PERSPECTIVE IN TURKISH COMPLEMENTATION

by

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ABSTRACT

Being considered a discourse-pragmatic phenomenon earlier, the role perspective plays in the syntax was peripheral in syntactic research until recently (e.g. Sundaresan 2012, Charnavel 2019). The primary goal of this dissertation is to demonstrate that perspective plays a vital role in syntactic domain formation and various syntactic processes based on data from Turkish complementation. I argue that the two CP-level complement clauses in Turkish differ from each other in whether they encode perspective. This difference, in turn, leads to various syntactic differences such that availability of syntactic encoding of perspective forms an opaque domain, as evidenced by the ban on binding, NPI-licensing, among other patterns. However, the opaqueness is not absolute but is rather selective (Keine 2019), as evidenced by the ability of topic-related elements to escape perspectival domains, including what was earlier considered to be indexical shift cases in Turkish. The investigation of the interaction of embedded perspectival domains with various embedding cognitive attitude verbs reveal important patterns that lead to the conclusion that Turkish makes a three-way syntactic distinction based on perspective between these verbs: speaker-oriented verbs, matrix subject-oriented verbs and perspective-underspecified verbs. I correlate perspective with (non)factivity such that factive reading is a result of syntactic encoding of the speaker's perspective; non-factivity is a result of encoding the matrix subject's perspective, and lack of perspective specification leads to what is known as semi-factive verbs. I show that matrix subject-oriented verbs turn embedded opaque domains such as perspectival domains into transparent domains while speaker-oriented verbs turn otherwise-transparent domains into opaque domains. I attribute this to the specific properties of the extra structure they both introduce.

CHAPTER 1

INTRODUCTION

1.1.   Introduction & Background

This dissertation is about perspective in the syntax. In contrast to traditional studies, which argue that perspective is a discourse-pragmatic phenomenon (e.g., Clements 1975, Kuno 1987), it investigates the idea that perspective is syntactically represented, building on studies such as Jayaseelan (1998), Sundaresan (2012) and Charnavel (2019), and that it can be marked overtly in certain languages. Various data on Turkish complementation are presented with the aim to demonstrate that perspective is syntactically represented and has important consequences in terms of domain formation and interaction between various types of elements within a sentence. Along the way, we will see various syntactic effects of perspectival marking and domainhood in Turkish. By the end, the reader will hopefully be convinced that overt markers syntactically delimit perspectival domains in Turkish, domains in which they interact with other elements of the clause. The main data focus of the present study is exemplified in (1):[1]

(1) a. Esra   [Ali-nin   gel-**diğ**-in]*(-i)   bil-iyor
        E   A-3GEN   come-DIK-3S-ACC know-IMPF
        'Esra knows [that Ali came/is coming]'

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[1] The data collection process for the present study went as follows: The author set up sentences and contexts and judged them herself first. Then, she checked all data with four other native speakers of Turkish consistently, while casually involving a few others in various points. The four speakers and the author agreed on the judgments, unless variation is pointed out. The data that came up after the first round of data collection were checked with two of the four participants due to availability concerns of the participants and occasionally with a third one if there was variation. The data discussion sessions were in semi-structured interview format.

b. Esra　　[Ali　　gel-di　　**diye**]　　bil-iyor

　　E　　　A　　come-PST　diye　　know-IMPF

　　'Esra knows [diye Ali came]'

(1a) exemplifies a nominalized complement clause, nominalization being evidenced by the genitive subject, person agreement marker on the nominalizer and the obligatory accusative marking on the entire clause, assigned by the embedding verb. (1b) has a non-nominal complement clause headed by a subordinating element *diye* (compositionally, *de+ye,* i.e., *say+linker*). The core argument of this dissertation is that though they both include a CP syntactically (and denote a proposition semantically), *diye* marks a perspective domain, under which all of the embedded clause content falls, whereas the nominalized complement does not. This is accomplished in Chapter 2. Chapter 3 and 4 discuss properties of this domain and the interaction of this domain with other elements in the clause, respectively.

Another focus of this dissertation is the embedding verb type; it is shown that the choice of the verb interacts with the type of the embedded clause in a significant way. The three types of embedding verbs discussed in this study are in (2). They are all cognitive attitude verbs, with the property of perspective (defined based on whether perspective is syntactically represented and if so, whose perspective is represented), which I take to be related to literature on factivity such that matrix subject's perspective correlates with non-factive verbs and speaker's perspective correlates with true factive verbs. The factive presupposition is a result of the structural encoding of the speaker's perspective.

(2) a. **Perspective-underspecified (=Factivity-underspecified) verbs:** ex: *bil-* 'know'[2] or

   hatırla 'remember'

   b. **Matrix Subject-oriented (=Non-factive) verbs:** ex. *düşün-* 'think', *hayal et-* 'dream'

   c. **Speaker-oriented (=True factive) verbs:** ex. *unut-* 'forget', *keşfet-* 'discover'

Perspective in syntax is a relatively new domain of investigation. Traditional studies consider the

effect of perspective to be a discourse-pragmatic one (e.g., Clements 1975, Kuno 1987),

suggesting that perspective is not a core syntactic-semantic phenomenon. More recently,

however, some syntactic effects of perspective have been brought to surface and discussed in

some detail (e.g., Sundaresan 2012, Charnavel 2019), which highlights the possibility that

perspective might play a bigger role in core syntax than was previously assumed. These studies

highlight both the discourse-pragmatic role of perspective and its syntactic effects. For instance,

Sundaresan (2012) develops a two-step system for Tamil anaphor *ta(a)n,* where the first step

involves a syntactic relation of Agree between the anaphor and the perspective operator while the

second step involves a discourse-pragmatically-sensitive relation established between this

operator and the DP antecedent (discourse-pragmatic sensitivity due to speaker-intent, common

ground, presupposition etc). For Charnavel (2019), each phase can be specified as being

presented from an individual's perspective through LogP, which hosts a perspectival operator

and a pro_{log} subject in its specifier. She uses this proposal to account for the syntactic similarities

and differences between plain anaphors and exempt anaphors in (primarily) French. Note that

exempt anaphors were sometimes previously argued to be not of a syntactic nature and were

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[2] *bil-* 'know' in Turkish does not refer to knowledge reports as in English. Rather, its meaning is closer to 'be convinced'. Syntactically, it behaves differently from both verbs in (2b) and (2c), discussed in detail in Chapter 4. Note, however, that the verb root *bil-* is used to form the noun 'knowledge' in Turkish: bil-gi. This remains a puzzle.

argued to be logophoric, where logophoricity was taken to be a perspective-based discourse-related notion without syntactic import.

This endeavor opened a new line of research based on the quest to find the specific ways in which perspective interacts with the syntax. This dissertation takes on the idea and applies it to Turkish, which not only lends support for the main intuitions of these proposals but also provides some challenges that need to be accounted for. It also takes it one step further by arguing that perspective can be *overtly* marked in the grammar, as perspective is argued to be encoded by covert elements in both studies. The present work contributes to this recent endeavor through a detailed analysis of Turkish complementation with a focus on its perspectival properties with an extensive database, in fact the most extensive on perspective in Turkish thus far. The present study is unique in its analysis of various types of elements that simultaneously appear in a single perspectival domain (Chapter 2, 3). It also focuses on the interaction of this domain with other elements in the sentence (i.e., embedding verbs). This provides an in-depth understanding of the inner structure of the perspectival domain and its relation to the broader context.

This more comprehensive investigation of the perspectival domain reveals that its domain properties are different depending on the properties inside and outside of it. In other words, it is a domain that is not always opaque or always transparent; but rather it is selectively opaque (Keine 2019). Thus, a perspective domain does not (necessarily) correspond to a rigid definition of phases, as was argued for in previous studies (e.g Sundaresan 2012, Charnavel 2019). The selectively-opaque domain of perspective is formed by a perspective operator with a PRO subject, where the PRO subject is associated with the individual that is the perspective center, i.e., the (matrix subject) attitude holder. Crucially, the selectivity of the perspective domain

depends on the internal structure of the items involved in the interaction as well as the (non)factivity of the embedding verb.

The analysis of individual items in the perspectival domain reveals three types of elements in the domain: (i) those that appear with an anaphoric variable, (ii) those that appear with a pronominal variable and (iii) indexical elements specified for the utterance context. These are exemplified in (3) in respective order. The relevant elements are in italics.

(3) a. *Context:* I know that Ali had a race between 2-3 pm. John thought his race was between 5-6 pm. Ali and John are both in Los Angeles.

John	[Ali	*{5-6 arası/#2-3 arası}*	yarış-tı	**diye**]	bil-iyor
J	A	5-6 between/2-3 between	compete-PST	diye	know-IMPF

'John knows [diye Ali competed between 5-6/#between 2-3]'

b.
Esra	[*pro*	sınıf-ta	kal-dı-*m*	**diye**]	bil-iyor
E		class-LOC	stay-PST-1S	diye	know-IMPF

'Esra knows [diye I failed the class]'

(1SG pro=S (Speaker), MS (Matrix Subject))

c. *Context:* Mary is in Los Angeles. However, she thinks she is in Irvine. The speaker is in Los Angeles. Mary has an appointment in LA.

Mary	[toplantı	*burada/*orada*	ol-acak	**diye**]	bil-iyor
M	meeting	here/there	be-FUT	diye	know-IMPF

'Mary knows [diye the meeting will be here/*there]'

There is a (somewhat) systematic correspondence of the three groups, i.e., the italicized elements in (3a)-(3c), in the syntax: The first category exemplified in (3a) corresponds to the content of phrase-level elements in the syntax (e.g., VP, DP, AP, AdvP). I argue that all phrase levels in the syntax come with an anaphoric variable, which forces them to be bound by the closest antecedent, which in the present case is the closest perspectival domain. Thus, such content is reported from the first-person perspective of the closest perspective center. The second category in (3b) is topical elements, including the kind of pronominal element (*pro*) that introduces optional binding by perspectival domains: They can refer to matrix subjects (perspective centers) or the speaker (also a perspective center in the matrix clause; see Ross 1967, Speas & Tenny 2003, Stowell 2007, Zu 2018 for representation of speaker in the matrix clause). The third category as given in (3c) includes lexical elements such as overt pronouns, indexicals such as *here* that cannot be bound by a lower perspectival domain but must be associated with the utterance context, hence the speaker. This is attributed to the variable they are generated with that is specified for the utterance context (Kaplan 1989).

How does this approach to data compare to previous studies? As stated before, most previous studies focus on a specific type of data. To exemplify more concretely the type of data previous studies focus on, traditional or recent, see (4), which exemplifies nominal anaphora (Ross 1967: 466):

(4) Abernathy$_i$ admitted that the poison pen letter had been written by my sister and himself$_i$.

The anaphor *himself* in (4) is long-distance bound by the subject *Abernathy*. This is surprising because anaphors are ordinarily subject to Condition A of the binding theory in English: they must be bound in their local domain, as illustrated in (5) (Chomsky 1986: 166):

(5) a. I told them$_i$ about [each other]$_i$.
　　 b. *I told them$_i$ that Bill liked [each other]$_i$.

Another type of data that can be related to the notion of perspective various studies have focused on are predicates of personal taste. For example, an adjective can be reported from a non-local perspective as well as a local one and both can appear within the same clause, as shown in (6) (Anand & Korotkova 2021:2).[3] This shows that not only a perspectival element can be bound non-locally, but two different perspectives can be utilized within the same domain.

(6) Pascal: Mordecai believes [that the uplifting$_{Pascal}$ documentary is depressing$_{Morcedai}$]

One study that takes a broader approach, in a similar way to the present study, is Schlenker (1999), who investigates all-purpose and matrix indexicals as well as anaphoric devices in various languages including English, Amharic, Russian and German. Eckardt (2015) develops a similar analysis for free indirect discourse in German. These studies are crucial because they attempt to take a much-needed broader look at the relevant phenomena and will be discussed in more detail in Chapter 3 in relation to the present study. However, it must be noted that though similar in spirit, the present work is syntactically-oriented while Schlenker (1999) and Eckardt

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[3] Anand & Korotkova use the term 'judge' (albeit in a theory-neutral way) rather than perspective (though the two are related) but they define predicates of personal taste as expressing a subjective perspective on a matter (p.2). Thus, their data are broadly perspective-related.

(2005) were semantically-oriented. This provides crucial unification that has not been sought for in the syntax of perspective but in fact has significant implications.

Another important contribution of the present study regards the embedding verbs, which is discussed in Chapter 4. I restrict the analysis in Chapter 4 to cognitive attitude verbs so an in-depth understanding can be achieved, but see Chapter 5 for other non-cognitive attitude verbs for a brief discussion of differences and similarities in behavior. The main relevant distinction in the Turkish case is one of perspective, redefined in terms of the notion of (non)factivity such that factivity presupposition is a result of structural encoding of speaker's perspective, as mentioned earlier. I argue for a more complex syntactic structure for matrix subject-oriented (i.e., non-factive) cognitive attitude verbs such as *düşün-* 'think' and speaker-oriented (i.e., true factive) verbs such as *unut-* 'forget', as opposed to perspective-underspecified (i.e., factivity-underspecified; semifactive) verbs like *bil-* 'know'. The proposal that true factive verbs have extra structure is not new and has its roots in studies as early as Kiparsky & Kiparsky (1971). This corresponds to my argument for speaker-oriented verbs. The proposal that non-factive verbs have extra structure is also not new and contributes to more recent studies such as de Cuba (2007) and his related other work. This corresponds to matrix subject-oriented verbs in the present analysis. Based on Turkish data, the argument will be that both lines of research have their merits and can be unified. I will also show that factivity is default in the absence of specification otherwise, involving no extra structure, which lends some support to the recent studies in the field.

In a nutshell, the present study provides a broader, more detailed investigation of the syntactic properties of perspectival domains, thus offering a unified system of perspective for Turkish grammar. The next few sections provide an introduction to complementation in Turkish.

1.2. Complementation in Turkish

This section discusses properties of different Turkish complement clauses. This discussion is necessary because complementation in Turkish is different from English in various ways. I also discuss why *–DIK*-nominalizations and *diye* clauses are opted for in the present work.

Nominalization is the main complementation strategy in Turkish. It comes in different types exemplified in (7). The nominal nature of all complement clauses in (7) is evidenced by the genitive-marked embedded subject, person agreement on the nominalizer and the case-marking assigned to the whole embedded clause by the embedding verb. The embedded verb can be any verb: inherent-case marking (7a), transitive (7b), unaccusative (7c) or ditransitive (7c').

(7) a. Esra   [Ali-nin   karanlık-tan   kork-**ma**-sın]-ı   ist-iyor
    E   A-3GEN dark-ABL   fear-NMLZ-3S-ACC want-IMPF
    'Esra wants [Ali to fear the dark]'

    b. Esra   [Ali-nin   top-u   getir-**iş**-in]-i   izle-di
    E   A-3GEN ball-ACC bring-NMLZ-3S-ACC watch-PST
    'Esra watched [Ali bring the ball]'

    c. Esra   [Ali-nin   gel-**diğ**-in]-i   bil-iyor
    E   A-3GEN come-DIK-3S-ACC know-IMPF
    'Esra knows [that Ali came/is coming]'

    c'. Esra   [Ali-nin   kitab-ı   Ahmet-e   ver-**eceğ**-in]-i   bil-iyor
    E   A-3GEN book-ACC A-DAT   give-FUT-3S-ACC know-IMPF
    'Esra knows [that Ali will give the book to Ahmet]'

There are also two non-nominal complementation types in Turkish. One is formed with *diye* as in (8a) and the other is *ki* as in (8b). *Diye* forms a pre-verbal complement clause while a *ki* clause must be post-verbal. In both, the embedded subject is nominative-marked, as it is in a matrix clause. Since the nominative is null in Turkish (Kornfilt 2003), I do not mark it in this study:

(8) a. Esra   [Ali   gel-di   **diye**]   bil-iyor
         E   A   come-PST   diye   know-IMPF
         'Esra knows [diye Ali came]'

     b. Esra   bil-iyor   [**ki**   Ali   top-u   getir-di]
         E   know-IMPF ki   A   ball-ACC bring-PST
         'Esra knows that Ali brought the ball'

The focus of this dissertation is on the nominalized complement in (7c), namely clauses formed with –*DIK* nominalizer, and the non-nominal complement in (8a), namely clauses headed by *diye*. The reason for choosing these two embedded clause types is two-fold. One is the nature of restrictions the complementizers pose in terms of the embedding verb's sub-categorizational patterns. I start the discussion with the embedded clause types that are not the focus of the present study for the sake of completeness:

     –*mE* in (7a) tends to be selected by bouletic verbs where they are the only choice of complementation (e.g., *iste-* 'want' can only take a –*mE* clause as a complement). They are also possible under other verbs like *izle-* 'watch'*, iste-* 'believe' and emotive verbs like 'şaşır-' *be.surprised,* in which case it exists alongside other complement types (e.g., –*(y)Iş* or –*DIK*). The important sub-categorizational pattern for present purposes, however, is that –*mE* does not occur (easily) with cognitive attitude verbs like *bil-* 'know' and *düşün-* 'think' (though it is possible),

which are the focus of the present study. Thus, *-mE* clauses are excluded from the present study unless necessary for contrast purposes.

–(y)Iş clauses occur under all verbs other than bouletic verbs, which entails they can occur under cognitive attitude verbs as well. However, their major meaning contribution is a manner meaning (Erdal 1998, Bassac & Cicek 2013), which restricts the domain of investigation here as it is not easily tied to perspective; therefore, they are excluded from the present study.

Ki is borrowed from Persian and is the only post-verbal complementation in Turkish (Turkish is consistently head-final, so all other complements occur to the left of the verb). This special status is a confound, since it does not allow a direct comparison of complements in the same position. (Moreover, Predolac (2017) argues that *ki* clauses are not complementation clauses via subordination or coordination in the first place but rather they are paratactical structures.) *Ki* clauses are therefore left out of the present study due to structural differences.

As for *–(y)EcEK* in (7c'), *–DIK* and *–(y)EcEK* have been argued to be two forms of the same nominalizer. *–DIK* is the indicative, factive, non-future (i.e., past and present) or perfective form while *–(y)EcEK*, which is the subjunctive, future or imperfective form (Kornfilt 1984, 2003, Lewis 1967, Underhill 1976, Demirok 2019). I focus only on *–DIK* (non-future) in this dissertation as it allows for a wider range of meanings (e.g., past and present (including habitual) versus only future) and thus allows for a better test for understanding the role of perspective in complement clauses in Turkish. *–(y)EcEK* is more restricted as it only refers to future and is not particularly helpful in the discussion of perspectival patterns.

This leaves a contrast between *–DIK* and *diye* as the focus point of this dissertation. *-DIK* and *diye* can be easily contrasted under very similar sets of verbs. In fact, such contrasts between *–DIK* and *diye* clauses have already been made (Özyıldız 2016, 2017). As shown below and in

more detail in Chapter 2, their internal structure is also comparable. This comparability is the second reason why *–DIK* and *diye* are chosen in the present study.

1.3.   Syntactic Comparison between –DIK and diye

The goal of this section is to show that *–DIK* and *diye* clauses are syntactically comparable in that they both have TPs and CPs. I start with their differences. The main structural difference between *–DIK* and *diye* is that the former is a nominalizer whereas the latter is a non-nominal subordinator. Thus, *diye* clauses cannot be case-marked (9b) whereas *–DIK* clauses must be (9a). Conversely, *diye* can be preceded by a nominal element (10b) that is case-marked by the verb whereas *–DIK* cannot (10a).[4] These data show that *–DIK* clauses satisfy the nominal argument requirement by the verb (for case-assignment purposes):

(9) a. Esra   [Ali-nin   gel-**diğ**-in]*(-i)   bil-iyor
       E   A-3GEN   come-DIK-3S-ACC know-IMPF
       'Esra knows [that Ali came/is coming]'

   b. Esra   [Ali   gel-di   **diye**](*-i)   bil-iyor
       E   A   come-PST diye-ACC   know-IMPF
       'Esra knows [diye Ali came]'

(10) a. *Esra   bu   durum-u   [Ali-nin   gel-**diğ**-in]*(-i)   bil-iyor
         E   this   situation-ACC A-3GEN   come-DIK-3S-ACC know-IMPF
         'Intended: Esra knows of this situation [(it is a situation) that Ali came/is coming]'

---

[4] Note that (10b) shows that *diye* can be in an adjunct position to a nominal. Indeed, *diye* has multiple functions in Turkish, some of which are discussed in various parts of this dissertation (also see --Gündoğdu 2017). The specific structure in (10b) is discussed in Chapter 2.

b. Esra   bu   durum-u   [Ali   gel-di   **diye**]   bil-iyor

    E   this   situation-ACC A   come-PST diye   know-IMPF

    'Esra knows this situation [diye (as) Ali came]'

Another difference is tense-aspect marking. The complement of *diye* can have all tense-aspect markers (indicating it has a TP), exemplified with past (11a), indirect past (11b), future (11c) and imperfective (11d). *–DIK* itself marks non-future, which indicates that it also has a TP, though possibly defective (Kornfilt 2003). However, *-DIK* clauses can host most tense-aspect markers via the copula *ol-* 'be' (12).[5]

(11) a. Semra   [Ali   gel-di   **diye**]   bil-iyor

    S   A   come-PST diye   know-IMPF

    'Semra knows [diye Ali came]'

b. Semra   [Ali   gel-miş   **diye**]   bil-iyor

    S   A   come-INDPST diye   know-IMPF

    'Semra knows [diye Ali came (as it is said)]'

c. Semra   [Ali   gel-ecek   **diye**]   bil-iyor

    S   A   come-FUT diye   know-IMPF

    'Semra knows [diye Ali will come]'

d. Semra   [Ali   gel-iyor   **diye**]   bil-iyor

    S   A   come-IMPF diye   know-IMPF

    'Semra knows [diye Ali is coming]'

---

[5] The copula cannot attach to the past marker in Turkish (Kelepir 2001), which prevents it from occurring in a *–DIK* clause. But since *–DIK* itself can express past meaning, *-DIK* clauses can ultimately express past meaning. Note also that the ability of adding tense-aspect markers via a copula is available for all nominalizers, even for those that are VPs in their bare form.

(12) a. Semra   [Ali-nin   gel-miş   ol-**duğ**-un]-u   bil-iyor

       S   A-3GEN   come-INDPST   be-DIK-3S-ACC   know-IMPF

       'Semra knows [that Ali came/had come]'

    b. Semra   [Ali-nin   gel-ecek   ol-**duğ**-un]-u   bil-iyor

       S   A-3GEN   come-FUT   be-DIK-3S-ACC   know-IMPF

       'Semra knows [that Ali will come]'

    c. Semra   [Ali-nin   gel-iyor   ol-**duğ**-un]-u   bil-iyor

       S   A-3GEN   come-IMPF   be-DIK-3S-ACC   know-IMPF

       'Semra knows [that Ali is coming]'

There is evidence that –*DIK* and *diye* both possess a CP as well. For one, *diye* can host wh-words and question particles:[6]

(13) a. Semra   [kim   gel-di   **diye**]   düşün-üyor

       S   who   come-PST   diye   think-IMPF

       'Who$_i$ does Semra think that s/he$_i$ came?'

       'Semra is thinking who came'[7]

    b. Semra   [Ali   gel-di   mi   **diye**]   düşün-üyor

       S   A   come-PST   Q   diye   think-IMPF

       'Does Semra think that Ali came?'

       'Semra is thinking whether Ali came'

---

[6] This depends on the verb they are embedded under. Under *bil-* 'know', a question element within a *diye* clause has only wide scope while under non-factive verbs like *düşün* 'think', the wh- word can have wide or narrow scope. –*DIK* clauses have a different pattern: they allow both wide and narrow scope with wh- words, regardless of the embedding verb. What matters for now is that *diye* sometimes allows question elements in its scope, which I take to be evidence for CP. The verbal distinctions will be discussed in mostly Chapter 4.

[7] Notice that *think* is translated as in the progressive. Indeed, when a question element appears in the complement of a non-factive verb in Turkish, the interpretation is one of 'consider/ wonder/think about', which I tried to reflect with the progressive form. Thanks to Roumyana Pancheva for this insight. See Özyıldız (2021) for an analysis of the verb *think* based on eventuality types it can encode (eventive versus stative).

(14) a. Semra   [kim-in   gel-**diğ**-in]-i   düşün-üyor
          S   who-3GEN come-DIK-3S-ACC think-IMPF
          'Who_i does Semra think that s/he_i came?'
          'Semra is thinking who came'

     b. Semra   [Ali-nin   mi   gel-**diğ**-in]-i   düşün-üyor
          S   A-3GEN   Q   come-DIK-3S-ACC think-IMP
          'Does Semra think that Ali came?'
          '#Semra is thinking whether Ali came'

-DIK is also the form used to form relative clauses in Turkish. For this part of the argumentation,

I follow Kornfilt (2003) and use her examples (p. 145, ex. (11)-(13)) with minimal alteration.

Kornfilt (2003) takes this set of data (as well as data on ability of *–DIK* to host wh- words) as

evidence that it possesses the CP layer. To start, (15a) is an example of a non-reduced relative

clause. No other nominalizer can be used in this position, as shown in (15b) with *–mE*. (15b) can

be saved if it is embedded under a *–DIK* nominal, as in (15c):

(15) a. Ali-nin   pişir-**diğ**-i   yemek
          A-3GEN   cook-DIK-3S   meal
          'The meal Ali cooked'

     b. *Ali-nin   pişir-**me**-si   yemek
          A-3GEN   cook-mE-3S   meal
          'The meal Ali should cook'

     c. [[Ali-nin   pişir-**me**-sin]-i   söyle-**diğ**-im]   yemek
          A-3GEN   cook-mE-3S   tell-DIK-1S   meal
          'The meal which I said Ali should cook'

Diye can be used as complement clauses to indefinite head nouns, which I take to be an indication of a CP-level structure:

(16) Ali   geldi   **diye**   bir   söylenti
      A   come-PST diye   a   rumor
      'The rumor that Ali came'

The conclusion is that both *–DIK* and *diye* have CPs (see Kornfilt 2003 for the same conclusion for *–DIK* based on the evidence discussed here). In Chapter 2, this point is taken up again and discussed as to how *–DIK* clauses and *diye* clauses differ with respect to the CP layer.

1.4. Semantic Comparison between –DIK and diye

In this section, it is established that both *–DIK* and *diye* clauses denote propositions. This provides the background necessary to discuss them under attitude verbs in later chapters, as these verbs take a proposition as their argument in most analyses. The deficient tense-aspect marking in *–DIK* clauses and their nominal nature do not prevent them from being treated as propositions. The propositional status of *–DIK* clauses is best observed when compared with *-mE* clauses, argued to lack CP-level (Kornfilt 2003) as well as tense-aspect phenomena (hence, it is a VP-nominalization). This comparison is the backbone of this section, following Demirok (2019).

The first argument for the propositional status of *–DIK* clauses is a negative one: they cannot refer to events (17a) while *–mE* nominalizations can, as demonstrated in (17b). Likewise, the predicate in (18), *iki dakika sür-* 'last two minutes', makes reference to events and is therefore compatible with *–mE* clauses (18b) but not *-DIK* clauses (18a):

(17) a. *[Suzan-ın   hata-yı   bul-**duğ**-u]   harika   bir   olay-dı
        S-3GEN   mistake-ACC   find-DIK-3S   amazing   one   event-PST
        'Intended: That Susan found the mistake was an amazing event'

      b. [Suzan-ın   hata-yı   bul-**ma**-sı]   harika   bir   olay-dı
         S-3GEN   mistake-ACC   find-mE-3S   amazing   one   event-PST
         'Susan's finding the mistake was an amazing event'

(18) a. #[Suzan-ın   hata-yı   bul-**duğ**-u]   iki   dakika   sür-dü
        S-3GEN   mistake-ACC   find-DIK-3S   two   minute   last-PST
        'Intended: It took two minutes for Susan to find the mistake'
        (lit. That Susan found the mistake took two minutes)

      b. [Suzan-ın   hata-yı   bul-**ma**-sı]   iki   dakika   sür-dü
         S-3GEN   mistake-ACC   find-mE-3S   two   minute   last-PST
         'For Susan to find the mistake took two minutes'

Both (17) and (18) point to the conclusion that –*mE* clauses refer to events while –*DIK* clauses do not refer to events. What does the latter refer to? The next sets of data let us conclude that –*DIK* clauses denote propositions. -*DIK* clauses can be the subject of a predicate referring to truth (19a) while –*mE* clauses cannot (under a truth reading, but ok if the predicate takes on a meaning that can make reference to an event) (19b). This indicates that –*DIK* clauses have truth values, which in turn indicates that they are propositions:

(19) a. [Suzan-ın   hata-yı   bul-**duğ**-u]   doğru-ydu
        S-3GEN   mistake-ACC   find-DIK-3S   true-PST
        'It was true that Susan found the mistake'

b. [Suzan-ın   hata-yı   bul-**ma**-sı]   doğru-ydu

   S-3GEN   mistake-ACC find-mE-3S   true-PST

   'Susan's finding the mistake was true (i.e., was the right thing to do)

   '#It was true that Susan found the mistake'

When –*DIK* clauses occur under cognitive verbs (i.e., verbs with propositional complements –at least complements associated with propositions (Moulton 2009, 2013, among others)-), their truth value can be challenged, indicating that they denote propositions:

(20) A: Semra   [Ali-nin   gel-**diğ**-in]-i   bil-iyor

        S   A-3GEN   come-DIK-3S-ACC know-IMPF

       'Semra knows [that Ali came]'

     B: Ali gelmedi ki.

      'But Ali did not come.'

Diye clauses also denote propositions. They do not occur as subjects unless the embedding predicate is in the passive (e.g., *biliniyor* 'is known'). But we can test them under propositional verbs and see that their truth value can be challenged (21):

(21) A: Semra   [Ali   gel-di   **diye**]   bil-iyor

        S   A   come-PST diye   know-IMPF

       'Semra knows [diye Ali came]'

     B: Ali gelmedi ki.

      'But Ali did not come.'

This concludes the discussion on the core similarities between *–DIK* and *diye* clauses, making them the best candidates for a comparative study under cognitive attitude verbs. In the next section, some details of the main proposals of each chapter are provided.

1.5. Chapters Summary

Chapter 2 is the backbone of this dissertation as it establishes the main syntactic and interpretational properties of nominalized complement clauses formed with *–DIK* and *diye* clauses. The discussion of these clauses results in the following generalization:

Generalization: *Diye* clauses encode a perspective center (PC) position, forcing all phrasal content in the clause to be evaluated from the point of view of the attitude holder occupying the PC position; this constitutes a single perspective domain. Only the closest matrix subject can fulfil the role of perspective center. (*–DIK* clauses do not encode any perspective).

This chapter explores these two complement clauses under what I refer to as 'perspective-underspecified' verbs such as *bil-* 'know' or *hatırla* 'remember' in Turkish, though *bil-* 'know' is used predominantly for exemplification purposes. The reason for this choice of embedding verbs becomes clear in Chapter 4. Briefly stated, it is because these verbs are the only ones among the ones analyzed in the present study (i.e., cognitive attitude verbs) that do not impose syntactic or interpretational restrictions on their complements, allowing the default form and interpretation of the complement clauses to be realized. In other words, they do not introduce extra structure into the derivation, which translates into them being bare VPs in the syntax. They do not encode

perspectival properties unlike speaker-oriented verbs (e.g., *unut-* 'forget', *keşfet-* 'discover') or matrix subject-oriented verbs (e.g., *düşün-* 'think', *hayal et-* 'dream'), making them semantically plain as well. Chapter 4 shows that having extra structure significantly affects how the complement clauses are interpreted and/or behave syntactically.

To account for the generalization stated above, I propose that *diye* is the overt realization of a perspectival operator with a PRO subject, introduced via a phrase level Pers(pective)P(hrase). PersP takes a CP complement, which corresponds to the embedded clause below *diye*. This is represented in (22), when the *diye* clause is embedded under a VP:

(22)
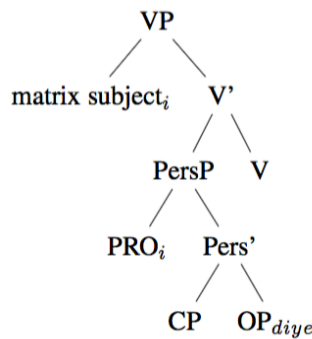
PersP under perspective-underspecified verbs combines directly with a VP and yields a syntactically opaque domain. This appears to support proposals that perspectival domains are phases (e.g Sundaresan 2012, Charnavel 2019), but in Chapter 3 it is shown that this correlation does not hold for the Turkish data in its strong form.

Another implication of this proposal is that *diye* is the overt realization of a perspectival operator, which, to my knowledge, is the first time such proposal has been made. Perspectival operators have been assumed to be silent elements. This has sometimes called their relevance for syntax into question. The present proposal provides more direct evidence for overt encoding of

perspective in natural language, and therefore strengthens the position that perspective is relevant

for syntax. Note also that the operator heads the PersP projection, which is unusual, given that

operators are often assumed to be in specifier positions. In this study, I follow Charnavel (2019),

who argued for a perspectival operator heading Log(ophoric)P(hrase), with a *pro* subject in its

specifier.

The function of this operator is to report the embedded content from the first-person

perspective of the matrix subject (à la Charnavel 2019) by binding anaphoric world variables that

all phrasal content in its scope comes with. This makes *diye* clauses strictly matrix subject-

oriented. In contrast, *–DIK* nominalizations are syntactically transparent domains (i.e., they do

not block NPI-licesing, quantifier interaction) and they do not encode perspective. Lacking a

perspective operator, the anaphoric variables within them are bound by the next available

perspectival domain, which is the speaker in the matrix clause. That explains why *–DIK* clauses

must involve the speaker's perspective. However, we will see that any embedded clause involves

the matrix subject and an agreement between the perspectives of the speaker and the matrix

subject is required in *-DIK* clauses. This can be seen in the light of studies such as Giorgi &

Pianesi (2001), discussed in Chapter 2 in more detail.

After Chapter 2 establishes the above-stated patterns, Chapter 3 takes on two types of

exceptions: (i) elements that can be bound by the *diye* operator or by higher operators and (ii)

elements that cannot be bound by the *diye* operator but must be related to the matrix operator

(i.e., the utterance context). Optional binding arises due to the availability of *pro* in the relevant

elements, which is associated with a topic function in Turkish. To account for this pattern, I

follow recent studies on selective opacity (Keine 2019, especially Poole 2020) and propose that

diye clauses are selectively opaque domains, their selectivity depending on the height of the

probe (Poole 2020). I propose that the unvalued [topic] feature in *pro* in the *diye* clause makes them want to be valued by TopicP(hrase), (one of) the highest projections in Turkish clausal structure (Şener 2010). When *pro* is associated with this probe, it takes the salient individual as antecedent. On a height-related account of selective opacity of *diye* clauses, TopicP is higher than PersP in the structural sequence, enabling it to probe into the *diye* clause (23). This contrasts with NPI-licensing, anaphor binding and quantifier scope, all of which happen below PersP.[8]

(23)

```
TopicP
├── Spec
└── Topic'
    ├── PersP
    │   ├── Spec
    │   └── Pers'
    │       ├── CP
    │       │   ├── Spec
    │       │   └── C'
    │       │       ├── NegP
    │       │       │   ├── Spec
    │       │       │   └── Neg'
    │       │       │       ├── TP
    │       │       │       │   ├── Spec
    │       │       │       │   └── T'
    │       │       │       │       ├── VP
    │       │       │       │       │   ├── matrix subject
    │       │       │       │       │   └── V'
    │       │       │       │       │       ├── PersP
    │       │       │       │       │       │   ├── Spec
    │       │       │       │       │       │   └── Pers'
    │       │       │       │       │       │       ├── CP
    │       │       │       │       │       │       │   ├── Spec
    │       │       │       │       │       │       │   └── C'
    │       │       │       │       │       │       │       ├── TP
    │       │       │       │       │       │       │       │   ├── Spec
    │       │       │       │       │       │       │       │   │   └── pro_i
    │       │       │       │       │       │       │       │   └── T'
    │       │       │       │       │       │       │       │       ├── VP
    │       │       │       │       │       │       │       │       └── T
    │       │       │       │       │       │       │       └── C
    │       │       │       │       │       │       └── diye
    │       │       │       │       │       └── V
    │       │       │       │       └── T
    │       │       │       └── Neg
    │       │       └── C
    │       └── Pers
    └── Topic
```

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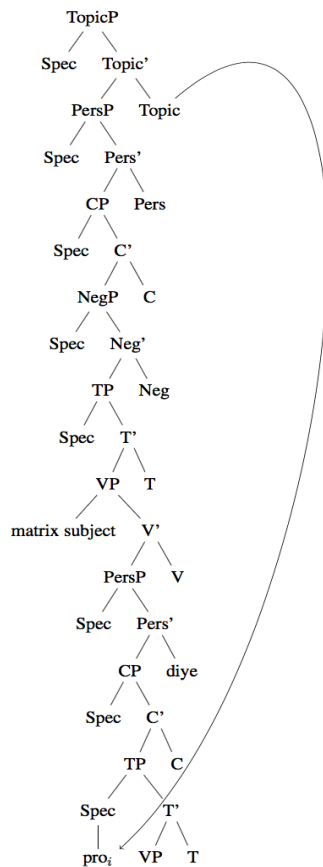
[8] There are two PersPs in (23); the higher one for the matrix clause, the lower one for the embedded *diye* clause.

Elements that must be associated with the utterance context come with a variable that indicates just that, following traditional analyses (e.g., Kaplan 1989). Thus, they are lexically specified to be evaluated in the utterance context. OP_{diye} cannot bind such elements.

Chapter 4 moves on from inside *diye* clauses to the clause that embeds them, specifically the embedding verb. All in all, I show that the embedding verb is an important factor in determining the syntactic behavior of *diye* clauses. Both true factive (=encoding the speaker's perspective) and non-factive (=encoding matrix subject's perspective) verbs take an extra CP complement, which takes the embedded complement clause as its own argument. This is represented in (24a) and (24b), respectively. Under the former, *diye* clauses simply cannot function as arguments. Under the latter, *diye* clauses are no longer opaque domains and their contrast with –*DIK* clauses are neutralized (e.g., interpretational differences). $CP_{matrixsubject}$ encodes the matrix subject's perspective and $CP_{speaker}$ encodes the speaker's perspective. Only the latter has a PRO subject. The lack of PRO in the former leads to the complement clause being a transparent domain. Under factivity-underspecified verbs as in (24c), *diye* clauses are opaque domains and contrast with –*DIK* clauses interpretationally and syntactically.[9]

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[9] DP/PersP in (24b) and (24c) means that these verbs sub-categorize for either a –*DIK* clause or a *diye* clause.

(24) a. Speaker-oriented   b. Matrix subject-oriented

$VP_{speaker}$

matrix subject $V'_{speaker}$

$CP_{speaker}$ $V_{speaker}$

$PRO_{speaker}$ $C'_{speaker}$

DP $OP_{speaker}$

Spec   D'

CP   D

Spec   C'   -DIK

TP   C

$VP_{matrixsubject}$

matrix subject $V'_{matrixsubject}$

$CP_{matrixsubject}$ $V_{matrixsubject}$

Spec $C'_{matrixsubject}$

DP $OP_{matrixsubject}$

Spec   D'

CP   D

Spec   C'   -DIK

TP   C

c.   Perspective-Underspecified

VP

matrix subject   V'

DP   V

Spec   D'

CP   D

Spec   C'   -DIK

TP   C
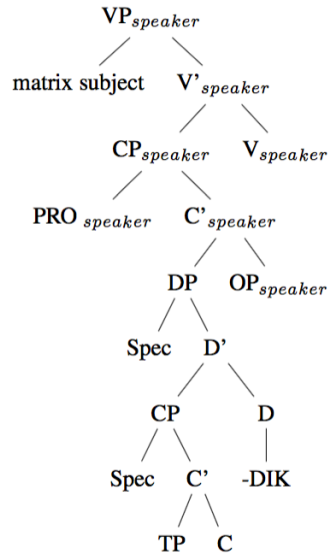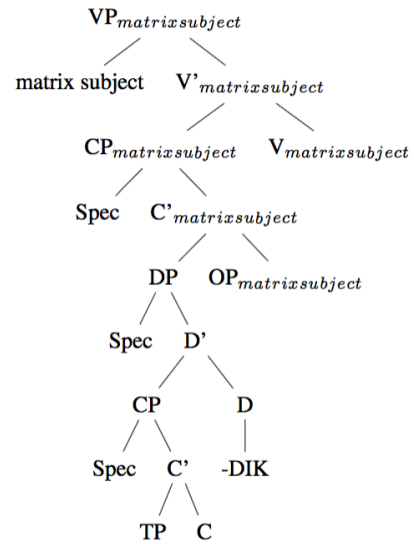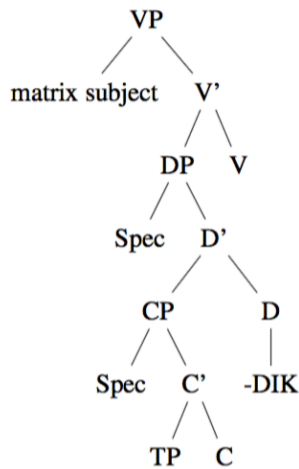
Chapter 5 concludes the dissertation with a summary of the main findings. It also addresses some

loose ends that merit further investigation. One is when *diye* clauses are embedded by emotive

and speech verbs. These verbs share some of the properties of true factives and non-factives at

the same time, making it difficult to fit them into the current picture but also indicating that the

same kinds of factors play a role. This is promising. The other is when *diye* clauses are used as reason clauses. In this case, reason clauses formed with *diye* display some perspectival properties as opposed to reason clauses formed by *için* 'for', which do not exhibit perspectival properties. This correlation is also a promising line of research for future studies.

