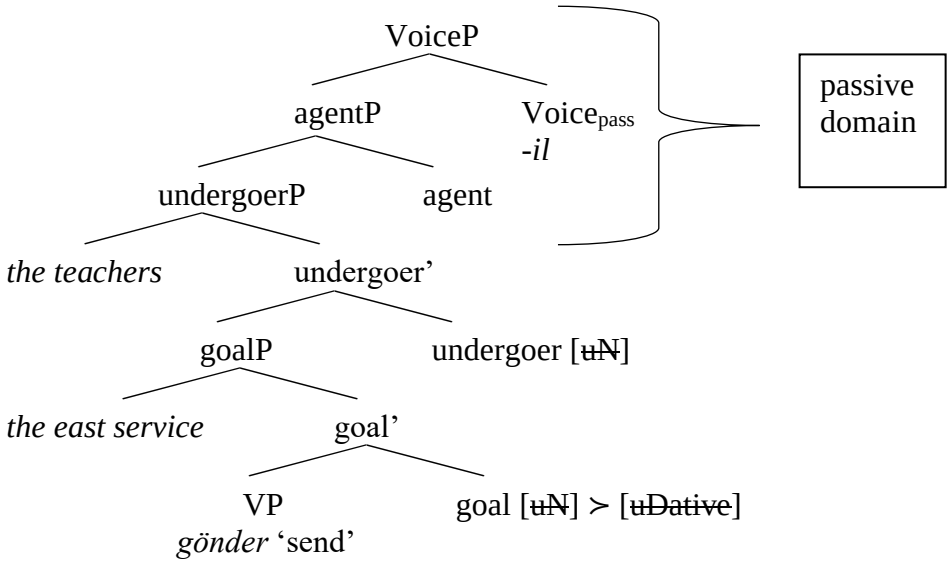


Alternatively, one could also switch to the passive domain at the agentP level, which would create a regular passive construction where only the highest argument is targeted. This would be the case because once you switch to the passive domain at the agentP level, up until that point you have to stay at the active domain in which case you have to merge the undergoer head above the goalP.[48]

[48] In Turkish, a passive form corresponding to the active goalP cannot exist. I am discussing why this must be the case in Section 5.4.

(7) a. *Türkiye-de* *öğretmen-ler* *zorunlu* *Doğu* *Görev-in-e*
Turkey-LOC teacher-PL obligatory east service-POSS-DAT
gönder-il-ir.
send-PASS-AOR
'The teachers in Turkey are sent to the obligatory East Service.'

b.

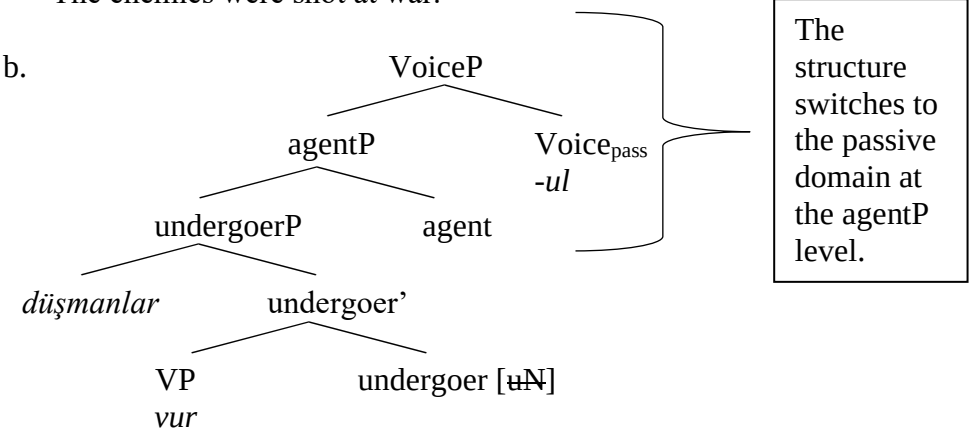


Importantly, note that in each structure, all the relevant active projections are merged at their correct hierarchical order until the structure switches to the passive domain which has its own hierarchy. Thus, in (6b), the structure switches to the passive domain at the undergoerP level. However up until that point, the goalP is introduced. Since the event requires the presence of an agentP-VoiceP and an undergoerP, the absence of these heads must be compensated for at the passive domain. However, at the passive domain, Passive I (agentP-VoiceP) precedes Passive II (Pass$P_{undergoer}$). Therefore, once the structure switches to the passive domain, the VoiceP is merged first and then the Passive II head, namely $Pass_{undergoer}$ is inserted. In (7b), the structure switches to the passive domain at the agentP level. Therefore, all the other projections up until that point must be merged at the active domain. The remaining missing projection can be compensated for at the passive domain within its hierarchical order again.

Now, how does this help us rule out the anti-passive structure in (1c)? In (1c) we have a $\text{Voice}_{\text{act}}$ above which there is a Passive II projection. Below $\text{Voice}_{\text{act}}$ there is no projection at all. However, our hierarchical ordering mandates that lower projections be merged at a domain before the higher one is added to the structure. Since the event in (1c) requires a lower undergoer to be merged at the structure before it reaches to the active Voice level, the structure is ruled out. The only way to reach to the passive domain for that event would be either at the agentP level until which the undergoerP must be projected as in (7b) or at the undergoerP level as in (6b). In the latter case, you would never start your derivation from the active domain if there is not a lower active goalP projection and therefore you could start using the heads in the passive domain directly within the hierarchical order imposed by the passive domain. See the following derivations for a summary of our discussion.

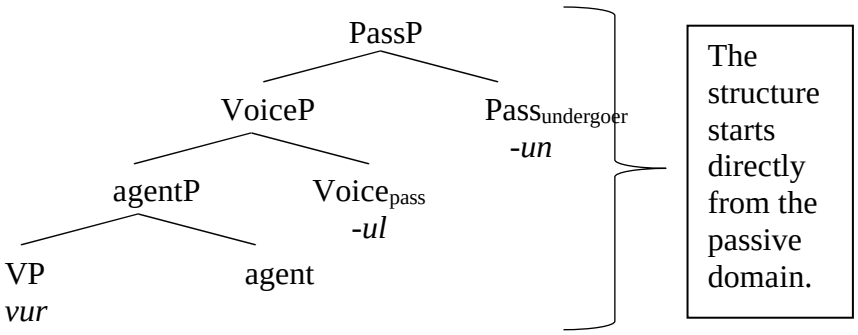
(8) a. *Düşman-lar* *savaş-ta* *vur-ul-du.*
enemy-PL war-LOC shoot-PASS-PST
'The enemies were shot at war.'

b.



(9) a. *Savaş-ta* *vur-ul-un-ur.*
war-LOC shoot-PASS-AOR
'One is shot at war.'

b.



In other words, if there is a higher Voicea_{act} head, it mandates that the lower undergoerP must have been merged to the structure. If there is an undergoerP already in the structure, then there is nothing missing in the active domain to be completed in the passive one.

5.3 A further motivation for the domains and their internal hierarchies

Our discussion has so far shown that assuming domains and internal hierarchies within each domain eliminates the theoretical possibility of generating anti-passive structures in Turkish. However, the question is whether we can find a further motivation to posit domains and hierarchies. Our motivation for the domains derives from subject pseudo-incorporation in Turkish. Turkish allows pseudo-incorporation of the internal arguments at the lexical domain, which is the VP where complex events can be formed.

(10) a. *Ali* *kitap* *okudu.*
Ali book read
'Ali did book-reading.'

b. *Ali* *kitab-ı* *okudu.*
Ali book-ACC read
'Ali read the book.'

(Öztürk, 2005, p. 32)

One of the core differences between the object in (10a) and (10b) is that the former does not refer to any specific book or the number of books read by Ali

whereas the latter can only refer to an individual book. Another major difference is that the latter can bear an overt accusative case whereas the former cannot. Because of such differences for whose details I refer readers to Öztürk (2005), Öztürk (2005) suggests that pseudo-incorporated arguments are merged at the VP level whereas true arguments are introduced via higher functional heads having the relevant case and referentiality features. Importantly, although Turkish pseudo-incorporated arguments are non-referential and non-case marked, they still saturate argument positions semantically. For example, in (11), we see that it is not possible to introduce another undergoer to a construction where an undergoer-incorporation took place (cf. (11)).

(11) **Ali* *Romeo* *ve* *Juliet-i* *kitap* *okudu.*
Ali Romeo and Juliet-ACC book read
'Ali book-read Romeo and Juliet.'

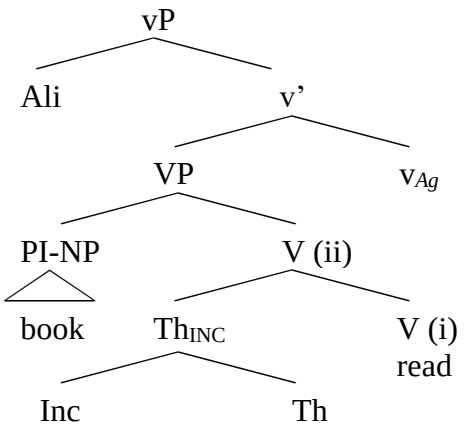
Considering that pseudo-incorporated nominals do not refer to definite individuals and are not specified for the number information, Sağ-Parvardeh (2019) concludes that they behave like English weak definites where the definite nominal does not refer to a specific entity or the number of the entity but to the definite singular kind of the entity (Aguilar-Guevara & Zwarts, 2010 as cited in Sağ-Parvardeh, 2019). See (12) for an example of this kind. Here, the newspaper does not denote a definite individual newspaper, but to the newspaper kind such that Lola is doing the activity of reading the newspaper kind. Crucially, Sağ-Parvardeh (2019) argues that pseudo-incorporated NPs in Turkish are like weak definites in English and they denote definite singular kinds.

(12) Lola is reading the newspaper.

Since Turkish pseudo-incorporated objects seem to introduce the relevant predicate such that the introduction of another object is prohibited at the functional level, Sağ-Parvardeh (2019) concludes that pseudo-incorporation at the VP level

must introduce event predicates and the pseudo-incorporated items must saturate their argument positions semantically. She proposes the following syntax and semantics for (10a).

(13)



(14) a. $[\![\text{Th}]\!] = \lambda V_{<v,t>}.\ \lambda x.\ \lambda e.\ V(e)\ \&\ Theme(e) = x$

b. $[\![\text{Inc}]\!] = \lambda Q_{<<v,t>,<e,<v,t>>>}.\ \lambda V_{<v,t>}.\ \lambda x^{K}.\ \lambda e.\ \exists y\ [belong\text{-}to\ (y, x^{K})\ \&\ Q(V)(y)(e)]$

c. $[\![\text{PI-NP}]\!] = \iota X\ [\text{BOOK}(x)]$

d. $[\![\text{Th}_{\text{INC}}]\!] = \lambda V_{<v,t>}.\ \lambda x^{K}.\ \lambda e.\ \exists y\ [belong\text{-}to\ (y, x^{K})\ \&\ V(e)\ \&\ Theme(e) = y]$

e. $[\![\text{V(ii)}]\!] = \lambda x^{K}.\ \lambda e.\ \exists y\ [belong\text{-}to\ (y, x^{K})\ \&\ read(e)\ \&\ Theme(e) = y]$

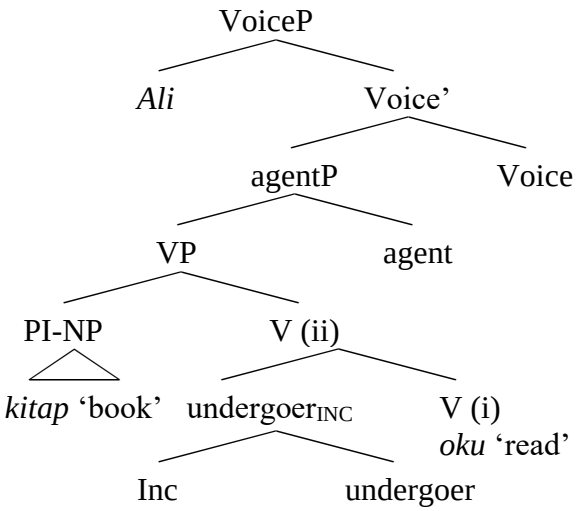
f. $[\![\text{VP}]\!] = \lambda e.\ \exists y\ [belong\text{-}to\ (y, \iota X\ [\text{BOOK}(x)])\ \&\ read(e)\ \&\ Theme(e) = y]$

According to (14f), the VP *kitap oku* 'book-read' is an event with a theme predicate introducing a theme argument that is part of the book kind. Sağ-Parvardeh (2019) argues that since kind level entities may include both atom and pluralities, the number neutrality of pseudo-incorporated nominals are naturally accounted for.

Importantly, her account explains why a second object cannot be introduced at the functional domain. Since a new event complex created at the VP domain has already a theme predicate in it, this new event requires the presence of an agent only, which is introduced by the v_{AG}. In our account, the semantics of causation/agency is introduced at the agentP level, but the actual agent/causer is introduced by a

functional $Voice_{act}$ that has also an accusative case feature to be checked. Therefore, in addition to an agentP, we would need a $Voice_{act}$ to introduce the actual DP agent. Hence, we could revise the Sağ-Parvardeh (2019)'s representation in (13) for (10a) as in the following representation:

(15)



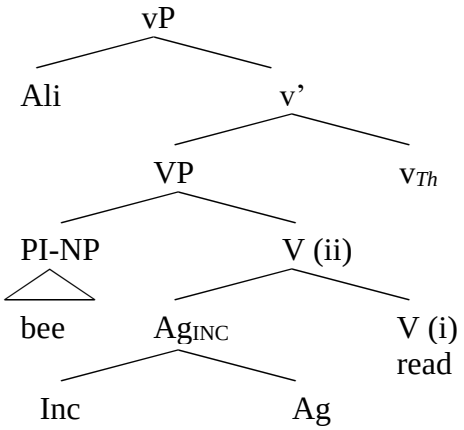
The representation in (15) makes one natural prediction. Since the functional domain accomodates only the agentP-VoiceP sequence, the structure can actually directly start with the passive domain. Hence, the passive agentP-VoiceP sequence could be inserted from the passive domain, which essentially amounts to stating that the construction in (10a) as represented in (15) must have a Passive I version. Our prediction is borne out as shown in (16).

(16) *Okul-da* *kitap* *oku-n-du.*
school-LOC book read-PASS-PST
'There was book-reading at school.'

Now, Turkish also allows pseudo-incorporation of subjects. Sağ-Parvardeh (2019) explains the properties of subject pseudo-incorporation in the same way as she accounts for the undergoer incorporation in Turkish. In subject pseudo-incorporation constructions in Turkish, instead of an undergoer predicate, an agentive predicate is introduced at the VP internal domain and therefore the structure does not involve the agent introducing functional head as in (17b).

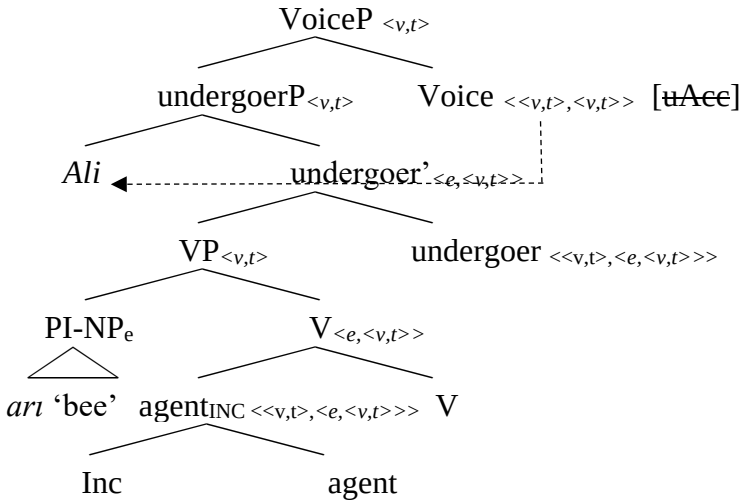
(17) a. *Ali-yi* *arı* *sok-tu.*
Ali-ACC bee sting-PST
'Ali got bee-stung.' (Öztürk, 2005).

b.



However, note that subject incorporation allows the theme argument to receive accusative case. In our account, accusative case is checked by the functional Voice$_{act}$ head. Therefore, I will assume that the construction also involves the projection of the VoiceP but not agentP, at least not right below the VoiceP, because I will suggest in this thesis that subject pseudo-incorporation further divides the two functions of VoiceP into two: while the case assignment function of the Voice head remains on Voice, its argument introduction function is spared to the VP domain. This happens only in subject pseudo-incorporation constructions because the input to the Voice level can be utilized at a much lower level, namely at the VP domain. Hence, subject pseudo-incorporation may accordingly change the semantic and syntactic requirement of a Voice head. Then, we will propose the following structure for subject pseudo-incorporation in Turkish.

(18)



(18) shows that the semantics of agency is already introduced at the VP internal domain. Hence, the new complex event only requires the presence of an undergoerP and a VoiceP_{act} in the active domain. Therefore, these two heads are hierarchically ordered at the functional domain accordingly. We know that (18) involves a Voice_{act} level because the undergoer receives accusative case. Furthermore, we know that the Voicea_{act} cannot have an N feature to project an argument in its specifier position because in that case there would not be any semantic slot that the argument could saturate because the relevant semantic slot is already saturated at the VP internal domain.

Note that in subject pseudo-incorporation then, the input to the Voice_{act} must be of type $<v,t>$. As established previously, just like Voice_{pass} has two forms, one taking functions of type $<e,<v,t>>$ with an existential quantification built in it and the other one taking event arguments, Voice_{act} may also have a form taking functions of type $<v,t>$; but, it only surfaces in sentences involving subject pseudo incorporation because it seems that the case assignment function and argument introducing function of the Voice_{act} is divided into two only in subject pseudo-incorporation constructions. Since passive Voice heads do not have case assignment functions, nor do they function as argument introducers, one cannot talk about the

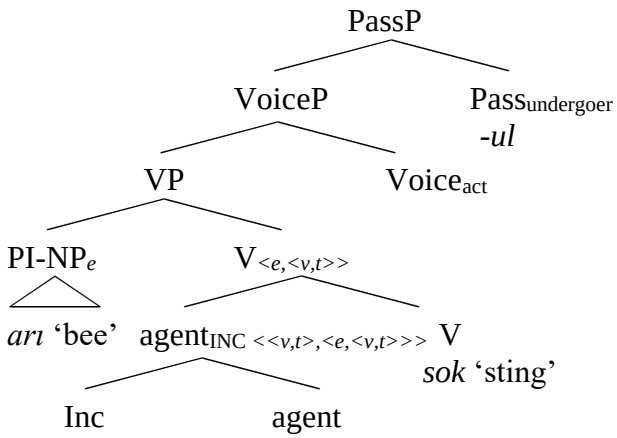
two functions of Voice being divided in subject pseudo-incorporation constructions if the Voice in question is a $\text{Voice}_{\text{pass}}$. This must be the case because $\text{Voice}_{\text{pass}}$ has no such functions in the first place.

This implies that subject pseudo-incorporation necessarily involves $\text{Voice}_{\text{act.}}$ If this is the case, then we predict the construction in (17a) represented as in (18) not to have a Passive I counterpart, namely a passive version derived from the Voice head. Our prediction is borne out. (18) cannot have a Passive I counterpart (cf. (19)).

(19) **Ali* *sok-ul-du.*
Ali sting-PASS-PST
'Ali was bee-stung.' (Öztürk, 2005, p. 48)

Now, if a $\text{Voice}_{\text{act}}$ must be present in structures involving subject pseudo-incorporation, it is true that we would not expect to find a Passive I counterpart of sentences like (17a). However, until now there has been nothing in our characterization of Passive II that it cannot target the undergoer argument there, for it is possible that it is not projected in the first place to the syntactic system and its absence could be compensated for by the $\text{Pass}_{\text{undergoer}}$ as in (20).

(20)



Yet, note that our present proposal for domains and their internal hierarchies mandate that a lower argument be merged to the syntactic structure by the time a higher one is. Then, if subject pseudo incorporation in Turkish necessarily involves the presence of an active Voice head, the structure must stay at the active domain to

reach up to the higher active Voice head, which necessarily means that the structure needs to merge the active undergoerP, as well. Remember that one cannot by-pass a lower head to reach up to a higher functional head in a certain domain.

Crucially, once the active undergoer head is merged to the structure, it also projects its subject because of its merge feature. Since an argument that is inserted to a syntactic structure cannot be de-inserted, we predict that Passive II forms as represented in (20) is not possible in Turkish. Importantly, we can make this prediction based on our proposal about domains and their internal hierarchies. Our prediction is borne out. (17a) does not have a form lacking the undergoer argument.

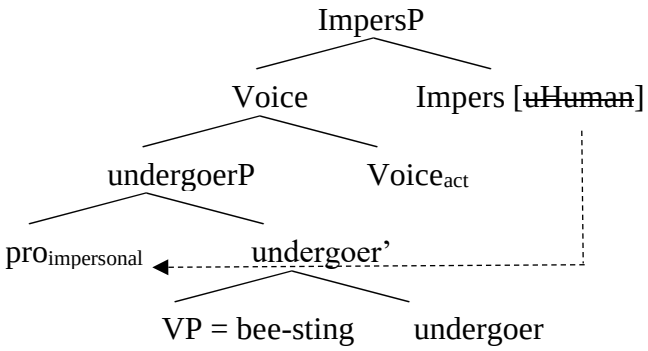
(21) **Bahçe-de arı sok-ul-du*.[49]
garden-LOC bee sting-PASS-PST
Intended: 'Somebody was bee-stung in the garden.'
'There was a bee-stinging event targeting a person.'

At this point, it is important to note that Legate *et al*. (to appear)'s account of impersonal passivization predicts the form in (21) to be possible. Remember that they suggest that impersonal passivization involves the syntactic presence of an argument agreeing with a higher impersonal head. The agreement relation is established via Agree through a feature checking system. What was crucial in this system was that the Agreement relation is not blocked by an intervening DP. Since $\text{Voice}_{\text{act}}$ in subject incorporation structures does not introduce a DP argument, an impersonal head should freely agree with the $\text{pro}_{\text{impersonal}}$ argument occupying the [Spec, undergoer], thus making (21) possible as represented in (22). However, the configuration in (22) derives an ungrammatical construction. On the other hand, our

[49] The sentence can only have the funny interpretation that a referential bee was stung by somebody/something. However, this interpretation does not involve pseudo-incorporation and is derived as a regular passive construction.

account for the domains of active and passive heads and their internal hierarchical order naturally accounts for the impossibility of (21).

(22) *



5.4 Other issues regarding Passive I and II

In the previous chapter, we have argued that double passive constructions in Turkish are formed with the combined contribution of a passive Voice head and a Pass head introducing the predicate relevant for the eventive requirements of the verb. In the current chapter, we have argued that the introduction of active and passive heads cannot be random, hence we have shown that active and passive heads belong to different domains, each of which has their own internal hierarchies. This way, we could prohibit anti-passive structures in Turkish. We derived our motivation from subject pseudo-incorporation in Turkish.