CHAPTER 2

THE ROLE OF PERSPECTIVE IN TURKISH COMPLEMENTATION

This chapter and the next are about the core properties and interactions in perspectival domains

in complement clauses in Turkish. The combined goal of these chapters is to establish that *diye*

clauses correspond to a selectively opaque perspectival domain whereas *–DIK* clauses are

transparent non-perspectival domains. *Diye* is a perspective marker, embodied as the overt

realization of a perspectival operator in the head of Pers(pectival)P(hrase). This analysis not only

adds to arguments that perspective is syntactically represented (e.g., Sundaresan 2012, Charnavel

2019), but it also asserts that the perspective marker itself can be overt. I show that the

perspectival domain formed with *diye* has important syntactic properties. Specifically, it is

established that *diye* forms an opaque domain. In Chapter 3, I revise this conclusion and argue

that *diye* clauses are *selectively opaque* domains (Keine 2019). This conclusion is arrived at via a

detailed analysis of various types of elements within the *diye* domain: (i) those that appear with

an anaphoric variable, (ii) those that appear with a pronominal variable and (iii) indexical

elements that are specified for the utterance context. The first category corresponds to the

content of phrase-level elements in the syntax (e.g., VP, DP, AP, AdvP), which are discussed in

this chapter. The discussion establishes that these elements must be reported from the first-

person perspective of the closest perspective center, which is the lowest attitude holder. The

latter two are elements that do not align with the generalization established in this chapter. These

data are discussed in Chapter 3. The second group includes the data that are optionally-bound by

the closest perspectival operator. This includes structures with *pro* in Turkish, such as first-

person agreement (as well as epithets, though epithets have more controversial properties). The latter are indexicals such as *burada* 'here' and overt pronouns in Turkish, which are associated with the utterance context. These data types can all appear in *diye* clauses simultaneously. Though they do not interact with each other directly, each reveals an important property of perspectival domains in Turkish.

This broad outlook into *diye* clauses have not been practiced before in the Turkish literature. Previous studies either focused on *diye* clauses as related to a belief component (e.g., Özyıldız 2016), which I take to be most similar to the data I discuss in this chapter, namely (i), or they focused on the so-called indexical shift data (e.g., Şener & Şener 2011, Yıldırım-Gündoğdu 2017a), which correspond to category (ii), discussed in Chapter 3. Not only are these data combined together in the present study with the addition of some novel data sets, but category (iii) is also added, which I believe has not been discussed explicitly in the relevant literature on Turkish. I take this to be a major contribution of the present study, as this approach facilitates a better understanding of the syntax of the complement clauses as well as providing extensive data.

Most studies on the topic of perspective in the area deal with person markers, anaphors or pronouns (e.g., Anand 2006, Charnavel & Sportiche 2017, Charnavel 2019, Bogal-Allbritten 2016), as well as other indexical elements such as temporal adverbs (e.g., Schlenker 1999), but usually not both together, with some exceptions such as Deal (2020). Some other studies focus on predicates of personal taste (Anand & Korotkova 2021), but do not include the elements mentioned earlier. All in all, most studies focus on a specific type of data, which can miss out on some important properties of perspectival domains as a whole. In other words, focusing on different types of data within a perspectival domain can bring out patterns that can otherwise be missed. For example, if the present study had followed suit and only focused on category (i)

above, the conclusion would have been that *diye* clauses are fully opaque domains. If the focus was on (ii) and/or (iii), the conclusion would have been that *diye* clauses are not opaque. Yet, the combination of the two sets of data allows us to reach a more detailed and telling conclusion: *diye* clauses are sometimes opaque and sometimes not, conditioned by certain factors. The investigation of when the opaqueness can be violated brings out valuable patterns that lead to interesting syntactic revelations. In the end, the conclusions in Chapter 2 and 3 come closest to Schlenker (1999) in attributing the difference with respect to "shifting behavior" to the indexicals themselves. However, Schlenker (1999) was semantically-oriented whereas the present study is concerned with the internal syntax of the bound elements as well as the syntactic structure and properties of perspectival domains. There are also differences as to how elements are categorized, as will be discussed in Chapter 3.

A more specific contribution of Chapters 2 and 3 is that it is the first study in Turkish that focuses on the interpretation of *diye* clauses in this much detail and one of the first to focus on its syntax (see Yıldırım-Gündoğdu 2017a for an analysis of the syntax of *diye* under verbs of communication) in a way that connects the observed patterns to independent facts of the language.

The proposal developed in this chapter is as follows: *diye* is the overt realization of a perspectival operator (OP$_{diye}$) that occupies the head of a designated phrase, PersP, which takes a CP as its complement and PRO subject in its specifier. This is represented in (1):[10]

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[10] Recall from Chapter 1 that *diye* clauses possess a CP. That is why the argument to PersP is a CP and not a TP. We will also see that *diye* clauses can host various elements, discussed in relevant parts of the dissertation.

(1)

PersP
├ PRO
└ Pers'
  ├ CP
  └ OP$_{diye}$
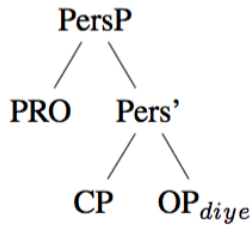
OP$_{diye}$ reports the embedded content from the first-person perspective of the closest matrix

subject, thereby forming a complete evaluation domain corresponding to a syntactically opaque

domain. A complete evaluation domain here refers to a domain that is full in interpretation: it

includes what is interpreted (i.e., the proposition), the evaluator (i.e., the matrix subject) and the

evaluation worlds (i.e., logophoric alternatives of the matrix subject). In effect, this definition

assimilates OP$_{diye}$ to an intensional predicate, which aligns the present study with previous

proposals that *diye* has a verbal component since it is derived from the verbal root *de-* 'say'

(Yıldırım-Gündoğdu 2017a; Major 2021, to appear, for a similar marker *dep* in Uyghur). This

approach to OP$_{diye}$ is adapted from Charnavel (2019), who proposes a logophoric operator to

bind exempt anaphors in French.

With respect to the elements bound by OP$_{diye}$, the assumption is that phrase levels such as

VP, NP/DP, AdvP, AP come with a silent syntactically-represented world variable that must be

bound by the closest binder (à la Percus 2000), which the operator in the closest perspectival

domain can bind. To that end, I argue that *diye* complementation is the only embedded clause

that marks perspective in Turkish. I also assume that matrix clause is also a perspectival domain,

with the speaker being the perspective center (adapted from Ross 1967, Speas & Tenny 2003,

Stowell 2007, Zu 2018). Other than these, there are no perspectival domains in Turkish. In other

words, unlike Charnavel (2019), who argues that all phases (corresponding to phrase levels such

as DP, CP, AP) can form perspectival domains in French, I argue that perspective is restricted to some of the CP-level structures in Turkish. Given this, the elements that come with an anaphoric variable can only be bound in the lowest *diye* clause, since the lowest operator that can bind them is OP$_{diye}$. This explains why they must be reported from the perspective of the closest matrix subject.

In this chapter, only *perspective-underspecified (attitude) verbs* such as *bil-* 'know' and *hatırla-* 'remember' are used as embedding verbs (though I stick to the former for consistency). The reason for this will be clearer in Chapter 4. For the meanwhile, it will suffice to say that perspective-underspecified verbs are the only cognitive attitude verbs without specification for perspective in their syntax or semantics. This allows us to notice patterns within the complement domain without interpretive or syntactic effects coming from the embedding verb. Also note that *bil-* 'know' in Turkish does not refer to knowledge reports as *know* in English. Rather, its meaning is closer to 'be convinced'. Lastly, I use (non)factivity in discussion of general literature, as this is the term that is commonly used. In the discussion of Turkish data, I use perspective instead. To that end, keep in mind that true factive=speaker-oriented, non-factive=matrix subject-oriented, factivity-underspecified/semi-factive=perspective-underspecified.

The chapter is organized as follows. In Section 2.1, some previous literature on *diye* and *–DIK* clauses is discussed. In Section 2.2, I show that the matrix subject is an attitude holder in both *diye* and *–DIK* clauses. In Section 2.3 the main set of data is presented, namely the data that need to be reported from the matrix subject's perspective in *diye* clauses and require conscious evaluation of the propositional content within its immediate scope. We also show the absence of

such properties in –*DIK* clauses. Section 2.4 presents the proposal outlined above in detail and discusses how it accounts for the data patterns. Section 5 concludes the chapter.

2.1.   What does not Differentiate between –*DIK* and *diye* Clauses

Özyıldız (2016, 2017) discuss -*DIK* and –*diye* clauses in light of factivity alternation, exemplified in (2). In a context where we know the embedded proposition to be false, -*DIK* clauses are not acceptable, shown in (2a) under the (semi-)factive verb *bil-* 'know', whereas *diye* clauses are acceptable, as shown in (2b).

(2) *Context:* Trump won the election, but…

    a. #Tunç   [Bernie-nin   kazan-**dığ**-ın]-ı   bil-iyor
       T   B-3GEN   win-DIK-3S-ACC   know-IMPF
      '#Tunç knows [that Bernie won]'

    b. Tunç   [Bernie   kazan-dı   **diye**]   bil-iyor
       T   B   win-PST   diye   know-IMPF
      'Tunç knows [diye that Bernie won]'

Based on contrasts like in (2), Özyıldız concludes that truth is what differentiates between –*DIK* and *diye* clauses. Özyıldız (2016) argues that *diye* clauses introduce a secondary belief component as well as its propositional content while the knowledge component is contributed by the matrix predicate. –*DIK* clauses are knowledge propositions. Clauses with *diye* yield a non-factive interpretation and those with –*DIK* yield a factive interpretation (both under *bil-* 'know').

Neither side of this argument holds across all data. On the one side, as acknowledged by Özyıldız himself, factivity alternation between complement clauses disappears when the embedding verb is non-factive (see Chapter 4 for a more detailed discussion on this point), where factivity implies the truth of the attitude proposition[11] and non-factivity lacks such implication. This is because the overall interpretation is non-factive regardless of the complement (3):

(3) *Context:* Trump won the election, but…

   a. Tunç   [Bernie-nin   kazan-**dığ**-ın]-ı   düşün-üyor
      T   B-3GEN   win-DIK-3S-ACC think-IMPF
      'Tunç thinks [that Bernie won]'

   b. Tunç   [Bernie   kazan-dı   **diye**]   düşün-üyor
      T   B   win-PST   diye   think-IMPF
      'Tunç thinks [diye that Bernie won]'

Conversely, the compatibility of the *diye* clause in (2b) with the given context indicates that it is non-factive, but *diye* is not anti-factive (Özyıldız 2017). It is compatible with situations where the embedded proposition happens to be true (in the actual world and/or for the speaker). This is exemplified in (4), where both *diye* (4a) and *-DIK* (4b) clauses are acceptable in a context where the embedded proposition has been established as true*:*

(4) a. A: Ali kaçtı, biliyorsun değil mi?
         Ali ran away; you know that, right?
      B: Evet biliyorum.

---

[11] It is not clear whether truth refers to the speaker's knowledge state or truth in actual world in Özyıldız's studies. However, he (personal communication) pointed out that his definition might indicate that the speaker and the hearer agree with the truth evaluation. However, this is not what he aimed to get formally, but rather truth in actual world.

Yes, I do.

A: Başka kim biliyor?

Who else knows it?

B: Pelin de [Ali kaç-tı **diye**] bil-iyor

P too A escape-PST diye know-IMPF

'Pelin also knows [diye Ali ran away]'

b. A: Ali kaçtı, biliyorsun değil mi?

Ali ran away; you know that, right?

B: Evet biliyorum.

Yes, I do.

A: Başka kim biliyor?

Who else knows it?

B: Pelin de [Ali-nin kaç-**tığ**-ın]-ı bil-iyor

P too A-3GEN escape-DIK-3S-ACC know-IMPF

'Pelin also knows [that Ali ran away]'

Thus, neither *diye* clauses are always non-factive nor *–DIK* clauses are always factive. This calls into question whether truth is a reliable differentiating factor between the two embedded clause types. One might argue that *diye* clauses are neutral as to the truth of the embedded proposition, since it never presupposes the truth of its complement under cognitive verbs. However, we are forced to take *–DIK* clauses as neutral too since they are factive under factive verbs and non-factive under non-factive verbs. In other words, *-DIK* clauses also do not come with a factivity inference either. This reduces to saying that both *diye* and *–DIK* clauses are neutral as to the truth of the embedded proposition, which implies that truth is not the differentiating factor between the two clauses. In this case, we are back to question with which where we started: what differentiates between *–DIK* and *diye* clauses?

Another potential criterion proposed to differentiate between *–DIK* and *diye* clauses is

justification, which is conditionally imposed on *diye* clauses but never in *–DIK* clauses. Özyıldız

(2016, 2017) show that *diye* clauses require justification for the matrix subject to hold the belief

that the content of the embedded clause under the (semi-)factive verb *bil-* 'know' is true. The

justification in (5) (Özyıldız 2017: 18, ex. (29), with some modifications) is the prank the guards

play on Tunç (Context 2). The justification makes the *diye* clause acceptable, as opposed to a

mere belief context (Context 1). Justification can be direct or indirect evidence:

(5) *Context 1:* NON-ACCEPTABLE

Tunç is cut off from getting any information about the world news but is

obsessed by Hillary and accepts no state of the world where she hasn't won.

He says to the speaker: "Hillary won". Hillary indeed won.

Context 2: ACCEPTABLE

Tunç is cut off from getting any information about the world news but is

obsessed by Hillary and accepts no state of the world where she hasn't won.

In addition, the guards celebrate a Hillary victory outside his door. He says

to the speaker: "Hillary won". Hillary indeed won.

Tunç	da	[Hillary	kazan-dı	**diye**]	bil-iyor[12]
T	too	H	win-PST	diye	know-IMPF

'Tunç also knows [diye Hillary won]'

Although not discussed by Özyıldız, we can show that no acceptability difference between

contexts arises when the *diye* clause in (5) is replaced by a *–DIK* clause, as shown in (6). The

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[12] The addition of the particle *da* 'too' is needed for *diye* to sound more natural under *bil-* 'know' in a context where the embedded proposition is true. Özyıldız did not have a statement regarding the actual truth in the context, so he did not use the particle. I added such a statement to make the contrast with *–DIK* clauses in (6) more direct and *–DIK* clauses under *bil-* 'know' have factivity inference. In other words, since I have to use a statement regarding the truth of the embedded proposition in (6), I also added it in (5).

intuition here is that the speaker need not know the source of the matrix subject's knowledge, or

that the matrix subject has a source/evidence for believing that the embedded proposition is true.

Rather, the speaker can take at face value the statement that the matrix subject believes that the

embedded proposition is true. This allows –*DIK* clauses to be accepted in mere belief contexts

such as Context 1.[13]

(6) *Context 1:* ACCEPTABLE

Tunç is cut off from getting any information about the world news but is
 obsessed by Hillary and accepts no state of the world where she hasn't won.
 He says to the speaker: "Hillary won". Hillary indeed won.

Context 2: ACCEPTABLE

Tunç is cut off from getting any information about the world news but is
obsessed by Hillary and accepts no state of the world where she hasn't won.
In addition, the guards celebrate a Hillary victory outside his door. He says to
the speaker: "Hillary won". Hillary indeed won.

Tunç   [Hillary-nin   kazan-**dığ**-ın]-ı   bil-iyor

T   H-3GEN   win-DIK-3S-ACC know-IMPF

'Tunç knows [that Hillary won]'

However, the justification requirement as a distinguishing criterion between –*DIK* and *diye*

clauses runs into the same problem as the truth requirement: it does not hold across all data.

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[13] Another way to show the justification requirement by *diye* clauses and lack thereof in –*DIK* clauses, as suggested to me by Maria Luisa Zubizarreta, is to use them with abstract concepts like God's existence. As the example below shows, only –*DIK* possible in such clauses. This also shows that *diye* requires tangible evidence (i.e., it cannot be (gut) feelings or abstract logic).

   i.   Semra   [Allah-in   var   ol-**duğ**-un]-u   bil-iyor
         S   A-3GEN   exist   COP-DIK-3S-ACC   know-IMPF
         'Semra knows [that God exists]'
  ii. #Semra   [Allah   var   **diye**]   bil-iyor
         S   A   exist   diye   know-IMPF
         'Semra knows [diye God exists]'

When *diye* is embedded under a non-factive verb such as *düşün-* 'think', no justification

requirement is required (Özyıldız 2016, 2017):

(7) *Context 1:* ACCEPTABLE (for (a) and (b))

        Tunç is cut off from getting any information about the world news but is

        obsessed by Hillary and accepts no state of the world where she hasn't won.

        He says to the speaker: "Hillary won". Hillary indeed won.

Context 2: ACCEPTABLE (for (a) and (b))

        Tunç is cut off from getting any information about the world news but is

        obsessed by Hillary and accepts no state of the world where she hasn't

        won. In addition, the guards celebrate a Hillary victory outside his door. He

        says to the speaker: "Hillary won". Hillary indeed won.

a. Tunç   da   [Hillary-nin   kazan-**dığ**-ın]-ı   düşün-üyor

   T   too   H-3GEN   win-DIK-3S-ACC think-IMPF

   'Tunç also thinks [that Hillary won]'

b. Tunç   da   [Hillary   kazan-dı   **diye**]   düşün-üyor

   T   too   H   win-PST   diye   think-IMPF

    'Tunç thinks [diye Hillary won]'

The justification requirement can also be overridden in some contexts, where the lack of

justification has been established in the discourse as in (8a), with *diye* clauses under *bil-* 'diye',

showing that it is not an inherent requirement by *diye* clauses:

(8) *Context:* A and B are somehow convinced that Ali ran away, without evidence:

a. A: Ali'nin kaçtığına dair kanıt yok, biliyorsun değil mi?

    There is no evidence that Ali ran away; you know that, right?

B: Evet biliyorum.

    Yes, I do.

A: Başka kim öyle biliyor (i.e., öyle=Ali kaçtı)?

    Who else knows it that way (i.e., that way=Ali ran away)?

B: Pelin   de   [Ali   kaç-tı   **diye**]   bil-iyor

    P   too   A   escape-PST diye   know-IMPF

    'Pelin also knows [diye Ali ran away]'

b. A: Ali'nin kaçtığına dair kanıt yok, biliyorsun değil mi?

    There is no evidence that Ali ran away; you know that, right?

B: Evet biliyorum.

    Yes, I do.

A: Başka kim öyle biliyor (i.e., öyle=Ali kaçtı)?

    Who else knows it that way (that way=Ali ran away)?

B: Pelin   de   [Ali-nin   kaç-**tığ**-ın]-ı   bil-iyor

    P   too   A-3GEN escape-DIK-3S-ACC know-IMPF

    'Pelin also knows [that Ali ran away]'

All in all, truth and justification are not enough to make a clear distinction between –*DIK* and

diye clauses. We need to account for why we observe a difference between the two clauses as in

example (2), when they are embedded under factivity-underspecified (perspective-

underspecified, in my terms) verbs such as *bil*- 'know' as well as why the distinctions get lost

under non-factive (i.e., matrix subject-oriented) verbs. But we have to do this in a way that does

not resort to truth or justification only (but maybe a concept that includes them). This chapter

will focus on the cases where the difference is observed (the pattern with non-factive verbs is

discussed in Chapter 4). To achieve that, I will turn to another notion that can better explain the

distinction between –*DIK* and *diye* clauses in that it brings out the *inherent* requirements of *diye*

clauses and in that it explains a much wider range of data. That relevant notion, I argue, is

perspective, specifically attitudinal perspective. Before I start with the role of perspective in complement clauses in Turkish, however, I discuss some baseline data, where the matrix subject is established as an attitude holder in both –*DIK* and *diye* clauses. The aim is to establish a background for later sections in terms of attitude holders that are perspective centers.

2.2. Lowest Matrix Subject as Attitude Holder

In this section, the lowest matrix subject will be established as an attitude holder in both –*DIK* and *diye* clauses. This might be considered as an unnecessary step, given that we are concerned with embedding attitude verbs and the environment they create is an attitude environment. The lowest matrix subject is the default attitude holder in those environments. However, the contrast between the lowest matrix subject and higher ones will be important in the analysis, especially in determining which attitude holders are also perspective centers. Therefore, the conclusion from this section serves as a useful baseline for this comparison.

I clarify the notion of *perspective center* in detail later. However, let me note that I assume that the referent of a DP can be an *attitude holder* for a certain content without necessarily being a perspective center for it (but the perspective center for *diye* clauses must be *an attitude holder*). In other words, attitude holder and perspective centers are not the same thing in that not all attitude holders are perspective centers, but all attitude holders are potential perspective centers. To make sure that we are dealing with an attitude holder, I first establish whether the lowest matrix subject can be an attitude holder for the embedded proposition in –*DIK* and *diye* clauses. This will determine which one(s) of the attitude holders are also perspective centers. This approach will reveal the limitations of the notion of perspective centers. To determine whether the matrix subject is an attitude holder in a given clause, I use two tests

following Charnavel (2019, 2020): (i) co-referentiality with epithets and (ii) double-orientation, each of which is discussed in the next two sub-sections.

2.2.1. Co-referentiality with epithets

Epithets are useful in determining the attitude holder(s) since they cannot be co-indexed with the c-commanding matrix subject of an attitude verb. They are anti-attitudinal (Dubinsky & Hamilton 1998). An example is given in (9a), where *the idiot* cannot refer to the matrix subject of an attitude verb. Yet the ban is not absolute in that co-referentiality works if the embedding verb is not attitudinal (9b) ((9b) from Haïk 1984: fn. 21, attributed to Haj Ross):

(9) a. *[Mary]$_i$ thought that [the idiot]$_i$ passed the exam.

b. [My brother]$_i$ invests in many projects that [the idiot]$_i$ thinks will make him rich.

Another example from Dubinsky & Hamilton (1998) is in (10), where the epithet can be co-referential with the matrix subject only if the embedding verb is not an attitude verb (10b). This example shows that the choice of the embedding verb matters because "an epithet must not be anteceded by an individual from whose perspective the attributive content of the epithet is evaluated (Dubinsky & Hamilton 1998: 689)". Based on this explanation, the embedding verb in (10a) has *John* as its attitude holder but the one in (10b) does not.[14]

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[14] Notice that Dubinsky & Hamilton do not distinguish between attitude holders and perspective centers in a way I will adopt here. However, the epithet test is used to determine attitude contexts and attitude holders.

(10)   a. #[John]$_i$ told us of a man who was trying to give [the idiot]$_i$ directions.[15]

       b. [John]$_i$ ran over a man who was trying to give [the idiot]$_i$ directions.

We conclude that epithets cannot co-refer with the attitude holder matrix subject. How does this apply to the Turkish data? First, it should be kept in mind that the structures under discussion already involve an embedding attitude verb, so they are necessarily attitude contexts. The question is who is the relevant attitude holder(s) in these attitude contexts. The hypothesis, based on the above discussion, is that if an epithet is inside a –DIK or a *diye* clause, it should not be co-referential with the matrix subject of the embedding attitude verb; the matrix subject must be an attitude holder. This hypothesis is confirmed for both –DIK and *diye* clauses, as shown in (11) and (12) for subject and object epithets, respectively. Note that, these examples do not have a reading where the epithet is part of the commentary by the speaker and is still coreferential with the matrix subject (this chapter, Footnote 15):

(11)   a. Esra$_i$ [o   salağ$_{*i/j}$-ın   sınav-ı   kazan-**dığ**-ı]-nı   bil-iyor
       E   that   idiot-3GEN   exam-ACC pass-DIK-3S-ACC   know-IMPF
       'Esra$_i$ knows [that that idiot$_{*i/j}$ passed the exam]'

       b. Esra$_i$ [o   salak$_{*i/j}$ sınav-ı   kazan-dı   **diye**]   bil-iyor
       E   that   idiot   exam-ACC   pass-PST   diye   know-IMPF
       'Esra$_i$ knows [diye that idiot$_{*i/j}$ passed the exam]'

---

[15] As pointed out by Roumyana Pancheva, one might argue that the unacceptability of (10a) is because the relative clause is interpreted under the scope of the embedding attitude verb. On a reading where the relative clause is the comment by the speaker, (10a) would be acceptable. Although this might be true for this specific case, I will argue that this counter-argument does not apply to Turkish case I will discuss, and therefore, the anti-attitudinality of epithets holds as it is described in this section.

(12) a. Esra_i   [Ali-nin   o   salağ*_{i/j}-ı   gör-**düğ**-ü]-nü   bil-iyor

      E   Ali-3GEN that idiot-ACC   see-DIK-3S-ACC know-IMPF

      'Esra_i knows [that Ali saw that idiot*_{i/j}]'

   b. Esra_i   [Ali   o   salağ*_{i/j}-ı   gör-dü   **diye**]   bil-iyor

      E   A   that idiot-3GEN see-PST diye   know-IMPF

      'Esra_i knows [diye that Ali saw that idiot*_{i/j}]'

We conclude that epithets in *diye* and *–DIK* clauses cannot be co-referential with the matrix subject, indicating that the matrix subject is an attitude holder for these clauses.[16]

2.2.2. *Double orientation*

The second test, again from Charnavel (2019), involves investigation of orientation in attitude contexts, namely whether an evaluative expression in the embedded clause can be evaluated by the matrix subject in addition to the speaker (hence the name *double orientation*). This test is one step closer to identification of perspective centers. An evaluative expression reflects an individual's subjective evaluation of an entity, event or a situation. Charnavel uses this test to determine optionally-attitude contexts such as reason clauses, as exemplified in (13) (Charnavel 2018a). In (13b), the evaluative adjective *embarrassing* can be evaluated by both the speaker and Liz, suggesting that (13b) is an optional attitude context:

(13) a. Liz_i left the party because a picture of her_i was circulating.

     b. Liz left the party because [an *embarrassing* picture of her_i was circulating].

---

[16] Epithets will be discussed again in Chapter 3, this time with a slightly different property.

Since we are dealing with an attitude context headed by an attitude verb, we need not question whether the data under discussion is an optional or obligatory attitude context. It is obligatory. Therefore, I hypothesize that the matrix subject must be an attitude holder for a –*DIK* or *diye* clause if the matrix subject is an evaluator for an evaluative expression contained in their complements. This is borne out. The matrix subject is the *only* evaluator in *diye* clauses and at least one of the evaluators in –*DIK* clauses, along with the speaker. We return later to a more thorough discussion. Ignoring the speaker's role in –*DIK* clauses for now, the important point shown in (14) is that the lowest matrix subject is an evaluator for both clause types:[17]

(14) *Context:* Ali believes the topic Esra talked about was a good one.

　　a. Ali　　[Esra-nın　　güzel　bir　konu-yu　　anlat-**tığ**-ın]- ı　　bil-iyor
　　　A　　E-3GEN　　nice　　one　topic-ACC　tell-DIK-3S-ACC　know-IMPF
　　　'Ali knows [that Esra explained a nice topic]'

　　b. Ali　　[Esra　güzel　bir　konu-yu　　anlat-tı　　**diye**]　bil-iyor
　　　A　　E　　nice　　one　topic-ACC　tell-PST　diye　　know-IMPF
　　　'Ali knows [that Esra explained a nice topic]'

Based on the anti-attitudinality of epithets and the double orientation test, I conclude that the lowest matrix subject is an attitude holder in both –*DIK* and *diye* clauses. We will now determine how attitude holder-ship relates to being a perspective center in –*DIK* and *diye* clauses and how these attitude holders are treated with respect to the speaker, who is also the default attitude holder in matrix clauses.

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[17] Note that these examples do not contrast the speaker's and matrix subject's evaluations. I will discuss contrasting perspectives in Section 2.3.1. Also, the speaker and Ali must agree in evaluation in –*DIK* clauses, a property I discuss in Section 2.3.4. in this chapter.

2.3.   Perspective

In this section, I discuss different perspectival elements and various interpretational contrasts in –*DIK* and *diye* clauses. The main goal is to establish whether these elements can be evaluated by the speaker, the matrix subject or both. Answering this question helps determine whether the attitude holder is also the perspective center in these clauses.

Perspective is defined as the viewpoint from which the content of an evaluative expression is presented (Harris 2009). Perspective holder is the individual who evaluates this content. I adopt the definition of evaluativity in Reschke & Anand (2011: 370). For them, "Evaluativity is concerned with determining private states (e.g., judgment or emotion) that a particular evaluator bears towards a target entity, event or proposition". This definition indicates that evaluativity is observed in the content of various levels of syntactic structures (e.g., DP-entity, VP-event, TP-proposition), an idea that will prove to be useful for the current proposal. I, however, extend this definition to adjunct content as well: a perspective holder can have private states towards elements that indicate modification for an event (content of AdvP) or property of an entity (i.e., content of AP) distinct from the event or the entity itself (see Section 2.3.1.4.).

In this section, I focus on three types of non-propositional adjunct content that can be evaluated by an individual: evaluative expressions such as adjectives, temporal and locative expressions, DP and VP content (entity and event, respectively), followed by a combination of these, each in a separate section, as well as the requirement for conscious evaluation. The main conclusion from these data is that the lowest matrix subject is the only perspective center in *diye* clauses, forcing all elements to be evaluated from the matrix subject's perspective. Section 2.3.1. focuses on single embedding structures and Section 2.3.2. on multiple embedding structures with

the same type of evaluative expressions. Section 2.3.3. will discuss *de re- de dicto* interpretation in *–DIK* and *diye* clauses. Section 2.3.4. summarizes the data and generalizations and discusses the structure of *–DIK* clauses.

2.3.1. Single embedding structures[18]

In this section, I present data in contexts where the speaker and the matrix subject have contrasting perspectives with respect to certain content within the embedded clause. The contrast is used to make clear whose perspective is being utilized in which structure. This will highlight a clear and consistent contrast between *diye* and *–DIK* clauses.

2.3.1.1. Evaluative expressions

The manner adverbs *iyi* 'good' and *kötü* 'bad' in the embedded clause in (15) describe a judgement with respect to the way the embedded action was conducted. *İyi* is an accurate description if the evaluator is the matrix subject and *kötü* is accurate if the evaluator is the speaker. *–DIK* clauses allow neither adverb (15a). *Diye* clauses allow evaluation only by the matrix subject and not the speaker (15b):

(15) *Context:* I know John competed bad. Ali believes, however, that John competed well.

	a. Ali	[John-un	{#iyi/#kötü}	yarış-**tığ**-ın]-ı	bil-iyor
	A	J-3GEN	good/bad	compete-DIK-3S-ACC	know-IMPF

---

[18] The data in this section are similar to those in Section 2.2.2. (Double Orientation Data) except that I now test the matrix subject as well as the speaker as evaluators.

'Ali knows [that John competed #well/#bad]'

b. Ali   [John   {iyi/#kötü}   yarış-tı   **diye**]   bil-iyor

   A   J   good/bad   compete-PST diye   know-IMPF

'Ali knows [diye John competed well/#bad]'

We observe the same pattern when these same forms are used as adjectives. In (16), *iyi* 'good'
and *kötü* 'bad' are used to describe the individual (woman) the embedded subject refers to. The
said woman is *kötü* 'bad' from the speaker's perspective, whereas the matrix subject evaluates
the same woman as *iyi* 'good', resulting in contrasting evaluations. (16b) shows that *diye* only
accepts the matrix subject's evaluation. *–DIK* clauses accept neither, as shown in (16a):

(16) *Context:* I heard a bad woman came from London today. Ali was told of that same
    woman that she is a nice woman. We each believe what we have been told.

   a. Ali   [{#iyi/#kötü}   bir   kadın-ın   Londra-dan   gel-**diğ**-in]-i

    A   good/bad   one   woman-3GEN London-ABL   come-DIK-3S-ACC

    bil-iyor
    know-IMPF

    'Ali knows [that a #good/#bad woman came from London]'

   b. Ali   [{iyi/#kötü}   bir   kadın   Londra-dan   gel-di   **diye**]   bil-iyor

    A   good/bad   one   woman   London-ABL   come-PST   diye   know-IMPF

    'Ali knows [diye a good/#bad woman came from London]'

2.3.1.2. *Temporal expressions*

This section considers evaluation of phrasal temporal expressions. The context in (17) presents a contrast of how the speaker and the matrix subject judge the time of the embedded event. The matrix subject in *diye* clauses is the only possible evaluator for the temporal expression (17b) whereas *–DIK* clauses do not allow evaluation by either the speaker or the matrix subject (17a):

(17) *Context:* I know that Ali had a race between 2-3 pm. John thought his race was
        between 5-6 pm. Ali and John are both in Los Angeles.

    a. John   [Ali-nin   {#5-6 arası/#2-3   arası}   yarış-**tığ**-ın]-ı   bil-iyor

      J   A-3GEN   5-6 between/2-3 between compete-DIK-3S-ACC know-IMPF

     'John knows [that Ali competed #between 5-6/#between 2-3]'

    b. John   [Ali   {5-6 arası/#2-3   arası}   yarış-tı   **diye**]   bil-iyor

      J   A   5-6 between/2-3 between compete-PST diye   know-IMPF

     'John knows [diye Ali competed between 5-6/#between 2-3]'

2.3.1.3. *Locative expressions*

When the speaker and the matrix subject have different perspectives on the location of an event, *diye* clauses are compatible only with the expression of matrix subject's perspective (18b) whereas *–DIK* clauses are compatible with neither (18a):

(18) *Context:* I know that Ali had a race in Los Angeles. John thought his race was in New
        York.

a. John   [Ali-nin   {#New York-ta /#Los Angeles-ta}   yarış-**tığ**-ın]-ı

    J   A-3GEN   N   Y-LOC L A-LOC   compete-DIK-3S-ACC

    bil-iyor
    know-IMPF

    'John knows [that Ali competed #in New York/#in Los Angeles]'

b. John   [Ali   {New York-ta/#Los Angeles-ta}   yarış-tı   **diye**]   bil-iyor

    J   A   N   Y-LOC/L   A-LOC   compete-PST diye   know-IMPF

    'John knows [diye Ali competed in New York/#in Los Angeles]'

We have seen so far that evaluative expressions with adjunct content need to be reported from the perspective of the matrix subject in *diye* clauses while *–DIK* clauses allow evaluation by neither the matrix subject nor the speaker if there are contradictory evaluations. The data are summarized in Table 1. I represent the evaluation in *–DIK* clauses as S & MS (Speaker & Matrix Subject) though the examples in this section pointed out that neither perspective can be the sole perspective. This representation is chosen because both the speaker and matrix subject can agree on the evaluation, as in example (19). I discuss this in more detail later in this chapter.

Table 1: Who evaluates embedded expressions (S: Speaker; MS: Matrix Subject)

Evaluative Modifiers		*Temporal Expressions*		*Locative Expressions*	
-DIK	*diye*	*-DIK*	*diye*	*-DIK*	*diye*
S&MS	MS	S&MS	MS	S&MS	MS

(19) *Context:* Ali believes the topic Esra talked about was a good one. The speaker agrees.

Ali	[Esra-nın	güzel	bir	konu-yu	anlat-**tığ**-ın]-ı	bil-iyor
A	E-3GEN	nice	one	topic-ACC	tell-DIK-3S-ACC	know-IMPF

'Ali knows [that Esra explained a nice topic]'

2.3.1.4. *Entities and events*

Examples (20) and (21) present contrasting evaluations for nominal and verbal content, respectively, and show that *diye* clauses align with the matrix subject's perspective and *–DIK* clauses align with neither the matrix subject's nor the speaker's perspective only. This corroborates the previous conclusion regarding whose perspective is relevant in these clauses:

(20) *Context:* Ali and I were told that someone nice came from London today. I was told that this person was a man and Ali was told that the person was a woman. We each believe what we have been told.

a.
Ali	[iyi	bir	{#kadın-ın/#adam-ın}	Londra-dan	gel-**diğ**-in]-i
A	good	one	woman-3GEN/man-3GEN	London-ABL	come-DIK-3S-ACC

bil-iyor
know-IMPF

'Ali knows [that a good #woman/#man came from London]'

b.
Ali	[iyi	bir	{kadın/#adam}	Londra-dan	gel-di	**diye**]	bil-iyor
A	good	one	woman/man	London-ABL	come-PST	diye	know-IMPF

'Ali knows [that a good woman/#man came from London]'

(21) *Context:* I know Ali had a running competition between 2-3 pm. John knew this but he thought it was a walking competition. Ali and John are both in Los Angeles.

    a. John   [Ali-nin   2-3   arası   {#yürü-**düğ**-ün-ü/#koş-**tuğ**-un-u}   bil-iyor

    J   A-3GEN 2-3   between walk-DIK-3S-ACC/run-DIK-3S-ACC know-IMPF

    'John knows [that Ali #walked/#ran between 2-3]'

    b. John   [Ali   2-3   arası   {yürü-dü/#koş-tu}   **diye**]   bil-iyor

    J   A   2-3   between walk-PST/run-PST diye   know-IMPF

    'John knows [diye Ali walked/#ran between 2-3]'

2.3.1.5. *Combinations*

The data in the previous sections showed that the matrix subject in *diye* clauses is the only evaluator of the embedded expressions (i.e., the speaker cannot be an evaluator) whereas neither the speaker nor the matrix subject can be the sole evaluator in –*DIK* clauses in cases of contrastive perspectives (one can argue they must both be evaluators, but I eliminate this option later in this chapter). This consistent pattern does not change when we combine multiple evaluative elements in a single clause. All such elements must be reported from the perspective of the matrix subject in *diye* clauses and they cannot be reported using a –*DIK* clause if the speaker's and the matrix subject's perspectives clash. As an example, see (22), where a temporal expression, a locative expression and an evaluative adverb are used in the same embedded clause. If they occur in a *diye* clause, they must reflect the matrix subject's perspective (22b). If they occur in a –*DIK* clause, none of the expressions are acceptable (22a) because the speaker and the matrix subject differ where, when and how they believed the race happened:

(22) *Context:* I know Ali had a race between 2-3 in Los Angeles. John thought his race was

between 5-6 in New York. Ali and John are both in Los Angeles. John also thought

Ali competed well and the speaker thinks Ali was bad.

a. John [Ali-nin {#5-6 arası/#2-3 arası} {#New York-ta/#Los Angeles-ta}

   J   A-3GEN   5-6 between/2-3 between   N   Y-LOC/L   A-LOC

   {#iyi/#kötü}   yarış-**tığ**-ın]-ı   bil-iyor

    good/bad   compete-DIK-3S-ACC   know-IMPF

   'John knows [that Ali competed {#well/#bad} {#between 2-3/#between 5-6} {#in

    New York/#in Los Angeles}]'

b. John [Ali {5-6 arası/#2-3 arası} {New York-ta/#Los Angeles-ta}

   J   A   5-6 between/2-3 between   N   Y-LOC/L   A-LOC

   {iyi/#kötü}   yarış-tı   **diye**] bil-iyor

    well/bad   compete-PST diye   know-IMPF

   'John knows [diye Ali competed {well/#bad} {between 5-6/#between 2-3} {in New

    York/#in Los Angeles}]'

2.3.1.6. *Interim conclusion*

The data so far are summarized in Table 2. As the table shows, any phrasal expression in *diye*

clauses must be evaluated only by the matrix subject (and not the speaker). *–DIK* clauses must

express the combined perspective of the speaker and the matrix subject (i.e., the speaker and the

matrix subject must agree).

Table 2: Who evaluates embedded expressions, all combined:

Evaluative Modifiers		Temporal Expressions		Locative Expressions		Entities & Events		Combinations	
-DIK	*diye*	*-DIK*	*diye*	*-DIK*	*diye*	*-DIK*	*diye*	*-DIK*	*diye*
S&MS	MS	S&MS	MS	S&MS	MS	S&MS	MS	S&MS	MS

2.3.2. Multiple embedding

This section shows that the higher matrix subject is an attitude holder for the most embedded clause (Section 2.3.2.1.), but not a perspective center for it (Section 2.3.2.2.).

2.3.2.1. Higher matrix subject as an attitude holder

Seda, the higher matrix subject, in (23) cannot be co-referential with the epithet in the most embedded clause (in a similar way to the lowest matrix subject), providing evidence that it is a potential attitude holder for both *–DIK* and *diye* clauses:

(23) a. Seda$_i$ [Ali$_j$-nin   [Esra$_k$-nın   {o   salağ$_{*i/*j/*k/m}$}-ı   gör-**düğ**-ün]-ü

   S   A-3GEN   E-3GEN   that   idiot-ACC   see-DIK-3S-ACC

   bil-**diğ**-in]-i   bil-iyor
   know-DIK-3S-ACC   know-IMPF

   'Seda knows [that Ali knows [that Esra saw that idiot$_{*i/*j/*k/m}$]]'

b. Seda$_i$ [Ali$_j$ [Esra$_k$ {o   salağ$_{*i/*j/*k/m}$ }-ı   gör-dü   **diye**]

     S   A   E   that   idiot-ACC   see-PST   diye

   bil-iyor   **diye**]   bil-iyor

   know-IMPF   diye   know-IMPF

   'Seda knows [diye Ali knows [diye Esra saw that idiot$_{*i/*j/*k/m}$]]'

When no explicit mention of conflicting perspectives is made in the context (hence the natural assumption is to assume agreement),[19] the higher matrix subject can be an evaluator for the evaluative adjective in the most embedded clause regardless of the complement type (24):

(24)   *Context:* Seda believes that the topic Esra talked about is nice.

   a. Seda   [Ali-nin   [Esra-nın   güzel   bir   konu-yu   anlat-**tığ**-ın]-ı

     S   A-3GEN   E-3GEN   nice   one   topic-ACC   tell-DIK-3S-ACC

     bil-**diğ**-in]-i   bil-iyor

     know-DIK-3S-ACC   know-IMPF

     'Seda knows [that Ali knows [that Esra explained a nice topic]]'

   b. Seda   [Ali   [Esra   güzel   bir   konu-yu   anlat-tı   **diye**]

     S   A   E   nice   one   topic-ACC   tell-PST   diye

     bil-iyor   **diye**]   bil-iyor

     know-IMPF   diye   know-IMPF

---

[19] I discuss what happens when explicit mention of conflicting perspectives is made in upcoming sections. The main point here is to show that the higher matrix subject *can* be an evaluator for the most embedded clause.