In the following subsections, we will analyse passives of reflexive verbs using the apparatuses (domains and hierarchies) defended in this thesis. Furthermore, we will also examine so called 'reduplicated' causative constructions and what our theory predicts for the double passive constructions generated out of them. Then, we will discuss why a goal head cannot have a corresponding passive II head. We will also touch upon passive forms derived from verbs assigning lexical case to their complements. Section 5.5 will conclude this chapter.

5.4.1 Passives of reflexives in Turkish

It is possible to passivize reflexives in Turkish as in the example below.

(23) a. *İnsan-lar* *yazın* *daha* *çok* *yıka-n-ır.*
person-PL in.summer much more wash-REF-AOR
'People wash themselves (take a bath) more in summers.'

b. *Yazın* *daha* *çok* *yıka-n-ıl-ır.*
in.summer much more wash-REF-PASS-AOR
'There is much more washing-oneself in summers.'

(23b) is the passive form of the reflexive construction in (23a). Hence, the implicit washers in (23b) are also the washed ones. However, note that (23b) is string-wise identical to a double passive construction where washers are different from the washed ones as illustrated below.

(24) *Yazın* *daha* *çok* *yıka-n-ıl-ır.*
in.summer much more wash-PASS-PASS-AOR
'People are washed (by other people) in summers.'

To evade the problem of ambiguity and the question of whether what we are really examining is a reflexive structure rather than a passive, I will use unambiguously reflexive verbs in my discussion below. Although the passive and reflexive morphology overlap in most instances, Turkish has a group of verbs that only denote a reflexive event rather than a passive either because the passive form is represented with a separate morpheme or the event is only compatible with a reflexive. Some of these verbs are in Table 10 along with their passive counterparts.

Table 10. Reflexive and passive forms of some verbs

Base Form	Reflexive	Passive
ört 'cover'	*ört-ün* 'cover oneself'	*ört-ül* 'to get/be covered'
öv 'praise'	*öv-ün* 'praise oneself'	*öv-ül* 'to be/get praised'
kapa 'close'	*kapa-n* '(start to) wear a headscarf'	*kapa-n* 'be/get closed'

Hence, the verb *ört-ün* ‘cover oneself’ can only have a reflexive meaning whereas *ört-ül* ‘to be covered’ can only render a passive reading. The same holds for the verb *öv* ‘praise’. This distinction has been previously noted in the literature (Taneri, 1993; Key, 2013). However, what is interesting for my discussion here is the last verb *kapa* ‘close’. Its reflexive form *kapa-n* ‘(start to) wear a headscarf’ is generally used in contexts where a woman covers her head with a headscarf. It cannot have a passive reading where the underlying argument is a human because one cannot close a human. When the underlying argument is not a human though, the only available reading is the passive reading where something is closed. The contrast is visible in the examples below.

(25) a. *Müslüman* *ülke-ler-de* *kadın-lar* *kapa-n-ır.*
Muslim country-PL-LOC woman-PL close-REF-AOR
‘Women cover themselves with a headscarf in Muslim countries.’

b. **Müslüman* *ülke-ler-de* *kadın-lar* *devlet* *tarafından*
Muslim country-PL-LOC woman-PL state by
kapa-n-ır.
close-PASS-AOR
Intended: ‘In Muslims countries, women are made to cover themselves with a headscarf by the state.’

c. *Demir* *kapı* *güvenlikçi-ler* *tarafından* *kapa-n-dı.*
iron door security-PL by close-PASS-PST
‘The iron door was closed by the security guards.[50]’

(25a) shows that the reflexive reading is available when the subject of the clause is a human, but not with the meaning of *kapa-* that corresponds to a literal closing event. We know that the structure cannot be a passive structure because it is not compatible with an agentive by-phrase as understood from the ungrammaticality of (25b). (25c) indicates that under the literal ‘close’ meaning of the verb *kapa-*, only

[50] Retrieved from the novel *Ölüm Korkusu: Liseli Ajanlar 1960’lı Yıllar* ‘Fear of Death: High-school agents the sixties’ by Özcan Atacık.

the passive interpretation is available.[51] Crucially, it is possible to passivize the form in (25a) as provided in (26a) whereas the double passive form of (25c) is semantically anomalous as indicated in (26b).

(26) a. *Müslüman* *ülke-ler-de* *kapa-n-ıl-ır.*
Muslim country-PL-LOC close-REF-PASS-AOR
'In Muslim countries, one gets to cover themselves with headscarves.'

b. *#Güvenlikçi-ler* *tarafından* *kapa-n-ıl-ır.*
security-PL by close-PASS-PASS-AOR
'One gets to be closed by the security guards.'

(26b) is naturally ruled out in our account. The second passive morpheme corresponds to the Passive II operation, which existentially closes a variable ranging over groups of people. Thus, the implicit argument cannot be non-human. However, when the implicit argument of the second passive is understood to be a human, a semantic clash occurs between the semantics of *kapa* 'close' and its argument being a human because humans cannot be physically closed.

On the other hand, the passive form of the reflexive in (26a) is felicitous, which leads us to the question of what the properties of passives applying on top of reflexives are in Turkish and what they can show us with respect to our theory of passivization. First of all, we have no way of determining whether the passive in (26a) is the Passive I or II only by using the humanness test because the humanness requirement in the reflexive comes from the reflexive itself as understood from (25a). Since reflexive constructions make coreference between the subject and the object arguments, once the subject is a human, the object necessarily becomes a human. Indeed, in Turkish all uncontroversial reflexive forms are derived from verbs of

[51] *Kapa-n* 'to get/be closed' can also be used in middle or anticausative structures where there is no syntactic or semantic representation of initiation or causation as in *Kapı kendiliğinden kapa-n-dı* 'The door closed by itself'. Some argue that such constructions are also reflexive (see Chierchia, 2004) although this is a controversial issue. I am leaving out the description of anti-causatives from the main discussion here because they are not directly relevant for our purposes.

bodily processes that involve humans. Hence, we cannot use the humanness test to determine whether the passive in (26a) is an instance of Passive I/II or an (im)personal in other accounts such as Legate *et al*. (to appear) . At this point, we must be more explicit in our syntactic and semantic representation to arrive at a conclusion about the status of the passive of the reflexive in (26a) so that we could understand what it can tell about our presentation of passive clauses and others.

Reflexivization is an operation marking the subject and object the same (Chierchia, 2004). Thus, (26a) can only be understood to refer to an event where women cover themselves with a headscarf. Let us assume that such co-referentiality is achieved because reflexivization is an operation that automatically binds both the internal and external argument positions with a single lambda abstraction.[52] Hence, (27) is a function that takes an event and marks both the undergoer and the agent arguments of this event as the same.

(27) $[\![\text{Ref}]\!] = \lambda f_{<v,t>}.\ \lambda x.\ \lambda e.\ f(e)\ \&\ agent_1(x,e)\ \&\ undergoer(x,e)$[53]

Taneri (1993) observes that reflexives in Turkish show unergative behaviour. She argues that the single argument of a reflexive is merged at the logical subject position rather than the object position. She arrives at this conclusion by examining the behaviour of reflexive clauses embedding *-ArAk* clauses. She notices that the controller and the controlee of *-ArAk* clauses involving reflexives must be agentive as illustrated in (28a) contrasting with (28b), which has a non-agentive controller:

[52] There are also syntactic means of making the subject and the object coreferential with each other. However, I am choosing the easiest way of representing reflexivization because its actual representation is not relevant for our purposes. Whatever way such co-referentiality is achieved, it will not make a difference for our conclusions regarding our characterization of passivization.

[53] The entry indicates that one argument can have both the undergoer and initiator roles which is against one of the principles of the theta-criterion that one argument can bear only one theta role (Chomsky, 1981). However, this is not problematic, since one argument may have a composite role, which is already proposed in the literature (see Ramchand, 2008 for a recent approach of this kind).

(28) a. *Kadın* *kapa-n-arak* *dua* *et-ti.*
woman wear-headscarf-REF-GER pray do-PST
'The woman prayed, while covering herself with a headscarf.'

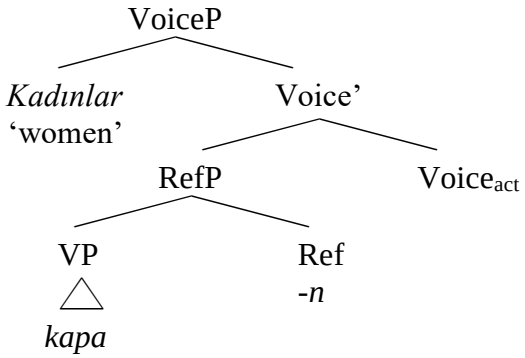
b. **Kadın* *kapa-n-arak* *düş-tü.*
woman wear-headscarf-GER fall-PST
'The woman fell to the ground while covering herself with a headscarf.'

The data above show us that the single argument of reflexive clauses must be introduced to the syntactic structure in the same manner as the unergative or transitive constructions where the $Voice_{act}$ syntactically merges the external argument. Thus, I will argue that a reflexive structure involves a reflexive head that introduces the semantics of agency and the theta role 'undergoer' whereas the Voice head actually merges the relevant argument at the external argument position, thus [Spec, $Voice_{act}$]. Hence, the sole arguments of reflexive clauses are like the sole arguments of unergative predicates.

In other words, they are treated as external arguments; however, because of the requirement of the reflexivization that the subject and object be coreferential, they also somehow get to receive a secondary undergoer interpretation, whatever the exact mechanism to achieve this co-referentiality is. Thus, *kadın-lar* 'women' in (31) is primarily an agent rather than an undergoer as it is introduced at the external argument position.[54]

[54] One could wonder why (28b) is ungrammatical although the reflexive operator renders the sole argument of the verb as the undergoer as well. We tried to give an answer to this question by suggesting that the primary predication is between the subject of *-ArAk* and the matrix agent. The undergoer theta role comes as secondary via reflexivization. However, there is another way to look at the problem. If we assume composite roles for the reflexive, we could do the same for any type of verb, which is indeed what Ramchand (2008) does. The sole argument of *düş* 'fall' cannot be an initiator, it only occupies the specifier position of procP in Ramchand's account, which suggests that it is only an undergoer. Therefore, when it is coreferential with the subject of the embedded clause, which has the composite roles 'undergoer-initiator', an ungrammaticality arises, for the thematic roles of the controller and the controlee are not the same as must be in *-ArAk* clauses.

(29)



(30) a. ⟦VP⟧ = *λe. kapa(e)*

b. ⟦RefP⟧ = ⟦Ref⟧(⟦VP⟧)

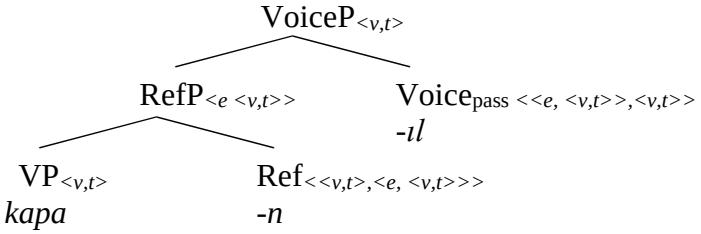
c. [*λf*$_{<v,t>}$*. λx. λe. f(e) & agent*$_1$*(x,e) & undergoer(x,e)*] ([*λe. kapa(e)*])

d. *λx. λe. kapa(e) & agent*$_1$*(x,e) & undergoer(x,e)*

e. ⟦VoiceP⟧ = *λe. kapa(e) & agent*$_1$*(women,e) & undergoer(women,e)*

The syntactic representation in (29) shows us that the semantic contribution of the reflexive head is on a par with the agent/cause head, for it functions as an input to the Voice head. As understood from the use of the head Voice$_{act}$, (29) represents a clause formed with the inventories of the active domain. Thus, the reflexive form in (25a) is an active domain construction. Therefore, my account of passivization predicts that the passive operation on top of the reflexive in (26a) must be a Passive I, namely a passive form derived with a passive Voice head, for it would necessarily involve the passive version of the Voice$_{act}$.[55] Hence, (26a) can be represented as in (31). (32) provides a sample derivation for (31).

(31)



[55] Like agentP/causP, the refP would also belong both to the active and passive domains because it functions as the input to both Voice heads.

(32) a. ⟦VP⟧ = $\lambda e.\ kapa(e)$

b. ⟦RefP⟧ = ⟦Ref⟧(⟦VP⟧)

c. [$\lambda f_{<v,t>}.\ \lambda x.\ \lambda e.\ f(e)\ \&\ agent(x,e)\ \&\ undergoer(x,e)$] ([$\lambda e.\ kapa(e)$])

d. $\lambda x.\ \lambda e.\ kapa(e)\ \&\ agent(x,e)\ \&\ undergoer(x,e)$

e. ⟦$Voice_{pass}$⟧ = $\lambda f_{<e,<v,t>>}.\ \lambda e.\ \exists x: f(x)(e)$

f. ⟦VoiceP⟧ = ⟦Voice⟧ (⟦RefP⟧)

g. [$\lambda f_{<e,<v,t>>}.\ \lambda e.\ \exists x: f(x)(e)$] ([$\lambda x.\ \lambda e.\ kapa(e)\ \&\ agent(x,e)\ \&\ undergoer(x,e)$])

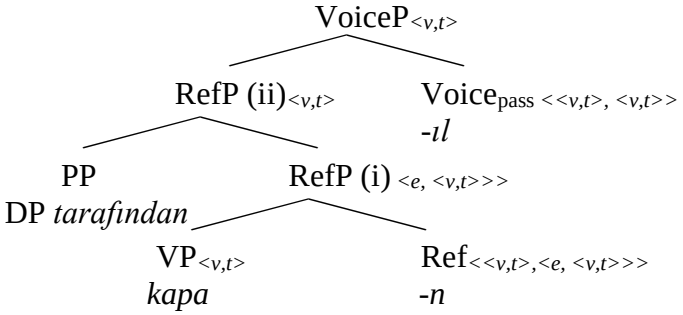
f. ⟦VoiceP⟧ = $\lambda e.\ \exists x: kapa(e)\ \&\ agent(x,e)\ \&\ undergoer(x,e)$

My account of passive clauses predicts that (26a) has to involve Passive I based on the structure in (29) for two apparent reasons. The first one is that the structure already involves a Voice head. Therefore, when one switches to the passive domain, the Voice level cannot be by-passed, hence the first operation must be Passive I. Second, as already suggested previously, Passive II introduces predicates of its own. For example, a Passive II head would introduce an undergoer predicate and existentially bind its subject. Since the undergoer predicate is already available because of reflexivization, even if we would be able to by-pass $Voice_{pass}$, we could not apply the Passive II as that would result in a theta violation.

Considering that passives of reflexives suppress the only remaning argument and sounds like impersonal passives to most people (for example see Meral & Meral, 2018), do we have an evidence that they are not Passive II, but Passive I? Indeed, we do have evidence coming from the behaviour of by-phrases in passive clauses involving reflexives as in (26a). We have previously established that Passive II does not allow the insertion of by-phrases to their structures as Passive II structures do not have an adjunction site for them. On the other hand, the structure in (31) harbours an

attachment site for a by-phrase, which is the RefP since it semantically denotes a function of type $\langle e,\langle v,t\rangle\rangle$. We have also previously argued that a $\text{Voice}_{\text{pass}}$ head may come without the existential closure, hence may take arguments of type $\langle v,t\rangle$ if the argument position opened by the head of the lower phrase is already saturated via a by-phrase. Then my account of passive clauses involving reflexives predicts that by-phrases must be compatible with passive clauses involving reflexives, for the structure represented below is syntactically derivable and semantically interpretable. (34) provides a sample derivation for (33).

(33)



(34) a. ⟦RefP⟧ = *λx. λe. kapa(e) & agent(x,e) & undergoer(x,e)*

b. ⟦PP⟧ = $\lambda f_{\langle e,\langle v,t\rangle\rangle}$. *λe. f(DP)(e)*

c. ⟦RefP(ii)⟧ = ⟦PP⟧ (⟦RefP(i)⟧)

d. [$\lambda f_{\langle e,\langle v,t\rangle\rangle}$. *λe. f(DP)(e)*] ([*λx. λe. kapa(e) & agent(x,e) & undergoer(x,e)*])

e. *λe. kapa(e) & agent(DP,e) & undergoer(DP,e)*

f. [$\text{Voice}_{\text{pass}}$] = $\lambda f_{\langle v,t\rangle}$. *λe. f(e)*

g. ⟦VoiceP⟧ = *λe. kapa(e) & agent(DP,e) & undergoer(DP,e)*

Indeed, our theoretical prediction is borne out. It is possible to add a by-phrase to (25a) only when it is passivized as in (26a) (cf. (35)).

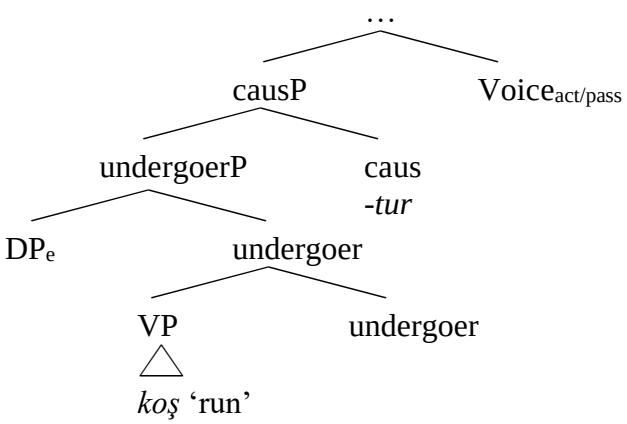
(35) *Müslüman* *ülkeler-de* *kadın-lar* *tarafından*
Muslim country-LOC woman-PL by
kapa-n-ıl-ır.
close-REF-PASS-AOR
'There is wearing-headscarves by the women in Muslim countries.'

Furthermore, note that passives of reflexives do not show any aspectual restrictions, either, just like passives of unergatives and (di)transitives. The example below shows that we can use passives of reflexives in eventive contexts (cf. (36)). (36) further supports our theory of passivization and its relation to Voice. Our theory predicts that passives of reflexives must involve a Voice level. In other words, passives of reflexives have to show the same properties ascribed to passives of unergatives and (di)transitives because all of these structures involve a Voice level.

(36) *Müslüman* *ülke-ler-de* *o* *yıl-lar-da* *kadın-lar*
Muslim country-PL-LOC that year-PL-LOC woman-PL
tarafından *zorunlu* *ol-arak* *kapa-n-ıl-dı.*
by obligatory be-GER close-REF-PASS-PST
Lit: 'In Muslim countries, it was obligatorily worn headscarves by women.'

At this point, I would also like to point out that our characterization of reflexives further supports the syntactic representation that we have offered for causative structures. Remember that we have assumed following Key (2013) that causatives of unergatives are represented such that the causer is introduced via the caus head on top of which there is a Voice head, either passive or active (cf. (37)).

(37)



This type of analysis for causatives is indeed forced upon us when we assume that Passive I involves a Voice level because causative structures can also be passivized. On the other hand, our analysis of reflexives further corroborates our representation for causatives for the following reason. We have shown that active

reflexive structures do involve an active Voice head, which introduces the external argument of reflexives. This was the case because we showed that reflexive constructions in Turkish behave like true unergatives since they can be used in *-ArAk* clauses where the matrix predicate is agentive, they are compatible with by-phrases once passivized and they do not show aspectual restrictions.

Therefore, we have suggested that reflexive structures must involve a Voice level, as well. If they involve a Voice level though, they must have a lower head that functions as the input to the Voice head. We have assumed that this is the reflexive head which both introduces the undergoer and the agent predicates and binds their arguments with a single lambda operator. What is important for our discussion about causatives is that the reflexive operator, whatever its true nature is, occupies the same syntactic position as the agent or caus head because both of these heads have the function of providing a predicative input to the Voice level. If the heads functioning as the input to Voice are syntactically in complementary distribution, we cannot expect to find causatives of reflexives (cf. (38a)) or reflexives of causatives (cf. (38b)) in Turkish. Indeed, this prediction is also borne out as shown in (38).

(38) a. **Devlet o ülke-de kadın-lar-ı*
state that country-LOC woman-PL-ACC
kapa-n-dır-ır.
close-REF-CAUS-AOR
Intended: 'The state makes women wear headscarves in that country.'

b. **Devlet o ülke-de kadın-lar-ı.*
woman-PL that country-LOC woman-PL-ACC
kapa-t-ıl-ır
close-CAUS-REF-AOR
Intended: 'The state makes women wear headscarves in that country.'

Also note that the discussion here further supported our idea of the division between passive heads as Passive I and Passive II because we cannot apply Passive II to passives of reflexives although they are also surfacewise intransitives just like

unaccusatives, for they necessarily involve a Voice projection, either an active or a passive one. Therefore, when the structure switches to the passive domain, it cannot by-pass the Voice level by directly merging a Passive II head. This supports our discussion about voice domains and their internal hierarchies.

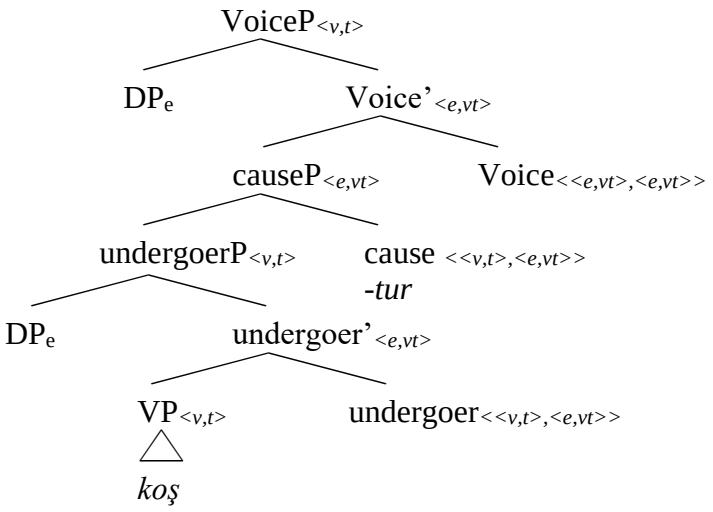
At this point, it is also worth noting that contra common assumptions, we have argued in this subsection that passives of reflexives must be Passive I, hence a regular personal passive although they are the passive forms of intransitive verbs. Furthermore, our discussion of reflexive structures has further supported our characterization of causative structures because our modelling predicts that causative and reflexive heads are in complementary distribution and thus there cannot be causatives of reflexives or reflexives of causatives in Turkish.

5.4.2 Turkish reduplicated causatives

Consider the data in (39). It involves one causer to the event of running and undergoer to the running event, namely 'the soldiers'.

(39) a. *Komutan-lar* *asker-ler-i* *koş-tur-du.*
commander-PL soldier-PL-ACC run-CAUS-PST
'The commanders made the soldiers run.'

b.