'Seda knows [diye Ali knows [diye Esra explained a nice topic]]'

This establishes the higher matrix subject as an attitude holder for the most embedded clause. Is she also the perspective center for it? The answer is no, as the next sections show.[20]

2.3.2.2. Higher matrix subject as impossible perspective center

In this section, I discuss evaluation of modifiers in multiple embedding structures. The evaluation contrast will be between the higher matrix subject versus the speaker and the intermediate embedded subject. In other words, I isolate the higher matrix subject perspectivally to understand whether it can be the *sole evaluator* in *–DIK* and *diye* clauses. What is crucial is that the higher matrix subject(s) differs perspectivally from the lowest matrix subject. We will confirm this to be the case. To achieve that, I utilize conflicting evaluations for the said elements, in contrast to the way the context in (24) was set up to highlight agreement in evaluations. I keep types of the complement clauses the same within a multiply-embedded clause.

2.3.2.2.1. Evaluative expressions

We can change the context in (24) in a way that highlights a perspectival conflict such that the higher matrix subject is the only individual with a different evaluation in the context. Seda's evaluation differs from that of the speaker's and the lower matrix subject's (Ali). In such cases, *diye* clauses cannot express the evaluation by the higher matrix subject (25b):

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[20] Only evaluative adjectives, temporal and locative expressions are discussed here but nominal and verbal content are similar.

(25) *Context:* Seda believes that the topic Esra talked about is nice. The speaker and Ali
are harsher critics and think that the topic was bad (aka, uninteresting). Seda is aware
of the different evaluations of hers versus the speaker's and Ali's.

a. Seda   [Ali-nin   [Esra-nın   {#güzel/#kötü}   bir   konu-yu
     S   A-3GEN   E-3GEN   nice/bad   one   topic-ACC

    anlat-**tığ**-ın]-ı   bil-**diğ**-in]-i   bil-iyor
    tell-DIK-3S-ACC   know-DIK-3S-ACC   know-IMPF

    'Seda knows [that Ali knows [that Esra explained a #nice/#bad topic]]'

b. Seda   [Ali   [Esra   {#güzel/kötü}   bir   konu-yu   anlat-tı   **diye**
     S   A   E   nice/bad   one   topic-ACC   tell-PST   diye

    bil-iyor   **diye**]   bil-iyor
    know-IMPF   diye   know-IMPF

    'Seda knows [diye Ali knows [diye Esra explained a #nice/bad topic]]'

This is the first piece of evidence that the higher matrix subject is not a perspective center for the

most embedded clause. Only the intermediate one is a potential perspective center for the most

embedded diye clauses. As for –*DIK* clauses, these do not allow for any conflicting perspectives

under any combination of attitude holders, be it between the speaker and a single matrix subject

or the speaker and different matrix subjects.

2.3.2.2.2. *Temporal expressions*

Diye clauses cannot express higher matrix subject's evaluation (26b) when s/he evaluates for the embedded temporal expression differently. *–DIK* clauses do not accept either expression (26a):

(26) *Context:* The speaker and John talked to Ali$_i$, who told them that he$_i$ had a race between 2-3 pm. Murat mistakenly thought the race was between 5-6 pm. Murat is aware of the different evaluations between him versus the speaker and John. They are all in Los Angeles.

a. Murat   [John-un   [Ali-nin   {#5-6 arası/#2-3   arası}   yarış-**tığ**-ın]-ı
    M   J-3GEN   A-3GEN   5-6 between/2-3   between   compete-DIK-3S-ACC

    bil-**diğ**-in]-i   bil-iyor
    know-DIK-3S-ACC   know-IMPF

    'Murat knows [John knows [that Ali competed #between 2-3/#between 5-6]]'

b. Murat   [John   [Ali   {#5-6 arası/2-3   arası}   yarış-tı   **diye**]
    M   J   A   5-6   between/2-3 between   compete-PST   diye

    bil-iyor   **diye**]   bil-iyor
    know-IMPF   diye   know-IMPF

    'Murat knows [John knows [that Ali competed #between 5-6/between 2-3]]'

2.3.2.2.3. *Locative expressions*

We observe that the higher subject cannot be the sole evaluator for the location expression in the embedded *diye* clause (27b). When there is a conflict of evaluation, neither the lower nor the higher subject can evaluate the locative expression in *–DIK* clauses (27a):

(27) *Context:* The speaker and John talked to Ali, who told them that Ali had a race in Los Angeles. Murat mistakenly thought the race was in New York. Murat is aware of the difference in evaluations between him versus the speaker and John.

    a. Murat   [John-un   [Ali-nin   {#Los Angeles-ta/#New York-ta}

       M   J-3GEN   A-3GEN   L A-LOC   N   Y-LOC

      yarış-**tığ**-ın]-ı   bil-**diğ**-in]-i   bil-iyor

      compete-DIK-3S-ACC know-DIK-3S-ACC   know-IMPF

      'Murat knows [John knows [that Ali competed #in Los Angeles/#in New York]]'

    b. Murat   [John   [Ali   {Los Angeles-ta/#New York-ta}   yarış-tı

       M   J   A   L   A-LOC/N Y-LOC   compete-PST

      diye]   bil-iyor   **diye**]   bil-iyor

      diye   know-IMPF   diye   know-IMPF

      'Murat knows [John knows [diye Ali competed in Los Angeles/#in New York]]'

This brings us to our generalization:[21]

(28)   **Generalization:** *Diye* clauses encode a perspective center (PC) position, forcing all phrasal content in the clause to be evaluated from the point of view of the attitude holder occupying the PC position; this constitutes a single perspective domain. Only the closest matrix subject can fulfil the role of perspective center. (*–DIK* clauses do not encode any perspective[22]).

Further evidence for *diye* clauses being a single perspective domain comes from the ban on *de re* readings, which I discuss in the next section.

2.3.3.   *De re –De Dicto distinction in –DIK and diye clauses*

The *de re-de dicto* distinction is important in understanding attitude contexts. I stay neutral as to how *de re* readings can be derived and use different types of tests used to support different analyses of *de re-de dicto* in the literature (See Keshet 2008 and Keshet & Schwarz 2019 for a critical review). I take *de re* readings to be associated with the utterance context (i.e., not the attitude context). My goal here is to establish whether *de re* readings, however they are analyzed, are allowed in *–DIK* and *diye* clauses at all. If they are not, I take this as evidence that *de dicto* interpretation is enforced in them. This, in turn, supports *diye* clauses being single perspective domains. With that being said, let us now start the discussion with the two sentences in (29) (Keshet 2008), both of which have a *de re* and a *de dicto* reading:

---

[21] I do not discuss data contrasting the speaker's and the closest matrix subject's perspectives as this type of data was already discussed in the previous section.
[22] See Section 2.3.5. for a more detailed discussion of lack of perspective in *–DIK* clauses and why I opt for no perspective rather than multiple perspectives.

(29)   a. An hour ago, someone in this room was outside.

　　　　b. I introduced Mary to her husband.

In the *de re* reading in (29a), *someone in this room* is evaluated with respect to the actual world now whereas the rest of the sentence is evaluated with respect to the actual world an hour ago (=[Someone in this room now] was outside an hour ago). The *de dicto* reading leads to a reading not allowed by our world knowledge, namely that someone was both in this room and outside at the same time. Likewise, the *de re* reading in (29b) goes as follows: 'I introduced Mary in some past time to [the man who is her husband now]'. *De dicto* reading of (29b) is again not compatible with our world knowledge, unless Mary married her husband without meeting him before marriage. The common point in the *de re* interpretation is that it allows multiple evaluation contexts, more specifically that the part of the sentence read *de re* is interpreted in a different evaluation context (in the above examples: in the now) than other parts of the sentence. This is the hallmark of *de re* readings.

　　　　The example in (29) is an example with different temporal specifications. *De re-de dicto* distinction is not limited to temporality, however. We can attain the distinction via different worlds using attitude verbs (since these involve attitude verbs, they are closer to the present data) and we still arrive at the same conclusion: *de re* interpretation entails valuation in different worlds while *de dicto* readings do not. In (30a), *someone in this room* is evaluated in the actual world whereas the rest of the sentence is evaluated in Mary's thought worlds. This is the *de re* reading of *someone*. The *de dicto* reading attributes contradiction to Mary such that she thinks someone is in this room and outside at the same time. In the *de re* reading in (30b), *her husband* is evaluated in the actual world whereas the rest of the sentence in Mary's thought worlds. In the *de dicto* reading, Mary must have married her husband knowing he is a burglar.

(30) a. Mary thinks someone in this room is outside.

  b. Mary thought her husband was a burglar.

One major way to test for the availability of *de re* readings is substitution. The idea is as follows: When an element is substituted with a co-referring term, no unacceptability should arise if *de re* reading is available in a given clause. If the substitution leads to unacceptability, this means that the given clause disallows *de re* interpretation. A famous example is given in (31), from Quine (1956), where the relevant co-referring terms are Cicero and Tullus:

(31) a. Tom believes that Cicero denounced Cataline.

  b. Tom believes that Tullus denounced Cataline.

If Tom does not know that Cicero and Tullus are the same person and he knows only that Cicero denounced Cataline, we cannot conclude (31b) from (31a). (31b) can only be read *de re,* since Tom is not the evaluator for Tullus but the speaker. In other words, Tullus is evaluated in the speaker's thought-worlds while the rest of the sentence is evaluated in Tom's thought-worlds. This indicates the availability of multiple evaluation contexts. (31a) is read *de dicto* because all parts of the embedded proposition are evaluated by Tom, hence a single evaluation domain.

There is another way to tap into the *de re-de dicto* distinction: the scope of scope-taking elements (assuming the Scope Theory for the time being). See the example in (32), also discussed by Quine (1956). The scope-taking element here is the embedded subject *someone.* (32) can have the two readings given in (33), where (33a) is the *de dicto* reading and (33b) is the *de re* reading. When I use this test, I refer to the higher scope reading as the specific reading and

the lower scope reading as the unspecific reading to stay neutral as to potential analyses of such

readings (see Keshet 2008 for a review):

(32) Ortcutt believes that someone is a spy.

(33) a. Ortcutt believes that there are spies.
      b. Someone is an x such that Ortcutt believes that x is a spy.

We now turn to the Turkish data. The first two tests involve substitution. The first one involves

two names with the same reference in the actual world, *Two Names, One Person*, replicating

(31). This test involves two names with the same reference in the actual world. The second test is

The President test, which is similar to the first test in design, with the difference that it involves a

description and a name referring to the same individual. The third one is the *Someone* test, which

tests whether *someone* in the embedded clause must be interpreted as wide or narrow in scope

(i.e., *de re-de dicto,* respectively)*, similar to (32)-(33).

2.3.3.1. Two names, one person

The context in (34) specifies Murat Ali (embedded subject) to have two names. The speaker and

the matrix subject both know the referent (i.e., embedded subject) as an individual in the real

world but the speaker knows both names of the referent while the matrix subject knows only one

(i.e., Murat). When both the speaker and the matrix subject know (the referent of) the name, both

embedded clause types are acceptable (34a-b). When there is divergence, however, *diye* clauses

cannot contain an element that the matrix subject does not know about (34d), although the matrix

subject knows the referent of that name to have passed the exam (but as Murat, not as Ali). *–DIK* clauses do not impose any restrictions in this aspect (34b):[23]

(34) *Context:* Murat has two names, Murat and Ali. John knows him only as Murat (i.e., he does not know that Murat has another name). Speaker knows both names (i.e., knows him as Murat Ali) but always refers to him as Ali. Murat Ali passed his exam.[24]

a. John   [Murat-ın   sınav-ı   geç-**tiğ**-in]-i   bil-iyor   aslında
   J   M-3GEN   exam-ACC   pass-DIK-3S-ACC   know-IMPF   actually
   'John knows [that Murat passed the exam] actually'

b. John   [Murat   sınav-ı   geç-ti   **diye**]   bil-iyor   aslında
   J   M   exam-ACC   pass-PST   diye   know-IMPF   actually
   'John knows [diye Murat passed the exam] actually'

c. John   [Ali-nin   sınav-ı   geç-**tiğ**-in]-i   bil-iyor   aslında
   J   A-3GEN   exam-ACC   pass-DIK-3S-ACC   know-IMPF   actually
   'John knows [that Ali passed the exam] actually'

d. #John   [Ali   sınav-ı   geç-ti   **diye**]   bil-iyor   aslında
   J   A   exam-ACC   pass-PST   diye   know-IMPF   actually
   'John knows [diye Ali passed the exam] actually'

---

[23] Notice that this flexibility in *–DIK* clauses is different from the evaluative, temporal and locative expressions discussed earlier in that these expressions required agreed perspective of the speaker and the matrix subject (and thus conflicting perspectives could not be reported). In (34), the speaker can report on something that the matrix subject may not (consciously) know. Although I do not have a definitive answer to where that difference comes from, one might propose the following: In (34), the matrix subject knows the referent of the subject. So, in fact, the speaker and the matrix subject share the same core propositional knowledge, which in this case is that the person whose referent in the real world is Murat Ali passed the exam. This means there is no actual conflict here, which is different from evaluative expressions.

[24] In the sentences in this example and some others below, *aslında* 'actually' is used in both *–DIK* and *diye* clauses. This is because otherwise, these types of sentences are not the most natural way of expressing the situation and it was difficult for my informants to judge. What is important to note here is that *aslında* 'actually' is used in both *–DIK* and *diye* clauses and it improves *–DIK* clauses but not *diye* clauses.

The conclusion from this test is that elements in the embedded proposition must be evaluated by the matrix subject only in *diye* clauses. This suggests that there is a single perspective domain.

2.3.3.2. The president

The context in (35) is similar to the previous test except that instead of two names, there is a description and a name associated with a single person. The speaker knows both whereas the matrix subject knows only the name. As before, when the embedded subject is part of both the speaker's and matrix subject's knowledge state, both *–DIK* and *diye* clauses are acceptable (35a-b). When part of the speaker's but not matrix subject's knowledge state is used in the embedded clause, only *–DIK* is acceptable (35c) while *diye* is unacceptable (35d):

(35)   *Context:* Murat is the president of a student club and he visited the school my
       roommate John and I work at. John knows Murat by name (perhaps as a friend) but he
       does not know that Murat is the president. John also knows Murat visited the school.

   a. John   [Murat-ın   okul-a   gel-**diğ**-in]-i   bil-iyor   aslında
      J   M-3GEN   school-DAT come-DIK-3S-ACC know-IMPF   actually
      'John knows [that Murat came to the school] actually'

   b. John   [Murat   okul-a   gel-di   **diye**]   bil-iyor   aslında
      J   M   school-DAT come-PST   diye   know-IMPF   actually
      'John knows [diye Murat came to the school] actually'

   c. John   [başkan-ın   okul-a   gel-**diğ**-in]-i   bil-iyor   aslında
      J   president-3GEN   school-DAT come-DIK-3S-ACC   know-IMPF actually
      'John knows [that the president came to the school] actually'

d. #John   [başkan   okul-a   gel-di   **diye**]   bil-iyor   aslında

   J   president school-DAT come-PST diye   know-IMPF actually

   'John knows [diye the president came to the school] actually'

2.3.3.3. Someone

(36a) shows that *someone* in a –*DIK* clause can be interpreted both as *de re* and *de dicto* whereas *diye* enforces the *de dicto* interpretation (36b). The *de re* reading here is the specific reading of *someone* and the *de dicto* reading is unspecific.[25]

(36) a. Pelin   [burada   biri-nin   hasta   ol-**duğ**-un]-u   bil-iyor

      P   here   someone-3GEN sick   be-DIK-3SACC   know-IMPF

      'Pelin knows [that someone is sick here]' *(specific)*

      'Pelin knows [that there is someone sick here]' *(unspecific)*

   b. Pelin   [burada   biri   hasta   **diye**]   bil-iyor

      P   here   someone   sick   diye   know-IMPF

      '#Pelin knows [diye someone is sick here]' *(specific)*

      'Pelin knows [diye there is someone sick here]' *(unspecific)*

The overall conclusion is that *de re* readings are not allowed in *diye* clauses, which provide further support that they are a single perspectival domain.

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[25] I leave the *de dicto* reading of elements that are specific for future research.

2.3.4. *Summary and more on –DIK clauses*

Diye clauses require that all content in its scope be reported from the perspective of the intermediate matrix subject. The main generalization from the previous sections is in (37):

(37) **Generalization:** *Diye* clauses encode a perspective center (PC) position, forcing all phrasal content in the clause to be evaluated from the point of view of the attitude holder occupying the PC position; this constitutes a single perspective domain. Only the closest matrix subject can fulfil the role of perspective center. (*–DIK* clauses do not encode any perspective).

Before analyzing *diye*, I discuss *–DIK* clauses in detail here, as I do not discuss their internal structures any further unless they are directly relevant to a given discussion. I focus on the perspectival properties of *-DIK* clauses and argue that they do not encode perspective. More specifically, I argue that they are CP-nominalizations without a perspectival component.

As was discussed in Chapter 1, *–DIK* clauses have a CP. For example, we have seen in Chapter 1 that they can host wh- words, CP-level elements, as shown in (38). See Chapter 1 for more evidence as well as Kornfilt (2003):

(38) Semra   [kim-in   gel-**diğ**-in]-i   bil-iyor
      S   who-3GEN   come-DIK-3S-ACC   know-IMPF
      'Who$_i$ does Semra know that s/he$_i$ came?'
      'Semra knows who came'

I take the syntactic structure of –*DIK* clauses to be as in (39). The nominalizer –*DIK* heads the DP embedding a CP, whose subject moves to SpecDP (from SpecnP) for genitive case assignment. This DP is selected by the embedding verb to saturate its internal argument position. I also assume that the CP in –*DIK* clauses is a defective one –recall from Chapter 1 that –*DIK* has limited tense-aspect marking and also has a defective TP-, resulting in it not being an opaque domain.[26] This will be discussed in more detail after I present the proposal:

(39)
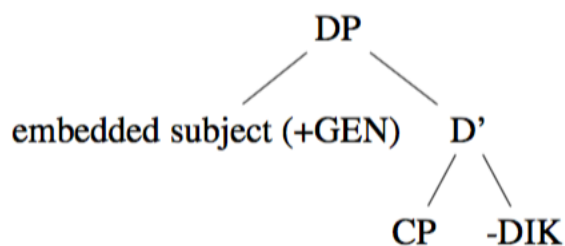
What about the perspectival properties of –*DIK* clauses? (39) indicates that there is nothing that relates to perspective in these clauses. We have seen in the data so far that -*DIK* clauses are consistently unable to express conflicting evaluations. My informants commented that this unacceptability results because whatever perspectival element is chosen, we end up conflicting either with the speaker's or the matrix subject's perspective. We have also seen that when no conflicting evaluations between the speaker and the matrix subject) are indicated (hence, defaulting to agreement between them), -*DIK* clauses can express their agreed evaluation. This is exemplified in (40), repeated from (14a):

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[26] We will see evidence for defective CP in –*DIK* clauses in later chapters, when –*DIK* clauses cannot host certain CP-level elements (such as adverbs like *iyi ki* 'fortunately' while *diye* clauses can.

(40) *Context:* Ali believes the topic Esra talked about was a good one.

Ali	[Esra-nın	güzel	bir	konu-yu	anlat-**tığ**-ın]-ı	bil-iyor
A	E-3GEN	nice	one	topic-ACC	tell-DIK-3S-ACC	know-IMPF

'Ali knows [that Esra explained a nice topic]'

This might be taken to mean either that *-DIK* clauses encode two (or more in case of multiple embeddings) perspectives or that they do not encode any. I argue for the latter for a few reasons. One is that having multiple perspective centers in a single clause (CP) is theoretically unexpected. Rather, one perspective center per CP is often assumed.[27] Koopman & Sportiche (1989), for example, argue that "At most one *n*-operator is allowed per Comp (p. 570)", where *n*-operator refers to operators that interact with a set of logophoric pronouns in Abe. This has been assumed to be true in later studies as well (e.g., Huang & Liu 2001; Sundaresan 2012; Charnavel & Mateu 2015; Charnavel 2017; see Pancheva & Zubizarreta 2018 and Charnavel 2019 for examples of the assumption of a single perspective center per evaluation domain but where evaluation domain can be different than a full clause, i.e., CP). Another concerning point about having multiple perspectives per CP is that the multiplicity of these centers is potentially limitless. We have seen that the incompatibility arises when there is a conflict between the speaker and the matrix subject in these clauses in single embedding clauses. However, as the number of embeddings increases, there is required agreement between all matrix subjects and the speaker. (41) illustrates this point. Context 1 was used in (24) to show that one cannot isolate the higher matrix subject's perspective and effectively use *–DIK* clauses under *bil-* 'know'. Context 2 and 3 do the same for the lower matrix subject and the speaker, respectively. We have seen that when the context does not clearly state a perspective conflict, however, *-DIK* clauses are happily

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[27] See, for comparison, Charnavel (2018b), who argues that perspective centers can be plural in causal clauses.

available, as shown in (42), repeated from (25). The overall conclusion is that matrix subjects

and the speaker need to agree on an evaluation for –*DIK* clauses to be used, which can mean an

infinite number of perspective centers in –*DIK* clauses if one adopts a multiple perspective center

approach. It must be clear to the reader that this is not a tenable and practical assumption:

(41) *Context 1 (higher matrix subject):* Seda believes that the topic Esra talked about is
nice. The speaker and Ali are harsher critics and think that the topic was bad (aka,
uninteresting).
Context 2 (lower matrix subject): Ali believes that the topic Esra talked about is
nice. The speaker and Seda are harsher critics and think that the topic was bad (aka,
uninteresting).
Context 3 (speaker): Speaker believes that the topic Esra talked about is nice. Seda and
Ali are harsher critics and think that the topic was bad (aka, uninteresting).

Seda	[Ali-nin	[Esra-nın	{#güzel/#kötü}	bir	konu-yu	anlat-**tığ**-ın]-ı
S	A-3GEN	E-3GEN	nice/bad	one	topic-ACC	tell-DIK-3S-ACC

bil-**diğ**-in]-i	bil-iyor
know-DIK-3S-ACC	know-IMPF

'Seda knows [that Ali knows [that Esra explained a #nice/#bad topic]]'

(42) *Context:* Seda believes that the topic Esra talked about is nice (the speaker and Ali need
not agree but can).

Seda	[Ali-nin	[Esra-nın	güzel	bir	konu-yu	anlat-**tığ**-ın]-ı
S	A-3GEN	E-3GEN	nice	one	topic-ACC	tell-DIK-3S-ACC

bil-**diğ**-in]-i   bil-iyor

know-DIK-3S-ACC   know-IMPF

'Seda knows [that Ali knows [that Esra explained a nice topic]]'

This was a negative piece of evidence against multiple perspectives in -*DIK* clauses. There is also positive evidence. –*DIK* clauses cannot host perspectival (CP-level) adverbs such as *iyi ki* 'fortunately' (43a) as opposed to *diye* clauses (43b) (see Chapter 4 for more discussion). In *diye* clauses, *iyi ki* 'fortunately' can be either associated with the matrix subject (i.e., 'It is fortunate that Ali came') or the speaker (i.e., 'It is fortunate that Esra knows [diye Ali came]').[28] Neither association is possible with -*DIK* clauses.

(43) a.*Esra   [Ali-nin   iyi   ki   gel-**diğ**-in]-i   bil-iyor

        E   A-3GEN   good that come-DIK-3S-ACC know-IMPF

        'Intended: #Esra knows [that Ali fortunately came]'

    b. Esra   [Ali   iyi   ki   gel-di   **diye**]   bil-iyor[29]

        E   A   good that come-PST diye   know-IMPF

        'Esra knows [diye Ali fortunately came]'

If there is no perspective center structurally encoded in –*DIK* clauses, where does the agreement requirement come from? Why can the world variables of these elements not be bound by the attitude verb? I do not give a definitive answer to this question, however, I will point out to a potential direction, based on Giorgi & Pianesi (2001). Giorgi & Pianesi (2001) discuss the agreed

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[28] This is not against *diye* being matrix-subject oriented, since the reading associated with the speaker is the one in which the adverb modifies the matrix verb but still appears to be in the *diye* clause. Presumably, there has been discourse-related movement of the embedded subject, as it appears to the left of the adverb in focus.

[29] Imagine a context where the speaker and the hearer convince Esra that Ali's arrival is good when it actually is not.

perspective of the speaker and the matrix subject in some attitude contexts. Though their analysis is based on temporal anchoring and its representation in the semantics of certain attitudinal verbs, their conclusion is that "if the subject-oriented assignment is such that it makes the subordinate clause true, so does the speaker-oriented assignment. On the other hand, if the clause is false under one assignment, then it is false under the other as well (p. 222)". In other words, the subordinate clause must be true both in the matrix subject's and the speaker's temporal coordinates. The following examples (their (19)-(21)) exemplify this. (44) and (46) exemplify cases where there is a change since the time John said what he said, both resulting in unacceptability. This is because when the speaker utters his sentence, s/he ends up misrepresenting the situation. In (44), the speaker knows that Mary is no longer in the room while in (46), s/he knows that Mary was not in the room when John said what he said and that she entered later. The only acceptable case is (45), where Mary's staying in the room holds both, or neither, in the speaker's and the subject's temporal coordinates with no change. This entails agreement between the matrix subject and the speaker. The agreement is represented as in (47) by Giorgi & Pianesi (2001, p. 222). *e'* and *u* represent the subject's and the speaker's temporal coordinates, *e* the saying event and the double-sided arrow represent the requirement that the embedded situation needs to be true in both:[30]

(44)   Scenario: Mary is in the room.
        John: Mary is in the room.
        Scenario: Mary exits.
        Speaker: #John said that Mary is in the room.

---

[30] Giorgi & Pianesi do not give an example of a scenario where Mary is and stays in the room in relevance to this discussion. However, since there is no change and thus no misinterpretation in such a case, my guess is that the sentence would be acceptable.

(45)   Scenario: There is no one in the room.

         John: Mary is in the room.

         Speaker: John said that Mary is in the room.

(46)   Scenario: There is no one in the room.

         John: Mary is in the room.

         Scenario: Mary enters the room.

         Speaker: #John said that Mary is in the room.

(47) $\forall$ e[in-the-room (e) ^ theme (e, Maria)] (e o e') $\longleftrightarrow$ (e o u)

Let us see how this accounts for the requirement for agreed perspectives in *–DIK* clauses. Giorgi

& Pianesi do not discuss perspective directly, so I only use their tool for conceptualization here.

Let us assume that individuals (the speaker and the matrix subject) have their own associated

temporal coordinates. The temporal coordinate of the matrix subject affects the interpretation of

the embedded clause content only due to its scope. The one of the speaker, on the other hand, has

scope over both the matrix clause and the embedded clause content. So, unless the embedded

clause is opaque, the speaker's temporal coordinates have access to the embedded clause at the

same time as the matrix subject's. Thus, the embedded clause has to be evaluated by the

temporal coordinates of two individuals simultaneously. Such access is possible in *–DIK* clauses

because they are transparent. How this relates to perspective is questionable, but if one can

connect temporal coordinates to perspective, the above explanation can be utilized for

perspective in *–DIK* clauses. However, if this route is taken up, one needs to account for where

the differences between *–DIK* and *diye* clauses come from in terms of transparency; how one can

account for potentially infinite agreement patterns discussed earlier in this section as well as why

–DIK clauses are overall less able to host CP-level elements such as speaker-oriented adverbs. Assuming all of this can be solved, the structure of *–DIK* clauses can look like this: [DP [CP OP [TP …]]], where the perspective operator is within the DP. But even then, this goes against observations that *–DIK* clauses are not big enough to host perspectival elements. Korotkova (2021) argues, based on her analysis of evidentiality markers in *–DIK* clauses, that "they lack the left periphery because the cut-off of the verbal spine happens lower (p. 220)" and that is why evidentiality markers cannot appear in them, as "evidentiality, and point-of-view in general (Speas & Tenny 2003; Sundaresan 2018; Zu 2018), is part of the left periphery (p. 220)". Though I do not agree that *–DIK* clauses lack CP altogether, the defective nature of the CP in *–DIK* clauses is not likely to host a PersP, so in this sense I agree with Korotkova. Future work could show if these concerns are potentially solvable. However, since the focus of this dissertation is on *diye* clauses, I now move on to the proposal of this chapter, namely the structural properties of *diye* clauses.

2.4. Proposal

In this section, the proposal is presented (Section 2.4.1.) and its general predications and implications are discussed with additional data (Section 2.4.2.-2.4.4).

2.4.1. The proposal

I propose that *diye* is the overt realization of a perspective operator, OP_{diye}, with a PRO subject. The operator resides in the head of Pers(pectival)P(hrase), which takes a CP as its complement,

while the PRO subject is in SpecPersP. The PRO subject is controlled by the closest DP, which is the lowest attitude holder. I assume that the PRO is an obligatory control PRO, as it gets its meaning from another DP. As such, it must be bound in its local domain (Hornstein 1999). This explains why it is only the lowest matrix subject that can be its antecedent.

The operator is a lambda abstractor that binds all the world variables that are born with each phrasal content and forces all elements in the embedded clause to be reported from the first-person perspective of the matrix subject via its PRO subject. The operator being associated with the first-person perspective of the closest matrix subject on the embedded clause content, it forms an evaluation domain. An evaluation domain is defined here as including content for evaluation (i.e., proposition in semantics and CP in syntax), an evaluator (i.e., matrix subject and PRO in syntax, marked in the operator in semantics as arguments) and evaluation worlds (logophoric alternatives, to be discussed, also marked in the operator). The operator makes its complement an opaque domain syntactically (to be detailed). The representation of a *diye* clause under *bil-* 'know' is in (48) (recall that *hatırla-* 'remember' is another verb in this category). Notice that the difference between –*DIK* in (39) and *diye* in (48) is that the former lacks PersP.

(48)
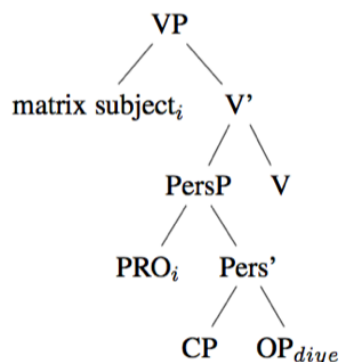
Once PersP has been derived, the matrix subject is introduced in SpecVP of the matrix clause (Koopman & Sportiche 1991). The PRO has its controller antecedent and the full interpretation for the *diye* clause is achieved. At this stage, PersP is closed off for further syntactic operations. This indicates that *diye* clauses are opaque domains. Evidence that this is so comes in three ways. For one, binding of anaphors inside a *diye* clause by the matrix subject is not acceptable (49b), as opposed to one inside a *–DIK* clause (49a):

(49) a. Çocuklar$_i$ [Ali-nin   birbirlerin$_i$-i   eşleştir-**diğ**-in]-i   bil-iyor

       children   A-3GEN   each.other-ACC   match-DIK-3S-ACC   know-IMPF

       'Children$_i$ know [that Ali matched them$_i$]'

       (lit. Children$_i$ know [that Ali matched each other$_i$])

     b. *Çocuklar$_i$ [Ali   birbirlerin$_i$-i   eşleştir-di   **diye**]   bil-iyor[31]

       children   A   each.other-ACC   match-PST   diye   know-IMPF

       'Children$_i$ know [diye Ali matched them$_i$]'

       (lit. Children$_i$ know [diye Ali matched each other$_i$])

---

[31] One type of example to challenge this pattern and allow binding across domains would be to use an overt plural pronoun as embedded subject, as in (i):

(i)   *Çocuklar$_i$ [onlar$_i$ birbirlerin$_i$-i   eşleştir-di   **diye**]   bil-iyor

             children   they   each.other-ACC   match-PST   diye   know-IMPF

             'Intended: Children$_i$ know [diye they$_i$ matched them$_i$]'

However, as will be discussed in Chapter 3, overt pronouns in Turkish can only be used for topic or contrast purposes and so, *onlar* in (i) cannot refer to the children. The binding can only happen between *onlar* and the anaphor, when *onlar* refers to a group of people other than the children mentioned. We can, however, use a covert *pro* to refer to children, as in (ii):

(ii)   *Çocuklar$_i$ [*pro*$_i$ birbirlerin$_i$-i   eşleştir-di   **diye**]   bil-iyor

             children   pro   each.other-ACC   match-PST   diye   know-IMPF

             'Intended: Children$_i$ know [diye pro$_i$ matched them$_i$]'

But in my judgment, this sentence is still not grammatical. So, it looks like the type of embedded subject does not matter for the binding pattern under discussion.

Given that anaphors obey Principle A of the binding theory, which states that they need to be bound in their local domain (Chomsky 1981:198), *diye* clauses form opaque domains such that binding across them is disallowed. The PRO in SpecPersP cannot bind the anaphor because it is above CP, which I assume to be the relevant binding domain for the anaphor in a *diye* clause. Recall that the CP in *–DIK* clauses are defective, hence forming a transparent domain. That is why the binding goes through across clauses in (49a).

Binding is not the only phenomena demonstrating the opaque nature of *diye* clauses. Another example regards NPI-licensing. The NPI *kimse* 'anyone/no one' in Turkish needs to be c-commanded by verbal negation, as the contrast in (50) shows:

(50) a. Kimse   gel-me-di
         no.one   come-NEG-PST
         'Anyone did not come (i.e., No one came)'

      b. *Kimse geldi

NPIs cannot be licensed by matrix negation in *diye* clauses (51b) but can be in *–DIK* clauses (51a), suggesting that *diye* clauses are not transparent with respect to NPI-licensing under factivity-underspecified verbs while *–DIK* clauses are (due to their defective CP):

(51) a. Ali   [kimse-nin   gel-**diğ**-in]-i   bil-m-iyor
         A   no.one-3GEN   come-DIK-3S-ACC know-NEG-IMPF
         'Ali does not know [that anyone came]'

      b. ??/# Ali   [kimse   gel-di   **diye**]   bil-m-iyor
         A   no.one   come-PST   diye   know-NEG-IMPF

'Intended: Ali does not know [diye anyone came]'

Another restriction imposed by *diye* clauses is on the interpretation of quantifiers. Assuming that *de re* readings are readings of specificity and specificity is related to the utterance context in some way (hence outside of the embedded context; achieved either via movement as in the Scope Theory, Montague 1974, Ladusaw 1977, among others, or indexation as in Keshet 2008, Anand & Korotkova 2021).[32] However *de re* readings are analyzed, what matters for present purposes is that association outside of the embedded context is not allowed in *diye* clauses. In (52), the embedded quantifier subject, *someone,* can only be interpreted as unspecific (=*de dicto* reading) in the *diye* clause (52b) while both *de dicto* (unspecific) and *de re* (specific) readings are available in –*DIK* clauses (52a):

(52) a. Pelin   [burada   biri-nin   hasta   ol-**duğ**-un]-u   bil-iyor
      P   here   someone-3GEN   sick   be-DIK-3SACC   know-IMPF
      'Pelin knows [that someone is sick here]' *(specific)*
      'Pelin knows [that there is someone sick here]' *(unspecific)*

    b. Pelin   [burada   biri   hasta   **diye**]   bil-iyor
      P   here   someone   sick   diye   know-IMPF
      '#Pelin knows [diye someone is sick here]' *(specific)*
      'Pelin knows [diye there is someone sick here]' *(unspecific)*

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[32] I place this example in the part of the chapter dealing with syntactic evidence for the opaqueness of *diye* clauses because some studies argue for (covert) movement for *de re* elements, which I assume is syntactically relevant.

So far, we have established that *diye* is an opaque domain with respect to a number of

properties[33]. It is also important to discuss what kind of an opaque domain *diye* clauses are. For

example, can they be considered phases? If they can be, are they strong or weak phases? The

data so far, however, do not help clarify this issue. The data presented and discussed in Chapter 3

will help us tease apart the distinguishing characteristic properties of *diye* clauses as opaque

domains. Therefore, I postpone the discussion of this point to Chapter 3. It suffices now to keep

in mind that *diye* clauses are some kind of opaque domains. Let us now recall the generalization

we have established in Section 3 again:

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[33] The data just discussed indicate that matrix clause elements cannot interact with embedded elements in *diye* clauses. This suggests a ban on overt movement from the embedded clause but this is not borne out. Both–*DIK* (i) and *diye* (ii) clauses allow overt extraction of embedded elements:

(i)   a. Ali-nin$_i$ Esra [t$_i$ kitab-ı oku-**duğ**-un]-u bil-iyor
       A-3GEN E book-ACC read-DIK-3S-ACC know-IMPF
       'Esra knows [that Ali read the book]'
     b. Kitab-ı$_i$ Esra [Ali-nin t$_i$ oku-**duğ**-un]-u bil-iyor
       book-ACC E A-3GEN read-DIK-3S-ACC know-IMPF
       'Esra knows [that Ali read the book]'

(ii)   a. Ali$_i$ ben [t$_i$ kitab-ı oku-du **diye**] bil-iyor-um
       A I book-ACC read-PST diye know-IMPF-1S
       'I know [diye Ali read the book]'
     b. Kitab-ı$_i$ Esra [Ali t$_i$ oku-du **diye**] bil-iyor
       book-ACC E A   read-PST diye know-IMPF
       'Esra knows [diye Ali read the book]'

However, it should be noted that Turkish is a free word-order language and allow elements to be extracted from otherwise strong islands such as relative clauses. Recall from Chapter 1 that –*DIK* is the default form used in relative clause structures (iiia). It is possible to show elements can be extracted from these relative clauses, as in (iiib), where the temporal adverb *bugün* 'today' appears outside of the relative clause. Given this flexibility of the language, I will assume that the flexibility of overt movement out of *diye* clauses stems from the general relaxation on the rules of overt movement in the language. This will be discussed in more detail in Chapter 3:

(iii)   a. [Ali-nin bugün oku-**duğ**-u] (bir) kitap
       A-3GEN today read-DIK-3S a book
       '(A/The) book Ali read today'
     b. [Ali-nin t$_i$ oku-**duğ**-u] (bir) kitap bugün$_i$
       A-3GEN read-DIK-3S a book today
       '(A/The) book Ali read today'

One question regarding (ii) in this footnote is whether we can move *biri* 'someone' in (50b) to achieve a de re reading. It looks like such movement is not possible, likely due to this movement being topic-related (see Chapter 3) and the discomfort of unspecific quantifiers to move to this position. Such movement is possible in (50a), where *birinin* can move to the clause-initial position. I assume that is because the genitive marking on it can give it a specific reading, as genitive in Turkish marks specificity (von Heusinger & Kornfilt 2005).

(53) **Generalization:** *Diye* clauses encode a perspective center, forcing all phrasal content in the clause to be evaluated from that center and therefore forming a single perspective domain. Only the closest matrix subject can fulfil the role of perspective center. (*–DIK* clauses do not encode any perspective).

The proposal in (48) accounts for the Generalization stated in (53), as the operator's function is to report the embedded clause content from the first-person perspective of the matrix subject through its controlling of the PRO subject, forming a complete evaluation domain. This also accounts for the ban on *de re* elements in *diye* clauses via the high-scope of the operator. Since the operator scopes over all of the embedded clause, it forces all elements in it to be reported from the perspective of the matrix subject, yielding a *de dicto* reading. This implies that *de re* elements are expected to be disallowed, which was shown to be the case earlier.

One last point that needs to be addressed in this section is the implication of the proposal that *diye* is the complement to the embedding verb. Is this the right conclusion, however? I argue that the *diye* clause is an argument of the cognitive attitude verbs. One reason is selectional restrictions. See, for example, (54), where the verb *unut-* 'forget' and *keşfet-* 'discover', both attitude verbs, select for a nominal complement but are incompatible with *diye* (see Chapter 4 for a more detailed discussion), unlike factivity-underspecified verbs that we have seen so far in this chapter. The *diye* clause is only acceptable with these verbs if it modifies the matrix verb to describe the cause of the forgetfulness (i.e., Esra forgot (it) because Ali came). This indicates that an adjunct reading is enforced to preserve interpretability in structures like (54c).

(54) a. Esra   Ali-yi   unut-tu/keşfet-ti

      E   A-ACC   forget-PST/discover-PST

      'Esra forgot/discovered Ali'

b. Esra   [Ali-nin   gel-**diğ**-in]-i   unut-tu/keşfet-ti

   E   A-3GEN   come-DIK-3S-ACC   forget-PST/discover-PST

   'Esra forgot/discovered [that Ali came]'

c. *Esra   [Ali   gel-di   **diye**]   unut-tu/keşfet-ti

   E   A   come-PST   diye   forget-PST/discover-PST

   'Intended: Esra forgot/discovered [diye Ali came]'

Another argument is based on Major (to appear). Major argues that *dep* clauses in Uyghur are not selected by the matrix verb and uses replacement by *shundaq* 'so/like that', which stands in for salient propositions, as argument for this proposal. *Dep* clauses can appear together with *shundaq* in Uyghur, indicating that they are not in the same position. This is exemplified in (55):

(55) a. Herbir   oqughuchi   shundaq   oyla-y-du

      each   student   so   think-NONPST-3S

      'Each student thinks so'

b. Herbir   oqughuichi   [[Aygül-ni$_j$ [t$_j$ ket-t-i]$_k$ dep]   we

   each   student   A-ACC   leave-PST-3S dep   and

   Ahmet-ni$_i$ [t$_i$ kel-d-i]$_m$ dep]]   shundaq$_{k+m}$ oyla-y-du

   A-ACC   come-PST-3S diye   so   think-NONPST-3S

   'Each student thinks it so that Aygul left and Ahmet came'

Diye clauses cannot appear with *öyle* 'so', indicating that they compete for the same position, namely the internal argument position:

(56) a. Ali   öyle   bil-iyor

      A   so   know-IMPF

      'Ali knows so'

    b. *Ali   [Esra   gel-di   **diye**]   öyle   bil-iyor

      A   E   come-PST   diye   so   know-IMPF

      'Intended: Ali knows (it) so [diye Esra came]'

It is important to mention Özyıldız (2019), who argues that *diye* is an adjunct to the VP. One

reason is that it cannot be case-marked (57b) although bare clauses can (57a) (p. 9, ex. 32b-c):

(57) a. Ali   gel-di-ye   benz-iyor

      A   come-PST-DAT   look.like-IMPF

      'Ali looks like he arrived'

    b. *Ali   gel-di   diye-ye   benz-iyor

      A   come-PST   diye-DAT   look.like-IMPF

      'Intended: Ali looks like he arrived'

The lack of case-marking on *diye* can be expected, since it is not a nominal element. On this

explanation, however, the case-marking on (57a) is surprising. I do not have a straightforward

answer as to why. Özyıldız admits in fn. 15, the structure of (57a) is probably more complex than

it looks. Nevertheless, it is important to note that bare clauses can be case-marked in Turkish in

other environments too (while *diye* can never be), indicating that the pattern of case-marking is a

generalized one.[34]

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[34] Both Özyıldız and the present study treat *diye* as a non-nominal element. But I believe that a clearer explanation
for this issue can be possible in my account if we can posit a generalization that states "any complement that is not a
PersP can be case-marked". Only *diye* and matrix clauses have PersP in my account; neither –*DIK* clauses nor
(possibly) bare clauses have it. This point can be pursued in future studies.