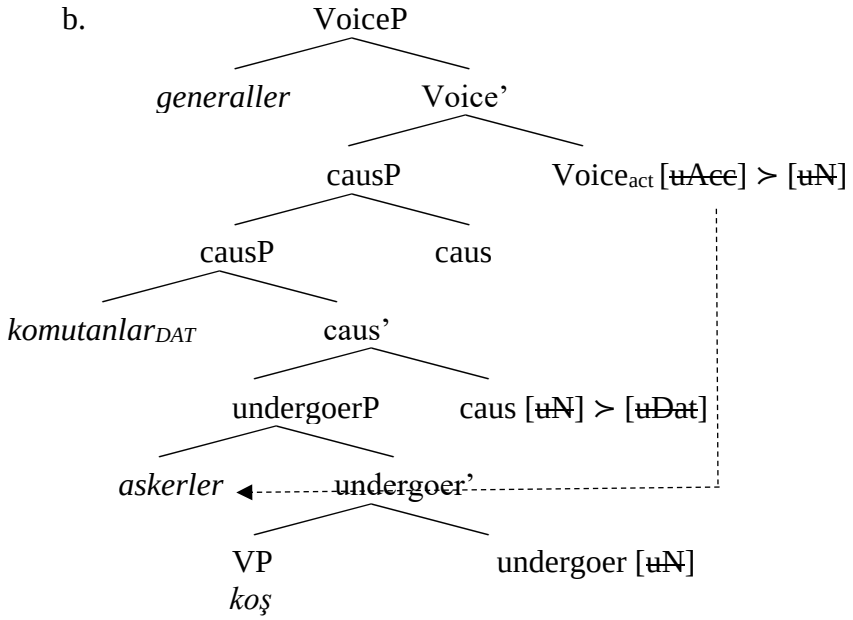


In Turkish, we seem to be able to causativize the construction in (39a); hence add one more participant to the event as in (40a) and we could in principle represent the construction in (40a) as in (40b). However, note that we have previously established that Turkish causative constructions are mono-eventive. Hence, they involve only one event variable in their logical representations. We have supported this conclusion with the adverbial test. Our very characterization of double passive constructions further corroborated this conclusion.

On the other hand, if Turkish causative constructions are mono-eventive, meaning that they only involve one event variable, (40b) cannot be a proper representation for (40a) because there are two predicates introducing the same theta role to the same event, which essentially means that there are two arguments sharing the same theta role in one event in violation of the theta criterion.

(40) a. *General-ler* *komutan-lar-a* *asker-ler-i*
general-PL commander-PL-DAT soldier-PL-ACC
koş-tur-t-ur.
run-CAUS-CAUS-AOR
'Generals make commanders make the soldiers run.'

b.



Key (2013) is aware of the problem and suggests that Turkish so-called reduplicated causatives are not instances of reduplication. More specifically, he suggests that the dative case-marked item in (40a) is an adjunct to the cause predicate and the reduplication is just an instance of a vacuous morphological reduplication. His claim seems right because the second causative morphology as well as the dative case-marked item are optional in these so-called reduplicated causatives. For example, (40a) can be expressed without the second causative suffix as in (41a). Furthermore, the adjunct might not be expressed at all as in (41c). Finally, both the adjunct and the second causative morphology might be absent as in (41b). Importantly, all these sentences are grammatical. The examples in (41) are further supported by the data in (42).

(41) a. *General-ler* *komutan-lar-a* *asker-ler-i* *koş-tur-ur.*
general-PL commander-PL-DAT soldier-PL-ACC run-CAUS-AOR
'Generals make soldiers run (via the commanders).'

b. *General-ler* *asker-ler-i* *koş-tur-ur.*
general-PL soldier-PL-ACC run-CAUS-AOR
'Generals make soldiers run.'

c. *General-ler* *asker-ler-i* *koş-tur-t-ur.*
general-PL soldier-PL-ACC run-CAUS-CAUS-AOR
'Generals make soldiers run.'

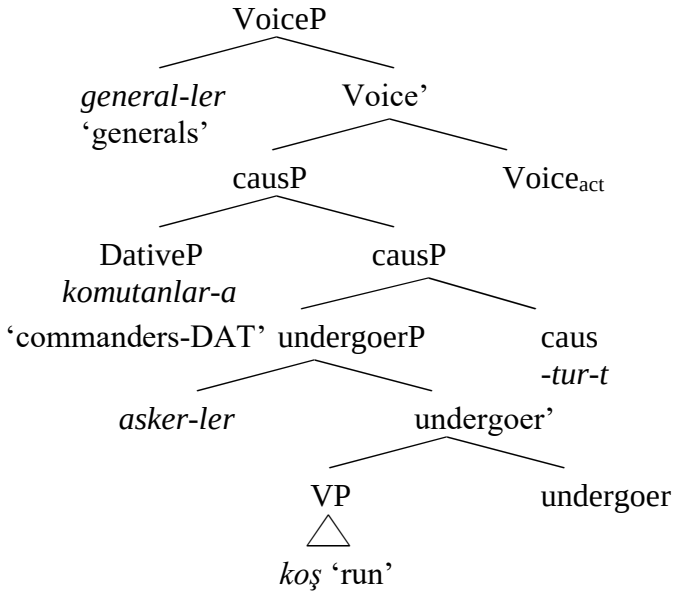
(42) a. *Saç-ım-ı* *kes-tir-di-m*
hair-1SG-ACC cut-CAUS-PST-1SG
'I had my hair cut.'

b. *Saç-ım-ı* *kes-tir-t-ti-m*
hair-1SG-ACC cut-CAUS-CAUS-PST-1SG
'I had my hair cut.'

(Göksel & Kerslake, 2005)

Following Key (2013), Harley (2017) suggests that the dative case-marked item is an adjunct adjoined to the causP. We can implement their idea to our modelling as in the representation in (43).

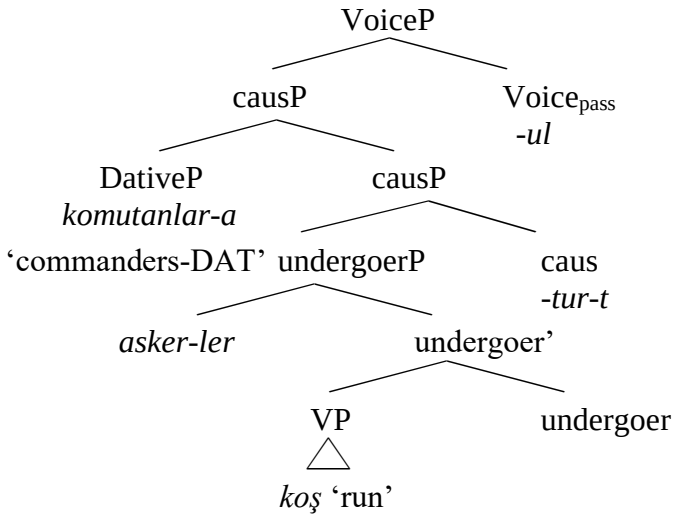
(43)



If (43) is the correct representation for the so-called active reduplicated causatives in Turkish, then the question is what our characterization of passives and double passives can predict based on the structure proposed in (43). First of all, one can switch to the passive domain at the causP level such that we would insert the causP-VoiceP from the passive domain. Since the DativeP is simply an adjunct to the causP, it could be adjoined to a passive causP-VoiceP, as well. Hence, we would generate the construction in (44a) as represented in (44b). According to our domain and hierarchical restrictions, (44b) is a generatable structure as well: by the time the structure switches to the passive domain, it merges the active undergoerP. Once it switches to the passive domain, the structure compensates for the missing causP-VoiceP projections from the passive domain.

(44) a. *Komutan-lar-a* *asker-ler* *koş-tur-t-ul-ur.*
commander-PL-DAT soldier-PL run-CAUS-CAUS-PASS-AOR
'The soldiers are made to run via the commanders.'

b.

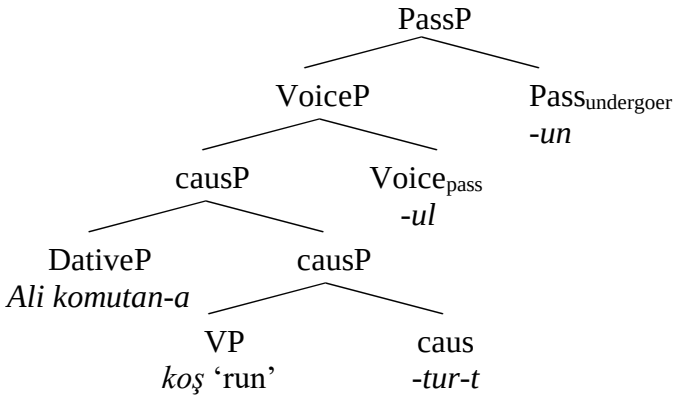


Alternatively, one could directly start off from the passive domain. Hence, the relevant projections would be inserted from the passive domain based on the internal hierarchical requirements of the passive domain. Therefore, we would need to insert a causP-VoiceP$_{pass,}$ on top of which we would need to insert the PassP$_{undergoer}$. Importantly, since we follow Key (2013) in assuming that the dative case-marked items in the so-called reduplicated causatives in Turkish are adjuncts, such an item could still be adjoined to the causP projection. Hence, we expect to find a double passive construction involving causation, where there is a dative case-marked adjunct to the causP projection. Indeed, our prediction is borne out as shown in (45).

(45) a. Context: In militaries, soldiers are made to run. However, let us assume that in each military post, the soldiers are made to run via the intermediacy of a specific commander. Hence, in order for a general to make the soldiers run in a given military post for example, he uses the intermediacy of a specific commander responsible for the running activity. Thus, you mention this property of militaries to your friend as you pass by a specific military post for which you have served recently and you state:

Bu *kışla-da* *Ali* *komutan-a*
this post-LOC Ali commander-DAT
koş-tur-t-ul-un-ur.
run-CAUS-CAUS-PASS
'In this military post, one is made to run via commander Ali.'

b.



The semantic contribution of the dative case-marked adjunct could be seen along the lines of 'with the intermediacy of'. Essentially then, the structure in (45b) states that there is an event and this event is a running event. The undergoer of this event is a group of arbitrary people and the cause is somebody or something who causes the running event with the intermediacy of the commander Ali. This last information is specified as an adjunct. Our modelling based on domains and their internal hierarchies generates the grammatical structure in (45b).

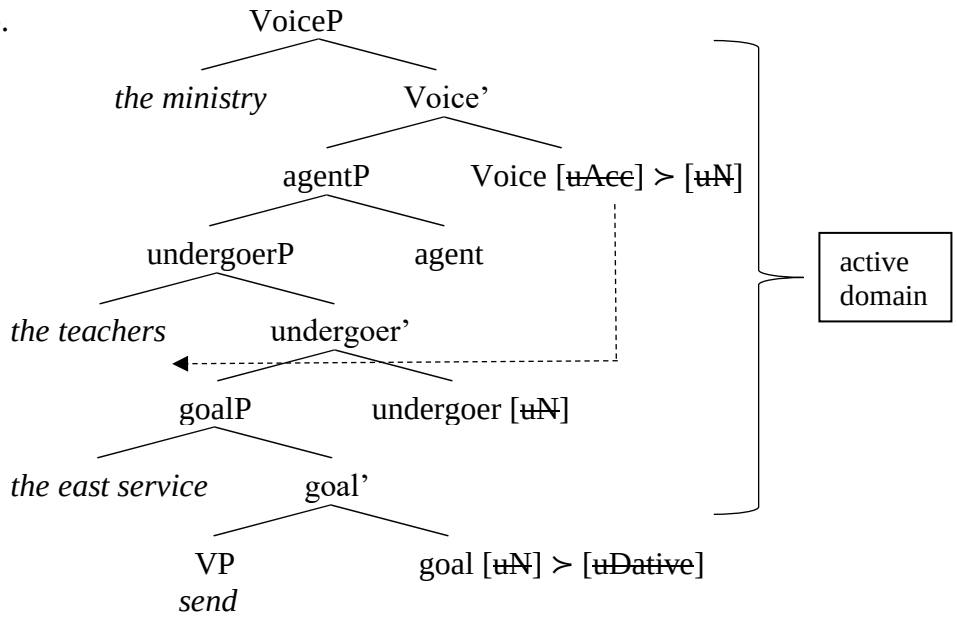
Hence, thus far we have shown that an active Voice head has a corresponding Passive I form. An undergoer head has a corresponding Passive II form. At this point the distribution of VoiceP's is quite clear. They are available to unergative and (di)transitive structures because these structures have external arguments. We have also shown how non-Voice related heads can have passive forms and their semantic contribution to the event formation. However, in addition to the passive Voice head, there is only one other passive form of an active head, which is the Pass$_{undergoer}$. For example, we have not posited any passive counterpart for the active goal head. Furthermore, we have not discussed the passive forms of transitive verbs that assign a lexical case to their complements or whether they can be doubly passivized and if not, we do have not given an answer to why this is the case. In the next three subsections, we are going to discuss these issues.