(58) a. Ali-yi   falan   bil-me-m
          A-ACC   and.the.like   know-NEG-1S
          'I don't know Ali or whoever'

      b. Ali   gel-di-yi   falan   bil-me-m
          A   come-PST-ACC   and.the.like   know-NEG-1S
          'I don't know Ali came or whatever'

One thing to note, however, all environments I was able to come up with are in internal argument

positions. Bare clauses cannot appear in external argument positions, neither can *diye* clauses.

So, this argument does not rule out the possibility that position is at play in this and it might still

be true that *–DIK* clauses are arguments while *diye* clauses are adjuncts. So, we look at the

second piece of evidence.

The second argument by Özyıldız, also forming the main type of structures focused on by

Major (to appear) in Uyghur *dep,* is that *diye* can function as an adjunct clause (example from

Özyıldız 2019: 10, ex. (33c)), as exemplified in (59):

(59) Ayşe   bir   soru-yu   [Ali   gel-di   **diye**]   cevapla-dı
        A   one   question-ACC A   come-PST diye   answer-PST
        'Ayşe answered a question by saying that Ali had arrived'

Notice that there is a DP in (59) that can function as the argument to the VP, namely *bir soruyu*

'one question-ACC'. The accusative marking on it indicates argumenthood. When there is

already an argument, *diye* clauses function as adjuncts. The real question is what happens when

they are the only element that can function as an argument (i.e., no other nominals are available

for the internal argument position)? Now, see (60), where there are two *diye* clauses:

(60) Ali   [Murat   öyle   de-di   **diye**] [Ayşe   git-ti   **diye**]   bil-iyor

A   M   so   say-PST   diye   A   go-PST   diye   know-IMPF

'Ali knows [diye Ayse left] [because Murat said so]'

If both of the *diye* clauses in (60) were both adjuncts, we would expect them to get similar interpretations. However, the one that is closer indicates the content of Ali's knowledge, which is the default reading for propositional internal arguments, and the one that is further has an adjunct interpretation. Necessarily, the one that is further to the VP is interpreted as an adjunct, in this case, a reason clause. The one that is closer to the verb is the argument, also evidenced by its interpretation as the content of the attitude verb.

I assume that when *diye* appears as an adjunct, it might have a similar structure to the one proposed here, namely a PersP, but this PersP is not selected by the verb directly but by a CausP, which mediates the matrix subject and the embedding event (including the propositional argument) via a *cause* relation. The verbs in focus here do not select for a CausP, giving these *diye* clauses independence from a lexically selecting head. The adjunct reading is the main focus of Major (to appear). Likewise, in (59), the *diye* clause might be headed by a CausP. But it turns out that structures like (59) has some more interesting implications, which I discuss below. Let us consider an example with a cognitive attitude verb (Özyıldız 2017: 13, ex. (20b)):

(61) Tunç   {o-nu,   o   durum-u}   Hillary   kazan-dı   **diye**   bil-iyor

T   it-ACC   that   situation-ACC   H   win-PST   diye   know-IMPF

'Tunç believes of {that, that situation} that Hillary won'

The embedded subject in *diye* clauses can appear in accusative (impossible with –*DIK* clauses):

(62) Ali   Esra-yı   git-ti   **diye**   bil-iyor

      A   E-ACC   go-PST   diye   know-IMPF

      'Ali knows of Esra {diye she left}'

Major (to appear) investigates a similar structure in Uyghur (more details in the next section) and argues that the accusative is base-generated in the embedded clause and raises to the matrix clause. In other words, it is not prolepsis. However, in the Turkish *diye* clauses, there is evidence that these are more similar to prolepsis structures, where the accusative embedded subject is an argument of the matrix verb which controls a null pronoun in the embedded clause.

      Evidence that the Uyghur accusative-marked DP is generated in the embedded clause comes from the fact that NPI elements, which require c-commanding clause-mate negation as licenser, can be licensed by embedded negation (Shklovsky & Sudo 2014; Major to appear):

(63) a. Héchkim   ket-*(mi)-d-i

         nobody   leave-NEG-PST-3S

         'Nobody left'

      b. Ahmet   [héchkim-ni   ket-*(mi)-d-i]   dé-di

         A   nobody-ACC   leave-NEG-PST-3S say-PST-3S

         'Ahmet said that nobody left'

In Turkish, the accusative DP needs to be licensed by matrix negation:[35]

(64) a. *Ahmet   kimse-yi   git-me-di   **diye**   bil-iyor

         A   no one-ACC go-NEG-PST diye   know-IMPF

         'Intended: Ahmet knows of noone [diye they left]'

---

[35] The judgments are more variable here. (64) is aligned with my own judgment and some of the informants.

b. Ahmet kimse-yi git-ti **diye** bil-m-iyor

   A   no one-ACC go-PST diye   know-NEG-IMPF

   'Ahmet knows of noone [diye they left]'

The second argument for Uyghur not having prolepsis with accusative DPs come from idioms, which preserve meaning (65) (Major to appear). When this argument is applied to Turkish *diye,* we see that the idiomatic meaning is not preserved (66):

(65) a. Toqquz   qiz-ning   tolghiq-i   teng   kel-d-i

       nine   girl-GEN   labor-3POSS together arrive-PST-3S

       'Times are hard (lit. Nine girls' labor came all at once)'

    b. Tursun   [toqquz   qiz-ning   tolghiq-i-ni   teng   kel-d-i

       T   nine   girl-GEN   labor-3POSS-ACC   together arrive-PST-3S

       'Tursun said that times are hard.'

(66) a. At-ı   al-an   Üsküdar-ı   geç-ti

     horse-ACC take-REL Ü-ACC   pass-PST

     'It is too late (lit. That who took the horse passed Üsküdar)'

    b. #Ali   at-ı   al-an-ı   Üsküdar-ı   geç-ti   **diye** bil-iyor

     A   horse-ACC take-REL-ACC Ü-ACC   pass-PST diye   bil-iyor

     'Intended: Ali knows [diye it is too late]'

We also see that there is no reconstruction because *de dicto* readings are not allowed (68a), unlike in Uyghur (67) (Shklovksy & Sudo 2014: 392, ex. 29). In Turkish, *de dicto* reading is possible with a nominative embedded subject (68b):

(67) Tursun   tulpar-ni   kel-d-i]   dé-d-i,   ema tulpar   yoq
     T   winged.horse-ACC arrive-PST-3S say-PST-3S but   winged.horse not.exist
     'Tursun said that a winged horse arrived, but winged horses do not exist'

(68) a. #Esra   hayalet-i   git-ti   **diye**   bil-iyor
        E   ghost-ACC go-PST diye   know-IMPF

   ama hayalet diye bir sey yok
   but there is no such thing as a ghost

   'Esra knows of the ghost [diye it left] *but there is no such thing as a ghost*'

   b. Esra   [hayalet   git-ti   **diye**   bil-iyor
      E   ghost   go-PST diye   know-IMPF

   ama hayalet diye bir sey yok
   but there is no such thing as a ghost

   'Esra knows [diye the ghost left] *but there is no such thing as a ghost*'

The conclusion is that the accusative DP is not base-generated in the *diye* clause nor do they reconstruct. That means it is in a proleptic structure, where it controls an embedded null pronoun, which I represent as in (69a) for the sentence *Ali Esra'yı gitti diye biliyor* 'Ali knows of Esra$_i$ diye she$_i$ left', reminiscent of the proposal by Bruening (2001a, b) for Japanese (69b):[36]

(69) a. [$_{vP}$ Ali [$_{VP}$ [Esra$_i$-ACC [$_{XP}$ t$_i$ [$_{PersP}$ diye [$_{CP}$ *pro*$_i$ went]]] know]]]

   b. NP-ACC$_i$…[$_{CP}$ t$_i$ […*pro*$_i$...] C] V

---

[36] Also see Oğuz (2021) for a prolepsis analysis of accusative subjects in Turkish.

Here, the accusative-marked subject is the special subject of the *diye* clause, controlling the *pro* within the *diye* clause and generated in a position higher than PersP within the *diye* clause (a special projection which I assume is projected in proleptic structures). It moves to the matrix clause for case-assignment after generation (because SpecCP is not a case-assigning position). This accounts for the evidence so far that acusative subjects are not generated *within* the *diye* clause (rather it is outside of PersP) and the proposal thus combines pieces of previous research on the topic (I adopt the idea of raising to the matrix clause from Zidani-Eroğlu (1997) because I assume a similar movement, -although the starting point is different-. I also assume that this movement happens via a base-generated position at the edge of the embedded clause that is accessible to the matrix verb so it can get case-assigned by it because I also assume an edge position for it. The idea of an edge position for accusative subjects is similar to Şener (2008)). What this shows is that *diye* clauses are not selected by the main verb when there is another DP saturating the internal argument position (since the DP gets assigned accusative in the matrix clause in (69a)). Thus, my assumption is that *diye* clauses are arguments when there is no other element accomplishing the argument role (based on evidence from selectional restrictions, replacement by *öyle* 'so' and their obligatory content interpretation).

2.4.2. *Previous syntactic accounts of diye and similar elements*

I now discuss two previous studies that bear striking resemblance to the present proposal. One is Yıldırım-Gündoğdu (2017a), who proposed a syntactic account of *diye* in Turkish and the other is Knyazev (2016), who proposed a syntactic account for *giǯə* in Kalmyk, a Western Mongolic language. I also discuss Major (to appear) on Uyghur *dep* intermittently in relation to these two

studies. None of these studies focused on perspective per se,[37] however, the syntactic patterns

they propose for *diye* (and similar) clauses are similar to the present proposal. I drew heavily

from these previous proposals in the development of my own proposal but diverged in some

ways.

Yıldırım-Gündoğdu (2017a) sets out with the goal of analyzing various functions of *diye*

in Turkish and ends up proposing various structures for each of them. Here, I am only concerned

with the one that appears under cognition verbs. I also only present her proposal for *diye* clauses

that involve "indexical shift" of first-person pronouns ("indexical shift" to be exemplified soon

in this chapter and detailed in Chapter 3) since the structure is easier to understand. But it should

be noted that there is no significant difference between *diye* clauses with or without "indexical

shift" for present purposes (to be clarified in Chapter 3).

Yıldırım-Gündoğdu proposes (70) as the representation of *diye:*

(70)

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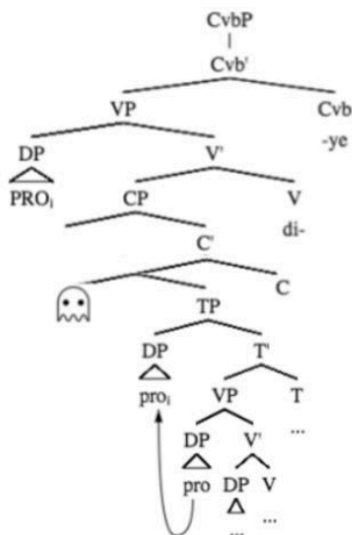
[37] If they were concerned with perspective, I believe they would encode it into the context-overwriting operator that they propose.

There are several aspects of this proposal worth mentioning here. One is the decomposition of *diye* into *de-* 'say' and *–ye,* a converbial marker. Converbial markers form V+V constructions where one verb is subordinate to the other. Converbial V+Vs are different from true serial verbs in that they involve converbial suffixes whereas true serial verbs are not connected by "overt marker of coordination, subordination, or syntactic dependency of any sort (Aikhenvald 2006:1, Mufwene 1990)." Another similarity between converbial forms and true serial verbs is that in the former the verbs necessarily share their subject. These forms are common in Turkic languages. (See Straughn (2006, 2011) for more details on converbs in Turkic languages). It is common to consider *diye* as the converbial form of the verb *de-* 'say' formed with *–(y)A* (Yıldırım-Gündoğdu 2017a and the references therein). Yıldırım-Gündoğdu encodes this function of subordination on a separate functional head, namely CvbP. This phrase can be seen as the enabler of a certain subordination type. I did not use this phrase since it is largely descriptive and does not play much role in her proposal. If we disregard CvbP, one can see the similarity between the present proposal and Yıldırım-Gündoğdu's more clearly: both have a CP and a higher phrase level (VP in hers, PersP in mine) and in both there is a PRO subject associated with the matrix subject in the specifier of the higher of the two levels. The reason why Yıldırım-Gündoğdu chooses to use a VP is due to the similarities *diye* displays with the verb *de-* 'say'. For one, *diye* is derived from *de-* 'say'. Another similarity is that both allow "indexical shift" as opposed to other verbs. *Diye* clauses allow the first-person agreement on the embedded verb to either refer to the matrix subject or the speaker (71a). When it refers to the matrix subject, this is known as *indexical shift.* The verb *de-* 'say' also allows, in fact enforces, this shift (71b). (71c) shows that other attitude verbs such as *düşün* 'think' cannot shift indexicals in the absence of

diye. This shows that *diye* and *de-* both enable shifting. Therefore, Yıldırım-Gündoğdu concludes that they have similar structures.

(71) a. Ahmet$_i$ [ödev-i   bitir-di-m   **diye**]   düşün-üyor
      A   homework-ACC   finish-PST-1S diye   think-IMPF
      'Ahmet thinks that he$_i$/I finished the homework.'

   b. Ahmet$_i$ [ödev-i   bitir-di-m]   d-iyor
      A   homework-ACC   finish-PST-1S   say-IMPF
      'Ahmet says that he$_i$/*I finished the homework.'

   c. Ahmet$_i$ [ödev-i   bitir-**diğ**-im]-i   düşün-üyor
      A   homework-ACC   finish-DIK-1S-ACC   think-IMPF
      'Ahmet thinks that *he$_i$/I finished the homework.'

Although this proposal is intuitive, I believe this proposal does not distinguish the VP in *diye* from other VPs. In other words, *diye* cannot be a bare VP but rather must involve an element that relates to perspective. To start, both Yıldırım-Gündoğdu (2017a) for *diye* and Major (to appear) for *dep* in Uyghur argue that these markers are morphologically derived from the verb *de-* 'say' and they carry properties of this verb. That is part of their argument that there is a VP in *diye* or *dep.* Although I agree that *diye* derives from *de-* 'say', I do not agree with *diye* carrying a VP is due to a similarity with the verb *de-* 'say'. This is because the shifting behavior is different between *diye* and *de-,* suggesting that the two are not the same. This difference can be seen in (71a) versus (71b), where *diye allows* shifting whereas *de- enforces* it. Likewise, as discussed in more detail in Chapter 3, overt pronominals such as *ben* 'I' can (even *must* for some speakers) shift under *de-* but not under *diye* in Turkish (72):

(72) a. Ahmet_i   [ben   ödev-i   bitir-di-m   **diye**]   düşün-üyor[38]

      A   I   homework-ACC   finish-PST-1S diye   think-IMPF

      'Ahmet thinks that *he_i/I finished the homework.'

    b. Ahmet_i   [ben   ödev-i   bitir-di-m]   d-iyor

      A   I   homework-ACC   finish-PST-1S say-IMPF

      'Ahmet says that he_i/*I finished the homework.'

Regardless, though, there is a common point between *diye* and *de-*: they both make indexical shift at least possible. The monster operator in (70) can be considered as the element that enables it, which has been argued for in studies on Uyghur indexical shift (e.g., Shklonsky & Sudo 2014, Major to appear) for *dep* as well as Turkish indexical shift in *diye*, as in Yıldırım-Gündoğdu (2017a) (and the assumption is that *de-* also has a similar operator).

    Yet there is evidence that the operator should be higher in the embedded clauses formed with *diye,* presumably in the VP in Yıldırım-Gündoğdu's account. Notice that the embedded CP is not within the scope of the operator in Yıldırım-Gündoğdu's account and the operator is a context-overwriting one.[39] It is similar to Major's account. When there is indexical shift, the Uyghur *dep* has the structure in (73), in which the monster is in the CP:

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[38] A good test to tease apart the role of the main verb would be to use –*DIK* clauses in the complement position, since the person agreement markers in these clauses always refer to the speaker (so we could see if the verb *de-* 'say' can shift the first-person agreement marker in the -*DIK* clause as well). However, the verb *de-* 'say' does not take –*DIK* clauses as complements, so there cannot be a direct comparison with *düşün-* 'think'.

[39] I differ from Yıldırım-Gündoğdu in the type of the operator I propose. Since this is not related to the syntax of *diye* directly, I will not discuss it here. But I will oppose to in Chapter 3, where I will argue for a binding operator in *diye* clauses rather than a context-overwriting explicitly.

(73)
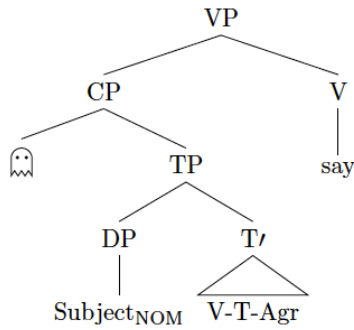
This predicts that CP-elements themselves will not be context-overridden, which means they need not be associated with the matrix subject (e.g., it need not be evaluated by him). See (74) to that end. Context 1 makes it clear that the speaker is angry about Ali attending the party while the matrix subject is not and Context 2 reverses the emotions. The CP-level, speaker-oriented adverb *iyi ki* 'fortunately' can only reference the matrix subject's perspective, indicating that the embedded CP falls in the scope of the operator.[40] Recall that in my account, PersP –hosting the perspective operator- lies above CP. Therefore, it takes within its scope anything in the CP, including speaker-oriented adverbs. In Yıldırım-Gündoğdu's account, on the other hand, the operator lies below the CP, and so it does not capture this pattern.

(74) *Context 1:* ACCEPTABLE
       The speaker is angry that Ali attended the party. Pelin is happy about it:
       Context 2: NON-ACCEPTABLE
       The speaker is glad that Ali attended the party. Pelin is angry about it:

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[40] *-DIK* clauses do not accept CP-level adverbs. See Chapter 3 for more detailed discussion of CP-level adverbs.

Pelin	[Ali	iyi ki	parti-ye	gel-di	**diye**]	bil-iyor
P	A	fortunately	party-DAT	come-PST	diye	know-IMPF

'Pelin knows [diye fortunately Ali came to the party]'

Moreover, in some other structures where we expect a CP, such as in the complement of a head noun as in (75), the first-person agreement marker cannot shift. Thus, it looks like the presence of a CP does not guarantee shift. This puts the argument that the CP in *diye* clauses host the shifting operator in doubt for Turkish or some explanation as to why that CP is special needs to be offered. In my account, the operator is in the PersP and not CP, which circumvents the issue.[41]

(75) a.
Ali	[okul-dan	kaç-tı-m	**diye**	bir	söylenti]	duy-muş
A	school-ABL	escape-PST-1S	diye	a	rumor	hear-INDPST

'Ali heard [a rumor diye *he/speaker escaped from school]'

b.
Ali	[okul-dan	kaç-tı-m	**diye**	bir	söylenti]	bil-iyor[42]
A	school-ABL	escape-PST-1S	diye	a	rumor	know-IMPF

'Ali knows [a rumor diye *he/speaker escaped from school]'

Lastly, it is unclear how Yıldırım-Gündoğdu's proposal can account for the opaque properties of *diye.* Since the highest phrase of *diye* is CvbP, there is no apparent reason why an embedded element should not interact with an external probe through the CvbP. In my account, this

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[41] This entails that *diye* may not always come with a PersP, for example not when it is not embedded under a verb. Indeed, *diye* behaves differently with nouns. For example, it only can occur with an unspecific head noun as in (75). If the head noun is specific, *-DIK* clauses must be used instead in the complement position. Under nouns, the complement of *diye* can be merely a noun as in (i), which also contradicts my proposal that *diye* has a propositional argument. Thus, *diye* that occurs with nouns require further research and thus, I leave it for future studies.

(i)
[Ali	*diye*]	bir	adam
A	diye	a	man

'A man called Ali'

This is actually unlike Uyghur, where *dep* (a comparable element to *diye*) always comes with the possibility of shifting (Major, to appear, Footnote 16).

[42] To the extent that speakers accept *söylenti* 'rumor' and *bil-* 'know' together.

property is accounted for by locality constraints formed by sealing off an evaluation domain by PRO and OP_diye.

Knyazev (2016) makes a similar proposal for the Kalmyk *giǯə,* which is morphologically identical to *diye* in that it is formed by the verb *gi-* 'say' in the language and the converbial –*ǯə.* In this account, *gi-* in *giǯə* corresponds to CP+VP in the syntax (rather than only VP, as is the case in Yıldırım-Gündoğdu's account) whereas –*ǯə* corresponds to CvbP, like in Yıldırım-Gündoğdu's proposal. I can therefore use the same counter-points as the ones I used for Yıldırım-Gündoğdu to support my own proposal. There is one other suggestion Knyazev (2016) uses: that *giǯə* forms a complex predicate with the embedding attitude verb, resulting either in a 'say' interpretation or a 'belief' interpretation depending on the meaning of the embedding attitude verb, as *giǯə* itself is semantically empty. First, *diye* in Turkish has clear perspectival properties and is therefore not semantically empty. The second point is that *diye* does not form a complex predicate in Turkish. To see why, let's define complex predicates as in (76), from Baker (2014:20):

(76) Interpret X and Y as complex predicate at LF if [and only if] X and Y form a complex head (an X^0).

This definition implies that the two parts of the complex predicate should be inseparable, which is what is argued for by Sağ (2017) for different kinds of complex predicates in Turkish. For example, the question particle cannot come in between the two verbs in these constructions (in brackets in (77) (Sağ 2017: 2, ex. 4):

(77) Bulut   biz-i   bekle-rken   [uyu-du   (*mu)   kal-dı]   mı

       B   we-ACC wait-while   sleep-PST Q   stay-PST Q

       'Did Bulut fall asleep while waiting for us?'

The question particle can break *diye* and the embedding verb, however, showing that *diye* and

the embedding verb do not form a complex predicate in Turkish:

(78) Pelin   [Ali   parti-ye   gel-di   **diye**]   mi   bil-iyor

       P   A   party-DAT come-PST diye   Q   know-IMPF

       'Does Pelin know Ali came to the party'

Major (2021, to appear) states that the Uyghur *dep,* some of whose properties are similar to *diye,*

is derived from the verb *de-* 'say' and converbial (linking) suffix *–I(p).* The Turkish *diye* also

derives from *de-* 'say' but not in combination with *-(I)p* but with *–ye* (which survives in *diye* and

adverbial reduplication structures in Modern Turkish, so *diye* is now probably close to an

isolated form with this marker).[43] Turkish has the converbial suffix *–(I)p,* but its properties

contrast with *diye.* For example, presupposition triggers *bile/de* can appear between *diye* and the

embedding verb (79a) but not between *-(I)p* and the verb it combines with (79b):[44]

(79)   a. Ali   [Esra   gel-di   **diye**]   bile/de   bil-iyor

          A   E   come-PST diye   even/too know-IMPF

        'Ali even/too knows [diye Esra came]'

---

[43] This is one reason why the analysis of Uyghur *dep* in Major (2021) cannot be easily applied to Turkish *diye,* as *–ye* in *diye* is not productively used in the language. The other reason is that there are some significant differences between *diye* and *dep,* as in the case of shifting behavior and many others, which I discuss in relevance to various discussion points throughout the dissertation.

[44] This also shows that *diye* is not merely an assertion.

b. Ali   gel-ip   *bile/??de   git-ti

    A   come-(I)p   even/too   go-PST

    'Intended: Ali even/too came and went'

This not only shows that *diye* is not in canonical V+V (or converbial) structures in Turkish, but it also shows that the proposals for Uyghur and Kalmyk are not directly applicable to Turkish. Indeed, there are some remarkable differences between these languages and Turkish. For example, Kalmyk has multiple subordinators derived from the verb for 'say' whereas Turkish only has one. That is likely a major source of difference. Uyghur *dep* allows shifting in all environments it appears in (Major to appear, Footnote 17), whereas Turkish *diye* does not always allow shifting, as was discussed earlier.

Due to all the reasons discussed in this section, I argue that my proposal is better than Yıldırım-Gündoğdu (2017a), Knyazev (2016) and Major (to appear) in accounting for the (i) perspectival properties and (ii) opaque properties of *diye* clauses as well as (iii) the relation of *diye* clauses to the embedding verb in Turkish. This differentiation is necessary because (i) the shifting behavior of *diye* and the related verb *de-* 'say' is not the same and (ii) there is evidence that the operator needs to be the highest element in the embedded clause, including elements at the CP. Therefore, my proposal is a better fit for the Turkish data.

2.4.3. *Logophoricity in diye clauses*

Another important property of *diye* clauses is logophoricity in *diye* clauses. The logophoric nature of *diye* has been assumed in previous work (Özyıldız et al. 2018) but to my knowledge, has not been explicitly supported by data. In this chapter, I aim to do so.

Logophoric pronouns, which make reference to "the person whose speech, thoughts or perceptions are reported (Clements 1975)", have been brought into attention in the linguistic literature through work on a number of West African languages. For example, the example in (80) from Yoruba (Pulleybank 1986) shows that the logophoric pronoun *oun* can only refer to the subject of the attitude verb (80b) whereas the regular pronoun *o* can refer to someone else (80a):

(80) a. o_i ri   pe o_j ni   owo
         he   saw   that   he   had   money

   b. o_i ri   pe oun_i ni   owo
      he   saw   that   he(LOG)   had   money

Turkish does not have a logophoric pronoun as in the languages discussed in the literature but *diye* displays certain properties of logophoric environments. For one, intolerance to insentient subject is a sign of logophoricity (Diercks 2013, Charnavel & Sportiche 2016) and *diye* clauses do not accept non-sentient subjects (81b) as opposed to *–DIK* clauses (81a):

(81) a. ?Araba   [*pro*   yük-ün-ün   ağır   ol-**duğ**-un]-u   bil-iyor[45]
          car   burden-3GEN-3GEN heavy be-DIK-3S-ACC know-IMPF

      hareket etmiyor
      it is not moving

      'The car knows [that its burden is heavy] *so it is not moving*'

---

[45] The fact that *bil-* 'know' accepts a non-sentient subject in (81a) is unusual. I attribute this ability to the fact that Turkish *bil-* does not report knowledge reports per se, as mentioned earlier. This is an interesting puzzle to pursue a solution for.

b. #Araba   [*pro*   yük-ü   ağır   **diye**]   bil-iyor   *hareket etmiyor*

car   burden-3GEN   heavy   diye   know-IMPF   *it is not moving*

'The car knows [that its burden is heavy] *so it is not moving*'

Insentient subjects are a theoretically neutral way of testing for logophoricity (Charnavel & Sportiche 2016). *De se* readings are not. However, *de se* examples, including *de nunc* and *de hic,* also require consciousness, in addition to other requirements (e.g., identity). Thus, I point out here that *diye* clauses show consistent patterns with such readings. This can be taken as further evidence that *diye* clauses require consciousness. An analysis of these readings of *diye* clauses is left for future research, though I point out to some directions that can be taken. Rather I only focus on their requirement for awareness/consciousness.[46]

De se (Latin: *about oneself*) reading is related to an attitude holder's awareness towards himself/herself. A famous example of a *de se* scenario is from Kaplan (1989: 533). Say, John sees someone's pants burning and he thinks it is Dan's pants burning. John yells "His pants are burning!". Then, he smells the smoke and looks down, finally realizing that it is his own pants that are burning. This time, he yells "My pants are burning!". This latter reading is the *de se* reading. The importance of these examples is that the belief John holds in these scenarios are different, yet *His pants are on fire* and *My pants are on fire* are propositionally equivalent. Thus, *de se* readings play a distinguishing role in the study of mental attitudes.

It has been observed, however, that this differentiation does not carry over to attitude ascriptions. In other words, *de se* readings are not necessarily differentiated in linguistic attitude

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[46] The focus on the awareness component of *de se* readings has been practiced before. For example, Nishigauchi (2014: 173) states regarding Japanese *zibun* 'self' that "it is important to note that *de se* interpretation has direct relevance for the awareness requirement on the interpretation of *zibun*" (although *zibun* naturally satisfies the identity requirement too).

contexts. Kaplan's scenario that we just discussed, for example, can be expressed with one and the same sentence in (82). Another example is from Anand (2006: 14) in (83):

(82) *Context 1:* John: "His pants are on fire" (*Non de se*)
      Context 2: John: "My pants are on fire" (*De se*)

      John$_i$ thinks his$_i$ pants are on fire. *(ok in both contexts)*

(83) *Background:* While camping last summer, John and his friends found a 100 foot cliff overhanging a deep lake. They set up a camcorder at the bottom and proceed to dive off the clifftop. John performs a very difficult dive (say, a backwards somersault). Upon reviewing the footage months later, he discovers that the height of the cliff obscured the identity of the divers.

      Context 1: Remembering that only he did a backwards somersault, John thinks, "I had the best dive." (*De se*)

      Context 2: Highly impressed by the backwards somersault, John thinks, "That guy had the best dive." (*Non de se*)

      John$_i$ believed that he$_i$ was the best diver. *(ok in both contexts)*

De nunc is temporal *de se.* The following Korean example is one that requires a *de nunc* reading (Deal 2020: 92). The example below shows that the matrix subject must be aware that today is Monday for the reference of *onul* 'today' to be acceptable.

(84) John-i   cinanwu   welyoil-ey   [Mary-ka   onul   ttenanta-ko]
      J-NOM   last.week   Monday.on   M-NOM   today   leave-C

malhayssta
said

'John said last Monday$_i$ that Mary would leave that day$_i$'.

a. ^{ok}Last Monday John said, "Mary is leaving today".
b. #John knew that Mary was going to leave on Monday last week. On that day, John somehow thought it was Sunday rather than Monday, and said, "Mary leaves tomorrow, on Monday." (Park 2016, ex. 29)

De hic is locative *de se.* A Zazaki example is given in (85), from Anand (2006: 80). In this example, *ita* 'here' must refer to a location which the attitude holder identifies as hers:

(85) Waxto   kɛ   o   London-de   bime   Pierri   va
     when   that he   London.at   be-PAST P-OBL   said

     [kɛ   o   ita   rindɛka]
      that it   here   be-pretty-PRES

     When he was in London, Pierre said it is pretty there.

a. ^{ok}Pierre says in London, "It is pretty here."
b. #Pierre is walking around London, which is drab and rather disappointing. He says, "I wish I were in Londres. Londres is pretty."

Other elements that require *de se* interpretation according to Anand (2006) (as well as Charnavel 2019) are logophors, shifted indexicals and long-distance anaphors. All have been argued to involve different types of operators governing them (e.g., Anand 2006 for all these elements), sometimes interacting with the lexical features of these elements (Charnavel 2019 for long-distance anaphora; Deal 2020 for indexical shift).

Now, I present *de se* data to test in *–DIK* and *diye* clauses.[47] The first example is in (86). It shows that when the matrix subject is not aware that he himself won the election (=*non de se* context), the *diye* clause is unacceptable (86b) (*pro* has to be *de se*):[48]

(86) *Context:* Murat is watching the results of the election, of which he was one of the candidates, on TV. He is drunk. He sees the winner and says to me "That candidate won". He does not realize that that candidate is himself.

a. %Murat$_i$ [*pro*$_i$ seçim-i   kazan-**dığ**-ın]- ı   bil-iyor   aslında

   M   election-ACC   win-DIK-3S-ACC   know-IMPF   actually

   'Murat$_i$ knows [that he$_i$ won the election] actually'

…ama kendisi olduğunun farkına varamadı daha
…but he is not yet aware that it is himself

b. #Murat$_i$ [*pro*$_i$ seçim-i   kazan-dı   **diye**]   bil-iyor   aslında

   M   election-ACC   win-PST   diye   know-IMPF   actually

   'Murat$_i$ knows [diye he$_i$ won the election] actually'

…ama kendisi olduğunun farkına varamadı daha
…but he is not yet aware that it is himself

Another example is adapted from Charnavel (2018b) in (87), where the matrix subject is not aware that it is her own picture being displayed. *Diye* is unacceptable in such a context (87b):

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[47] The judgements in this section are consistently less clear, however, *diye* clauses are consistently worse than *–DIK*.
[48] In all examples in this section, the continuations are crucial to grammatical judgments. They improve *–DIK* clauses but they do not lead to any improvement in *diye* clauses. Without the continuations, *-DIK* clauses do not sound natural either, as they are not the most natural sentence structure that would be used in these contexts.

(87) *Context:* There is a picture of a woman from the back in the exhibition. It is Esra's
      picture, but Esra does not recognize herself. She thinks it is a picture of herself.

a. ?Esra$_i$ [*pro*$_i$ resm-i-nin   sergilen-**diğ**-in]-i   bil-iyor   aslında
   E   picture-3S-3GEN be.exhibited-DIK-3S-ACC know-IMPF   actually
   'Esra$_i$ knows [that her$_i$ picture is exhibited] actually'

   …ama kendisi olduğunun farkına varamadı
   …but she could not be aware that it is herself

b. #Esra$_i$ [*pro*$_i$ resm-i   sergilen-di   **diye**] bil-iyor   aslında
   E   picture-3S   be.exhibited-PST   diye   know-IMPF   actually
   'Esra$_i$ knows [diye her$_i$ picture is exhibited] actually'

   …ama kendisi olduğunun farkına varamadı
   …but she could not be aware that it is herself

The following examples in (88) and (89) show that the matrix subject must also have a *de se*

understanding of time (*de nunc*) and location (*de hic*) of the embedded event, respectively. In

(88), the time interpretation is presumably in *tarih* 'date', which refers to the present day unless

otherwise specified. The location in (89) is encoded in the nominal *mekan* 'place', which refers

to the present location unless otherwise specified:[49]

(88) *Context:* It is December 31st. John thinks it is December 30th. John told the speaker that
      it was December 31st before, but now he says it is December 30th.

---

[49] I avoided using *bugün* 'today' and *bura* 'here' in (88) and (89) because these elements act more like rigid
indexical (especially the latter).

a. ?John   [tarih-in   31 Aralık   ol-**duğ**-un]-u   bil-iyor   aslında

 J   date-3GEN   31 December be-DIK-3S-ACC   know-IMPF   actually

 'John knows [that today is NYE] actually'

…ama unuttu herhalde

…but he apparently forgot

b. #John   [tarih   31 Aralık   **diye**]   bil-iyor   aslında[50]

 J   date   31 December diye   know-IMPF   actually

 'John knows [diye today is NYE] actually'

 …ama unuttu herhalde

 …but he apparently forgot

(89) *Context:* John, Ali and the speaker are in Istanbul. John thinks he is in Constantinople, not being aware that Istanbul and Constantinople refer to the same city. But earlier, he said to the speaker that he knew they are in Istanbul.

a. ?John   [mekan-ın   Istanbul   ol-**duğ**-un]-u   bil-iyor   aslında

 J   location-3GEN   I   be-DIK-3S-ACC   know-IMPF   actually

 'John$_i$ knows [that the location is Istanbul] actually'

…ama unuttu herhalde

…but he apparently forgot

b. #John   [mekan   Istanbul   **diye**]   bil-iyor   aslında

 J   location   I   diye   know-IMPF   actually

 'John$_i$ knows [diye he$_i$ is in Istanbul]'

 …ama unuttu herhalde

---

[50] Assume this sentence is a reply to the question *John bugünü ne diye biliyor?* 'What does John know today as?'

…but he apparently forgot

The conclusion is that *diye* involves some kind of logophoricity.[51]

2.4.4. Semantics of diye

Since the focus of this dissertation is on the syntactic properties of *diye* clauses, the semantics of

the operator will not play a crucial role in the analysis. Moreover, since I focus on various types

of elements within *diye* clauses, it is hard to come up with a semantics for *diye* that can address

all nuances (for example, I put together elements that are normally not considered the same

semantically: locative expressions and adjectives and nouns, all of which have different

semantics in the literature). For these two reasons, I do not attempt to come up with a full

semantic analysis but rather point to a possible way of putting patterns together in a generalized

sense. Future research can look into the technical details of how this unification can come about.

I assume that phrasal elements bound by OP_{diye} must come with a world variable that

must be bound by the closest binder (Percus 2000), which is OP_{diye} in our case. This binding is

roughly represented in (90):

(90) a. $[_{PersP}$ PRO λw' $[_{CP}$ … $[_{AdvP}$ w' between 4-5]…] diye]

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[51] The test for strict/sloppy readings is not readily applicable to *diye* clauses. I tried it with *pro* elements that are associated with the first-person agreement marker and both strict and sloppy readings are possible in this case (i). However, this marker itself is flexible in reference, as will be discussed in Chapter 3. This makes the test less conclusive. The same goes for anaphors such as *kendi* or *kendisi* 'himself/herself'.

(i)   Murat   [*pro*   sınıf-ta   kal-dı-m   **diye**]   bil-iyor.   *Ali de öyle bil-iyor*
             M   class-LOC   stay-PST-1S   diye   know-IMPF   *Ali also knows so.*
             Strict: 'Murat_i knows [diye I_i failed the class]. Ali also knows [diye Murat failed the class]'
             Sloppy: 'Murat_i knows [diye I_i failed the class]. Ali also knows [diye Ali failed the class]'

b. [$_{PersP}$ PRO λw' [$_{CP}$[$_{DP}$ w' the nice woman]…[$_{AdvP}$ w' between 4-5]…[$_{VP}$ w' came]]

diye]

The function of OP$_{diye}$ is, informally speaking, to report the embedded content in the CP from the first-person perspective of the matrix subject, following the definition in Charnavel (2019) of logophoric operators for exempt anaphors in French and some other languages. I define the operator introduced by *diye* as in (91a), adapting the proposal in Charnavel (2019) and the embedding verb as in (91b) semantically. The individual argument *x,* of type *e,* is saturated by PRO in the specifier of the phrase the operator is base-generated (PersP) and PRO itself is controlled by the closest attitude holder (i.e., the lowest matrix subject). The proposition argument is saturated by the embedded CP content and it returns a truth value iff it is compatible with the logophoric alternatives of the individual *x*. This way, all of the embedded proposition gets evaluated from the first-person perspective of the closest matrix subject. I assume that logophoric alternatives encompass attitudinal alternatives, namely those that are compatible with what the attitude holder believes to be true in the actual world. Like the logophoric operator in Charnavel (2019), the definition in (91a) assimilates *diye* into an intensional predicate, which captures intuitions that *diye* derives from the verb *de-* 'say' (though not marked as a verb).

(91)   a. [[OP$_{diye}$]]^{c,g}= λp$_{<s,t>}$. λx$_e$. λw$_s$. ∀<w', x'>:<w', x'>∈LOG$_{x,w}$, p(w')(x')=1

where LOG$_{x,w}$ = {<w', x'>: w' is compatible with x's mental state in w and x' is the individual in w' that x identifies as himself}

b. [[know]]^{c,g}= λp$_{<s,t>}$. λx$_e$.know(p)(x)

Diye clauses produce a truth value for the embedded proposition from the perspective of the matrix subject. By the time the derivation of these clauses is complete, a truth value for the embedded proposition has been produced from the perspective of the matrix subject. This suggests that question elements within the embedded proposition should not be possible, as questions have the inference that the truth of the proposition has not been established. This is borne out as shown in (92). Only *–DIK* clauses allow the relevant narrow scope reading (92a):

(92) a. Semra   [kim-in   gel-**diğ**-in]-i   bil-iyor
      S   who-3GEN   come-DIK-3S-ACC   know-IMPF
      'Who$_i$ does Semra know that s/he$_i$ came?'
       'Semra knows who came'

   b. Semra   [kim   gel-di   **diye**]   bil-iyor[52]
      S   who-3GEN   come-PST   diye   know-IMPF
      'Who$_i$ does Semra know [diye s/he$_i$ came]?'
      '*Semra knows [diye who came]'

2.5. Conclusion

This chapter investigated the role of perspective in *–DIK* and *diye* complement clauses in Turkish. It provided extensive data showing that all elements in *diye* clauses need to be reported from the matrix subject's perspective. A logophoric operator encoding a perspective center that is the closest matrix subject was designated the job of achieving this result: the operator enforces all phrase level content to be evaluated in the logophoric alternatives of the perspective center by binding the world variables that come with these expressions. This proposal was used to account

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[52] See Chapter 3 for an explanation of how the wide scope of question elements is achieved in *diye* clauses.

for various syntactic patterns such as ban on NPI-licensing from the matrix clause and ban on association with the utterance context in the interpretation of quantifiers. The syntactic restrictions were tied to the opaque nature of *diye* clauses.

The next chapter will focus on elements that need not be reported from the matrix subject's perspective or refer to him/her. These elements, combined with the findings from this chapter, will bring forth the importance of the nature of the bound elements and give a complete picture of the interaction between the operator introduced by *diye* and the bound elements.

CHAPTER 3

WHEN THE SPEAKER IS INVOLVED

Chapter 2 discussed the role of perspective in *diye* clauses and concluded that the operator introduced by *diye,* OP$_{diye}$, enforces all phrasal content in the embedded clause to be reported from the perspective of the matrix subject, thereby forming a single evaluation domain that syntactically corresponds to an opaque domain. This chapter aims to further investigate the properties of this opaque domain by investigating data that do not fit this generalization: (i) elements that are *optionally* associated with the matrix subject (hence the embedded context) and (ii) elements that are *obligatorily* associated with the utterance context. The analysis of these data reveals that the opaque nature of *diye* does not correspond to a phase, which are one kind of opaque domains, but to a domain that is opaque for some elements and transparent for others, i.e., *selectively opaque* domains (Keine 2019). This contributes to recent studies arguing for selectivity of opaque domains with respect to movement and/or agreement and case phenomena (e.g., Rizzi 2001, 2004, Abels 2012, Keine 2019, Poole 2020). I specifically argue that the optionally bound elements are silent pronominal elements that display specific discourse–dependent properties in that they are associated with topichood via an unvalued topic feature they are born with. Discourse–related properties have been shown to circumvent opaque domains such as islands (e.g., Jiménez Fernández 2009), with topics being specifically more able to circumvent islands (e.g., Rizzi 2004) and only D(iscourse)-linked elements being able to establish interactions non-locally (Cinque 1990, Rizzi 1990, 2001). I also explore the correlation between clause size and transparency based on Poole (2020), who, adapting the Williams Cycle

(2003), proposes that syntactic interactions such as case-assignment happen if the landing site of movement or licenser of case is in a higher position than the clause the target element resides in. If the probe is lower than the target in the functional sequence, the interaction cannot be applied. Applied to Turkish, this means that the topic position (TopicP) is higher than the full size of the *diye* clause, which is a PersP, so the *pro* inside the *diye* clause can be associated with topic probes outside of the *diye* clause. All others, e.g., negation, are below PersP in the functional sequence and are thus not predicted to interact on this account, which is borne out. By adopting an argumentation along these lines, this study also contributes to the studies arguing that discourse properties interact closely with the syntax of Turkish (see Şener 2010 for a detailed implementation of this stance).

This chapter discusses two optional elements: *pro* associated with first-person agreement, and epithets, with the former constituting the main focus of the discussion. *Pro* refers to an attitude holder (not necessarily a perspective center) while epithets are evaluated by an attitude holder. The quirkiness of these data is that they are independent of the perspective center in *diye* clause. I argue that this dissociation is due to structural reasons briefly mentioned before, since there is a unifying common property, namely topichood (so it is not about whether they refer to or are evaluated by an individual, but rather it is about the position of the probe). The goal of this chapter is, therefore, to provide a unified and coherent view of the data in *diye* clauses. In other words, I provide a coherent description for both phrasal content (VP, DP, etc.), which is sensitive to locality, and topichood, which is not. Previous studies focused on one of these only (e.g., Özyıldız 2016, 2017 on the first, Şener & Şener 2011 on the second). This also applies to the general literature, which also focused on a single type of data (as discussed in Chapter 1).

Indeed, we see at the end of this chapter that such a unification is feasible from a syntactic point of view (although more challenging for the semantics, but see Schlenker 1999, Eckardt 2015).

The discussion of the optionality of the first-person agreement marker in Turkish shows that the optional pattern should not be categorized as indexical shift phenomenon, unlike what was argued in previous research on the topic in Turkish (Şener & Şener 2011; Özyıldız 2012). I also compare the Turkish data with what Deal (2018, 2020) termed as 'indexiphors', a class of in-between elements -between indexicals and logophors-. Indexiphors are person agreement markers that can have variable reference but differ from indexical person markers in a number of ways. Although there is some evidence that the Turkish *pro* resembles indexiphors in some ways, I establish that Turkish *pro* is also not an indexiphor. Eventually, I argue that the first-person agreement marker in Turkish and the related *pro* are special due to their topichood. *pro* is a pronominal element with an unvalued [topic] feature, which participates in agreement with a topic probe. This aligns with findings about the topichood association of *pro* in Turkish in constructions other than complementation (e.g. Öztürk 1999, 2001). In other words, by resorting to an account of the specialness of *pro* in *diye* clauses based on topichood, I do not introduce new tools into the Turkish system, but rather I use already-existing tools. This is desirable, since we avoid structure-specific formulations. I also discuss epithets and show that they exhibit similar properties while also introducing some complications that must be left for future research. The epithets are interesting because, unlike *pro,* they not only *refer to* but are also *evaluated by* an individual. Yet, they are strikingly similar to *pro* in binding patterns (i.e., optionality). Thus, the comparison brings out some interesting parallels in addition to various complications about which I can only provide some preliminary thoughts.

This chapter also includes the discussion of data that cannot be bound by the *diye* operator, for example locative indexicals such as *burada* 'here', which must be bound in the utterance context. I attribute this to the lexical encoding of association with the utterance context, following the classical Kaplanian treatment (1989). The conclusion is that elements that are lexically specified for the utterance context are exempt from being bound by OP_{diye}.[53] Basically, these elements have a rigid (non-variable) denotations.

Taken together, these data show that *diye* clauses are selectively opaque domains that require all point-of-view related phrasal content to be bound by OP_{diye}, a restriction that does not apply to topics, and indexicals cannot be bound at all.

In this chapter, I divide the relevant data into several sections. In Section 3.1, I present the data on "indexical shifting" in *diye* clauses with discussion. Of indexical shift and indexiphors in general literature. In Section 3.2, data on the behavior of topics in *diye* clauses are presented. In Section 3.3, I present the proposal, along with a discussion of epithets as it supports the proposal in some ways. In Section 3.4, I discuss the elements that are obligatorily anchored to the utterance context. Section 3.5 presents the general discussion where I combine all these data in a coherent way and connect the selective opacity of *diye* clauses to the relevant literature. Section 3.6 concludes the chapter.

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[53] *Ben* 'I' can (must) shift in the complement of the verb *de-* 'say'. This is unexpected if *ben* is lexically associated with the utterance context. The present conclusion that *ben* is lexically specified for utterance data holds for cognitive attitude verbs as embedding verbs. Perhaps, *de-* 'say' in Turkish introduces a context-overwriting operator that overwrites the utterance-context specification within the overt pronoun. If this is on the right track, it would corroborate my argument that *de-* 'say' and *diye* in Turkish are not the same element, contra what Major (2021) argues for Uyghur. The latter includes a binding operator whereas the former a context-overwriter. This remains a speculation at this point and further research is needed. I thank Isabelle Charnavel for pointing this out to me.

3.1. Optional Matrix Subject Orientation

In this section, I discuss the *pro* associated with the first-person subject agreement marker on the verb in Turkish, and their relation to the literature on indexical shift. The first-person agreement data that I discuss in this section looks like indexical shift and indeed has been referred to as such (e.g., Şener & Şener 2011, Özyıldız 2012, Özyıldız et al. 2018). However, I show that the optionality in the first-person agreement marker in Turkish is not due to indexical shift. It resembles in some ways what Deal (2018) termed as *indexiphors* but differs from them too. To be able to see the differences and similarities Turkish *pro* has with indexical shift and indexiphors, I first discuss these phenomena with examples from the general literature (Section 3.1.1.) and then make a comparison with Turkish *pro* (Section 3.1.2.). Then, I discuss *pro* and overt pronouns in Turkish (Section 3.1.3.-3.1.4.).

3.1.1. Indexical shift and indexiphors in general literature

The embedded subject *I* in (1) necessarily refers to the speaker and not to John:

   (1) John says that I am a hero.

Kaplan (1989) represents indexicals as in (2) and argues that indexicals must be utterance-context related and cannot be shifted. In (2), the referents of the lexical items are determined solely by their characters, which is their relation to the context of utterance, which makes them rigid designators. A context in this model *c* is a tuple of the form <individual, individual, time,

location, world>, where the first two individuals refer to the speaker and the hearer (time is the time of speech, location is location of speech and world is the world of speech):

(2) a. $[[I]]^{c,i,g}$=Author(c)

    b. $[[here]]^{c,i,g}$=Location(c)

It is clear by now, however, that this is not universally true. The first-person marker in some languages need not refer to the speaker in embedded contexts but it can also refer to the matrix subject when embedded under an attitude verb. First person pronouns in Zazaki, for example, can refer to the speaker or the matrix subject, as in (3) (Anand & Nevins 2004):

(3) Hɛsen-i$_j$ (mi$_k$-ra)   va   kɛ   ɛz$_{j/k}$ dɛwletia

    H-OBL   I.OBL-to   said   that   I   rich.be-PRES

    'Hesen said that I am rich'

    (ISG pronoun=S(peaker), MS (Matrix Subject=Hesen))

Amharic is another example where first-person agreement can refer to the speaker or the matrix subject, as shown in (4) (Schlenker 2003: 68):[54]

(4) John   [*pro*   dʒägna   nä-ññ]   yɨ-l-all

    J   hero   COP-1S.SUB   3SM.S-say-AUX.3SM.S

    'John says that I am a hero'

    (ISG pro=S, MS)

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[54] First person indexicals are not the only indexicals that shift. Second person, temporal and locative indexicals can also shift. The interested reader is referred to Anand (2006) and Deal (2020). Here, I focus on first-person agreement in Turkish, so I stick to the discussion of person indexicals in other languages unless needed for contrast.

Schlenker (1999) terms cases such as (4) as *indexical shift* cases, since the reference of the indexical element in the embedded clause is determined by the context of reported speech rather than the utterance context, *shifting* the evaluation context from the utterance context to the attitude context. When the embedded indexical refers to the matrix subject, this is the *shifted* reading. If the referent is the speaker of the utterance context, this is the *unshifted reading*. One property of indexical shift is that the elements that so shift in a clause *Shift Together*.[55] (5) is an example from Slave that shows the *Shift Together* constraint (Anand & Nevins 2004). The only available readings are those in which the two indexical elements *ɛz* 'I' and *to* 'you' either shift together or neither shifts, first and second readings, respectively. The readings where one of them refers to the speaker and one to the attitude context participant are not allowed, namely the third and fourth readings. This indicates that the relevant pronouns are either both interpreted relative to the utterance context or the attitude context:

(5) Vɨzeri Rojda Bill-ra va kɛ ɛz to-ra miradiʃa
    yesterday R B-to said that I you-to angry-be-PRES.
    'Yesterday, Rojda said to Bill, "I am angry at you"'
    'Yesterday, Rojda said to Bill, "AUTH(c) is angry at ADDR(c)"'
    '*Yesterday, Rojda said to Bill, "AUTH(c) am angry at you"'
    '*Yesterday Rojda said to Bill, "I am angry at ADDR(c)"'

Anand (2006) states the relevant generalization as follows (p. 100):

(6) SHIFT TOGETHER Constraint
    All shiftable indexicals within an *attitude-context domain* must pick up reference from the same context.

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[55] *Shift Together* as a constraint for indexical shift has been questioned recently. I discuss this point in this chapter.

This requirement is often attributed to the availability of a context-shifting operator.[56] What the

context-shifting operator does is to rewrite the context parameter with the index parameter,

where the index has a parallel definition to the context. The overwriting is represented in (7)

(simplified from Anand (2006), along the lines of Deal (2020)). Contextual values being altered,

all indexicals in the altered context shift, namely they all shift together. This is how the context-

over-writing approach accounts for *Shift Together*.

(7) $[[OP\ \alpha]]^{c,i,g}=[[\alpha]]^{i,i,g}$

It has become increasingly clear though that the *Shift Together* constraint does not always hold.

For example, Sundaresan & McFadden (2019: 4, ex. (6)) cites (8) as an exception to *Shift*

Together in indexical shift in Tamil because *ennæ* 'me' stays unshifted in the presence of the

first-person agreement that diagnoses a silent shifted first-person indexical in the same CP.

(8) Raman$_i$ [$_{CP}$ taan$_{\{i,*j\}}$ enn-æ   paartt-een-nnŭ]   ottŭḍŋ-aan
     R   self-NOM   me-ACC   saw-1S-C   admitted-3MSUB
     'Lit: Raman admitted [$_{CP}$ that self had seen me].'
     Reading 1: 'Raman$_i$ admitted that he$_{\{i,*j\}}$ had seen me$_{speaker}$'
     Reading 2: '*Raman$_i$ admitted that he$_{\{i,*j\}}$ had seen me$_i$'

There have been different approaches to solutions depending on which data a given study is

focused on. Some researchers tried to account for exceptions in various ways while still

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[56] Other analyses are also available, but the shifty-operator analysis is most relevant to the present proposal. See Schlenker (2003) for an account that attributes the patterns to the pro-forms themselves rather than an operator. The present study aligns with Schklenker (2003) in attributing the differences to the forms themselves.

considering them as undergoing indexical shift (e.g., Sundaresan & McFadden 2019). I do not adopt this approach, as I argue that the Turkish data are not indexical shift. Others have pointed out that some elements that might look like undergoing indexical shift are not real indexical shift-y elements (Deal 2018). One such element in indexiphors (Deal 2018). An indexiphor displays agreement like an indexical as shown in (4). However, it also displays patterns such as *De Re Blocking* and *Locality,* neither of which canonical indexicals obey. In this sense, they are more like logophors. *De Re Blocking* is defined in (9) (Deal 2018: 60; adapted from Anand 2006). Anand's *De Re Blocking* hypothesis follows from Rule H, proposed by Fox (2000: 111) as a principle of the Binding Theory, as in (10):

(9) *De Re Blocking*

    Every bound *de se* element must be *de re* free.

(10) Rule H: A variable, *x,* cannot be bound by antecedent, α, in cases where a more

      local antecedent, β, could bind x and yield the same semantic interpretation.

An example of *De Re Blocking* effects come from dream-reports in English, where the only possible reading is the one where the dream-self c-commands the actual self (11a). As reference to actual self is a case of *de re,* we conclude that the appearance of a *de re* element in a c-commanding position to a *de se* element in the same clausal domain (in this case, the dream self) leads to an unacceptable reading. These data were originally discussed in George Lakoff (1972) and later discussed in more detail in Percus & Sauerland (2003) and Anand (2006):

(11) a. I dreamt that I was Brigitte Bardot and $I_{B.B}$ kissed $me_{G.L}$

     b. #I dreamt that I was Brigitte Bardot and $I_{G.L}$ kissed $me_{B.B}$

Anand (2006) discusses *De Re Blocking* in Yoruba. The pronoun *o* can be read *de re* in Yoruba and therefore blocks co-reference of *òun* with the matrix subject, as shown in (12b) (Adesola 2005). This is similar to a case where a *de re* element blocks a *de se* element. This effect washes away when the intervening pronoun is not *de re* (12c). Possession phrases do not act as interveners due to lack of c-command (12d):

(12) a. Adé$_i$ so   pé   oun$_i$ ti   r'ɨ   'ɨwé   ré$_{i/j}$
         A   say   that   oun   PERF   see   book   o-GEN
         'Ade$_i$ said that he$_i$ has seen his$_{i/j}$ book'

      b. Olu$_i$ so   pé   o$_{*i/j}$ r'ɨ   bàbá   òun$_i$
         O   say   that   o   see   father   oun-GEN
         'Olu$_i$ said that he$_{*i/j}$ has seen his$_i$ father'

      c. Olu$_i$ so   pé   o$_i$ r'ɨ   bàbá   òun$_i$
         O   say   that   o   see   father   oun-GEN
         'Olu$_i$ said that he$_i$ has seen his$_i$ father'

      d. Olu$_i$ so   pé   bàbá   ré$_{i/j}$ ti   r'ɨ 'ɨyá   òun$_i$
         O   say   that   father   o-GEN   see   mother oun-GEN
         'Olu$_i$ said that his$_{i/j}$ father has seen his$_i$ mother'

Back to Amharic. As we have seen in (4), repeated in (13), Amharic has what looks like an indexical (Schlenker 1999, 2003; Anand 2006; Deal 2018). The first-person agreement and the related *pro* can refer to the speaker or the matrix subject:

(13) John   [*pro*   dʒägna   nä-ññ]   yɨ-l-all
      J   hero   COP-1S.SUB   3SM.S-say-AUX.3SM.SUB

'John says that I am a hero'

(ISG pro=S, MS)

However, when there are two such elements in a clause, one being the subject and one being the object, the only reading is one where the subject refers to the matrix subject and the object to the speaker (Anand & Nevins 2004, Deal 2018). When the subject refers to the speaker, the sentence becomes unacceptable due to *De Re Blocking*:

(14) John   [*pro*subj   *pro*obj   al-ɨttazzəzə-ññ]   alə
     J   [NEG.1S-obey-MKIMPERF-1.S.OBJ say-PERF.3.S.M
     'John$_i$ says he$_i$ will not obey me'
     '#John$_i$ says I will not obey him$_i$'

Anand (2006) argues that the *de se* element, namely the agreement marker, need to be bound by a logophoric operator and the *de re* element acts as an intervener for this binding relation, which correctly rules out the unattested reading in (14). More evidence that this is a blocking effect comes from cases where the subject functions as a *de re* element but does not c-command the *de se* indexical, as shown in (15). Such subjects do not trigger a blocking effect due to lack of c-command, which is proof that the established relation is binding:

(15) John   [[*pro* lɨj-e]subj   *pro*obj   al-ɨttazzəzə-ññ]   alə
     J   [son-my   NEG.3S-obey-MKIMPERF-1.S.OBJ say-PERF.3.S.M
     'John$_i$ says his$_i$ son will not obey him$_i$'
     'John$_i$ says his$_i$ son will not obey me'
     'John$_i$ says my son will not obey him$_i$'
     'John$_i$ says my son will not obey me'

Another difference is that indexical shift is not clause-bound. Consider the Korean example in (16), in which first-person *na* can refer to John, which is two clauses up (Park 2016, Deal 2018).

(16) John-i   Seoul-eyse   [CP Bill-i   yeki-eyse   [CP Mary-ka   na-lul
      J-NOM   S-at   B-NOM   here-at   M-NOM   I-ACC

      cohahanta]-ko   malhayssta]-ko   malhayssta
      like-C   said-C   said

      'John_j said in Seoul that Bill said {here/in Seoul} that Mary likes him_j'
      (lit. John_j said in Seoul that Bill said here that Mary likes me_j)

Indexiphors are clause-bound, as shown in (17) for Amharic (Anand 2006). The grammatical reading in (17) is one where both *pro*s have the speaker as their antecedent. However, neither of the *pro*s can refer to *Mary,* which is two clauses up.[57] In Deal (2018, 2020)'s analysis, the unavailable readings are unavailable because (i) the element intended to refer to *Mary* (who is the higher subject) is an indexiphor while the other *pro* is an indexical and (ii) indexiphors cannot have an antecedent two clauses up. If both elements were indexicals, this pattern would be unexpected, as indexicals are not clause-bound and should be able to have antecedents in any clause higher up.

(17) Mary   [CP John   [CP [DP *pro*   lɨj-e]_subj   *pro_obj*   ay-ɨttazzǝzǝ-ññ]
      M   J   son-1S   NEG-3SUB-obey.IMPF-1.S.OBJ

---

[57] We already know that these *pro*s can refer to John, the lower subject, as the available readings in (15) show.

yɨSəllɨg-all   aləCC
think.IMPF-3S.   say.PERF.3.SF

'Mary said John thinks my son will not obey me'
'#Mary_m said John thinks her_m son will not obey me'
'#Mary_m said John thinks my son will not obey her_m'

In conclusion, indexical shift shifts all elements (of the same category, Anand (2006)) together, at least in some languages (cf. Sundaresan & McFadden 2019) and it is not clause-bound. Indexiphors are subject to *De Re Blocking* and locality: they must find their antecedents in the closest superordinate domain. Table 1 summarizes the data:

Table 1: Indexicals versus Indexiphors

	Indexicals	**Indexiphors**
Shift Together	Yes, but not always	No
De Re Blocking	No	Yes
Locality	No	Yes

In the next section, I explore the Turkish data with regards to the *Shift Together, De Re Blocking* effects and sensitivity to locality. If the target elements do not obey *Shift Together* but show *De Re Blocking* and locality effects, it will be concluded they are like indexiphors. If this is the case, it indicates that the operation involved is a binding operation rather than context-over-writing. If they do not obey both *De Re Blocking* and locality but tend to shift together, I take the elements to undergo indexical shift, in which case the operator in *diye* must be a context-overwriter. The conclusion for Turkish is not simple, as the Turkish data shares similarities with both. I will

argue that Turkish data is neither an example of indexical shifting nor of indexiphors. Rather,

they have an independent, language-internal explanation: topichood.

3.1.2. First-person agreement in Turkish: Indexical shift or indexiphors?

Turkish first-person agreement marker (and the *pro* licensed by it) does not have to refer to the

speaker in *diye* clauses but can also refer to the matrix subject (18b), which seems to suggest that

we are dealing with an indexical shift phenomenon (Şener & Şener 2011; Özyıldız 2012). *–DIK*

clauses require the first-person agreement and the associated *pro* to refer to the speaker, possibly

due to the lack of a perspective operator in these clauses (i.e., in the embedded context) (18a):[58]

(18) a. Esra   [*pro*   sınıf-ta   kal-**dığ**-ım]-ı   bil-iyor
     E   class-LOC   stay-DIK-1S-ACC   know-IMPF
     'Esra knows [that I failed the class]'

   (1SG pro=S (Speaker), #MS (Matrix Subject))

   b. Esra   [*pro*   sınıf-ta   kal-dı-m   **diye**]   bil-iyor
     E   class-LOC   stay-PST-1S   diye   know-IMPF
     'Esra knows [diye I failed the class]'

   (1SG pro=S (Speaker), MS (Matrix Subject))

Now, consider the example in (19), from Özyıldız (2012):

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[58] I do not discuss *–DIK* clauses further in this chapter, as they are strictly speaker-oriented in this aspect due to the closest operator being the one related to the speaker (see Section 3, this chapter, for representation of the speaker).

(19) Tunç   Ayşe-ye   [*pro*   sen-i   nere-ye   götür-eceğ-im]   de-miş[59]

      T   A-DAT   you-ACC   where-DAT   take-FUT-1S   say-INDPST

    'Where did Tunç say to Ayşe that I would take you?'

    'Where did Tunç$_i$ say to Ayşe$_j$ that he$_i$ would take her$_j$?'

    'Where did Tunç$_i$ say to Ayşe that he$_i$ would take you?'

    '??Where did Tunç say to Ayşe$_j$ that I would take her$_j$?'

We see here that a third reading is available, namely one where embedded first-person and second-person indexicals take their reference from different contexts (utterance and attitude context, respectively). Thus, *Shift Together* is not required, casting doubt on this data being a case of indexical shift. I discuss the unavailability of the fourth reading later.[60]

    Shift Together is not obeyed with cognition verbs, either, as in (20). In (20), there are two possibly shifty elements: *pro$_{subj}$* (licensed by first person agreement) and *pro$_{poss}$*, both licensed by person agreement markers in their domain. The readings where both are reported from the utterance or the attitude context are accepted, namely the first and the second readings in (20), as expected by *Shift Together*. However, the reading where the subject *pro* refers to the matrix subject and the possessor *pro* refers to the speaker, the third reading, is also acceptable, which goes against *Shift Together*. Lastly, the reading where the subject *pro* refers to the speaker and the possessor *pro* to the matrix subject, the fourth reading, is not available, as expected:

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[59] The examples use the question *where* to control for the example not being direct quotation. Also notice that I use Özyıldız's example as it is. There are some differences: Özyıldız uses a speech verb as embedding verb while I focus on cognition verbs. This is also the first time we see an overt pronoun versus an agreement marker, which I have not discussed before (but the distinction of overt versus covert pronouns will be important later in this chapter).

[60] Özyıldız attributes this to covert movement of elements such that the unshifted forms (the object) covertly move above the context-rewriting operator, keeping the shifty-operator account intact for Turkish. The unavailable reading is unavailable due to a similar explanation to ban on Shift Together.

(20) Murat　　[pro_{subj}　[pro_{poss}　kardeş-im]-i　　tanı-yor-um　　**diye**]　　bil-iyor[61]

　　　　M　　　　　　　　　　　　　　sibling-1S-ACC　know-IMPF-1S　diye　　know-IMPF

　　　　'Murat knows [diye I know my sibling]'

　　　　'Murat$_i$ knows [diye he$_i$ knows his sibling]'

　　　　'?Murat$_i$ knows [diye he$_i$ knows my sibling]'

　　　　'#Murat$_i$ knows [diye I know his$_i$ sibling]'

This might lead us to conclude that the phenomenon of optional reference by person markers in Turkish is not indexical shift. However, disobedience to *Shift Together* has been argued not to hold cross-linguistically (Sundaresan & McFadden 2019), and therefore is not a strong argument against indexical shift. Thus, I investigate *De Re Blocking* and clause-boundedness in the interpretations of examples like (19) and (20).

There is some evidence that *De Re Blocking* is observed by this construction, as shown below (cf. (19) and (20)). Notice that in the case of the unavailable reading, the fourth reading, there is a c-commanding *de re* element blocking the embedded pronominal direct object (21) or the *pro* that comes with the first-person agreement inside the direct object (22) from referring to a matrix attitude holder:

(21) Tunç　　Ayşe-ye　　[pro　　sen-i　　　nere-ye　　　götür-eceğ-im]　de-miş

　　　　T　　　　A-DAT　　　　　　you-ACC　where-DAT　take-FUT-1S　　say-INDPST

　　　　'Where did Tunç say to Ayşe that I would take you?'

　　　　'Where did Tunç$_i$ say to Ayşe$_j$ that he$_i$ would take her$_j$?'

　　　　'Where did Tunç$_i$ say to Ayşe that he$_i$ would take you?'

---

[61] Notice that I use an overt pronoun in object position in (19) to compare with a *pro* subject while I use two *pro* elements in (20). This is due to three reasons. First is that (19) is directly from the examples in Özyıldız, so I did not change his example. Second, speech verbs and cognitive verbs differ in some ways. Generally, speech verbs allow shifting of both *pro* and overt pronouns while cognitive attitude verbs allow shifting of only *pro* (see Chapter 5). I discuss the distribution of *pro* and overt pronouns in Turkish later in this section. For now, it suffices to assume that they are not different realizations of the same element.

'??Where did Tunç say to Ayşe_j that I would take her_j?'

(22) Murat   [*pro_{subj}* [*pro_{poss}*   kardeş-im]-i   tanı-yor-um   **diye**]   bil-iyor

M   sibling-1S-ACC know-IMPF-1S diye   know-IMPF

'Murat knows [diye I know my sibling]'

'Murat_i knows [diye he_i knows his sibling]'

'?Murat_i knows [diye he_i knows my sibling]'

'#Murat_i knows [diye I know his_i sibling]'

If we assume a standard analysis of subject pro-drop, in which a silent *pro* sits in SpecTP, subject *pro* c-commands *kardeşimi* 'my sibling-ACC'. This accounts for *De Re Blocking*.

Another set of data that shows the *De Re Blocking* effects, albeit in a weaker way, is in (23). The overt pronominal *ben* 'I' in the embedded clause blocks reference of the *pro* to the matrix subject (23b), which is possible in the absence of *ben* (23a). This may not be the strongest argument for *De Re Blocking,* as *ben* and *pro* both have the same referent/theta role. However, I will later argue that *ben* and *pro* are not directly related (via movement or agreement) in the Turkish syntax. Thus, it is worth mentioning here:

(23) a. Seda   [*pro*   hayalet   gör-dü-m   **diye**]   bil-iyor

S   ghost   see-PST-1S   diye   know-IMPF

'Seda knows [diye I saw a ghost]'

(1SG pro =S, MS)

b. Seda   [ben   hayalet   gör-dü-m   **diye**]   bil-iyor

S   I   ghost   see-PST-1S   diye   know-IMPF

'Seda knows [diye I saw a ghost]'

(1SG pro =S, *MS)

Regarding (23), how do we make sure that the lower element, i.e., *pro* associated with first-person agreement*,* is indeed read *de se*? When *pro* refers to the matrix subject, it must be read *de se.* An example from Akkuş (2019: 10) is in (24), which shows that *pro* associated with the first-person agreement cannot refer to the matrix subject in a *non-de se* context. This shows that this element is read *de se* by default.

(24) Context: Leyla took an exam, and later saw the top 10 scores with the scorer's student ID numbers. She forgot her own ID number, so did not know who was who. Looking to the top score, she thinks: "This student definitely passed!". But it turned out that she was that student.

Leyla   [*pro*   sınav-ı   geç-ti-m]   san-ıyor
L   exam-ACC pass-PST-1S   believe-IMPF
'#Leyla believes that she passed the exam'

The generalization is that there should not be an intervening *de re* element in *diye* clauses if we want to associate *pro* with the matrix subject. Thus, *pro* is subject to *De Re Blocking,* like indexiphors. In fact, Akkuş (p. 19) proposes a similar generalization (25) based on similar facts in Turkish and other languages. The present study applies it to cognitive attitude verbs:[62]

(25) NO UNSHIFTED INTERVENER: An indexical pronoun may only shift if there is no unshifted pronoun intervening between the indexical pronoun and the context operator in the CP domain.

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[62] Notice that Akkuş assumes context over-writing (i.e., shifting), unlike the present study, which argues for binding.

Though Turkish first-person agreement aligns (somewhat) with the behavior of indexiphors when it comes to *De Re Blocking* (though the evidence involves some potential confounds)*,* it does not obey locality restrictions. The first-person agreement in the embedded clause in (26) can refer to the lowest matrix subject, *John*, and to the higher one, *Esra*. Thus, the relevant marker can refer to an antecedent two clauses up.

(26) Esra [John *pro* sınav-ı geç-ti-m **diye**] bil-iyor diye
     E   J   exam-ACC pass-PST-1S diye   know-IMPF diye

hatırl-ıyor
remember-IMPF

'Esra remembers that John knows [diye I passed the exam]'

 (1SG pro=Esra, John, speaker)

Below is a summary of the results so far. I take evidence for *De Re Blocking* to exist but to be weak especially because of the vagueness in judgements for (22), though the tendence is in the right direction, and because of the confound in (23) that both the overt pronoun and *pro* refer to the same individual (though in my account, the overt pronoun -in SpecCP- structurally c-commands the *pro* -in SpecTP-). For now, my conclusion is that Turkish *pro* is neither indexical shifty nor an indexiphor.[63] I will argue that it is topichood that makes *pro* special in Turkish clauses, neither indexical shift nor indexiphoric nature. Table 2 summarizes the results.

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[63] But if *De Re Blocking* is proven to hold for this data, Turkish *pro* would be more similar to indexiphors. In that case, we would need an account of why locality is not obeyed in this structure. Topichood would come to the rescue again. So, if Turkish *pro* is indeed an indexiphor, my argument based on topichood would still hold as it is.

Table 2: Comparison of Indexical Shift, Indexiphors, Turkish 1st Person Agreement

	Indexical Shift	Indexiphors	Turkish 1st Person Agreement
Shift Together	Yes, but not always	No	No
De Re Blocking	No	Yes	Yes?
Locality	No	Yes	No

3.1.3. pro versus overt pronouns in Turkish

(27) shows that pronominal subjects in Turkish can be overt as in (27a) or realized as *pro* as in

(27b), suggesting that the overt realization of the pronoun is optional:

    (27) a. Ben   gel-di-m

          I   come-PST-1S

        'I came'

       b. *pro*   gel-di-m

               come-PST-1S

        'I came'

However, it has been argued that the choice of overt pronouns and *pro* is governed by discourse-

related functions. The overt pronoun is realized if the subjects are contrasted (28), if the subject

is questioned (29) (Erguvanlı-Taylan 1986, Öztürk 2001). It establishes new topics (30a, b versus

30c) (Öztürk 1999, 2001). *pro* is used when the subject is not the focus (30B') and when the

reference is to an already-established topic (30a, 30c):

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(28) a. Ben   gel-di-m.   Ama   sen   gel-me-di-n

     I   come-PST-1S   But   you   come-NEG-PST-2S

     'I came   But you did not come'

    b. Ben   gel-di-m.   #Ama   *pro*   gel-me-di-n

     I   come-PST-1S   But   come-NEG-PST-2S

     'I came   But you did not come'

(29) A: Bu   soru-yu   kim   sor-du

       this   question-ACC who   ask-PST

       'Who asked this question?'

    B: Ben   sor-du-m

       I   ask-PST-1S

       'I asked'

    B': #*pro*   sor-du-m

                    ask-PST-1S

        'I asked'

(30) a. Ben$_i$ ev-e   gel-di-m.   *pro$_i$*   kitap   oku-du-m.

     I   home-DAT come-PST-1S   book   read-PST-1S

       pro$_i$ televizyon   seyret-ti-m.

                     television   watch-PST-1S

     'I came home, did some book-reading, watched TV.'

    b. Ben$_i$ ev-e   gel-di-m.   #Ben   kitap   oku-du-m.

     I   home-DAT come-PST-1S   I   book   read-PST-1S

#Ben   televizyon   seyret-ti-m.

  I   television   watch-PST-1S

'I came home. I did some book-reading. I watched TV.'

c. Ben_i ev-e   gel-di-m. pro_i kitap   oku-du-m.

  I   home-DAT come-PST-1S   book   read-PST-1S

Sen   televizyon   seyret-ti-m.

You   television   watch-PST-1S

'I came home, did some book-reading. You watched TV.'

The above indicates that both overt pronouns and *pro* have discourse-related functions. Both are born with topic-related functions: overt pronouns establish new topics and *pro* continues an established topic (i.e., overt pronouns=new topic, *pro*=old topic). This is an important point to keep in mind as the analysis develops. The next section discusses a more syntactically-oriented piece of evidence that suggests that overt pronouns are not directly associated with verbal agreement, strengthening their discourse-related functions.

3.1.4. ECM in Turkish

This section discusses ECM structures in Turkish, which suggest that overt pronouns are not directly related to person agreement after all (while *pro* is). The discussion here ties the topichood properties of overt pronouns and *pro* in Turkish with possible *De Re Blocking* effects. Although the evidence for *De Re Blocking* is somewhat weak (especially in the second set of data with overt pronouns and *pro,* because overt pronouns and *pro* have the same reference, so it

is unclear whether they actually block co-reference), I pursue some speculations in this section as to how the analysis would look like if *De Re Blocking* is proven to hold in Turkish data. An example of ECM in Turkish is given in (31). The embedded subject is realized in the accusative rather than the nominative, and the associated verbal agreement is optional. At face value, this can be taken as direct evidence that overt pronouns *do not require* subject agreement but rather are compatible with it and if so, they can be dissociated from agreement:[64]

(31) a. Ben   sen-i   git-ti(-n)   san-ıyor-du-m
       I   you-ACC go-PST(-2S) think-IMPF-PST-1S
      'I thought you were gone'

    b. Ben   sen-i   git-ti(-n)   **diye**   bil-iyor-du-m
       I   you-ACC go-PST(-2S) diye   know-IMPF-PST-1S
      'I thought (lit. knew diye) you were gone'

I would argue, however, that this evidence does not work in the way it is intended but further investigation still indirectly supports the hypothesis that overt pronouns are not directly associated with verbal agreement (while *pro* is). Let us first establish that nominative overt pronouns are indeed generated in the embedded clause, as opposed to accusative overt pronouns, which are generated in the matrix clause, indicating that the two subjects should be dissociated; i.e., one is not derived from the other via movement, contra Zidani-Eroğlu (1997). To that end, more detailed examples of ECM structures in Turkish are given in (32). When the embedded subject is in the accusative, as in (32a), the agreement on the embedded verb is optional. When it

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[64] Only finite complements or *diye* complements allow ECM in Turkish, but not *–DIK* clauses.

is in the nominative, it requires verbal agreement (32b). (32b) is the case we discussed with respect to *De Re Blocking. pro* also requires verbal agreement (32c).

(32) a. Ben   sen-i   git-ti(-n)   **diye**   bil-iyor-du-m
      I   you-ACC go-PST(-2S) diye   know-IMPF-PST-1S
      'I thought (lit. knew diye) you were gone'

    b. Ben   [sen   git-ti*(-n) **diye**]   bil-iyor-du-m
       I   you   go-PST-2S diye   know-IMPF-PST-1S
      'I thought (lit. knew diye) you were gone'

    c. Ben   [*pro*   git-ti*(-n)   **diye**]   bil-iyor-du-m
       I   go-PST-2S diye   know-IMPF-PST-1S
      'I thought (lit. knew diye) you were gone'

It was argued in Chapter 2 that accusative-marked embedded subjects are in fact generated in the matrix clause and tied to the embedded clause with a proleptic structure. The evidence was based on the lack of idiomatic reading (33b), lack of licensing by embedded negation (34a), and lack of *de dicto* readings (35a). In all these tests, the nominative-marked subject yields the opposite pattern (33c, 34c, 35b). These contrasts indicate that the nominative subject must be generated in the embedded clause, in addition to the fact that nominative subjects *require* agreement while accusative subjects are only *compatible* with it, as was shown in (32).

(33) a. At-ı   al-an   Üsküdar-ı   geç-ti
      horse-ACC take-REL Ü-ACC   pass-PST
      'It is too late (lit. That who took the horse passed Uskudar)'

b. #Ali   at-ı   al-an-ı   Üsküdar-ı   geç-ti   **diye**   bil-iyor

   A   horse-ACC take-REL-ACC Ü-ACC   pass-PST diye   know-IMPF

   'Intended: Ali knows [diye it is too late]'

c. ?Ali   [at-ı   al-an   Üsküdar-ı   geç-ti   **diye]**   bil-iyor

   A   horse-ACC take-REL Ü-ACC   pass-PST diye   know-IMPF

   'Ali knows [diye it is too late]'

(34) a. *Ahmet   kimse-yi   git-me-di   **diye**   bil-iyor[65]

   A   no one-ACC go-NEG-PST diye   know-IMPF

   'Intended: Ahmet knows of no one [diye they left]'

b. Ahmet   kimse-yi   git-ti   **diye**   bil-m-iyor

   A   no one-ACC go-PST diye   know-NEG-IMPF

   'Ahmet knows of no one [diye they left]'

c. Ahmet   [kimse   git-me-di   **diye]**   bil-iyor

   A   no one   go-NEG-PST diye   know-IMPF

   'Ahmet knows [diye no one left]'

(35) a. #Esra   hayalet-i   git-ti   **diye**   bil-iyor

   E   ghost-ACC go-PST diye   know-IMPF

   ama hayalet diye bir sey yok

   but there is no such thing as a ghost

   'Esra knows of the ghost [diye it left] *but there is no such thing as a ghost*'

---

[65] With regards to accusative-marked NPI data such as in (34), there is variation among speakers, as Şener notes. It turns out that Şener's informants and mine do not speak the same dialect in this sense. However, there was also variation within my informants too. This is the dominant pattern.

b. Esra [hayalet git-ti **diye** bil-iyor

 E ghost go-PST diye know-IMPF

ama hayalet diye bir sey yok
but there is no such thing as a ghost

'Esra knows [diye the ghost left] *but there is no such thing as a ghost*'

If nominative lexical subjects are generated in the embedded clause, we might expect nominative pronominal subjects to also be generated in the embedded clause. I assume that indeed to be the case, although applying the tests in (33)-(35) is hard with a pronominal subject. Instead, let us focus on one particular property: nominative pronominal subjects require verbal subject agreement. That is compelling evidence that they must be in the embedded clause, probably in SpecTP. We also know from the previous section that overt pronouns have a discourse-pragmatic import, not a clear TP-related property. As a reminder, the examples in (36) indicate that overt nominal pronominal subjects are seemingly optional (as per discourse-pragmatic functions).

(36) a. Ben gel-di-m

   I   come-PST-1S

   'I came'

  b. *pro* gel-di-m

      come-PST-1S

   'I came'

To combine the conflicting requirements, it can be suggested that overt pronouns do not sit nor originate in SpecTP, but instead are generated in SpecCP. This would mean that they are not

case-marked (nominative is null in Turkish, so it is hard to distinguish nominative marking from no marking). This would yield the structures in (37a), representing embedded clauses with overt pronoun subjects, and (37b) the ones with *pro* subjects. In the former, the overt pronoun, *ben* 'I' is base-generated in SpecCP. *pro* is in SpecTP in both (37a) and (37b), as it always requires agreement. This means that overt pronouns never directly agree with the verb, rather it is *pro* that does it. This would account for the *De Re Blocking* imposed by overt pronouns (if this is indeed proven to hold for Turkish with stronger evidence), since they c-command *pro* in the same structure in (37a). See the sentence in (38) as an example. The overt pronoun *ben* is in SpecCP, c-commanding the *pro* in SpecTP, both being in the same embedded clause. Here, it is the *pro* that agrees with the first-person agreement marker on the embedded verb.

(37) a. [CP ben [TP *pro* [VP] [T +1S]] C]
      b. [CP [TP *pro* [VP] [T +1S]] C]

(38) Seda [PersP [CP ben [TP *pro* [VP hayalet gör]-dü-m] C] **diye**] bil-iyor
      S   I   ghost   see-PST-1S   diye   know-IMPF
      'Seda knows [diye I saw a ghost]'

      (ISG pro=S, *MS)

One might wonder whether it could be argued that *ben* 'I' moves from SpecTP to SpecCP. This would not work if we want to account for *De Re Blocking* effects. This explanation would not yield a c-commanding relation necessary to establish *De Re Blocking,* as the two elements would be connected via movement. I will sometimes refer to this c-commanding relation throughout the dissertation, as I believe that this is a possible route to take for Turkish (given that there is some evidence for *De Re Blocking*)*,* however, I do not definitively argue for it.

3.2.   Topichood in *diye* Clauses

In this section, I discuss various data showing that topichood is a consistent factor in allowing

interaction between the matrix clause and the embedded *diye* clause in that various types of

topics yield the same exceptional pattern. This is important to show because later it is argued that

what causes 'exceptional' or 'optional' behavior in elements within *diye* clauses is not due to the

pronominal nature of *pro,* rather it is because pronominal elements are specified with a [topic]

feature in Turkish. Section 3.2.1. discusses topichood of *pro,* building on data from the previous

section. Section 3.2.2. discusses other data showing the same exceptional behavior to the

generalization established in Chapter 2. Together, these sections show that topichood is the

umbrella concept that captures the optional or exceptional data within *diye* clauses.