5.4.3 Goal arguments and Passive II heads

Previously, we have shown an example of a double passive construction derived via a ditransitive verb. Let us recall the fully active version of that sentence in (46a). We present its syntactic structure in (46b).

(46) a. *Türkiye-de* *Milli* *Eğitim* *Bakanlığ-ı* *öğretmen-ler-i*
Turkey-LOC national education ministry-ACC teacher-PL-ACC
zorunlu *Doğu* *Görev-in-e* *gönder-ir.*
obligatory east duty-POSS-DAT send-PROG
'The Ministry of National Education sends the teachers to the obligatory East Service in Turkey.

b.

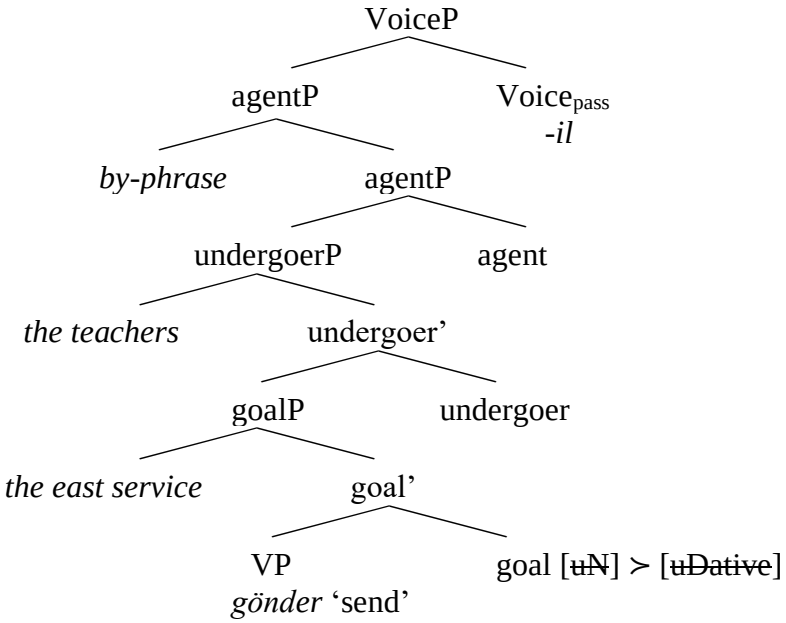


Our account of passivization predicts that the structure may switch to the passive domain at the agentP level, which would correspond to the sentence in (47a), represented as (47b). Alternatively, we could stay at the active domain until goalP and switch to the passive domain at the undergoerP level, in which case we would insert an agentP-VoiceP and a $\text{PassP}_{\text{undergoer}}$ based on the internal hierarchical structure of the passive domain as shown in (48b).

(47) a. *Türkiye-de* *öğretmen-ler* *Milli* *Eğitim* *Bakanlığ-ı* *tarafından*
Turkey-LOC teacher-PL national education ministry-POSS by
zorunlu *Doğu* *Görev-in-e* *gönder-in-ir.*
obligatory East duty-POSS-DAT send-PASS-AOR

'The teachers in Turkey are sent to the obligatory East Service by the Ministry of National Education.'

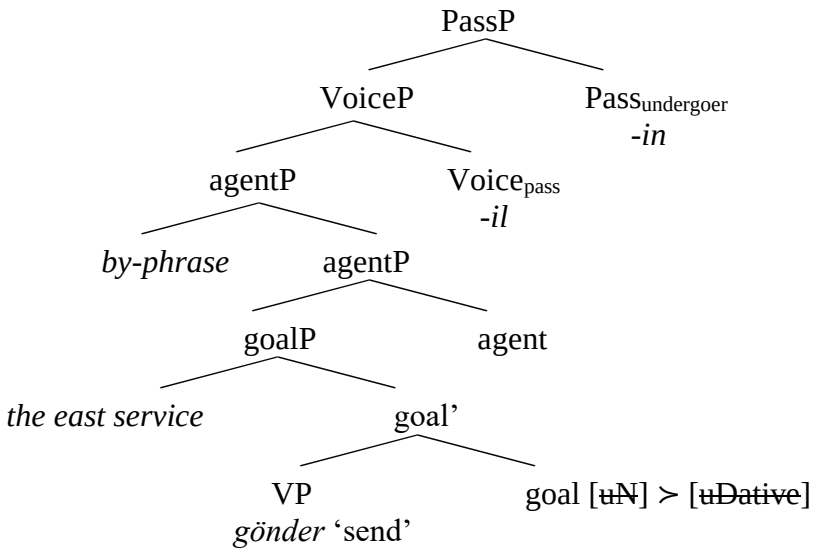
b.



(48) a. *Türkiye-de* *Milli* *Eğitim* *Bakanlığ-ı* *tarafından*
Turkey-LOC national education ministry-POSS by
zorunlu *Doğu* *Görev-in-e* *gönder-il-in-ir.*
obligatory East duty-POSS-DAT send-PASS-PASS-AOR

'In Turkey, one is sent to the obligatory East Service by the Ministry of National Education'

b.



So far, we have examined double passives within the scope of agentP-VoiceP and $PassP_{undergoer}$. However, considering the double passives involving ditransitive predicates are possible as exemplified in (48b), one may be curious about whether there can be a passive version of the goal argument as well. In principle, one can start the functional domain with passive heads directly. In other words, theoretically, there could be two Passive II heads, one compensating for the absence of an active undergoer head, and the other one compensating for the absence of a goal head. However, this is never possible in Turkish as shown in (49).

(49) **Türkiye-de Milli Eğitim Bakanlığ-ı tarafından*
Turkey-LOC national education ministry-POSS by
gönder-il-in-il-ir.
send-PASS-PASS-PASS-AOR
Intended: 'In Turkey, one is sent to somewhere by the Ministry of National Education.'

The ungrammaticality of (49) can be naturally accounted for in the account of passive clauses defended in this thesis. First, note that both in the single passive clause involving the ditransitive verb in (47a) and the double passive clause involving the same predicate in (48a), the dative case marking on the goal argument is present irrespective of whether nominative or accusative case is assigned or not. This is the case because the dative case is checked off by the DP occupying [Spec, goal] position, hence it is inherently assigned to the goal argument. Therefore, whether we use an active Voice head with an accusative case feature or a passive one without the accusative case feature, the goal argument receives the dative case.

Furthermore, note that the passive form of the Voice head cannot assign accusative case because it does not have a case feature. We know that this must be the case because the accusative case present in (di)transitive clauses are absent in their passive forms. Theoretically, if a passive head cannot project an argument, it should not be able to have a case feature either because in a given structure, there

must be as many case assigners as the number of DPs/NPs that need to receive case. More specifically, only active heads may have a case feature.

Now, if the goal arguments of ditransitives inherently receive dative case by the head that projects them, this head cannot have a passive version because passive heads cannot have a case feature considering that they do not open a specifier position. In other words, a goalP of a ditransitive construction has to be merged in the active domain since only active heads can have merge and case features. Our explanation here also accounts for why we always find up to two passive morpheme stacking, but never three. Since the third argument of verbs are generally the goal arguments (unless they are not causativized forms of transitives in which case the dative case marked item is actually an adjunct as argued in Key (2013)), they can never be absent in the active domain.

5.4.4 Lexical Case assigning verbs and passivization

In Turkish, the complements of some verbs may receive a lexical (quirky) ablative or dative case although the objective case is accusative. See the following example.

(50) *Harry* *dün* *ban-a* *sataş-tı.*
Harry yesterday 1SG-DAT tease-PST
'Harry teased/bullied me yesterday.'

In the literature on Turkish passives, the passive forms of examples like (50) are regarded as impersonal passives (Öztürk, 2005; Legate *et al*., to appear) although the verbs are transitive. Since the thematic object receives a lexical case in these examples, they are not promotable to the subject position because subjects in Turkish always receive nominative case. Hence, the passive clause in (51) would be classified as impersonal.

(51) *Dün* *ban-a* *sataş-ıl-dı.*
yesterday 1SG-DAT tease-PASS-PST
'Yesterday, somebody teased/bullied me/I was teased/bullied by somebody.'

However, throughout this thesis, I have argued that the classification of passive clauses based on the case properties of the complement of a verb is only a descriptive tool and thus it is not empirically well motivated. In other words, it is not clear why the example in (51) would be classified as impersonal but other passive clauses derived from transitive verbs whose complements are accusative case assignable become personal passives.

On the other hand, there is a language internal fact above all descriptions. Such complements marked with the lexical case cannot be targeted by passivization; or in our account, it cannot be the case that they are not inserted into the syntactic structure such that their absence could be compensated for by the $\text{Pass}_{\text{undergoer}}$ in the passive domain (cf. (52)). This section concerns itself with the question of why this might be the case.

(52) **Okul-da* *hep* *sataş-ıl-ın-ır.*
school-LOC always tease-PASS-PASS-AOR
Intended: 'Somebody always teases/bullies another person at school.'

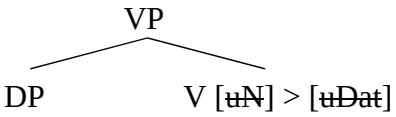
Note that Legate *et al*. (to appear) suggests that lexically case-marked arguments cannot be targeted by passivization because passivization is an operation concerning accusative case marking. In the previous chapters, we have shown the vagueness of such a statement because it is not clear why passivization has to do with the availability of accusative case marking considering that accusative marking is never available in passive clauses in the first place in Turkish.

Therefore, instead, in this thesis we will suggest that lexically case-marked complements must be present in the structure because verbs must discharge their lexical case features if they have any at the VP domain. Once an argument is inserted

at the VP domain though, we cannot delete it because passive heads work only when their active counterparts do not merge the relevant predicates in the first place. We will shortly detail what we mean with these, but the bottom-line of our suggestion will be that passivization must not be associated with their active forms and therefore we must not refer to concepts such as promotability to the subject position or availability of accusative case assignment.

Now, since a DP receives lexical case from the lexical verb, the natural assumption would be that the relevant verb would have a case feature that must be discharged via merging a DP at its complement position. But for an argument to be merged at a syntactic position, the relevant head must have a merge feature. This way, the DP would discharge the lexical case feature of the verb after being merged to the system. The relevant structure is provided below.