It is useful to recall that *diye* clauses are opaque. Consider again the following examples

from Chapter 2, (39b) exemplifies the impossibility of NPI-licensing; (40b) the lack of specific

readings of quantifiers, and (41b) the lack of binding from the matrix clause. Recall furthermore

that *–DIK* clauses lack these properties. These data indicate that interactions between the matrix

clause and an element inside the *diye* clause are not allowed:

(39) a. Ali   [kimse-nin   gel-**diğ**-in]-i   bil-m-iyor

         A   no.one-3GEN   come-DIK-3S-ACC   know-NEG-IMPF

        'Ali knows [that no one came]'

     b. ??/#Ali   [kimse   gel-di   **diye**]   bil-m-iyor

           A   no.one   come-PST   diye   know-NEG-IMPF

         'Intended: Ali knows [diye no one came]'

(40) a. Pelin   [burada   biri-nin   hasta   ol-**duğ**-un]-u   bil-iyor

     P   here   someone-3GEN   sick   be-DIK-3SACC   know-IMPF

     'Pelin knows [that someone is sick here]' *(specific)*

     'Pelin knows [that there is someone sick here]' *(unspecific)*

   b. Pelin   [burada   biri   hasta   **diye**]   bil-iyor

      P   here   someone sick   diye   know-IMPF

      '#Pelin knows [diye someone is sick here]' *(specific)*

      'Pelin knows [diye there is someone sick here]' *(unspecific)*

(41) a. Çocuklar$_i$ [Ali-nin   birbirlerin-i$_i$ eşleştir-**diğ**-in]-i   bil-iyor

      children   A-3GEN   each.other-ACC match-DIK-3S-ACC know-IMPF

      'Children$_i$ know [that Ali matched each other$_i$]'

   b. *Çocuklar$_i$ [Ali   birbirlerin-i$_i$ eşleştir-di   **diye**]   bil-iyor

      children   A   each.other-ACC match-PST   diye   know-IMPF

      'Children$_i$ know [diye Ali matched each other$_i$]'

3.2.1. *Topichood of pro*

Recall that *pro* refers to old topics, as opposed to overt pronouns, which establish new topics. In this section, this point is discussed in detail. First, recall that *pro* has been argued to be associated with established topics in Turkish (Öztürk 1999) with some examples from earlier:

(42) a. Ben$_i$ ev-e   gel-di-m.   *pro*$_i$ kitap   oku-du-m.

     I   home-DAT   come-PST-1S   book   read-PST-1S

     pro$_i$ televizyon   seyret-ti-m.

            television   watch-PST-1S

'I came home, did some book-reading, watched TV.'

b. Ben$_i$ ev-e   gel-di-m.   #Ben   kitap   oku-du-m.

   I   home-DAT   come-PST-1S   I   book   read-PST-1S

   #Ben   televizyon   seyret-ti-m.

   I   television   watch-PST-1S

   'I came home. I did some book-reading. I watched TV.'

In (42a), the speaker establishes herself as the salient individual with the overt pronoun *ben* 'I', and *pro* picks up the reference of the established salient entity. Using *ben* in consecutive sentences is not acceptable (42b). Another example is (43). In Context 1, none of the three individuals in the context are highlighted while Ali is highlighted through Ahmet's question in Context 2. In this case, the overt pronouns in the two parts of the adjunct clause refer to different individuals (any of them) in discourse, indicating they do not require an established salient entity. *Pro* must refer to the one salient individual in context (43b):

(43) *Context 1:* Individuals in discourse: Ali$_i$, Murat$_j$, Esra$_k$. All are in the same room, as is Betul. There was some noise in the room. Ahmet walks in and asks what the noise was about. Betul says:
       Context 2: Individuals in discourse: Ali$_i$, Murat$_j$, Esra$_k$. All are in the same room, as is Betul. There was some noise in the room. Ahmet walks in and asks what the noise Ali was making was about. Betul says:

a. Bilmem.   O$_{i/j/k}$ konuş-ur-ken   o$_{i/j/k}$ gül-üyor-du
     I don't know. S/he   talk-AOR-while   s/he   laugh-IMPF-PST
     'While s/he$_{i/j/k}$ was talking, s/he$_{i/j/k}$ was laughing'

(Context 1: ok if two pronouns do not have same reference; Context 2: #)[66]

b. Bilmem. $pro_{i/*j/*k}$ konuş-ur-ken $pro_{i/*j/*k}$ gül-üyor-du

I don't know.   talk-AOR-while   laugh-IMPF-PST

'I don't know. While he$_i$ was talking, he$_i$ was laughing'

(Context 1: # unless Betul makes someone salient by pointing; Context 2: ok)

The subject *pro* in *diye* clauses is similar in that *pro* picks up the individual who is highlighted in the context.[67] In (44a), the question is asking about Esra's exam results, making Esra the salient individual. In (44b), *pro* refers to the speaker because it is the speaker's exam results that is asked. In other words, *pro* refers to whoever is made salient in previous context in *diye* clauses:

(44)   *Context:* Esra and I both studied hard for the class. We both took the exam.

a. A: Esra$_i$'nın kendi sınav sonucundan haberi var mı?
      Does Esra$_i$ know her exam results?

    B: *pro$_i$*   [*pro*   sınıf-ta   kal-dı-m   **diye**]   bil-iyor
                      class-LOC   stay-PST-1S diye   know-IMPF
     'No. She$_i$ knows [diye I failed the class]'

     (ISG pro=#S , MS (Esra))

b. A: Esra$_i$'nın senin sınav sonucundan haberi var mı?
      Does Esra$_i$ know your exam results?

---

[66] This can be accepted if the two overt pronouns refer to people in the context other than Ali. But in that case, the connection of the response to the question is not tenable (i.e., why would the answer talk about different individuals if Ali was asked about?).

[67] Presumably, the topichood association holds true for *pro* in any position, as this is a stable part of Turkish grammar. However, I focus only on subject *pro* here.

B: *pro*ᵢ   [*pro*   sınıf-ta   kal-dı-m   **diye**]   bil-iyor

                    class-LOC   stay-PST-1S   diye   know-IMPF

    'No. She$_i$ knows [diye I failed the class]'

    (ISG pro=S, #MS (Esra))

The conclusion is that *pro* has topic properties via saliency, referring to old topics. It shares the requirement of topichood with overt pronouns[68], though the specific type of topic they are associated with is different (overt pronouns=new topic; *pro*=established, salient topic).

Now we have all the tools we need to propose an internal structure for *pro. Since pro* does not refer on its own but rather picks up an individual to associate with, I assume it is a φP,[69] not a DP (hence, not a barrier for the complement NP to be associated with external probes). *pro* sits in the complement position of the φP. I suggest that *pro* is born with an unvalued and uninterpretable topic feature [*u*discourse-anaphoric] that needs to be valued by a probe that carries an interpretable [discourse-anaphoric] feature:

---

[68] Any overt pronoun: in any position, with any case marking. However, I focus here on subject overt pronouns for simplicity. Another example is below, with an accusative-marked overt pronoun that is a topic:

    Murat   [sen-i   *pro*ⱼ   tᵢ   tanı-yor-umⱼ   **diye**]   bil-iyor
    M   you-ACC   know-IMPF-1S   diye   know-IMPF
    'Murat knows [diye I know my sibling]'

    (ISG pro=S, *MS)

[69] For Déchaine & Wiltschko (2002) φPs "simply spell out φ-features (p. 411)" and it is "a cover term for any intermediate functional projection that intervenes between N and D (p. 410)".

(45)
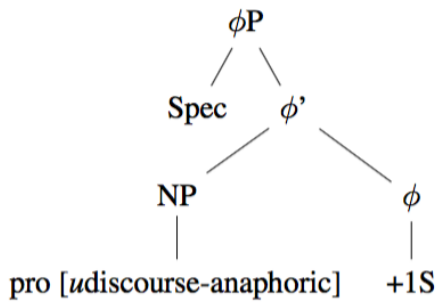
The discourse-anaphoric feature relates to a Topic probe, which will be detailed in the proposal. Suffice it to say for now that the probe for this feature is a topic-related projection that is specified for discourse-anaphoric topics, which are construed as referring to the current discourse topic (Neeleman et al. 2008). They refer to given/backgrounded information or familiarity topics (e.g., Frascarelli & Hinterhölzl (2007) and de Cat (2007)). Şener (2010) states that "pronominals are prototypical examples of DAs (p. 25)", where DA stands for Discourse Anaphoric Elements.

3.2.2. Other topic-related exceptions

As was mentioned in Footnote 32 in Chapter 2, *diye* allows overt scrambling of the elements inside it into the matrix clause. In (46b), the embedded object *kitabı* 'the book' appears at the edge of the matrix clause, ex-situ to its base-generation position within the embedded VP:

(46) a. Ali$_i$ ben   [t$_i$ kitab-ı   oku-du   **diye**]   bil-iyor-um
         A   I   book-ACC read-PST   diye   know-IMPF-1S
         'I know [diye Ali read the book]'

b. Kitab-ı_i   Esra   [Ali   t_i   oku-du   **diye**]   bil-iyor

    book-ACC   E   A   read-PST   diye   know-IMPF

    'Esra knows [diye Ali read the book]'

I refer to such topics as *aboutness* topics, which are different from the ones discussed earlier, which are discourse-anaphoric. Aboutness topics can be tested with the *tell me about X* test (Neeleman et al. 2008, *a la* Reinhart 1981). An example in Turkish is in (47a), from Şener (2010: 33, ex. 26). Such topics must be the leftmost element in the clause (cf. 47b):

(47) Yeni arabandan bahsetsene biraz.
    Tell me a bit about your new car.

    a. Araba_i-yı   geçen   hafta   bir   arkadaş-ım-dan   t_i   al-dı-m

       car-ACC   last   week   a   friend-1S-ABL   buy-PST-1S

       'I bought the car from a friend of mine last week'

    b. #Geçen   hafta   araba_i-yı   bir   arkadaş-ım-dan   t_i   al-dı-m

       last   week   car-ACC   a   friend-1S-ABL   buy-PST-1S

       'Intended: I bought the car from a friend of mine last week'

Another piece of evidence for the exceptional behavior of topic-related interactions in *diye* clauses comes from NPIs. Recall that NPIs in *diye* clauses are not licensed by matrix negation:

(48) ??/# Ali   [kimse   gel-di   **diye**]   bil-m-iyor

      A   no.one   come-PST   diye   know-NEG-IMPF

      'Intended: Ali knows [diye no one came]'

This is true with the *de dicto* reading of the embedded clause containing the NPI, as in (48). It is, however, possible to make the NPI subject salient, in which case, NPI-licensing is possible. The example in (49) is from Şener (2008: 13, ex. (27)). The NPI *kimse* is primed/questioned in the previous question via the subject *biri(si)* 'someone'. This makes the NPI salient in the discourse and this saliency allows the NPI to be licensed by the matrix negation. The same exception applies in *diye* clauses, as in (50):

(49) A: Biri(-si)   mi   gel-di   san-dı-n?
        Someone   Q   come-PST think-PST-2S
        'Did you think that someone came?'

      B: *pro*   [kimse   gel-di]   san-ma-dı-m
               anyone   come-PST think-NEG-PST-1S
        'I did not think anybody came'

(50) A: Ali   biri(-si)   mi   gel-di   **diye**   bil-iyor?
        A   someone   Q   come-PST diye   know-IMPF
        'Does Ali know [diye someone came]?''

      B: Ali   [kimse   gel-di   **diye**]   bil-m-iyor
        A   anyone come-PST diye   know-NEG-IMPF
        'He does not know [diye anyone came]'

This wraps up various data that pertain to topichood, and the data overall show that topichood, regardless of its type, allows interaction between the matrix clause and an element inside the *diye* clause, breaking the otherwise attested generalization that *diye* clauses are opaque domains. The

question is why and how is topichood special. In the next section, I present the proposal of how

this exceptional behavior can be modelled.

3.3. Proposal

This section is divided into two sub-sections: Section 3.3.1. presents the proposal. Section 3.3.2.

discusses an important implication of the proposal for opaque domains and the exceptional

behavior of topics. Section 3.3.3. discusses epithets in light of the patterns observed with *pro* and

its implications for the proposal.

3.3.1. The proposal

Recall from Chapter 2 that *diye* has the structure in (51):

(51)
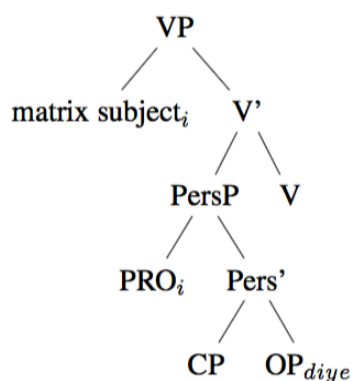
I proposed in Chapter 2 that PersP is an opaque domain. In this chapter, I revise this proposal

slightly and argue that a *diye* clause is a selectively opaque domain (hence not a phase) in that it

is opaque for NPI-licensing, binding, specific interpretation of quantifiers but not opaque for topic-related interactions. Selective opacity is a term defined in Keine (2019: 13) as in (52):

(52) *Selective Opacity*

A syntactic domain Δ is selectively opaque for α-extraction if Δ prohibits α-extraction but allows β-extraction out of it, where α and β are different types of extraction.

Sensitivity to different types of elements within (opaque) domains has been discussed earlier as well (e.g., Rizzi 2001, 2004). Topicalization is known to escape islands (e.g., Cinque 1990, Abels 2012). Both will be supported by the proposal below. Before I present this proposal, let us recall a crucial working assumption, namely that the speaker is syntactically represented in the matrix clause (Ross 1967, Speas & Tenny 2003, Stowell 2007, Zu 2018) and it is associated with another binding operator (OP_{matrix}) (Heim 1991, Pearson 2013, Charnavel 2018b), which also has a PRO subject that is controlled by the speaker. Let us assume for simplicity that the relevant phrase is SpeakerP and it immediately embeds the matrix PersP. This is represented in (53):

(53)

```
                SpeakerP
              /          \
           DP            Speaker'
           |            /        \
       Speaker_i     PersP      Speaker
                    /     \
                 PRO_i    Pers'
                         /    \
                       CP    OP_matrix
```
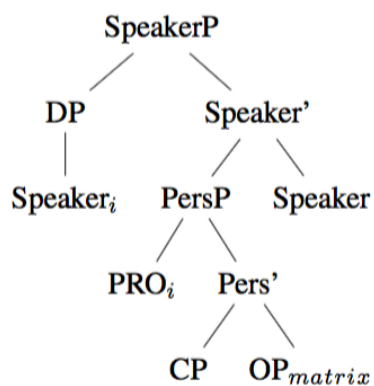
This is part of the left-periphery of the Turkish clause. The rest will be adapted from Şener (2010), whose main goal is to establish that all discourse-related interactions are syntactically represented and have syntactic effects in Turkish (and hence, that there is no scrambling in Turkish). He argues for the structure in (54). ForceP hosts operators like the relative clause operator. The C-/A-Topic in TopicP stands for Contrastive/Aboutness Topic. DaP1 and DaP2 are discourse-anaphoric elements, with the difference between them being one of contrast. IntP is the Interrogative Phrase, which hosts the question probe. FocusP the focused elements:

(54)

```
              ForceP
             /      \
         Spec       Force'
                   /      \
              TopicP       Force
             /      \
    C-/A-Topic     Topic'
                  /      \
              IntP        Topic
             /    \
         Spec      Int'
                  /    \
              DaP1      Int
             /    \
                  Da1'
                 /    \
            FocusP      Da1
              |
            Focus'
           /      \
       DaP2        Focus
      /    \
   Da2'    Spec
  /    \
IP     Da2
```
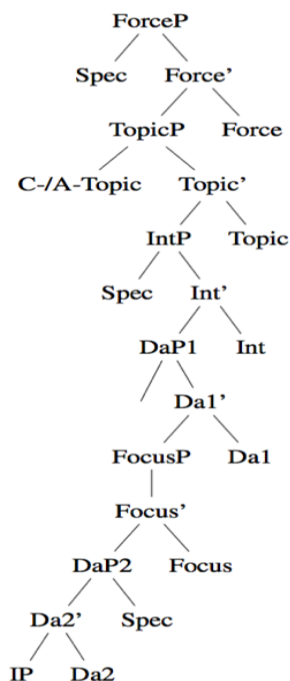
I assume that both TopicP and DaP1 are topic-related projections. TopicP in Şener's analysis stays the same in the present analysis. It is for aboutness (and contrastive) topic.[70] I encode this

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[70] I do not distinguish between contrastive and aboutness topics here, since such a distinction does not play a role in the present study. I use *aboutness* as a term that covers both.

via the feature [aboutness]. I also label DaP1 as TopicP but specify it with the feature [discourse-anaphoric]. The latter is the probe for *pro* and the former for overt pronouns and other ex-situ elements that move from the base-generated position within the *diye* clause for topic reasons (i.e., DPs that are aboutness and contrastive topics, which will be discussed shortly). Given what was proposed above, the structure in (55) constitutes the left periphery of matrix clauses in Turkish:[71]

(55)   [72,73]

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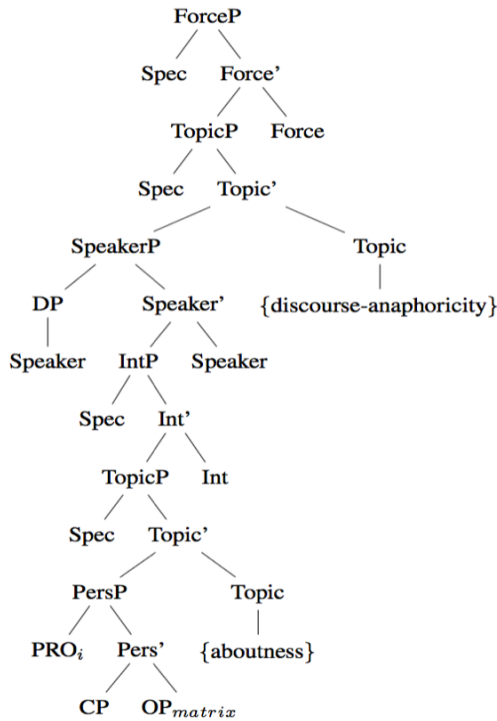
[71] I ignore focus-related projections in Şener (2010) as they are not immediately relevant for the present study.
[72] I assume that *pro* does not move since I do not have overt evidence for it, so the two TopicPs have different behaviors in my proposal: The one that encodes [aboutness] agrees and forces overt movement while the one that encodes [discouse-anaphoric] only agrees.
[73] Note that I reversed the order of the two topic projections from Şener's study to fit my need to have the SpeakerP high enough in the clause (following suggestions on the syntactic representation of the speaker, e.g., Zu 2018) but also under TopicP {discourse-anaphoricity}.

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How does *pro* end up referring to the speaker? I assume that TopicP {discourse-anaphoricity} enters into multiple agreement relations. Both the speaker in SpeakerP and *pro* come with the same unvalued feature, in which case the same probe can agree with all of them. In fact, this is the assumption in Şener (2010), who states (p. 216): "In other words, Agree by a single Probe with multiple Goals for exactly the same features can take place without a locality problem". This is represented as in (56). Notice that *pro* is bound by a non-local binder, i.e., the speaker instead of the matrix subject.

(56)

It was shown earlier that *pro* (and the first-person agreement) in Turkish does not impose locality restrictions. I argue that the difference in locality is because of the [*u*discourse-anaphoric] feature that *pro* is born with in Turkish. In other words, feature [*u*discourse-anaphoric] allows Turkish *pro* to search for a non-local binder.
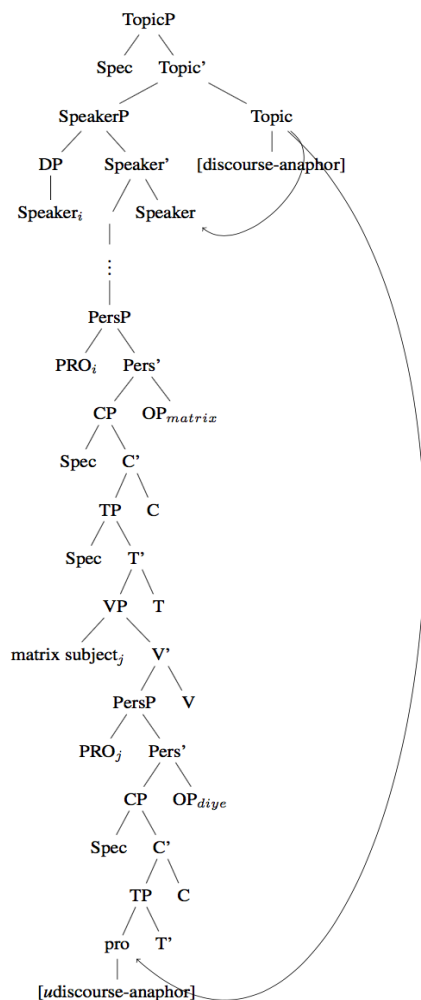
For completeness' sake, when the binder is the closest matrix subject, i.e., the local subject, the derivation is as in (57):

(57)

What happens when there are different types of topics in the same sentence? The two topic phrases, with the feature [aboutness] and [discourse-anaphoric], target different elements, as it is possible to have a *pro* as well as an element that carries the aboutness topic feature. An example is given in (58), where *sınavı* 'exam-ACC' is the aboutness topic and *pro* still refers to the established salient entity (old topic), i.e., the speaker or the matrix subject (i.e., discourse-anaphoricity):[74]

(58) a. A: Esra$_i$'nın kendi sınav sonucundan haberi var mı?
    Does Esra$_i$ know her exam results?

  B: Sınav-ı Esra [*pro* geç-ti-m **diye**] bil-iyor
    exam-ACC E   pass-PST-1S diye know-IMPF
    'She$_i$ knows [diye I failed the class]'

  (ISG pro=#S, MS (Esra))

b. A: Esra$_i$'nın senin sınav sonucundan haberi var mı?
    Does Esra$_i$ know your exam results?

  B: Sınav-ı Esra [*pro* geç-ti-m **diye**] bil-iyor
    exam-ACC E   pass-PST-1S diye know-IMPF
    'She$_i$ knows [diye I failed the class]'

  (ISG pro=S, #MS (Esra))

---

[74] This also indirectly and vaguely supports the left periphery I adopted for Turkish, as aboutness topic can lead to overt movement while discourse-anaphoric topic does not. In (58), the latter has a clearer connection to the discourse than the former and only the former has overt syntactic result (i.e., overt movement).

We have also seen that overt pronouns, which are also targeted by the same probe as aboutness topics, can occur in the same clause as *pro,* targeted by the TopicP with the [discourse-anaphoric] specification (59a). In fact, I have argued that they do occur in the same clause, the proposed structure is repeated in (59b):

(59) a. Seda   [ben   *pro*   hayalet   gör-dü-m   **diye**]   bil-iyor
       S   I   ghost   see-PST-1S   diye   know-IMPF
       'Seda knows [diye I saw a ghost]'

        (ISG pro=S, *MS)

     b. [CP ben [TP *pro* [VP] [T +1S]] C]

One concern about (59) is that the referents of both topic phrases are the same individual, namely, the speaker, while the two topic phrases targeted different individuals/entities in (58). However, it is possible to have a sentence where the overt pronoun and *pro* do not co-refer, as given in (60). Here, *seni* is the new or contrasted topic and while *pro* is the old topic. Thus, the case in (59) is accidental co-reference where both TopicPs happen to pick up the same individual in discourse:

(60) Murat   [sen-i   *pro*   t_i   tanı-yor-um   **diye**] bil-iyor
      M   you-ACC   know-IMPF-1S   diye   know-IMPF
      'Murat knows [diye I know my sibling]'

     (ISG pro=S, *MS)

Before ending this section, I eliminate one potential alternative analysis: Can we attribute the association of *pro* with the speaker to movement? Namely, can the association be achieved via movement of the full *diye* clause to the matrix clause, as was argued for *de re* tense interpretation by Stowell (2007)?[75] I argue that we cannot. One reason is that *diye* clauses can simultaneously contain *pro* that is associated with the speaker and another element that is associated with the matrix subject. The other is that *de re* reading of nominals is not allowed when there is a *pro.* Let us briefly review Stowell's approach to *de re* and *de dicto* readings. Consider the following sentences that have a relative clause inside the complement clause:

(61) a. Terri thought [that a woman [who lent me her car] was in your office].
      b. Sam claimed last week [that Max gave me some money to a panhandler [who was
         sitting on the sidewalk (this afternoon)]].

In both cases, *de re* interpretation of the past marker in the relative clause is achieved when the tense interpretation in the relative clause is independent, i.e., relative clause event time is subsequent to the main clause event time. *De dicto* interpretation is when the relative clause tense is interpreted as dependent, i.e., it is either past-shifted or simultaneous relative to the event time of the matrix clause. Stowell attributes the *de re* reading to the position of the relative clause outside of the CP complement (hence in the matrix clause. If it stays inside the complement CP, the *de dicto* interpretation arises.

To see how this explanation works for Turkish *diye,* I use both *pro* and elements that need to be reported from the matrix subject's perspective, namely certain phrasal content in the

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[75] This discussion is not directly relevant for the association of *pro* inside a *diye* clause with higher matrix subjects. However, it will still show that *diye* clauses do not move as a whole to the main clause (unless the whole clause is topicalized) and I will assume that they do not move to intermediate clauses either.

same clause, drawn from Chapter 2. If the *diye* clause (presumably the CP, not the PersP) moves to the matrix clause so the optional element can get bound by the speaker, then we would expect all other elements in the clause to be reported from the speaker's perspective. Yet, we see example (62), where *pro* refers to the speaker but the temporal adverbial is reported from the perspective of the matrix subject. This shows that the *diye* clause cannot move as a whole, since the temporal adverbial needs to be bound by the *diye* operator to be associated with the attitude context (i.e., bound by the *diye* operator):

(62) *Context:* John believes that the speaker walked between 4-5 pm while the speaker in fact walked between 5-6 pm.

John   [{*pro*}$_{UC}$ {4-5 arası}$_{AC}$ yürü-dü-*m*   **diye**]   bil-iyor[76]
J   4-5 between   walk-PST-1S   diye   know-IMPF
'John knows [diye I$_{UC}$ walked {between 4-5}$_{AC}$]'

Lastly, *de re* elements are not allowed even in the presence of *pro* in *diye* clauses, as in the case of the nominal *başkan* 'president' in (66). If the whole *diye* clause moved to the matrix clause, we would expect *de re* elements to be allowed.

(63) Murat is the president of a student club and he visited the school my roommate John and I work at. John knows Murat by name (perhaps as a friend) but he does not know that Murat is the president. John also knows Murat visited the school with me.

#John   [*pro*   başkan-la   okul-a   gel-di-m   **diye**]
 J   president-COMM   school-DAT   come-PST   diye

---

[76] UC stands for utterance context and AC is attitude context in this example.

bil-iyor   aslında
know-IMPF   actually

'John knows [diye I came to the school with the president] actually'
 cf.

John   [*pro*   Murat-la   okul-a   gel-di-m   **diye**]
J   Murat-COMM school-DAT come-PST   diye

bil-iyor   aslında
know-IMPF   actually

'John knows [diye I came to the school with Murat] actually'

I conclude that the *diye* clause does not move to the matrix clause. The next section discusses the

implications of the proposal for the literature on selective opacity and the exceptional behavior of

topics in various languages.

3.3.2. *Selective opacity and topicalization*

Keine (2019) defines selective opacity as follows:

(64) *Selective Opacity*
   A syntactic domain Δ is selectively opaque for α-extraction if Δ prohibits α-extraction
   but allows β-extraction out of it, where α and β are different types of extraction.

The best studied type of selective opacity is the distinction between A and A' movement. For example, a finite clause allows A'-extraction (65a) but not A-extraction (65b):

(65) a. Who_i do you think [$_{CP}$ t_1 eats oatmeal for breakfast]?
b. *John/Who_i seems [$_{CP}$ t_1 eats oatmeal for breakfast]?

Rizzi (2004) discussed various A' elements and how they interact with each other in allowing movement across them, eventually proposing the following categorization of such elements:[77]

(66) a. Argumental: person, number, gender, case

b. Quantificational: Wh, Neg, measure, focus...

c. Modifier: evaluative, epistemic, Neg, frequentative, celerative, measure, manner, ...

d. Topic

This classification divides A' elements into three classes: quantificational (66b), modifier (66c) and topic (66d). (66a) are traditional phi-features. Each of these classes have a common feature that define the category. Each element within a category, therefore, acts as an intervener for the purposes of Relativized Minimality (Rizzi 1990), defined in (67):

(67) Y is in a Minimal Configuration (MC) with X iff there is no Z such that
(i) Z is of the same structural type as X, and
(ii) Z intervenes between X and Y

---

[77] Abels (2012) considers the quantificational and modifier categories as related, where the latter can block the former but not vice versa. Argumental and Topicalization are an independent category there as well.

The important point I focus on is (67i), which was defined as in (68) in Rizzi (1990) and redefined as in (69) in Rizzi (2004):

(68) "same structural type" = (i) head or Spec and, in the latter class, (ii) A or A'

(69) "same structural type" = Spec licensed by features of the same class in (67)

The idea is that an element cannot be moved across an element of the 'same structural type', forming selective domains. For example, domain X can be sensitive to interactions between certain elements and not others. Members of the same group are interveners for each other.

The classification finds support in various interactions in languages. Obenauer (1994) observed that DP-specifier alone can be wh-moved in French, as in the movement of *combien* 'how many' in (70), but the movement is subject to locality conditions (71). The movement of the whole DP is not restricted in the same way (71a):

(70) a. {Combien de problème}$_i$ sais-tu résoudre t$_i$?
　　　　'How many of problems can you solve?'

　　b. Combien$_i$ sais-tu résoudre [t$_i$ de problèmes]?
　　　　'How many can you solve of problems?'

(71) a. ?{Combien de problème}$_i$ sais-tu comment résoudre t$_i$?
　　　　'How many of problems do you know how to solve?'

　　b. *Combien$_i$ sais-tu comment résoudre [t$_i$ de problèmes]?
　　　　'How many do you know how to solve of problems?'

The locality restriction is based on the availability of another intervening clause in (71). However, negation (72b) and quantificational adverbs (73b) also act as interveners, as expected from the classification in (66b). Non-quantificational adverbs do not act as interveners (74) (Rizzi 2004):

(72) a. {Combien de problèmes}$_i$ ne sais-tu pas résoudre t$_i$?
      'How many of problems can't you solve?'

    b. *Combien$_i$ ne sais-tu pas résoudre [t$_i$ de problèmes]?
      'How many can't you solve of problems?'

(73) a. {Combien de livres}$_i$ a-t-il beaucoup consultés t$_i$?
      'How many of books has he a lot consulted?'

    b. *Combien$_i$ a-t-il beaucoup consulté t$_i$ de livres?
      'How many has he a lot consulted of books?'

(74) a. {Combien de livres}$_i$ a-t-il attentivement consultés t$_i$?
      'How many of books did he carefully consult?'

    b. Combien$_i$ a-t-il attentivement consulté [t$_i$ de livres] ?
      'How many did he carefully consult of books?'

Likewise, Italian adverb *rapidemente* 'rapidly' can normally be extracted (75b) but not across an adverb of the same class (75c) (Rizzi 2004):

(75) a. I tecnici hanno (probabilmente) risolto rapidamente il problema
      'The technicians have probably resolved rapidly the problem'

b. Rapidamente$_i$, i tecnici hanno risolto t$_i$ il problema

   'Rapidly, the technicians have resolved the problem'

c. *Rapidamente$_i$, i tecnici hanno probabilmente risolto t$_i$ il problema

   'Rapidly, the technicians have probably resolved the problem'

d. Probabilmente$_i$, I tecnici hanno t$_i$ risolto rapidamente il problema

   'Probably, the technicians rapidly resolved the problem'

If the adverb is focused, it can move across *probabilmente* 'probably' (76a), but not if there is intervening negation (76b), as focus and negation are both quantificational and intervene with each other's movement:

(76) a. RAPIDAMENTE i tecnici hanno probabilmente risolto il problema (non lentamente)

     'RAPIDLY the technicians have probably solved the problem (not slowly)'

   b. RAPIDAMENTE i tecnici (*non) hanno risolto il problema

     'RAPIDLY the technicians have (not) solved the problem'

So far, data support Rizzi's classification in (66) and the proposal that members of one group are interveners for each other. On the assumption that the classification in (66) is a form of selective opacity, this can be taken as evidence that opaque domains are feature-sensitive and selective opacity applies in a more specific way than the difference in A versus A'-movement. Indeed, Keine (2019) applies it for long-distance agreement in Hindi and provides a more detailed understanding of different types of interactions and their different behavior. The goal of Keine (2019) is to demonstrate that opaque domains can be feature-dependent and one opaque domain may not be opaque for all interactions, based on agreement data as well as movement data. He

states (p. 15): "Interestingly, selective opacity poses a challenge to standard approaches to syntactic locality, which have historically tended to treat locality as a binary distinction: a given domain is either transparent or opaque, without sensitivity to the type of extraction". This is not to say phases do not exist (Keine 2019). Rather, there are different types of opaque domains, some of which can be defined based on certain features and classes of elements. Keine (2019) shifts the locus of opacity to the probe rather than the goal to account for the patterns in focus.

I argue that *diye* clauses are a kind of selectively opaque domain (so, not a phasal domain) by focusing on the types of interactions it allows. To be able to make that explicit, it is important to understand two points: the special status of topics and the role of clause size.

Topics have often been argued to be special in that they do not act as interveners and generally may not obey domain restrictions. For example, Rizzi (2004) showed that the adverb *rapidemente* 'rapidly' can undergo topic-movement across a topic as in (77a). In this sense, topics do not act as interveners for each other although they share a common feature according to (66). A similar example can be constructed with English, as in (77b), where the matrix clause topic moves from its embedded clause position across an embedded topic:

(77) a. Rapidamente, penso che, questo problema, non lo possiate risolvere
         'Rapidly, I think that, this problem, you could not solve it

      b. {The book}$_i$, John thinks [that {to Mary}$_k$, Daniel gave t$_i$ t$_k$]

We have seen that topics are special in Turkish *diye* clauses in a similar way. For one, they are the elements that break the otherwise-established generalization that *diye* clauses are opaque domains. Second, two types of topics discussed, i.e., aboutness topics and discourse-anaphoric

topics, do not intervene with each other. What I argue now is that this special status derives from the height of the topic probe, following Poole (2020).

Poole (2020) argues that selective opacity is not restricted to agreement (or movement), rather it is also observed in case dependencies. In a simple transitive case in Finnish, the external argument (subject) bears the nominative case and the internal argument (object) bears the accusative (78a). If the object is passivized (78b), if the object appears in an imperative (78c) or if the subject bears lexical Case, the object bears the nominative Case (78d):

(78) a. Pekka   osti   kirja-n
      P.NOM   bought   book-ACC
      'Pekka bought the/a book'

    b. Kirja   oste-ttiin
      book.NOM   buy-PASS.PST
      'The book was bought'

    c. Osta   kirja!
      buy.IMP   book.NOM
      'Buy the/a book'

    d. Minu-n   täytyy   osta-a   kirja
      I-GEN   need   buy-INF/TA   book.NOM
      'I have to buy the book'

In Finnish, adjunct clauses also enter into case calculation. If the subject is marked with the nominative, the object and the adjunct both bear the accusative (79a). If the subject bears lexical

Case, the object bears the nominative and the adjunct the accusative (79b) ((85b): Maling 1993:57):

(79) a. Liisa   muisti   matka-n   vuode-n
        L.NOM   remembered   trip-ACC   year-ACC
        'Liisa remembered the trip for a year'

    b. Liisa-n   täytyy   muista-a   matka   vuode-n
        L-GEN   need   remember-INF/TA   trip.NOM   year-ACC
        'Liisa has to remember the trip for a year'

Finnish has *MA*-infinitives, where the heading verb bears a case marker assigned by the verb (e.g., illative in (80a)) (Koskinen 1998:329). They are structurally TPs. The crucial point is that the embedded object enters into case calculation with the matrix subject. When the latter is in the nominative, the embedded object is accusative-marked (80b). When the latter is non-existent, the embedded object is marked with the nominative (80c):

(80) a. Minä   autoin   Jukka-a   [$_{TP}$ kirjoitta-ma-an   Marja-lle]
        I.NOM   helped   Jukka-PTV   write-INF/MA-ILL Marja-ALL
        'I helped Jukka [to write to Marja]'

    b. Hän   kävi   [$_{TP}$ avaa-ma-ssa   ove-n]
        s/he.NOM went   open-INF/MA-INE door-ACC
        'S/he went to open the door'

    c. Käy   [$_{TP}$ avaa-ma-ssa   ovi]
        go.IMP   open-INF/MA-INE   door.NOM
        'Go open the door'

Unlike (80), adjunct clauses do not enter into case calculation with *MA*-clauses. We see this especially when the subject is absent. When there is no adjunct clause, the matrix object and the embedded object are both in the nominative (81a) (Vainikka 1989:268). This shows that matrix object affects case assignment. When there is an adjunct clause, this clause does not affect the nominative assignment on the embedded object (81b) (Maling 1993:66). The adjunct clause itself bears the accusative as a result of case-dependency on the matrix subject:

(81) a. Pyydä   Jukka   [_{TP} luke-ma-an   kirja]
         ask.IMP   J.NOM   read-INF/MA-ILL   book.NOM
         'Ask Jukka to read the book'

     b. Pyydä   Jukka   [kolmanne-n   kerra-n]   [_{TP} luke-ma-an   kirja]
         ask.IMP   J.NOM   third-ACC   time-ACC   read-INF/MA-ILL book.NOM
         'Ask Jukka for the third time to read the book'

Poole (2020) summarizes these patterns in a generalization as in (82) (p. 21) and proposes to account for this pattern using the Williams Cycle (WC) (Williams 2003), phrasing it as in (83):

(82)   *Finnish Case Generalization*
            In Finnish, a matrix subject can license dependent case across an embedded TP
            boundary, but a matrix object and a matrix adjunct cannot.

(83)   *Williams Cycle (strong version)*
            Within the current XP, a syntactic operation may not target an element across YP,
            where Y is higher than X in the functional sequence.

When applied to the Finnish case, "in terms of the WC: a DP in [Spec, TP] can license dependent case on another DP across a TP, because T≽T, but a DP in [Spec, vP] or [Spec, VP] cannot do so because T>v and T>V (p. 26)". The author applies a similar implementation to movement. This was the original data in Williams (2003). "The core analytical intuition behind the WC is that one and the same node is a barrier to some movement types, but not to others, and that this distinction correlates with the structural height of the landing site in the functional sequence (p. 1)". According to this idea, CP is a barrier for movement to TP but not to CP. That is why A'-movement does not feed A-movement (84a) but the reverse pattern is possible (84b). Likewise, TP is a barrier for movement to vP but not to TP and CP.

(84) a.*Alex$_i$ seems [$_{CP}$ t$_i$ ate the nattoo]
      b. What$_i$ did Kyle expect [$_{TP}$ Alex to eat t$_i$]?

Let us go back to the Turkish case with this background in mind. Recall the structure of *diye* clauses, repeated in (85):

(85)
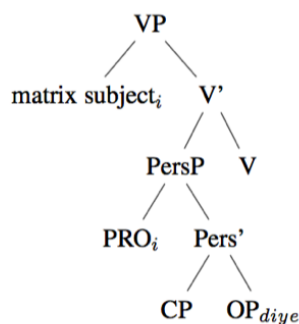
Recall also that *diye* clauses do not allow binding, NPI-licensing or specific reading of embedded quantifiers. The relevant examples are repeated below:

(86) *Çocuklar_i   [Ali   birbirlerin-i_i   eşleştir-di   **diye**]   bil-iyor

      children   A   each.other-ACC   match-PST   diye   know-IMPF

      'Children_i know [diye Ali matched each other_i]'

(87) ??/# Ali   [kimse   gel-di   **diye**]   bil-m-iyor

      A   no.one   come-PST diye   know-NEG-IMPF

      'Intended: Ali knows [diye no one came]'

(88) Pelin   [burada   biri   hasta   **diye**]   bil-iyor

      P   here   someone   sick   diye   know-IMPF

      '#Pelin knows [diye someone is sick here]' *(specific)*

      'Pelin knows [diye there is someone sick here]' *(unspecific)*

The potential licenser of the NPI, i.e., matrix negation, is below AspP/TP, as evidenced by the

order of the morphemes in (86) (i.e., negation is to the left of the tense-aspect marker, hence

lower). I assume that the specific reading in (87) would have been achieved in the CP if it was

possible. The antecedent for the anaphor in (88) is the matrix subject in SpecTP. Notice that all

of these probes have a position at or below CP. We know by now that *diye* clauses are bigger

than CPs in that they also have a PersP that takes a CP as its complement, as shown in (85).

Based on WC, this predicts that elements that are below PersP in the hierarchy of phrases (e.g.,

VP, AspP/TP, CP) cannot interact with a PersP as probes. In other words, matrix VP, AspP/TP,

CP cannot interact with the PersP in the embedded clause because PersP>VP, AspP/TP, CP

hierarchically. This would account for why elements in VP, AspP/TP (e.g., negation, subjects) or

CP (e.g., specific-read elements) in the matrix clause cannot come into interaction with PersP,

i.e., *diye* clauses.[78]

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[78] One could ask how the said interactions are possible in –*DIK* clauses, which I argued to be CP nominalizations
(i.e., DP>CP). In this case, the elements in matrix Asp/TP (and even CP, presumably, since there is a higher

How about topics? I have extensively argued that *pro* has a topic-related feature as they associate with the salient individual in the discourse, namely the old topic. I have also showed that *diye* clauses allow overt topic movement with aboutness topics. If we adopt an explanation based on height, the prediction is that the topic positions must be higher than PersP (i.e., TopicP>PersP). Indeed, it is known that topics are the left-most elements in Turkish (Erguvanlı 1984, Şener 2010) (also see Rizzi 2004). This is what I assumed for Turkish, repeated in (89):

(89)

```
                        ForceP
                        /    \
                    Spec    Force'
                            /    \
                       TopicP    Force
                       /    \
                   Spec    Topic'
                   /          \
             SpeakerP          Topic
             /     \             |
          DP      Speaker'   {discourse-anaphoricity}
          |        /    \
      Speaker   IntP   Speaker
              /    \
          Spec    Int'
                  /    \
             TopicP    Int
             /    \
         Spec    Topic'
         /          \
     PersP          Topic
     /    \           |
  PRO_i   Pers'   {aboutness}
          /    \
        CP    OP_matrix
```

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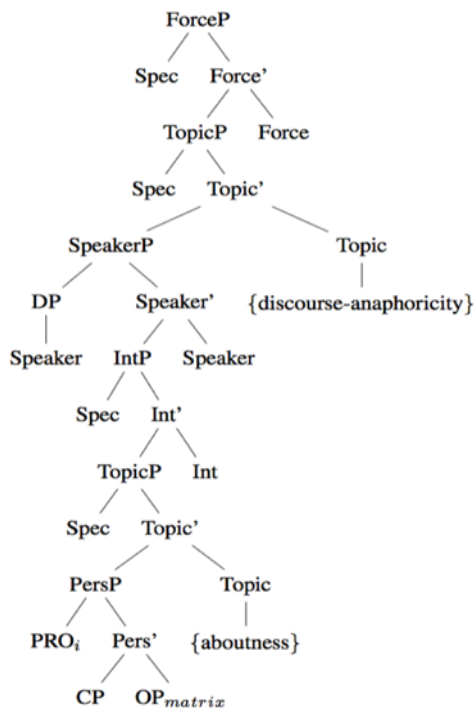
projection (i.e., DP) in *–DIK* clauses), should not be expected to interact with the *–DIK* clause but they do. This is because *–DIK* clauses do not form an opaque domain and the height-explanation holds for opaque domains only.

Then, the pattern in Turkish, i.e., that *diye* clauses are not opaque for topichood, follows from WC as adapted by Poole (2020) because they are higher than PersP and therefore can look into the *diye* clause. This is represented as in (90):

(90)
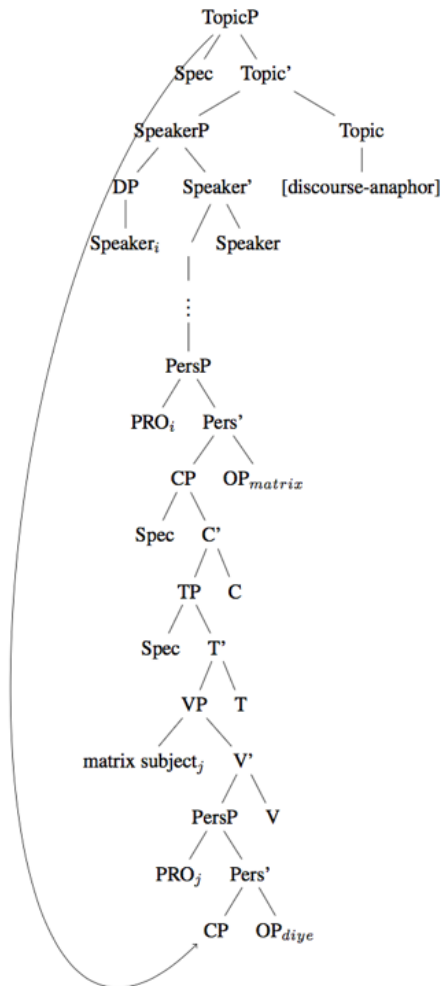
It is not only topics that are higher than PersP. The obligatory matrix scope of question elements in *diye* clauses can be explained through the height of IntP as well. Since IntP is higher than PersP, it can probe into it, resulting in a higher scope reading of question elements. The relevant example is in (91):

(91) Semra   [kim   gel-di   **diye**]   bil-iyor

       S   who-3GEN come-PST   diye   know-IMPF

       'Who$_i$ does Semra know [diye s/he$_i$ came]?'

       '*Semra knows [diye who came]'

This analysis has some important implications. First, although the exact implementation of selective opacity differs (Rizzi 2004; Abels 2012, Keine 2019, Poole 2020), the intuition and the patterns behind these analyses remain the same: opaque domains are not opaque in a binary way. Rather, it may be feature-driven (Rizzi 2004) or height-driven (Keine 2019, Poole 2020). I consider the proposal in this chapter to be an addition to the conclusions from these studies: *diye* clauses are opaque for NPI-licesing, wide scope of quantifier elements and binding but they are transparent for topics. One difference of the present proposal is that it extends this explanation to various operations at the same time while previous studies focused on a specific type of operation (agreement and movement for Keine 2019 and case-licensing for Poole 2020). Notice that *diye* clauses are opaque for different types of interactions: licensing (negation), (covert) movement (specific readings) and binding (anaphors). This indicates that, as has been pointed out in Keine (2019) and Poole (2020), selective opacity has a much broader application than previously assumed and it encompasses different types of operations. *Diye* provides more direct evidence for this position, since one and the same domain shows restrictions on different types of operations while allowing others. The next section discusses epithets, which surprisingly show very similar behavior to *pro* but brings in different types of challenges.

3.3.3. Evaluation of epithets

Another type of element that can be optionally associated with the attitude context and the utterance context is epithets. Epithets share with *pro* the property of (i) being subject to *De Re Blocking* and (ii) not being clause-bound. Additionally, epithets are also context-dependent, though in a different way than *pro*. These similarities are surprising given a major difference between *pro* and epithets: Unlike *pro,* which can optionally *refer to* the matrix subjects or the speaker, epithets can be *evaluated by* matrix subjects and the speaker (and in fact cannot refer to them, as was shown in Chapter 2). The difference is due to the fact that epithets already have an established referent in the discourse (i.e., they behave line names in that respect) while *pro* does not. In that, we could expect epithets to pattern with (some of) the data in Chapter 2 that are DPs and need to be bound within the embedded clause (i.e., entities). But this is not borne out. Since two different types of elements, one that *refers* to the perspective center and one that is *evaluated* by it show similar patterns, this eliminates a potential argument that the optional pattern is activated when one needs to *refer* to a perspective center. This is important because earlier research on this type of optionality only focused on optionality in *pro,* namely elements that *refer.* That is only part of the bigger picture. The present discussion indicates that there is a more generalized pattern that includes elements that *refer* to and elements that are *evaluated* by the perspective center and that unification is based on the height of the probe.

Now let us see the similarities between *pro* and epithets. The first similarity is the optional pattern. Epithets can be evaluated either by the speaker or the matrix subject in *diye* clauses (92b) (In –*DIK* clauses, they are not accepted by all speakers when there is conflict with the speaker's evaluation (95a)):

(92) *Context 1:* I am a teacher. I think my student Ali$_i$ is very smart. His classmate Murat thinks Ali$_i$ is an idiot. Murat also thinks Ali$_i$ won the running competition.
Context 2: I am a teacher. I think my student Ali$_i$ is an idiot. His classmate Murat thinks Ali$_i$ is very smart. Murat also thinks Ali$_i$ won the running competition.

a. Murat   [o   salağ$_i$-ın   yarış-ı   kazan-**dığ**-ın]-ı   bil-iyor[79]
   M   that   idiot-3GEN   competition-ACC   win-DIK-3S-ACC   know-IMPF
   'Murat knows [that that idiot won the competition]'

(Context 1: %, Context 2: ok)

b. Murat   [o   salak$_i$ yarış-ı   kazan-dı   **diye**]   bil-iyor
   M   that   idiot   competition-ACC   win-PST   diye   know-IMPF
   'Murat knows [diye that that idiot won the competition]'

(Context 1: ok, Context 2: ok)

(92a) and (92b) both would be unacceptable in a *non de dicto* context where Murat is not aware of who 'that idiot' is. (93) is a case in point. Since the matrix subject is not aware who the idiot refers to in (93), s/he cannot be an evaluator for it in neither *diye* nor *–DIK* clauses.

(93) *Context:* Murat knows that Ali$_i$ won the race. Murat is not aware that Ali$_i$ is an idiot. (Speaker knows both that Ali$_i$ won the race and that Ali$_i$ is an idiot).

a. Murat   [o   salağ$_i$-ın   yarış-ı   kazan-**dığ**-ın]-ı   bil-iyor
   M   that   idiot-3GEN   competition-ACC   win-DIK-3S-ACC   know-IMPF
   'Murat knows [that that idiot won the competition]'

---

[79] The divergence between my informants was that the *–DIK* clause can perhaps be ok in Context 1 for some and not for others. The majority did not like it, however, saying that the speaker must agree with the evaluation.

(Evaluator: S, #MS)

b. Murat [o salak_i yarış-ı kazan-dı **diye**] bil-iyor

 M   that idiot competition-ACC win-PST diye know-IMPF

 'Murat knows [diye that that idiot won the competition]'

 (Evaluator: S, #MS)

I argued that *pro* is in SpecTP, which is a higher position than an object like *o salağ-ı* 'that idiot-ACC', which is in the VP. If *De Re Blocking* holds for epithets, this predicts that *o salağ-ı* should be evaluated only by the speaker when the *pro* refers to the speaker, the speaker being the *de re* element. This is borne out (94a). When the reference of *pro* is the matrix subject, the epithet object can be evaluated both by the matrix subject and the speaker (94b).

(94) *Context 1:* The speaker, but not Murat, saw Ali_i.

 Murat [*pro* o salağ_i-ı gör-dü-m **diye**] bil-iyor

 M   that idiot-ACC see-PST-1S diye know-IMPF

 'Murat knows [diye *pro* saw that idiot_i]'

 (Evaluator: S, #MS)

Context 2: Murat, but not the speaker, saw Ali_i.

 Murat [*pro* o salağ_i-ı gör-dü-m **diye**] bil-iyor

 M   that idiot-ACC see-PST-1S diye know-IMPF

 'Murat knows [diye *pro* saw that idiot_i]'

 (Evaluator: S, MS)

The third similarity between the epithets and *pro* is the lack of locality effects. When there are multiple embeddings with *diye* clauses, epithets can be evaluated by a matrix subject two clauses up, i.e., there are no locality constraints:[80]

(95) *Context:* I am a teacher. I and Esra think my student Ali$_i$ is very smart. His classmate Murat thinks that Ali$_i$ is an idiot and that Ali$_i$ won the running competition:

a. #Murat   Esra-nın   [o   salağ$_i$-ın   yarış-ı   kazan-**dığ**-ın]-ı

    M   E-3GEN   that   idiot-3GEN   competition-ACC   win-DIK-3S-ACC

    bil-**diğ**-in-i   bil-iyor

    know-DIK-3S-ACC   know-IMPF

    'Murat knows Esra knows [that that idiot won the competition]'

b. Murat   Esra   [o   salak$_i$ yarış-ı   kazan-dı   **diye**]

    M   E   that   idiot   competition-ACC   win-PST   diye

    bil-iyor   **diye**   bil-iyor

    know-IMPF   diye   know-IMPF

    'Murat knows diye Esra knows [diye that idiot won the competition]'

In conclusion, epithets show optionality in that they can be evaluated by any of the matrix subjects or by the speaker. They show *De Re Blocking* effect but no locality effects, similar to *pro.*[81] This is summarised in Table 3. For ease of comparison, I add the evaluation of phrasal

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[80] *–DIK* clauses are bit harder to judge here, as my participants commented, primarily due to a stronger requirement of agreement with the speaker.
[81] Assuming the weak evidence for De Re Blocking in *pro* to hold.

content from Chapter 2 so the difference between optional (i.e., associated either with matrix subjects or speaker) and obligatory elements (associated with lowest matrix subject) are clear.

Table 3: *pro* and epithets

	Phrasal Content	Turkish 1st Person Agreement	Epithets
Optionality	No	No	No
De Re Blocking	No	Yes	Yes
Locality	Yes	No	No

This begs the question whether epithets are also discourse-dependent like *pro,* if they are similar in other ways just mentioned? The answer is yes, but with a different type of discourse dependency. It turns out that the discourse-relatedness of epithets derives from distance-specification via the pronominal/demonstrative contained within them. Epithets in Turkish must include a demonstrative, as shown in (96):

(96) Murat   [*(o/bu)   salak   yarış-ı   kazan-dı   **diye**]   bil-iyor
      M   (that/this) idiot   competition-ACC win-PST   diye   know-IMPF
      'Murat knows [diye that *(that/this) idiot won the competition]'

I first investigate the pronominal/demonstrative contained within the epithet to highlight its important role in the interpretation of epithets. Turkish has the proximal ([+prox]) and distal ([+distal]) demonstratives as well as a middle one ([-prox]/[-distal]) (97), all measured according to the speaker's stance by default and this distinction is observed under attitude verbs in *diye* clauses as well as *–DIK* clauses (98)-(99). Notice that the relevant nominal is not an epithet in (98) but it includes a pronominal/demonstrative:

(97) a. o[82]   adam

   that (lit. it) man

   'that [+distal] man'

  b. bu adam

   this man

   'this [+ prox] man'

  c. şu adam

   that man

   'that [-prox]/[-distal] man'

(98) *Context:* Ali$_i$ is far away from the speaker.

  a. John [o/#bu adam$_i$-ın kazan-**dığ**-ın]-ı bil-iyor

   J   that/this man-3GEN win-DIK-3S-ACC know-IMPF

   'John knows that [that/#this man won]'

  b. John [o/#bu adam$_i$ kazan-dı **diye**] bil-iyor

   J   that/this man win-PST diye know-IMPF

   'John knows [diye that/#this man won]'

(99) *Context:* Ali$_i$ is near the speaker.

  a. John [#o/bu adam$_i$-ın kazan-**dığ**-ın]-ı bil-iyor

   J   that/this man-3GEN win-DIK-3S-ACC know-IMPF

   'John knows that [#that/this man won]'

---

[82] The demonstrative for distal has the same overt form as the third person pronoun.

b. John   [#o/bu   adam$_i$ kazan-dı   **diye**]   bil-iyor

    J   that/this   man   win-PST   diye   know-IMPF

    'John knows [diye #that/this man won]'

When we specify the position of the individual in context (i.e., Ali) with respect to the matrix subject, however, some speakers report a difference between *–DIK* and *diye* clauses such that only the latter allows the reading where distance is evaluated from the matrix subject's perspective:[83]

(100) *Context:* Ali$_i$ is near the speaker but far away from John.[84]

    a. #John   [o   adam$_i$-ın   kazan-**dığ**-ın]-ı   bil-iyor

       J   that   man-3GEN   win-DIK-3S-ACC   know-IMPF

       'John knows that [that man won]'

       …ama adam$_i$ın yanımda olduğunun farkında değil
       …but he is not aware that the man$_i$ is by me

    b. John   [o   adam$_i$ kazan-dı   **diye**]   bil-iyor

       J   that   man   win-PST   diye   know-IMPF

       'John knows [diye that man won]'

       …ama adam$_i$ın yanımda olduğunun farkında değil
       …but he is not aware that the man$_i$ is by me

---

[83] Interestingly, when we reverse the situation such that the man is far away from the speaker and near John, both *–DIK* and *diye* clauses with *bu adam* 'this man' are not allowed. I do not know why, but it might be due to a difference in the demonstrative element. Perhaps *bu* 'this' has a stronger connotation in some way than *o* 'that'. The fact that *o* is also a pronominal element (i.e., 3rd person singular) might indicate that *o* is more pronominal than *bu*. Epithets mostly use *o* 'that'.

[84] These data produce slightly more variable judgments. A full-fledged analysis of how exactly are epithets context-dependent is left for future research. Based on the discussion in this section, I still assume that there is some kind of distance-dependency, which is related to context-dependency.

Now, let us look at epithets. Since epithets must include a demonstrative, the epithet in *diye*

clauses shows the same type of optionality, as shown in (101)-(103):

(101) *Context:* Ali_i is far away from the speaker.

    a. John   [o/#bu   salağ_i-ın   kazan-**dığ**-ın]-ı   bil-iyor

    J   that/this   idiot-3GEN win-DIK-3S-ACC   know-IMPF

    'John knows that [that/#this man won]'

    b. John   [o/#bu   salak_i   kazan-dı   **diye**]   bil-iyor

    J   that/this   idiot   win-PST   diye   know-IMPF

    'John knows [diye that/#this idiot won]'

(102) *Context:* Ali_i is near the speaker.

    a. John   [#o/bu   salağ_i-ın   kazan-**dığ**-ın]-ı   bil-iyor

    J   that/this   idiot-3GEN win-DIK-3S-ACC   know-IMPF

    'John knows that [#that/this idiot won]'

    b. John   [#o/bu   salak_i   kazan-dı   **diye**]   bil-iyor

    J   that/this   idiot   win-PST   diye   know-IMPF

    'John knows [diye #that/this idiot won]'

(103) *Context:* Ali_i is near the speaker but far away from John.

    a. #John   [o   salağ_i-ın   kazan-**dığ**-ın]-ı   bil-iyor

    J   that idiot-3GEN win-DIK-3S-ACC know-IMPF

    'John knows that [that idiot won]'

…ama Ali_inin yanımda olduğunun farkında değil

…but he is not aware that Ali_i is by me

b. ?John   [o   salak_i   kazan-dı   **diye**]   bil-iyor

   J   that idiot   win-PST   diye   know-IMPF

   'John knows [diye that idiot won]'

…ama Ali_inin yanımda olduğunun farkında değil

…but he is not aware that Ali_i is by me

This indicates that the demonstrative inside the epithet plays a crucial role in yielding the pattern observed because the demonstrative yields the same pattern regardless of the nominal head it is attached to. Interestingly, it is also the demonstrative element that causes (potential) *De Re Blocking* (recall that there is a confound in the following examples such that both the overt pronoun and the *pro* refer to the same individual, and yet there is a structural c-commanding relation between them). We can show this with the following example, where the overt pronoun acts as an intervener for evaluation from the matrix subject's perspective if the DP (with an epithet or not) has a demonstrative (104a/c) but not if it does not (104b/d):

(104) *Context:* Ali_i is near the speaker but far away from John.

a. #John   [ben   o   adam_i-ı   gör-dü-m   **diye**]   bil-iyor

   J   I   that   man-ACC   see-PST-1S   diye   know-IMPF

   'John knows [diye I saw that man]'

…ama adam_iın yanımda olduğunun farkında değil

…but he is not aware that the man_i is by me

b. John   [ben   adam$_i$-ı   gör-dü-m   **diye**]   bil-iyor

    J   I   man-ACC   see-PST-1S   diye   know-IMPF

    'John knows [diye I saw the man]'

   …ama adam$_i$ın yanımda olduğunun farkında değil

   …but he is not aware that the man$_i$ is by me

c. #John   [ben   o   salağ$_i$-ı   gör-dü-m   **diye**]   bil-iyor

    J   I   that   idiot-ACC   see-PST-1S   diye   know-IMPF

    'John knows [diye I saw that idiot]'

   …ama Ali$_i$nin yanımda olduğunun farkında değil

   …but he is not aware that Ali$_i$ is by me

d. John   [ben   salağ$_i$-ı   gör-dü-m   **diye**]   bil-iyor

    J   I   idiot-ACC   see-PST-1S   diye   know-IMPF

    'John knows [diye I saw the idiot]'

   …ama Ali$_i$nin yanımda olduğunun farkında değil

   …but he is not aware that Ali$_i$ is by me

So far, we have concluded that *pro* and epithets are both optional in similar ways; they are both context-dependent (although in different ways - but *pro* is dependent on salience and epithets on distance-) and the demonstrative/pronominal inside the epithet brings out the observed patterns. What is the structure of epithets? Since epithets already refer to someone in the discourse (see any example above, for example (104c))), I assume that they are DPs. But that is not all there is. They must be a special type of DP, as they include a demonstrative that is related to proximity. Since the demonstrative is sensitive to distance relations, I suggest that the DP in epithets

encodes deictic properties. I argue that (105) represents the internal structure of epithets adapted

(simplified) from Patel-Grosz (2020), who follows Ihsane & Puskàs (2001) and Laenzlinger

2005). Epithets are a special type of DP, DP$_{deix}$. DP$_{deix}$ is a DP that hosts a demonstrative in

Patel-Grosz (2020) and is more contextually dependent. In (105), following this, the

demonstrative is in SpecDP$_{deix}$ and the specific contextual dependency is encoded as an unvalued

feature on the head D$_{deix}$. This feature is valued by the DP whose referent's proximity is made

salient in the context. The NP is the pronominal-like part (like in *pro* in NP) and the D (deixis) is

the name-like part that encodes context-dependency:

(105)
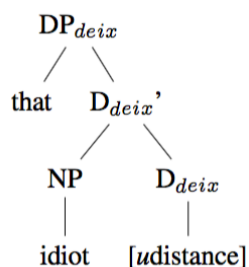
Crucially, however, this account does not account for the fact that *pro refers* and epithets are

evaluated. Therefore, it remains speculative. At best, I can attribute this to the difference in the

internal structure of *pro* and epithets, specifically the former being a φP and the latter a DP.

However, it is still unclear how this difference plays a role. I leave this for future research.

      Before closing this section, let me point out that the *De Re Blocking* effect observed in

epithets, indicates that the relevant contextual dependency (i.e., distance) is not merely a

pragmatic requirement. Rather, it has syntactic consequences. If it was pragmatic, we would not

expect intervention-like effects as to who can be the evaluator, but we do observe these effects, which indicates there are syntactic processes involved.

3.4. Elements that are Obligatorily Associated with Utterance Context

There are some elements that cannot be associated with the matrix subject (i.e., embedded context) and must be associated with the speaker or hearer (i.e., utterance context) in *diye* clauses. We have already seen one of these elements, namely overt pronouns. Recall the example in (110), where the overt pronoun *ben* blocks the association of the first-person agreement marker (and the *pro*) with the matrix subject. That is because *ben* refers to the speaker, a coordinate of the utterance context. Likewise, the overt pronoun object in (111) must be interpreted as referring to the addressee of the utterance context.

(106) a. Seda   [*pro*   hayalet   gör-dü-m   **diye**]   bil-iyor
       S   ghost   see-PST-1S   diye   know-IMPF
       'Seda knows [diye I saw a ghost]'

       (ISG pro=S, MS)

    b. Seda   [ben   *pro*   hayalet   gör-dü-m   **diye**]   bil-iyor
       S   I   ghost   see-PST-1S   diye   know-IMPF
       'Seda knows [diye I saw a ghost]'

       (ISG pro=S, *MS)

(107) Murat   [*pro*   sen-i   tanı-yor-um   **diye**]   bil-iyor
       M   you-ACC   know-IMPF-1S   diye   know-IMPF

'Murat knows [diye I know my you]'

(ISG pro=S, *MS; you=H)

Another example is locative indexicals such as *burada* 'here', which must refer to the speaker's location:[85]

(108) *Context 1:* Mary is in Los Angeles. However, she thinks she is in Irvine. The speaker is in Los Angeles. Mary has an appointment in LA.

Mary   [toplantı   burada/#orada   ol-acak   **diye**]   bil-iyor
M   meeting   here/there   be-FUT   diye   know-IMPF
'Mary knows [diye the meeting will be here/#there]'

Context 2: Mary is in Los Angeles. However, she thinks she is in Irvine. The speaker is in Irvine. Mary has an appointment in LA.

Mary   [toplantı   #burada/orada   ol-acak   **diye**]   bil-iyor
M   meeting   here/there   be-FUT   diye   know-IMPF
'Mary knows [diye the meeting will be #here/there]'

---

[85] Interestingly, temporal elements are not as strict, as it can be associated with the matrix subject.

(i)   Today is Friday. Last week on Friday, John said Mary would leave the following day, i.e., on Saturday last week.
Geçen   Cuma   John   [Mary   *yarın*   gid-ecek
last   Friday   J   M   tomorrow   go-FUT

diye]   bil-iyor-du
diye   know-IMPF-PST

'Intended: Last Friday, John knew [diye Mary would go the following day]'

These elements can be analyzed along the lines of Kaplan (1989), Sundaresan & McFadden (2019), among others, and encode dependence on the utterance context in the lexical element itself. In other words, Group 3 elements are lexically specified to refer to the utterance context, therefore only the matrix operator can bind them. Because they are lexically encoded for the utterance context. Though I leave development of a semantic denotation that is in line with the present proposal for future work, Kaplan (1989)'s analysis of lexically utterance-context oriented elements needs to be mentioned. His analysis of such elements is as in (109):

(109)   a. $[[here]]^{c,i,g}=Location(c)$

          b. $[[now]]^{c,i,g}=Time(c)$

How this can be formalized semantically in the present analysis, which uses a lambda-abstractor binding operator in *diye* clauses is a task for future research. However, an interesting observation is that attribution of the utterance context association in the elements in this section finds support in the fact that these elements are the only ones that must be single, overt words. In other words, they are overt lexical items. This differentiates them from the phrasal content that needs to be evaluated by the closest matrix subject discussed in Chapter 2; from *pro,* which is a covert element, and epithets, which are also phrasal. Thus, lexical encoding is possible because they are born with the said association in the lexicon.

3.5. Interim Summary and Discussion

This section combines the proposals in Chapter 2 and 3 and discusses their combined implications. The proposals in these chapters can be combined in the following way:

(110) a. *diye* is the overt realization of a perspectival operator in the head of PersP, which takes a CP as complement. The operator reports the embedded content from the first-person perspective of the closest matrix subject. This makes *diye* the overt realization of a perspective operator.

b. Phrasal content such as evaluative adjectives, phrasal temporal and lexical elements, among others, in the *diye* clause come with an anaphoric world variable that needs. to be bound by the *diye* operator in the immediate clause. This results in phrasal content (without a pronominal element) being reported from the first-person perspective of the lowest matrix subject.

c. First-person agreement and the related *pro* (and epithets) are optionally bound by the speaker or any of the matrix subjects. I argued that the pronominal inside these elements are born with an unvalued, uninterpretable topic feature that keeps the binding domain unrestricted. This is because topic probes are higher than PersP in the clausal spine on the selective opacity account of Keine (2019) and Poole (2020).

d. Some elements such as overt pronouns and locative expressions like *burada* 'here' must be associated with the utterance context. This is due to the lexical properties of these elements, following the traditional Kaplanian account. The fact that these elements are overt words and do not include phrases (unlike the phrasal content that needs to be evaluated by the closest matrix subject; *pro,* which is a covert element; and epithets, which are also phrasal) might be construed as supporting evidence for

the lexical encoding in these elements. More precisely, they are both phrasal and

heads (cf. Chomsky on clitic pronouns).

Taken together, these points point to the systematicity of *diye* clauses in Turkish. *Diye*

consistently has the same structure, involving the same single operator in the same position. The

differences derive from the bound elements. Anaphoric elements, which are all phrasal in syntax,

come with a variable that needs to be bound in its immediate clause, in the attitude context.

Optional elements come with a pronominal element carrying a topic feature that require that it be

bound by the salient individual in the context and valued by a topic probe in syntax, which

allows it the flexibility of either being bound in the utterance context or the attitude context

depending on which one has a salient subject. The elements that are strictly associated with the

utterance context, which are all single words in the lexicon, are lexically encoded for this

association. This is summarized in Figure 1:

Figure 1:[86] Correlation of (Non-)Optionality of Reporting Context and Bound-Element Property

(AC: Attitude Context; UC: Utterance Context)

Bound in AC	Bound in AC or UC	Bound in UC
Phrasal Expressions	pronominal	Lexical Expressions
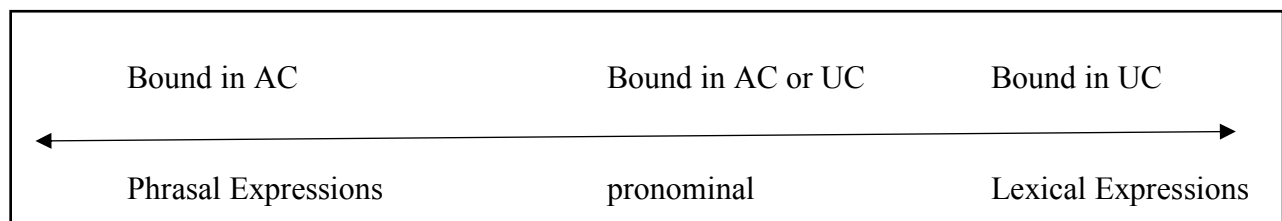
By grouping elements in this way, I have utilized independent properties of the bound elements

(e.g., their structural make-up, their requirements outside of *diye* clauses etc –e.g., *pro* requiring

---

[86] This figure suggests a continuum, which is purposeful. It is possible that there are elements that fall in between these categories in Turkish. I want to leave that possibility open. I thank Isabelle Charnavel for pointing this out.

saliency outside of *diye* clauses and inside them) to account for their varying behavior in *diye*

clauses, which is a desirable result as it leads to a unification and brings out the systematicity in

the Turkish grammar. Let us remember examples from all three groups here for clarity, given in

(111)-(113). The relevant elements are in italics.

Group 1: Elements that must be bound by the operator in diye

(111) *Context:* I know that Ali had a race between 2-3 pm. John thought his race was
between 5-6 pm. Ali and John are both in Los Angeles.

John	[Ali	*{5-6*	*arası/#2-3*	*arası}*	yarış-tı	**diye**]	bil-iyor
J	A	5-6	between/2-3	between	compete-PST	diye	know-IMPF

'John knows [diye Ali competed between 5-6/#between 2-3]'

Group 2: Elements that can be bound by the operator in diye or the ones in higher clauses

(112) Esra	[*pro*	sınıf-ta	kal-dı-*m*	**diye**]	bil-iyor
E		class-LOC	stay-PST-1S	diye	know-IMPF

'Esra knows [diye I failed the class]'

(ISG pro=S, MS)

Group 3: Elements that must be bound in the matrix clause (i.e., temporal deixis)

(113) *Context:* Mary is in Los Angeles. However, she thinks she is in Irvine. The
speaker is in Los Angeles. Mary has an appointment in LA.

Mary	[toplantı	*burada*	ol-acak	**diye**]	bil-iyor
M	meeting	here	be-FUT	diye	know-IMPF

'Mary knows [diye the meeting will be here]'

The three elements can be put together in combinations in *diye* clauses and they behave in their own unique way despite appearing under the same *diye* clause. The phrasal temporal expression *4-5 arası* 'between 4-5' must be reported from the perspective of the matrix subject, which I subbed as AC (Attitude Context). *pro* can refer to the speaker when there is *4-5 arası* 'between 4-5' evaluated in the attitude context in the same clause (114a). Reversely, *burada* 'here' cannot be reported from the matrix subject's perspective. While it stays associated with the utterance context, the optional element *pro* can refer to the matrix subject (114b):

(114) *Context 1:* John believes that the speaker walked between 4-5 pm while the speaker in fact walked between 5-6 pm.

    a. John   [{*pro*}$_{UC}$ {4-5 arası}$_{AC}$ yürü-dü-*m*   **diye**]   bil-iyor

      J   4-5   between   walk-PST-1S   diye   know-IMPF

       'John knows [diye I$_{UC}$ walked {between 4-5}$_{AC}$]'

    Context 2: John$_i$ believes that he$_i$ walked here while he$_i$ in fact walked there.

    b. John   [{*pro*}$_{AC}$ {burada}$_{UC}$ yürü-dü-*m*   **diye**]   bil-iyor

      J   here   walk-PST-1S   diye   know-IMPF

       'John knows [diye I$_{AC}$ walked {here}$_{UC}$]'

Given that both clauses in (114) are *diye* clauses and the operator is constant, the differences must derive from the elements themselves. This account makes the present account similar to Schlenker (1999), as he also argued to account for differences based on lexical items. He proposes the following classification based on data from various languages:

Table 4: Schlenker's Classification

	Indexical Devices		Anaphoric Devices
	All-purpose	Matrix	
Adverbs	in two days	the day after tomorrow	two days later ~~than it~~
Pronouns	Amharic 'I'	English 'I'	English 'he'
Tense	Russian Present Tense	English present tense	English past tense [in SOT contexts]

An indexical in Schlenker's account is an element whose "denotation depends on the context of speech (p. 19)", where context of speech refers to the tuple of the speaker, the hearer, the time and world of utterance. In Table 4, *all purpose indexicals* are those that "can be evaluated with respect to any context (actual or reported) (p. 26-27)" and *matrix indexicals* are those that "can only be evaluated with respect to the context of the actual speech act (p. 27)". Anaphoric devices require some more discussion. For that, see the examples below (Schlenker 1999: 27, ex. (31)):

(115) a. John has told me repeatedly over the years that he would give me my money back
    two days later
  b. *John has told me repeatedly over the years: 'I'll give you your money back
    two days later'
  c. I met John a week ago. **Two days later** he gave me my money back.

It is not possible to use *two days later* in a direct speech context to mean 'the day after tomorrow', as shown in (115b). It requires a salient antecedent in the discourse or speech situation (*over the years* in (115a) and *a week ago* in (115c)). Thus, *two days later* is anaphoric to the time in the matrix clause. Since *later* is a comparative, it has a concealed pronominal

argument: two days later ~~than it~~. Likewise, in the sentence *John says that he is a hero,* where *he* refers to *John,* this is an anaphoric device.

One can notice the parallels between the present study and Schlenker (1999): (i) both attribute differences to the lexical items themselves, (ii) both have somewhat similar groups of elements: all purpose indexicals can be likened to the optional elements in the present study and matrix indexicals to lexically indexical elements. Anaphoric devices are somewhat different: in the present study, an anaphoric variable that comes with phrasal content needs to be bound within the immediate attitude context while for Schlenker, saliency is important for this category. There are some other differences, too. For example, for the present study, saliency is important for what is the equivalent of Schlenker's all purpose indexicals. An important contribution is that the present study and Schlenker (1999) are both able to account for differences in syntactic/semantic behavior of different elements without positing different operators (e.g., Anand 2006, Deal 2020) or positing different evaluation domains (Charnavel 2019), thus keeping the intuition that *diye* is a single element that corresponds to one operator and the argument that they form an interpretationally complete domain that is syntactically selectively opaque. If *diye* clauses were made up of different perspectival domains, for example, we would have a harder time accounting for why they also behave as a single unit. The present study also finds systematicity in the types of bound elements that accounts for the grouping in Turkish (Figure 1). This insight is, I believe, an important contribution to understanding the roots of the patterns we find in language.

Another similar approach is Eckardt (2005)'s analysis of Free Indirect Discourse. Though *diye* is not an example of Free Indirect Discourse but rather an overt grammatical marker of

perspective, they share the property of being ways of reporting perspective in different domains of grammar. (116) is an example, about which Eckardt states (117) (p.3):

(116) The hair was curled, and the maid sent away, and Emma sat down to think and to be miserable. –It was a wretched business, indeed! Such an overthrow of every thing she had been wishing for. –Such a development of every thing most unwelcome!-Such a blow for Harriet!-That was the worst of all.
Austen, Emma, p.103

(117) Free indirect discourse is characterized by the fact that pronouns and tense in the sentence, and other types of perspectivising elements do not single out the same person as the speaker. For instance, the pronoun in (121) (BE: her (5)) suggests that Emma is *not* the speaker of these sentences-she is refered to with third person pronouns-whereas all emotional and evaluative words and constructions in the passage are most naturally interpreted as showing Emma's perspective.

Eckardt proposes to evaluate sentences in Free Indirect Discourse relative to a pair of contexts *<C,c>*, where *C* is the narrator's context and *c* is the protagonist's context. Specific words can be specified where they opt for this type of context or just one of the two members, as "the analysis also predicts that shiftability is a lexical property of words, not of words-in-utterances. For instance, the word *alas/leider* has a shiftable meaning once and for all (p. 44)".

Both Schlenker and Eckardt stand out with their large coverage of data, as only then can we see the overall systematicity. For instance, Eckardt (2005: 46) states the following:

(118) Large coverage: A meaningful linguistic analysis of free indirect discourse in

literary texts has to provide analyses for a wide range of phenomena. Only then can we

see how different factors conspire to trigger interpretation in the free indirect discourse

mood *<C,c>*. These factors include

- Context-dependence of tense and aspect

- Context-dependence of temporal and local adverbials

- Context-dependence of emotive expressions, exclamatives, epistemic modals,

  discourse particles and other expressions that refer to the speaker and/or addressee

  of an utterance

Admittedly, the differences between the present study and that of Schlenker and Eckardt are

large: not only are they semantically focused, unlike the present study that focuses on the syntax

of perspective, but the data covered are also somewhat different. What is common, however, is

the large-coverage approach taken and the aim in taking this approach. For example, while

Eckardt tried to unify various aspects of free indirect discourse by taking a broader look at data, I

did so with various element types in *diye* clauses with the goal of understanding their syntactic

properties and behavior. Therefore, I believe the present study retains the valuable aspects of the

said studies, namely their comprehensive approach to data coverage, while utilizing these data to

investigate the syntactic properties of the data.

3.6. Conclusion

In this chapter, I discussed the correlation of optional binding with contextual dependency (e.g.,

through saliency) in *diye* clauses. I argued that the optional elements possess a pronominal

element that needs to pick up the salient entity in discourse (old topic), achieved through topic

agreement. This makes *diye* a selectively opaque domain, opaque for various interactions between the matrix clause and the embedded clause such as NPI-licensing, binding, wide scope interpretation but transparent for topic-related interactions. This is evidence for studies arguing that opaque domains in syntax are not opaque in a binary fashion (Rizzi 2001, 2004, Abels 2012, Keine 2019) and there is a correlation with the size of the domain (Poole 2020). More specifically, *diye* clauses are transparent for topic-related functions because topics are higher than PersP, the highest projection in a *diye* clause. I also discussed elements that must be associated with the utterance context, which I argued lexically encode this association. I tied together data from Chapter 2 and discussed that the properties of the bound elements determine what kind of binding we get in *diye* clauses: anaphoric binding by *diye* with phrasal elements, pronominal binding by *diye* with *pro* and no binding by *diye* in lexical elements. My account brings out the systematicity in the Turkish grammar in a way that has not been observed in the Turkish or general literature, which is a significant contribution to the literature, which aims to bring out cross-linguistic systematicity.

CHAPTER 4

EMBEDDING VERB TYPES AND COMPLEMENTATION IN TURKISH

This chapter shifts its focus from the embedded clause to the attitude verb that embeds them. The goal is to discover syntactic interactions between the embedding verb and their complement clause and to uncover what these interactions entail for the grammatical system of Turkish. This endeavor is valuable since the effect of the syntax of the embedding verb types has been brought up in various studies in relation to (non)factivity. The present study takes a more in-depth look into how the syntax relates to factivity distinctions in embedding verbs by their effects on their complement clauses. Recall that I define factivity based on perspective: (i) non-factive verbs= matrix subject-oriented verbs (e.g., *düşün-* 'think', *hayal et-* 'imagine'), (ii) true factive verbs[87]= speaker-oriented verbs (e.g., *unut-* 'forget', *keşfet-* 'discover'), (iii) factivity underspecified/semi-factive verbs=perspective underspecified verbs (e.g., *bil-* 'know', *hatırla-* 'remember'). I sometimes use them interchangeably in this chapter. But when I use (non)factivity in the discussion of general literature and perspective in the discussion of Turkish data and analysis. Overall, the intuition here is that factivity presupposition arises as a result of structural encoding of the speaker's perspective. The syntactic representation of the distinction for Turkish is in (1):

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[87] As opposed to default factivity, which is discussed in this chapter as well.

(1) a. Matrix Subject-oriented   b. Speaker-oriented

```
        VP_matrixsubject                              VP_speaker
       /         \                                   /        \
matrix subject   V'_matrixsubject            matrix subject   V'_speaker
                /        \                                    /      \
      CP_matrixsubject   V_matrixsubject          CP_speaker        V_speaker
       /                                           /
  Spec   C'_matrixsubject                    PRO_speaker   C'_speaker
          /      \                                          /      \
        DP   OP_matrixsubject                             DP    OP_speaker
       /  \                                              /  \
    Spec  D'                                          Spec   D'
          /  \                                              /  \
        CP    D                                           CP    D
       /  \   |                                          /  \   |
    Spec  C' -DIK                                     Spec  C' -DIK
          /  \                                              /  \
        TP    C                                           TP    C
```

c. Perspective-Underspecified

```
        VP
       /   \
matrix subject   V'
                /  \
              DP    V
             /  \
          Spec   D'
                /   \
              CP     D
             /  \    |
          Spec  C'  -DIK
                /  \
              TP    C
```
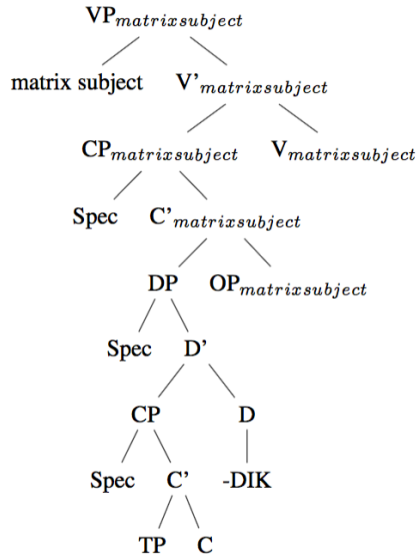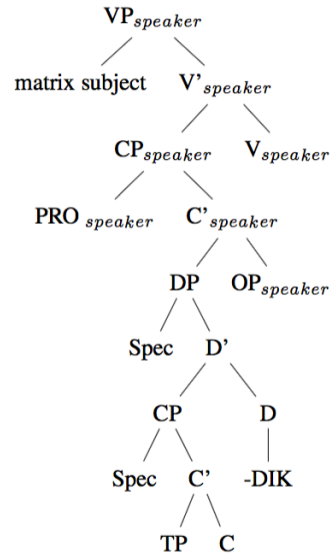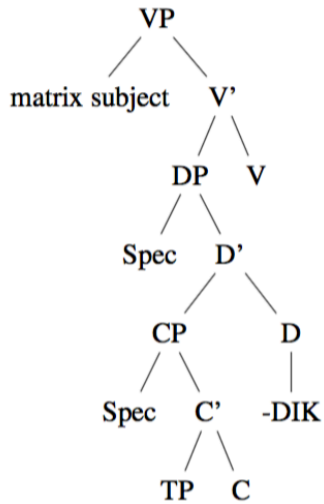
This categorization based on factivity is not new and has been known at least since Kiparsky &
Kiparsky (1971) (K & K). However, evidence is provided in this chapter that this distinction has
crucial syntactic consequences with regards to domainhood and various other implications of this
classification will be pointed out in the course of the discussion. I argue that both speaker-

oriented (=true factive) and matrix subject-oriented (=non-factive) verbs select for a bigger complement, $CP_{speaker}$ and $CP_{matrixsubject}$, respectively, as opposed to factivity-underspecified (=perspective-underspecified) verbs, which combine directly with the complement (i.e. no $CP_{speaker}$ or $CP_{matrixsubject}$). $CP_{speaker}/CP_{matrixsubject}$, in turn, combine with the complement clause. Both $CP_{speaker}$ and $CP_{matrixsubject}$ host an operator defined in similar ways to OP_{diye} in that it reports the embedded content from the first-person perspective of an individual. The correlation between perspective and (non)factivity is as follows: The complement to matrix-subject oriented verbs encode the perspective of the matrix subject, which is where their non-factivity results from (i.e. not established in the actual world by the speaker). The complement to speaker-oriented verbs encode the speaker's perspective, which is where the factivity results from. Their similarity is that they both have a perspective operator in their complement. Thus, (non)factivity and perspective are closely related terms and I have therefore adopted arguments from the literature on (non)factivity in discussion of perspective. Speaker-oriented and matrix subject-oriented verbs contrast with perspective-underspecified verbs, which are verbs that do not encode any perspective (and no factivity specification), do not combine with $CP_{speaker}$ or $CP_{matrixsubject}$ but rather directly with the complement clause, and are thus structurally smaller. Another difference between $CP_{speaker}$ and $CP_{matrixsubject}$ is as follows: the operator in $CP_{speaker}$ has a PRO subject in its specifier (1b) whereas $CP_{matrixsubject}$ does not (1a), resulting in differences in the nature of their complement. This will prove to be an important factor in determining whether the complement clause is an opaque domain or not: the existence of PRO indicates an opaque domain. This proposal serves to combine the two sides in the debate on the structure of (non-)factivity, discussed below. Like more recent studies, it argues that non-factive (=matrix subject-oriented) predicates require extra structure in their complements. Like traditional studies, it argues that

factivity (=speaker-orientedness) is also encoded structurally in equally complex terms. It, however, points out to some important differences between them based on the Turkish data, which is the unique contribution of the present chapter. In other words, I argue that the difference between true factive (=speaker-oriented) and non-factive (=matrix subject-oriented) verbs is not the quantity of added structure but rather what is encoded in the added structure and the elements within the extra structure. I also show that there is a default factivity.