(53)

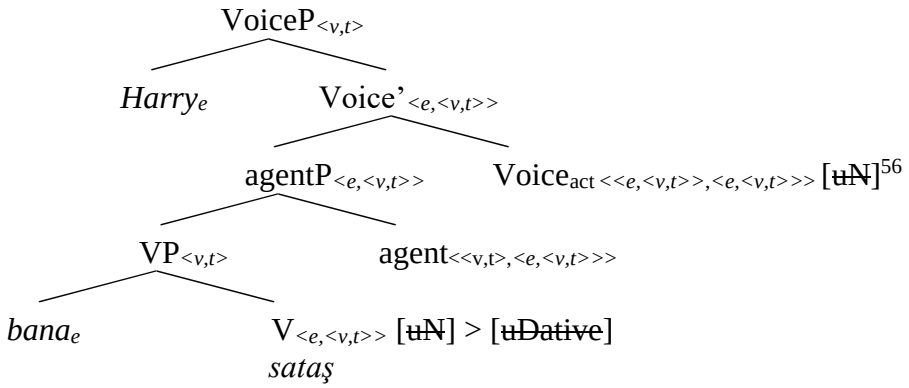


However, note that issues regarding interpretability arises if an argument is necessarily introduced at the VP internal domain, as the complement to the verb because we have previously assumed that verbs in Turkish only denote functions of type $<v, t>$, not of type $<e,<v,t>>$ and they do not have N merge features; hence they cannot take arguments. On the other hand, in line with the syntactic requirement that the complements of the verbs that assign lexical case be merged at the complement position to the verbs from which they receive a lexical case, the semantic denotation of such verbs can also be modified accordingly such that the lexical entries of verbs with lexical case features denote functions of type $<e,<v,t>>$.

Such a move would force the arguments of these verbs to be inserted at the VP internal position. Hence, they cannot be targeted by passivization because as we

have established previously, passivization is achieved when an active head does not introduce the relevant argument. Regarding lexical case assigners then, the arguments would be introduced as part of the semantic entries of verbs themselves, hence, their structures would never have a missing predicate to be compensated in the passive domain. Therefore, their structures would only allow Passive I (cf. (54) for (50); (56) for (51); (58) for (52)).

(54)



(55) a. ⟦V⟧ = *λx. λe. tease(e) & undergoer(x,e)*

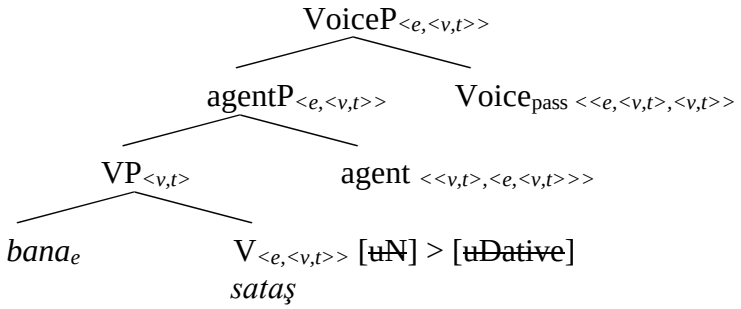
b. ⟦VP⟧ = *λe. tease(e) & undergoer(me,e)*

c. ⟦VoiceP⟧ = *λe. tease(e) & undergoer(me,e) & agent(Harry,e)*

The structure in (54) shows us that it is possible to switch to the passive domain at the agentP level such that the semantic slot corresponding to the subject of the predicate 'agent' is existentially closed. This would give us the Passive I form of the sentence in (50), which is (51) as represented in (56) below. (57) is a sample derivation for (56).

[56] I assume that accusative case feature of the $Voice_{act}$ is overridden by the lexical dative case. As I have mentioned previously, case is orthogonal to the discussion here. However, I must make assumptions regarding case assignment to arrive at my point. One must also note that regardless of one's assumptions about case assignment, my point will be relevant.

(56)

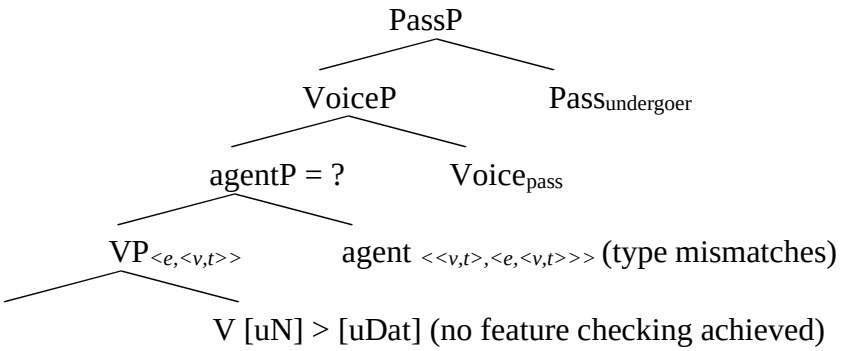


(57) a. ⟦V⟧ = *λx. λe. tease(e) & undergoer(x,e)*

b. ⟦VP⟧ = *λe. tease(e) & undergoer(me,e)*

c. ⟦VoiceP$_{passive}$⟧ = *λe.* ∃*x*: *tease(e) & undergoer(me,e) & agent(x,e)*

(58) *



Hence, without recourse to an association between accuasive case marking and passivization, we could account for why double passives of clauses involving verbs whose complements receive lexical case cannot exist in Turkish. Once we assume that the lexical case is a case feature of the lexical item to be discharged via merging a DP at the VP domain, we could accordingly suggest that such verbs may denote functions of type *<e,<v,t>>* such that their arguments have to be introduced to the syntactic system. Once they are introduced though, they cannot be deleted from the syntactic or semantic derivation, which explains why we cannot form Passive II clauses our of these transitive verbs. The discussion corroborates our claim that passives are derived independently of active constructions.

5.5 Conclusion

In this chapter, we have further restricted the way that we insert active and passive heads to a structure. Our initial aim was to rule out anti-passive structures in Turkish with further amendments to our characterization of passivization, particularly double passivization. In doing so, we have proposed that there are voice related domains in a syntactic structure. Whereas one domain, the active domain, accommodates the active heads that introduce arguments and may assign cases; the other one, the passive domain harbours passive heads that do not project arguments and cannot assign any type of case. The puzzling question was how a language that allows passives of unaccusatives cannot generate an anti-passive configuration, where the internal argument is suppressed and the external one is merged at [Spec, $Voice_{act}$]. We have suggested that to merge a $Voice_{act}$ head, one would first need to introduce the internal argument at [Spec, undergoer] because of hierarchy of projections of the active domain. However, once it is introduced, its passive counterpart cannot be present in the structure because that would create a theta violation. Conversely, in order to suppress the internal argument, one would need to insert the $Pass_{undergoer}$ head from the passive domain. However, according to the hierarchy of projections of the passive domain, it would be preceded by a $Voice_{pass}$ head, which would necessarily mean that an active Voice head cannot be present in the structure.

With these final modifications to our theory, we could explain the formation of passives of reflexive clauses, passives of the so-called reduplicated causatives, the goal arguments, and their status in terms of Passive II and passive clauses involving lexical case assigning verbs. We have concluded that passives of reflexives must be formed as Passive I, Turkish reduplicated causatives involve both Passive I and II, and goal arguments cannot have a Passive II head. Furthermore, we have argued that

since lexical case must be assigned at a local position to the verb, it requires the merging of the internal argument at the VP domain; hence passivization cannot apply to such internal arguments because it is not an operation that can affect already introduced arguments.

CHAPTER 6

CONCLUSION

5.1 Summary of the findings

This thesis investigated passive constructions in Turkish within the current generative approaches to syntax and semantics. Studies in the linguistics literature on Voice generally focused on passives of unergative and (di)transitive constructions, for they aimed to capture Perlmutter (1978)'s generalization that passives of unaccusatives or double passives are ruled out cross-linguistically. That is why, we have shown that there is no study that examined the voice phenomenon, particularly from the perspective of double passives. In other words, current theories of passivization is founded on the premise that passives of unaccusatives and passives of passives are not possible in a language. The starting point of this thesis was the question of what double passives in Turkish can tell us with respect to the syntactic and semantic theories of passivization. We have established that double passives are important constructions because they are strictly ruled out by the linguistic theory. In this section we are going to summarize the findings of each chapter of this thesis.

In Chapter 2, we have summarized certain selected works on passivization, works that are both theory-general and language-specific, to better understand why and how current linguistic theories prohibit passives of unaccusatives and double passives. The main finding of Chapter 2 was that no theory of passivization has a legitimate account for double passives in Turkish. Except for Legate *et al*. (to appear), no other work reviewed in Chapter 2 was specific to impersonal and double passives anyway. Legate *et al*. (to appear) was shown to suggest that impersonal

passives are active constructions, where there is a syntactically projected empty category, an impersonal pro, which agrees with a higher impersonal head.

In Chapter 3, we argued against Legate *et al*. (to appear)'s view that impersonal constructions are active structures in Turkish. We suggested that both simplex and complex (double passives) impersonal passive constructions show identical behaviour with personal passives, which are argued to be true passives in Legate *et al*. (to appear). We concluded that they behave like regular passive structures by looking at the properties of by-phrases, humanness restrictions, anaphora binding, status of subject oriented secondary predication, object movement and control properties, particularly in *-ArAk* constructions. Furthermore, we concluded that passivization in Turkish cannot be a lexical operation because it suspiciously shows syntactic behaviour. We have opted for a syntactic analysis of passive clauses because otherwise we are faced with all the semantic type ambiguities listed in the lexicon. Besides, we have argued that a lexical approach to passivization means existentially binding the relevant argument slot pre-syntactically, which is problematic for further operations on argument positions such as the adjunction of by-phrases in syntax.

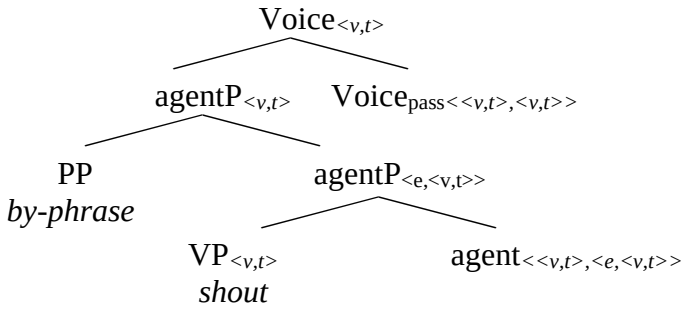
The main conclusion of Chapter 4 was that passive constructions are not derived from their active counterparts. They are formed via the passive heads that reside in the passive domain of the more general Voice domain of the syntactic structure. We have basically claimed that just like an active Voice head has its corresponding passive head (Passive I head), other lower heads may have passive forms, which are argued to be subsumed under the Passive II. We have shown that transitions from active to the passive domain are not random and there is a strict hierarchical ordering in each domain. For example, Passive I always precedes

Passive II if they are both available in a syntactic structure. Hence, we proposed the following structures for each passive type reviewed in this thesis.

(1) a. An Unergative Passive Structure with a by-phrase

Konser-de *çocuk-lar-ca* *bağır-ıl-dı.*
concert-LOC child-PL-by shout-PASS-PST
'There was shouting by the children during the concert.'

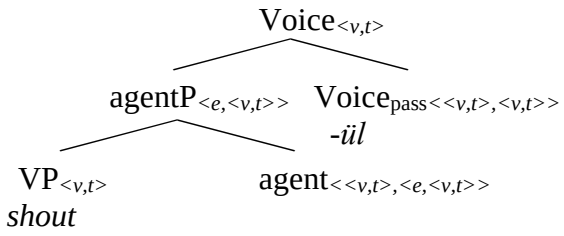
b.



(2) a. An Unergative Passive Structure without a by-phrase

Konser-de *bağır-ıl-dı.*
concert-LOC shout-PASS-PST
'There was shouting during the concert.'

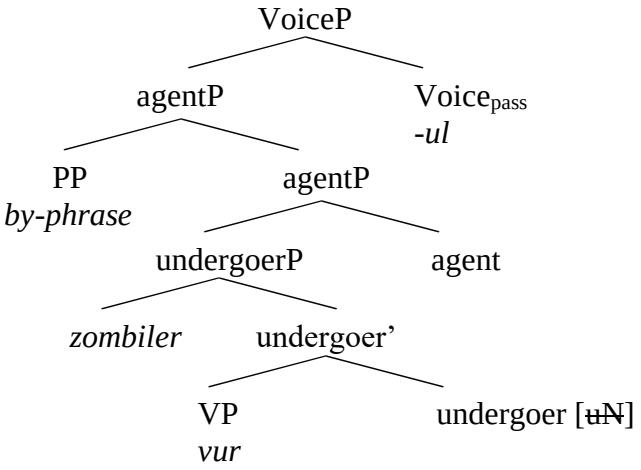
b.



(3) a. A Transitive Passive Structure with a by-phrase (the verb does not have a lexical case feature)

Zombi-ler *asker-ler-ce* *vur-ul-du.*
zombie-PL soldier-PL-by shoot-PASS-PST
'The zombies were shot by the soldiers.'

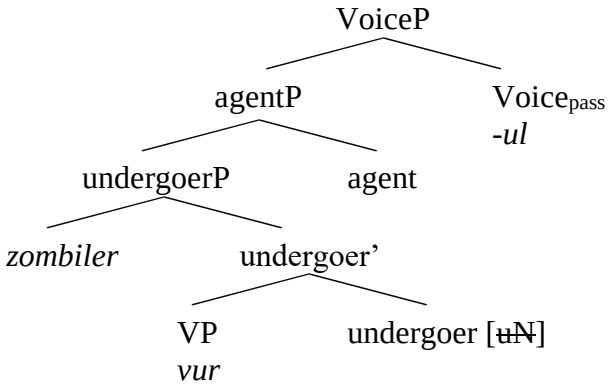
b.



(4) a. A Transitive Passive Structure without a by-phrase (the verb does not have a lexical case feature)

Zombi-ler *vur-ul-du.*
zombie-PL shoot-PASS-PST
'The zombies were shot.'

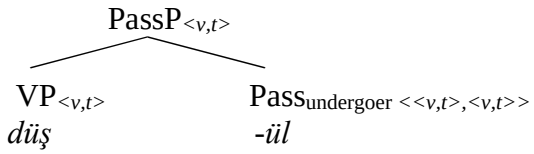
b.



(5) a. An Unaccusative Passive Structure

Bu *çukur-a* *düş-ül-ür.*
this pit-DAT fall-PASS-AOR
'One falls to this pit.

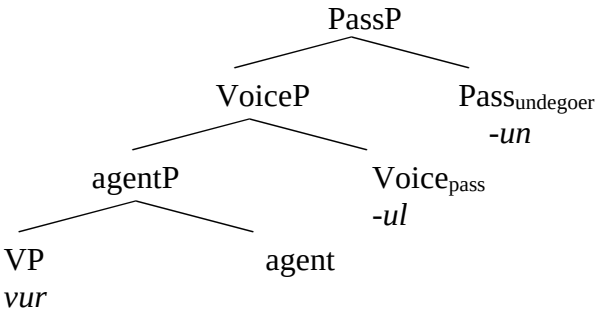
b.



(6) a. A Double Passive Structure Involving a Simple Transitive Verb

Savaş-ta *vur-ul-un-ur.*
war-LOC shoot-PASS-PASS-AOR
'One is shot in war.'

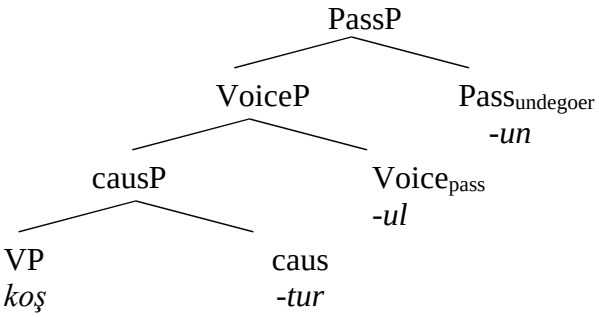
b.



(7) a. A Double Passive Structure Involving a Derived Transitive Verb

Asker-de *koş-tur-ul-un-ur.*
military-LOC run-CAUS-PASS-PASS-AOR
'One is made to run in militaries.'

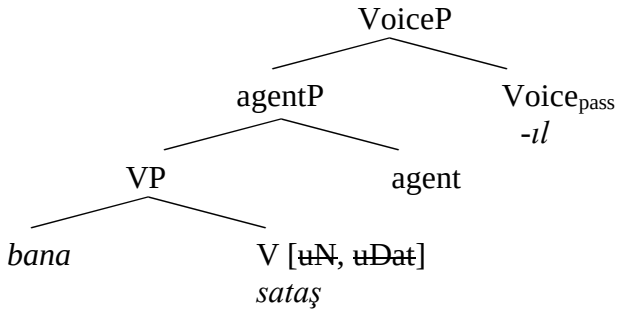
b.



(8) a. A Transitive Passive Structure with a verb having a lexical case feature

Okul-da *ban-a* *sataş-ıl-dı.*
school-LOC 1SG-DAT tease-PASS-PST
'I was bullied/teased at school.'

b.



To arrive at the structures listed, we also needed to make the following suggestions.

1. Passives do not involve the syntactic presence of implicit arguments.
2. Passives of unergatives pattern with passives of (di)transitives; passives of unaccusatives pattern double passives.
3. Internal arguments should also be severed in Turkish.

Finally, in Chapter 5, we have shown that there are active and passive domains from which the active and passive heads are inserted to the syntactic structure. We have provided evidence from Turkish subject pseudo-incorporation that there are domains, and, in each domain, there is a hierarchical structure. Such ordering within a domain and the transition rules from one domain to the other allowed us to show that inserting active or passive heads to a structure is not random; therefore, we do not have anti-passive structures in Turkish, for the domain transition rules do not allow them.

Furthermore, in Chapter 5, we have used the tools that we have suggested thus far in the analysis of double passives to examine passives of reflexives, passives of so-called reduplicated causatives in Turkish, passive clauses involving goal arguments and passives clauses involving verbs assigning lexical case. The capability of our system to account for these structures also reinforced the mechanism that we have presented in this thesis.

5.2 Remaining issues and further research questions

One of the major issues regarding this section is the aspectual constraints of Passive II as shown in Section 4.5 of Chapter 4. In that section, we have argued that a Passive II head forms a derived stative such that forms generated by Passive II cannot be used in episodic contexts. We have achieved such a derivation by suggesting that a Passive II head not only binds the individual variable, but also binds the event variable with the existential quantification. This way, we made sure that tense operators, used in episodic contexts, cannot take the output of a Passive II clause as its input and only those operators that can work with situation variables would be compatible with the Passive II outputs. Such an analysis could account for

the stative nature of Passive II clauses (both passives of unaccusatives and double passives) as well as nicely capturing why they are generally used with aorist.

However, in this concluding chapter, I would like to note that using Passive II is not completely forbidden as claimed in Sezer (1991) and Özkaragöz (1986) as long as the event referred in the Passive II clause is understood to have occurred more than once; or iterative for that matter. For example, although (9a) is ungrammatical to most speakers, (9b) is much better for many speakers since the clitic *-DA* implies that the falling event must have occurred before as well. Similarly, (9c) is much better than (9a) as the adverbial *çok* 'much' ensures that the event is iterative.

(9) a. **Dün* *bu* *çukur-a* *düş-ül-dü.*
yesterday this pit-DAT fall-PASS-PST
Bu *yüz-den* *belediye* *kapat-tı.*
this reason-ABL municipality close-PST
'Yesterday, there was falling to this pit. Therefore, the municipality closed it.'

b. *Dün* *de* *bu* *çukur-a* *düş-ül-dü.*
yesterday CL this pit-DAT fall-PASS-PST
Bu *yüz-den* *belediye* *kapat-tı.*
this reason-ABL municipality close-PST
'There was falling to this pit, yesterday as well. Therefore, the municipality closed it.

c. *Dün* *bu* *çukur-a* *çok* *düş-ül-dü.*
yesterday this pit-DAT much fall-PASS-PST
'There was much falling to this pit yesterday.'

Understanding the true nature of the data here requires not only an examination of Voice but also its relation to concepts such as event plurality, distributivity over events its relation to tense and aspect. For example, it would be worth investigating the relationship between the iterativity, stativity and aorist in Turkish, which also extends to concepts such as lexical aspect and verb classes in the sense of Vendler (1957) and later linguistic works on these issues (Borer, 1998; Kratzer, 2004; Ramchand, 2008 among many others). I leave this to further research.

Having established these research questions, at this point I would like to note though that Sezer (1991) observes that passives of unaccusatives cannot be used in eventive contexts. Özkaragöz (1986) and Postal (1986) state that double passives are only possible in aorist. We further approximated these two structures and suggested that passives of unaccusatives and the second passive of double passives must be the same operations because they exhibit the same aspectual restrictions (as well as other common properties like their incompatibility with by-phrases and humanness restrictions). To account for the non-eventivity of Passive II's, we have suggested following Fábregas & Putnam (2014) that Passive II heads may be specified for an operator as an in-built property of their semantic information such that they automatically bind the event variable as well as the individual variable. Therefore, the output of Passive II's cannot be proper inputs to tense because tense takes an event variable and binds it to situate the event to a point at a time axis. If that is the case, the similarity between Passive II's in Turkish and what Fábregas & Putnam (2014) calls 'middles' is conspicuous. Turkish does not seem to have uncontroversially middle constructions. Then can it be that Passive II's are middles, having commonalities between passive structures?

Besides, remember that we have opted for a simple representation of reflexive clauses while we were analysing their passive forms in Chapter 5 because highlighting the similarities between reflexives and unergatives as first observed in Taneri (1993) was of the utmost importance for our purposes. On the other hand, we must note that doing a full justice to the properties of reflexives and their relation to unergative predicates require another extensive study on Voice.

Finally, in this thesis, we particularly focused on Turkish data on passives of unaccusatives and double passives, for Turkish is one of those languages where both

constructions are very productive. With Turkish data and our characterization of passivization, we could provide a parametrization theory-internally such that we can now list under what conditions we would expect to find double passives or passives of unaccusatives in each language. For a language to have double passive constructions and if the language does not allow anti-passives, that language, just like Turkish, must merge internal arguments outside the VP domain, must have active and passive domains and a passive head in addition to a passive Voice head, unless the language allows for a true recursion of Voice. However, although our theoretical conclusions derived from the Turkish data lead us towards a crosslinguistic (and potentially cross-dialectal) parametrization, we need more data to test our predictions from a wider linguistic perspective.

More specifically, we need to gather data from those languages that allow passives of unaccusatives and double passives and see whether we could find the same properties ascribed to Turkish to account for double passives and passives of unaccusatives. Of course, note that finding the relevant syntactic and semantic properties within a language does not necessarily mean that the language will exhibit double passives like Turkish because there might also be morphological restrictions on the iteration of the passive marker. However, we would at least expect to find passives of unaccusatives. Although we had to restrict our language of study to Turkish and a few others when necessary for this thesis, we need to broaden the scope of our data such that it may include a representative number of languages that allow passives of unaccusatives and potentially double passives.

It is also interesting to note at this point that one other language that seems to allow passives of unaccusatives is Hiaki (Yaqui) as shown in Jelinek & Harley (2014). Interestingly though, Hiaki is also one of these languages that are non-

bundling with respect to its structuring of vP and VoiceP domains. Thus, just like Turkish, Hiaki also projects a vP to introduce the semantics of agency/causation; yet the actual agent/causer is introduced at the VoiceP domain if the Voice head is active. If not, the passive Voice head existentially closes the argument position. One question arising at this point might be whether being voice bundling or non-bundling can increase the possibility of one finding double passives or passives of unaccusatives in the relevant language. In other words, one also needs to further examine whether there is a relationship between the availability of finding a Voice head, distinct from the little v, and the availability of passives of unaccusatives and double passives. We can only test this hypothesis examining larger data.

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