Traditional studies on the structure of factivity (e.g., K & K) argue that factive predicates are headed by the noun *fact* (2a), which non-factives lack (2b) (updated to a more current form of tree structure in de Cuba (2007) as in (3)). In this account, the former is structurally more complex than the latter because factive predicates always select for an NP with CP complement as their own complement while non-factive predicates select for a CP complement directly.

(2) a.   b.

        NP   NP
       / \ |
     fact   S   S

(3) a.   b.

        VP
       / \
  factiveV   NP   VP
           / \   / \
        fact   CP   nonfactiveV   CP
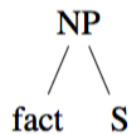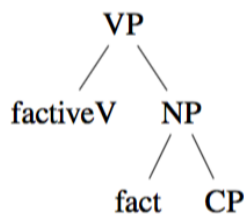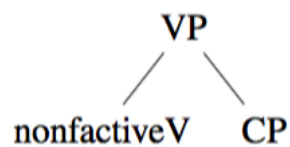
Although this pattern of structural complexity has long been assumed and argued for (e.g., Zubizarreta 2001), some recent studies take the opposite stance. For example, Nichols (2001) provides a semantic analysis of factive and non-factive predicates and eventually argues that factivity is the default interpretation and non-factivity requires an operator because it has a special interpretation. She states that "…a plausible default interpretive strategy is the presupposition of the truth of a proposition unless it is marked otherwise (p. 204)" because "…the evaluation set containing the actual world can be considered the default evaluation context (p. 126)". Haegeman (2006) takes up a more structural account and argues, like Nichols, that factivity is the default interpretation and therefore lacks any operator. In her account, factive predicates are default because "their content, not being asserted, or related to the speaker, is, as it were, 'taken for granted' (p. 1665)". Non-factive predicates are characterized by the availability of a projection for speaker deixis (and a projection for topic and focus phrases), which anchors a proposition to the speaker. She states (p. 1665) that "the 'factive' interpretation of such clauses could be seen as default reading: their content, not being asserted, or related to the speaker, is, as it were, 'taken for granted'." Haegeman argues that this is what can account for, for example, why factive predicates do not allow speaker-oriented adverbs (4a) but non-factives do (4b).

(4) a. *John regrets that Mary probably/obviously/unfortunately did not attend the meeting.
     b. John believes that Mary probably/obviously/unfortunately did not attend the meeting.

de Cuba (2007) argues for the same point that non-factives are structurally more complex with evidence from a number of languages with V2. For example, Swedish allows V2 in embedded clauses only if the embedding verb is non-factive. In (5) and (6), the (a) examples represent the neutral word order. The (b) examples exemplify V2, where the auxiliary *var* appears to the left of

the negation *inte.* Notice that this inversion is possible only with *sa* 'say', a non-factive verb, but

not with *ångrade* 'regret', a factive verb.

(5) a. Rickard   sa   at   than   *inte*   *var*   hemma

     R   said   that   he   *not*   *was*   home

   b. Rickard   sa   att   han   *var*   *inte*   hemma

      R   said   that   he   *was*   *not*   home

    'Rickard said that he was not home'

(6) a. Rickard   ångrade   att   than   *inte*   *var*   hemma

     R   regretted   that   he   *not*   *was*   home

   b. *Rickard   ångrade   att   han   *var*   *inte*   hemma

      R   regretted   that   he   *was*   *not*   home

    'Rickard regretted that he was not home'

Based on data such as these, de Cuba proposes that non-factive predicates select for *cP,* extender

of the embedded CP -which *cP* takes as its own complement-, whereas factive predicates select

for the CP directly. The *cP* hosts an operator that eliminates the speaker as an evaluator for the

embedded clause. This adds up to proposing that non-factives have a bigger structure than

factives and that non-factives have an operator whereas factives lack it.

     Other studies such as Miyagawa (2012) argue for the same: that non-factives have a more

complicated structure, but they also argued that factives still have an operator. In Miyagawa

(2012), the extra structure in non-factives pertain to discourse participants and relations.

     Although the present study is focused on the syntax of (non)factivity (=perspective), one

should be aware that there is a huge literature on the semantics of (non)factivity. To that end, I

briefly discuss some of the main points and questions. But it should be kept in mind that the present work is focused on their syntax and does not make definitive assertions regarding their semantics. To start, factive verbs, e.g., *know, regret, discover* (in English), are those that trigger the "presupposition by the speaker that the complement of the sentence expresses a true proposition (K & K: 43)". Presuppositions have projective meaning, meaning that they survive under the scope of entailment-canceling operators (Simons et al. 2010). One such case is (7b), where the factivity inference survives negation, proving that it is a presupposition (>: presupposition). However, the factivity inference can be canceled in story-telling contexts (8) (cf. (2)):

(7) a. John knows that Mary loves him. **>**Mary loves John.
    b. John doesn't know that Mary loves him. **>**Mary loves John.

(8) Then, if the observer can get notification from the owner, the observer knows that the owner has still stayed in the net. If not, the observer knows that the observer has already disappeared since the reset occurred.[88]

Other factive verbs are even looser with respect to their factivity inference because their inference may not survive the conventional entailment-canceling environments. For instance, the conditional can cancel the inference in *realize, discover* (9b) but not that of *regret* (9a) (Karttunen 1974):

(9) a. If I regret later that I have not told the truth, I will confess it to everyone.
    b. If I {realize, discover} later that I have not told the truth, I will confess it to everyone.

---

[88] The lack of factivity inference in this example is not necessarily due to the existence of the conditional. As discussed later in this chapter, conditionals retain the factivity inference of *know*.

The discussion on factivity-cancelation is therefore not at a place to make definitive conclusions on how to group verbs based on factivity in English, specifically based on where factivity inference survives and where it does not. There seems to be a good amount of variation and flexibility, leading to different categorizations (e.g., *soft triggers* vs. *hard triggers* in Abusch 2002, 2010; *pragmatic presupposition* vs. *semantic presupposition* in Dahlman 2015; categorization of the verbs whose factivity inference can be canceled in entailment-canceling environments as the *semi-factive* verbs, whose nature is inherently complex in this aspect). That is one major reason why I opt to go for a more syntactic route to investigate whether syntax can help us tease these verbs apart more clearly. I am not the first one to do so, as the previous discussion showed. And indeed, at the end of this chapter, we will see that starting with syntactic distinctions might be more helpful in understanding the semantics of the said verbs.

McCloskey (2005) is different from the studies discussed so far in that it most directly combines the semantics with the structure in this aspect (though he did not investigate (non)-factivity per se, but his points can be transferred to (non)-factivity). McCloskey investigates inversion and adjunction in embedded clauses under different kinds of predicates in the Irish dialect of English. He shows that both inversion and adjunction are possible if the embedding predicate is [+wh] (i.e., a question predicate), as in (10), and it is not if the embedding predicate is a 'resolutive' predicate, a group which includes what I call factive and factivity-underspecified predicates (11).

(10) a. I wondered was he illiterate.
      b. ?He asked me when I got home if I would cook dinner.

(11) a. *The police discovered who had they beaten up.

     b.*The police established while we were out who had broken in to our apartment.

He proposed to account for this difference by positing an extra structure in the embedded clause

of [+wh] verbs. The higher CP with the C1 head in (12) is only available to [+wh] verbs:

(12)
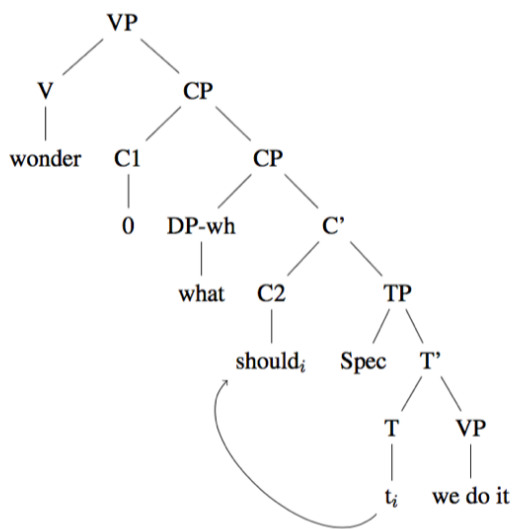
The extra CP layer in (12) introduces a QUEST operator, which takes sets of propositions (in

lower CP) and returns an interrogative speech act (in higher CP). This kind of operator can only

occur with predicates that indicate that the issue (in the embedded clause) has not been resolved.

This includes negation and questions. That is why a negated or questioned resolutive predicate

allows inversion:

(13) a. *I remember was Henry a Communist

     b. ?I don't remember was Henry a communist?

     c. Do you remember was he a communist?

This chapter is organized as follows. Section 4.1 presents the core data. Section 4.2 presents the

proposal and the analysis. Section 4.3 discusses the proposal, bringing together data from earlier

chapters with the data in this chapter. Section 4.4 concludes the chapter.

4.1. Perspectival Patterns under Matrix Subject-Oriented Verbs

In this section, various data sets with *–DIK* and *diye* clauses when they are embedded under a

matrix subject-oriented verb are presented. The data sets in this chapter replicate the ones in

Chapter 2 in that they test evaluation of various phrasal elements (including *de re-de dicto*

distinction) as well as whether *conscious* evaluation of the embedded content is required, which

was taken to be evidence for logophoric alternatives in Chapter 2. After presenting these data,

data testing the opaque nature of *diye* clauses, namely, binding, NPI-licensing, and specific

readings of quantifier elements, are presented. It is shown that (i) evaluative adjectives, phrasal

temporal and locative expressions as well as nominal and verbal content in the embedded

complement is evaluated from the matrix subject's perspective under matrix subject-oriented

verbs. On the other hand, neither *–DIK* clauses nor *diye* clauses allow *de re* elements under

matrix subject-oriented verbs and they both impose a *de dicto* reading) (Section 4.1.1.), (ii)

Matrix subject-oriented verbs require *conscious* evaluation of contents in their complements

regardless of the complement type –i.e., in *diye* as well as *–DIK* complements (Section 4.1.2.).

Section 4.1.3. provides a summary of the data supporting these conclusions. Section 4.1.4-4.1.6

show that anaphor binding across clauses, NPI-licensing across clauses and specific readings of

quantifier elements are allowed in *diye* clauses as well as *–DIK* clauses under matrix subject-

oriented verbs. Section 4.1.7. summarizes the findings of the last three sections.

4.1.1. *Evaluation of evaluative adjectives, phrasal temporal and locative expressions*

Recall that *diye* clauses require that evaluative adjectives and adverbs be reported from the perspective of the matrix subject and not that of the speaker's under perspective-underspecified verbs such as *bil-* 'know' (14) and that *–DIK* clauses cannot report either the speaker's or matrix subject's perspective under the same (Chapter 2, example 15):

(14) *Context:* I know John competed badly. Ali believes, however, that John competed well.

    a. Ali   [John-un   #iyi/#kötü   yarış-**tığ**-ın]-ı   bil-iyor

       A   J-3GEN   good/bad   compete-DIK-3S-ACC know-IMPF

       'Ali knows [that John competed #well/#bad]'

    b. Ali   [John   iyi/#kötü   yarış-tı   **diye**]   bil-iyor

       A   J   good/bad   compete-PST diye   know-IMPF

       'Ali knows [diye John competed well/#bad]'

When the embedding is the matrix subject-oriented verb *düşün-* 'think', as in (15), the matrix subject is the *sole* evaluator (i.e., the speaker cannot be an evaluator) for embedded content regardless of the complement type (cf. (15a) and (14a)):

(15) *Context:* I know John competed badly. Ali believes, however, that John competed well.

    a. Ali   [John-un   iyi/#kötü   yarış-**tığ**-ın]-ı   düşün-üyor

       A   J-3GEN   good/bad   compete-DIK-3S-ACC think-IMPF

       'Ali thinks [that John competed well/#bad]'

b. Ali   [John   iyi/#kötü   yarış-tı   **diye**]   düşün-üyor

A   J   good/bad   compete-PST   diye   think-IMPF

'Ali thinks [diye John competed well/#bad]'

Temporal expressions like *5-6 arası/2-3 arası* 'between 5-6/between 2-3' (16) and locative expressions like *New York'ta/Los Angeles'ta* 'in New York/in Los Angeles' (17) must be reported solely from the matrix subject's perspective regardless of the complement:

(16)   *Context:* Ali had a race between 2-3 pm. John thought the race was between 5-6 pm. Ali and John are both in Los Angeles.

a. John   [Ali-nin   5-6 arası/#2-3   arası   yarış-**tığ**-ın]-ı   düşün-üyor

J   A-3GEN   5-6 between/2-3   between   compete-DIK-3S-ACC   think-IMPF

'John thinks [that Ali competed between 5-6/#between 2-3]'

b. John   [Ali   5-6 arası/#2-3   arası   yarış-tı   **diye**]   düşün-üyor

J   A   5-6 between/2-3 between   compete-PST   diye   think-IMPF

'John thinks [diye Ali competed between 5-6/#between 2-3]'

(17)   *Context:* Ali had a race in Los Angeles. John thought the race was in New York.

a. John   [Ali-nin   New York-ta/#Los Angeles-ta   yarış-**tığ**-ın]-ı

J   A-3GEN   N   Y-LOC   L   A-LOC   compete-DIK-3S-ACC

düşün-üyor
think-IMPF

'John thinks [that Ali competed in New York/#in Los Angeles]'

b. John   [Ali   New York-ta/#Los Angeles-ta   yarış-tı   **diye**] düşün-üyor

    J   A   N   Y-LOC/L   A-LOC   compete-PST diye think-IMPF

    'John knows [diye Ali competed in New York/#in Los Angeles]'

Likewise, nominal and verbal content are evaluated from the matrix subject's perspective under *düşün-* 'think' no matter what the complement is. In (18), the nominal content *kadın* 'woman' is contrasted with *adam* 'man' and in (19), the verb *yürü-* 'walk' is contrasted with *koş* 'run':

(18)   *Context:* Ali and I were told that someone nice came from London today. I was told that this person is a man and Ali was told that the person is a woman. We each believe what we have been told.

    a. Ali   [iyi   bir   kadın-ın/#adam-ın   bugün   Londra-dan

    A   good one woman-3GEN/man-3GEN today   London-ABL

    gel-**diğ**-in]-i   düşün-üyor

    come-DIK-3S-ACC think-IMPF

    'Ali thinks [that a good woman/#man came from London today]'

    b. Ali   [iyi   bir   kadın/#adam   bugün   Londra-dan   gel-di

    A   good one woman/man   today   London-ABL come-PST

    diye]   düşün-üyor

    diye   think-IMPF

    'Ali thinks [that a good woman/#man came from London today]'

(19)   *Context:* Ali had a running competition between 2-3 pm. John knew the race was between 2-3 pm but he thought it was a walking competition. Ali and John are both in

Los Angeles.

    a. John   [Ali-nin   2-3 arası   yürü-**düğ**-ün-ü/#koş-**tuğ**-un-u   düşün-üyor

       J   A-3GEN 2-3 between walk-DIK-3S-ACC/run-DIK-3S-ACC think-IMPF

       'John thinks [that Ali walked/#ran between 2-3]'

    b. John   [Ali   2-3 arası   yürü-dü/#koş-tu   **diye**]   düşün-üyor

       J   A   2-3 between walk-PST/run-PST   diye   think-IMPF

       'John thinks [diye Ali walked/#ran between 2-3]'

When multiple elements are combined under *düşün* 'think', the same pattern emerges such that all perspectival elements need to be reported from the perspective of the matrix subject regardless of the complement. (20) combines a temporal adverb *5-6 arası/2-3 arası* 'between 5-6/between 2-3', a locative adverb *New York'ta/Los Angeles'ta* 'in New York/in Los Angeles', and a manner adverb *iyi/kötü* 'good/bad', all of which must be reported from the perspective of the matrix subject in both *–DIK* and *diye* clauses:

(20)   *Context:* Ali had a race between 2-3 pm in Los Angeles. John thought his race was between 5-6 pm in New York. Ali and John are both in Los Angeles. John also thought Ali competed well and the speaker thinks Ali was bad.

    a. John   [Ali-nin   5-6 arası/#2-3   arası   New York-ta/#Los

       J   A-3GEN 5-6 between/2-3 between N   Y-LOC/L

       Angeles-ta   iyi/#kötü   yarış-**tığ**-ın]-ı   düşün-üyor

       A-LOC   good/#bad   compete-DIK-3S-ACC think-IMPF

       'John thinks [that Ali competed well/#bad between 5-6/between 2-3 #in Los Angeles/#in New York]'

b. John   [Ali   5-6 arası/#2-3   arası   New York-ta/#Los Angeles-ta

   J   A   5-6 between/2-3 between N   Y-LOC/L   A-LOC

   iyi/#kötü   yarış-tı   **diye**]   düşün-üyor
   well/bad   compete-PST diye   think-IMPF

   'John thinks [diye Ali competed well/#bad between 5-6/#between 2-3 in New
   York/#in Los Angeles]'

The generalization from the data so far is that matrix subject-oriented predicates neutralize the interpretational distinctions between their complement clauses such that all content of the embedded clause must be reported from the perspective of the matrix subject regardless of the complement type. This is stated in the generalization in (21):

(21) **Generalization 1:** All elements in the embedded clause under matrix subject-oriented verbs must be reported from the perspective of the matrix subject regardless of the complement type.[89]

Recall that when *diye* combines with *bil* 'know', *de re* elements are not allowed in them whereas they are allowed when *–DIK* combines with the same verb, as shown in the example in (22), repeated from Chapter 2 (example (34)). This was used as evidence that *diye* clauses under these verbs are a single evaluation domain associated with the matrix subject's perspective, as *de re* elements are associated with the utterance context.

---

[89] The higher matrix subject cannot be the *sole* evaluators under matrix subject-oriented verbs, similar to perspective-underspecified verbs in Chapter 2.

(22) *Context:* Murat has two names, Murat and Ali. John knows him only as Murat (i.e., he does not know that Murat has another name). Speaker knows both names of Murat (i.e., knows him as Murat Ali) but always refers to him as Ali. Both know Murat Ali passed his exam.

a. John   [Murat-ın   sınav-ı   geç-**tiğ**-in]-i   bil-iyor   aslında
   J   M-3GEN   exam-ACC pass-DIK-3S-ACC know-IMPF actually
   'John knows [that Murat passed the exam] actually'

b. John   [Murat   sınav-ı   geç-ti   **diye**]   bil-iyor   aslında
   J   M   exam-ACC pass-PST diye   know-IMPF actually
   'John knows [diye Murat passed the exam] actually'

c. John   [Ali-nin   sınav-ı   geç-**tiğ**-in]-i   bil-iyor   aslında
   J   A-3GEN   exam-ACC pass-DIK-3S-ACC know-IMPF actually
   'John knows [that Ali passed the exam] actually'

d. #John   [Ali   sınav-ı   geç-ti   **diye**]   bil-iyor   aslında
   J   A   exam-ACC pass-PST diye   know-IMPF actually
   'John knows [diye Ali passed the exam] actually'

When the embedding verb is *düşün-* 'think', however, both complements allow *de re* elements, shown in (23) (23c/d versus 23a/b):

(23) Same as (22)

a. John   [Murat-ın   sınav-ı   geç-**tiğ**-in]-i   düşün-üyor aslında
   J   M-3GEN   exam-ACC pass-DIK-3S-ACC think-IMPF actually
   'John thinks [that Murat passed the exam] actually'

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b. John   [Murat   sınav-ı   geç-ti   **diye**]   düşün-üyor   aslında

J   M   exam-ACC   pass-PST diye   think-IMPF   actually

'John thinks [diye Murat passed the exam] actually'

c. John   [Ali-nin   sınav-ı   geç-**tiğ**-in]-i   düşün-üyor   aslında

J   A-3GEN exam-ACC pass-DIK-3S-ACC think-IMPF   actually

'John knows [that Ali passed the exam] actually'

d. John   [Ali   sınav-ı   geç-ti   **diye**]   düşün-üyor   aslında

J   A   exam-ACC pass-PST diye   think-IMPF   actually

'John thinks [diye Ali passed the exam] actually'

The permission for *de re* elements in (23) is indication that elements that are associated with different contexts are allowed in *diye* clauses in this case. This is a challenge to the generalization just established in (21). I come back to this issue later in this chapter.

4.1.2. Conscious evaluation

Recall that *diye* clauses under perspective-underspecified verbs such as *bil-* 'know' need a sentient subject (24b) but not –*DIK* clauses (24a) (Chapter 2, example (81)). When the same is applied to a matrix subject-oriented verb, we see that conscious evaluation is required to evaluate both complement types (25):

(24) a. ?Araba   [*pro*   yük-ün-ün   ağır   ol-**duğ**-un]-u   bil-iyor

      car   burden-3GEN-3GEN heavy   be-DIK-3S-ACC know-IMPF

hareket etmiyor
it is not moving

'The car knows [that its burden is heavy] *so it is not moving*'

b. #Araba   [*pro*   yük-ü   ağır **diye**]   bil-iyor   *hareket etmiyor*

car   burden-3GEN heavy diye   know-IMPF *it is not moving*

'The car knows [that its burden is heavy] *so it is not moving*'

(25)   a. #Araba   [*pro*   yük-ün-ün   ağır   ol-**duğ**-un]-u   düşün-üyor

car   burden-3GEN-3GEN heavy   be-DIK-3S-ACC think-IMPF

hareket etmiyor

it is not moving

'The car thinks [that its burden is heavy] *so it is not moving*'

b. #Araba   [*pro*   yük-ü   ağır **diye**]   düşün-üyor   *hareket etmiyor*

car   burden-3GEN heavy diye   think-IMPF   *it is not moving*

'The car thinks [that its burden is heavy] *so it is not moving*'

De se contexts were used to test for consciousness in Chapter 2 (example (86)) and we noticed

that *de se* interpretation is imposed on the embedded clause when *diye* is embedded under *bil-*

'know':

(26)   *Context:* Murat is watching the results of the election, of which he was one of the

candidates, on TV. He is drunk. He sees the winner and says to me "That candidate

won". He does not realize that that candidate is himself.

a. ?Murat   [seçim-i   kazan-**dığ**-ın]-ı   bil-iyor   aslında

M   election-ACC win-DIK-3S-ACC know-IMPF actually

'Murat$_i$ knows [that he$_i$ won the election] actually'

…ama kendisi olduğunun farkına varamadı daha

…but he is not yet aware that it is himself

b. #Murat [seçim-i kazan-dı **diye**] bil-iyor aslında

    M election-ACC win-PST diye know-IMPF actually

'Murat$_i$ knows [diye he$_i$ won the election] actually'

…ama kendisi olduğunun farkına varamadı daha

…but he is not yet aware that it is himself

When the embedding verb is matrix subject-oriented, *de se* interpretation is required no matter what the embedded clause type is. The *de se* interpretation is imposed on various elements such as on pronominal elements (27), on temporal expressions (28) and locative expressions (29):[90]

(27) *Context:* Murat is watching the results of the election, of which he was one of the candidates, on TV. He is drunk. He sees the winner and says to me "That candidate won". He does not realize that that candidate is himself.

a. #Murat$_i$ [*pro$_i$* seçim-i kazan-**dığ**-ın]-ı düşün-üyor aslında

    M election-ACC win-DIK-3S-ACC think-IMPF actually

'Murat$_i$ thinks [that he$_i$ won the election] actually'

…ama kendisi olduğunun farkına varamadı daha

…but he is not yet aware that it is himself

b. #Murat$_i$ [*pro$_i$* seçim-i kazan-dı **diye**] düşün-üyor aslında

    M election-ACC win-PST diye think-IMPF actually

---

[90] In (28) and (29), the words *tarih, which is interpreted as referring to today, and mekan, which is interpreted as referring to the current location.*

'Murat_i thinks [diye he_i won the election] actually'

…ama kendisi olduğunun farkına varamadı daha

…but he is not yet aware that it is himself

(28)   *Context:* It is December 31st. John thinks it is December 30th. John told the speaker that it was December 31st before, but now he says it is December 30th.

a. #John   [tarih-in   31 Aralık   ol-**duğ**-un]-u   düşün-üyor   aslında

    J   date-3GEN   31 December be-DIK-3S-ACC think-IMPF   actually

    'John thinks [that today is NYE] actually'

 …ama unuttu herhalde

 …but he apparently forgot

b. #John   [tarih   31 Aralık   **diye**]   düşün-üyor   aslında[91]

    J   date   31 December diye   know-IMPF   actually

    'John thinks [diye today is NYE] actually'

 …ama unuttu herhalde

 …but he apparently forgot

(29)   *Context:* John, Ali and the speaker are in Istanbul. John thinks he is in Constantinople, not being aware that Istanbul and Constantinople refer to the same city. But earlier, he said to the speaker that he knew they are in Istanbul.

a. #John   [mekan-ın   Istanbul   ol-**duğ**-un]-u   düşün-üyor   aslında

    J   location-3GEN I   be-DIK-3S-ACC think-IMPF   actually

    'John_i thinks [that the location is Istanbul] actually'

---

[91] Assume this sentence is a reply to the question *John bugünü ne diye biliyor?* 'What does John know today as?'

…ama unuttu herhalde

…but he apparently forgot

b. #John   [mekan   Istanbul   **diye**]   düşün-üyor   aslında

    J   location   I   diye   think-IMPF   actually

    'John$_i$ thinks [diye he$_i$ is in Istanbul]'

…ama unuttu herhalde

…but he apparently forgot

This leads to another generalization, stated in (30):

(30) **Generalization 2:** Matrix subject-oriented verbs require *conscious* evaluation by the matrix subject on their complement clauses, regardless of complement type.[92]

4.1.3. *Interim summary*

Matrix subject-oriented verbs in Turkish impose on their complements (i) evaluation from the perspective of the matrix subject and (ii) *conscious* interpretation for the matrix subject. They also allow *de re* elements in the embedded clause (i.e., *de dicto* interpretation is not required) regardless of whether their complement is a –*DIK* clause or a *diye* clause. The next three sections discuss data testing whether *diye* clauses are opaque domains under matrix subject-oriented verbs. These data are anaphor-binding (Section 1.4.), NPI-licensing (Section 1.5.) and specific readings of quantifiers (Section 1.6.). The conclusion is that *diye* clauses are not opaque under matrix subject-oriented verbs, but they are under verbs like *bil-* 'know'.

---

[92] As pointed out to me by Isabelle Charnavel (p.c), this contradicts the *de re-de dicto* facts, which is that *de re* elements are allowed under matrix subject-oriented verbs. I have a syntactic explanation for this later in this chapter.

4.1.4. Anaphor binding

Recall that licensing of embedded anaphors from the matrix subject is allowed only in *–DIK* clauses under *bil-* 'know', as in (31) (Chapter 2, example 49). When the matrix verb is matrix subject-oriented, however, this binding process is allowed regardless of the complement type, as in (32):

(31) a. Çocuklar$_i$ [Ali-nin   birbirlerin-i$_i$ eşleştir-**diğ**-in]-i   bil-iyor

       children   A-3GEN   each.other-ACC   match-DIK-3S-ACC   know-IMPF

       'Children$_i$ know [that Ali matched each other$_i$]'

     b. *Çocuklar$_i$ [Ali   birbirlerin-i$_i$ eşleştir-di   **diye**]   bil-iyor

       children   A   each.other-ACC   match-PST   diye   know-IMPF

       'Children$_i$ know [diye Ali matched each other$_i$]'

(32) a. Çocuklar$_i$ [Ali-nin   birbirlerin-i$_i$ eşleştir-**diğ**-in]-i   düşün-üyor

       children   A-3GEN   each.other-ACC   match-DIK-3S-ACC   think-IMPF

       'Children$_i$ think [that Ali matched each other$_i$]'

     b. ?Çocuklar$_i$ [Ali   birbirlerin-i$_i$ eşleştir-di   **diye**]   düşün-üyor

       children   A   each.other-ACC   match-PST   diye   think-IMPF

       'Children$_i$ think [diye Ali matched each other$_i$]'

4.1.5. NPI-licensing

Recall that NPIs in *diye* clauses are not licensed by matrix verb negation when the matrix verb is perspective-underspecified such as *bil-* 'know' (33b) while *–DIK* clauses under the same verb

allows the licensing (33a) (Chapter 2, example (51)). The negation on matrix subject-oriented

verbs is able to license the NPI both in the –DIK clause and the *diye* clause (34):

(33) a. Ali   [kimse-nin   gel-**diğ**-in]-i   bil-m-iyor

    A   no.one-3GEN   come-DIK-3S-ACC   know-NEG-IMPF

    'Ali knows [that no one came] (lit. Ali does not know that anyone came)'

   b. ??/# Ali   [kimse   gel-di   **diye**]   bil-m-iyor

    A   no.one   come-PST   diye   know-NEG-IMPF

    'Intended: Ali knows [diye no one came]'

    (lit. Ali does not know [diye anyone came])

(34) a. Ali   [kimse-nin   gel-**diğ**-in]-i   düşün-m-üyor

    A   no.one-3GEN   come-DIK-3S-ACC   think-NEG-IMPF

    'Ali thinks [that no one came] (lit. Ali does not know that anyone came)'

   b. ?Ali   [kimse   gel-di   **diye**]   düşün-m-üyor[93]

    A   no.one   come-PST   diye   think-NEG-IMPF

    'Ali thinks [diye no one came]'

    (lit. Ali does not think [diye anyone came])

---

[93] Exactly how this is interpreted is a bit vague. The options are that *kimse* has narrow scope (i.e., Ali thinks that [no one came]) and that *kimse* is interpreted as concealed partitive (e.g., Ali thinks that {none (of the people specified before} came). The latter seems easier to retrieve, which might weaken the argument since it is context (specifically, topic) related and not related to the embedding verb (since topichood is exceptional under factivity-underspecified verbs too). If the former is allowed here, this provides support for the effect of the embedding verbs, since this reading is not allowed under factivity-underspecified verbs.

4.1.6. Specific readings of quantifiers

Diye+bil does not allow the specific reading of the quantifier embedded subject *someone* (35b)

while *–DIK+bil* does (35a). (Chapter 2, example 52). Matrix subject-oriented *düşün-* 'think'

allows this reading of the quantifier with both *–DIK* and *diye* (36):

(35) a. Pelin   [burada   biri-nin   hasta   ol-**duğ**-un]-u   bil-iyor

        P   here   someone-3GEN   sick   be-DIK-3SACC   know-IMPF

        'Pelin knows [that someone (specific) is sick here]' *(specific)*

        'Pelin knows [that there is someone sick here]' *(nonspecific)*

    b. Pelin   [burada   biri   hasta   **diye**]   bil-iyor

        P   here   someone   sick   diye   know-IMPF

        '#Pelin knows [diye someone (specific) is sick here]' *(specific)*

        'Pelin knows [diye there is someone sick here]' *(nonspecific)*

(36) a. Pelin   [burada   biri-nin   hasta   ol-**duğ**-un]-u   düşün-üyor

        P   here   someone-3GEN   sick   be-DIK-3SACC   think-IMPF

        'Pelin thinks [that someone (specific) is sick here]' *(specific)*

        'Pelin thinks [that there is someone sick here]' *(nonspecific)*

    b. Pelin   [burada   biri   hasta   **diye**]   düşün-üyor

        P   here   someone   sick   diye   think-IMPF

        'Pelin thinks [diye someone (specific) is sick here]' *(specific)*

        'Pelin thinks [diye there is someone sick here]' *(nonspecific)*

Now, we reach our third generalization, stated in (37):

(37) **Generalization 3:** Anaphor binding, NPI-licensing and specific readings of quantifiers are allowed in both *–DIK* and *diye* clauses when they are embedded under a matrix subject-oriented verb.

4.1.7. *Interim summary and brief remarks*

The data in the last three sections indicate that matrix subject-oriented predicates (in contrast with perspective-underspecified) allow (i) binding of embedded anaphors, (ii) licensing of NPIs, both across clauses, and (iii) specific readings of quantifier elements with both *–DIK* and *diye* complement clauses. The contrasting generalizations with embedding verb type are in (38):

(38) **Generalization; Perspective-underspecified:** *Diye* clauses form a single perspective domain, with the closest matrix subject as the perspective center. This domain is *syntactically (selectively) opaque.*
(*–DIK* clauses do not encode any perspective and are transparent).
Generalization; Matrix subject-oriented: *Diye* clauses form a single perspective domain, with the closest matrix subject as the perspective center. This domain is *syntactically transparent* under matrix subject-oriented verbs.
(*–DIK* clauses do not encode any perspective and are transparent).

The overall generalization is that various syntactic operations are allowed between elements in the *diye* clause and the matrix clause when they are embedded under matrix subject-oriented verbs. This means that *diye* clauses are no longer (selectively) opaque domains under such verbs,

unlike their selectively opaque nature under perspective -underspecified verbs. An account for this change in behavior is needed, which I will provide in the next section.[94]

4.2. Proposal

In this section, I present the proposal (Section 4.2.1.), followed by a discussion of how it accounts for the patterns observed (Section 4.2.2.).

4.2.1. The proposal

I propose that matrix subject-oriented verbs such as *düşün-* 'think' take an $CP_{matrixsubject}$ as a complement, as in (39), where $CP_{matrixsubject}$ is a phrase that hosts a perspectival operator, $OP_{matrixsubject}$, on its head. The operator is similar to OP_{diye} in function in that it reports the matrix subject's perspective on the embedded content, but they are different in that $OP_{matrixsubject}$ does not have a subject PRO in its specifier of the phrase it heads.[95] I assume that subjects are introduced in the Spec of VP (or vP) (Koopman & Sportische 1991) across the board, so the matrix subject is introduced in SpecVP. The *–DIK* or *diye* clause is the complement to $CP_{matrixsubject}$. The structure I propose for matrix subject-oriented predicates and their complement in Turkish is given in (39a) and (39b), when they embed a *diye* clause and a *–DIK* clause, respectively:

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[94] *–DIK* clauses are always –i.e., under any type of verb under focus- transparent in that they allow all interactions in focus between the matrix clause and the embedded clause. I assume that they do not form an opaque domain in the first place because they do not have a PersP. Thus, I do not include them in the analysis here.

[95] $OP_{matrixsubject}$ reports the first-person perspective of an individual despite lacking a PRO. I discuss this in more detail later, but this is an important point to keep in mind in the development of the analysis.

(39)   a. *diye*+think   b. *–DIK*+think

```
     VP_matrixsubject                          VP_matrixsubject
      /        \                                /        \
matrix subject_i  V'_matrixsubject      matrix subject   V'_matrixsubject
          /        \                              /        \
  CP_matrixsubject  V_matrixsubject      CP_matrixsubject   V_matrixsubject
      /      \                                /      \
   Spec   C'_matrixsubject                 Spec   C'_matrixsubject
           /        \                              /        \
       PersP    OP_matrixsubject               DP      OP_matrixsubject
       /    \                                  /   \
    PRO_i   Pers'                           Spec    D'
            /    \                                  /   \
          CP    OP_diye                          CP      D
          /  \                                  /  \      |
       Spec   C'                             Spec   C'   -DIK
              /  \                                  /  \
            TP    C                               TP    C
```
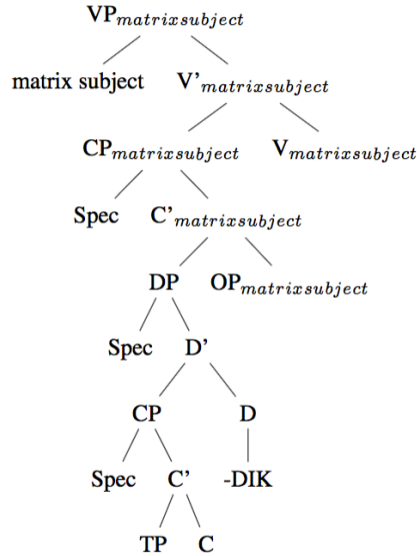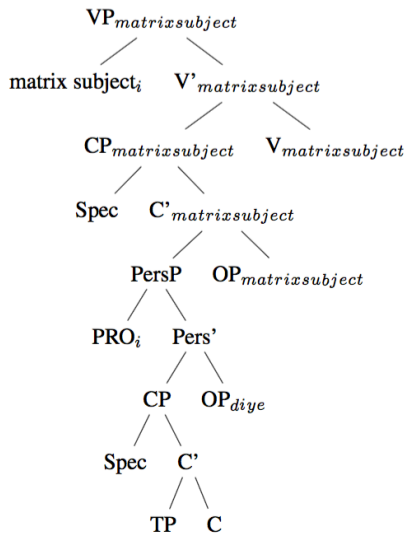
Notice that when matrix subject-oriented verbs combine with *diye,* we end up with two operators with similar functions in the complement clause. This introduces redundancy on the surface. However, there is one purpose the double-operator structure serves in the derivation. On the assumption that the derivation goes bottom-up, let us assume that the derivation of the *diye* clause, i.e., PersP, is completed, so now we have one of the two operators, namely OP$_{diye}$. The reference of the individual argument of the operator within this PersP, i.e., OP$_{diye}$, also the antecedent of PRO, needs to be introduced for complete interpretation, so the system waits for the next phrase level for the antecedent. Under perspective-underspecified verbs, the next phrase level is VP, which introduces the antecedent of PRO (i.e., the matrix subject) and the interpretation for the *diye* clause is completed there, resulting in an (selectively) opaque domain. The next phrase level up in the case of matrix subject-oriented verbs, however, is the CP$_{matrixsubject}$, which introduces a similar operator, OP$_{matrixsubject}$, but without an element relating to an individual because OP$_{matrixsubject}$ does not have a PRO subject. So, the derivation moves onto

the next phrase level to find a DP for the PRO in PersP to refer to, which it finds in the subject of

the matrix VP. When the derivation is complete for the embedded *diye* clause, the interfaces and

the syntax interpret only the higher operator (OP$_{matrixsubject}$) and not the lower one (OP$_{diye}$), since

they serve similar functions in the same complement clause domain (reporting an individual's

first-person perspective).[96] This makes the latter *syntactically inactive*, which means that it is not

considered to be relevant for syntactic operations. This is what gives the transparent nature of

diye clauses under non-factive verbs, which I discuss in more detail later. For now, let us assume

that a probe in matrix CP sees the embedded clause as an CP$_{matrixsubject}$ rather than a PersP.

This is similar to de Cuba (2007), for whom the additional layer of *cP* serves as a

domain-extender in non-factive predicates. However, I diverge from de Cuba and agree with den

Dikken (2007a, b) in that the said extra layer extends the opaque domain but causes the original

phase to lose its phasal status. Thus, I follow a mixture of the proposals in den Dikken ((2007a,

b) and de Cuba (2007) in that I take this extension to be a widening of the edge of an opaque

domain (phase-edge extension in their account). But I also argue that *diye* loses its opaque status

when this extension happens, following den Dikken (2007a, b). In a nutshell, when the *diye*

clause appears in the complement to CP$_{matrixsubject}$, CP$_{matrixsubject}$ is the new complement domain

and due to lack of PRO at the edge, it is a transparent domain. We have seen data supporting this

conclusion in Section 1, discussed in this light in the next section.[97]

---

[96] Though this process does not involve movement, this can be likened to PF interpreting the higher copy in movement chains.

[97] Notice that this account assumes that although *diye* clauses are not phases, as opaque domains, they are still subject to a penetrability condition similar to the one proposed for phases, as in (i), unless extended and unless the probe is higher in the functional hierarchy (Chapter 3).

    (i)   *Phase Impenetrability Condition* (Chomsky 2001: 14)

          The domain of a head X of a phase XP is not accessible to operations at ZP (the next phase); only X and its edge are accessible to such operations.

4.2.2. *Transparency of diye clauses*

Recall the third generalization, repeated in (40):

(40) **Generalization 3:** Anaphor binding, NPI-licensing and specific readings of quantifiers are allowed in both *–DIK* and *diye* clauses when they are embedded under a matrix subject-oriented verb.

The suggestion that the system pays attention to the $OP_{matrixsubject}$ rather than OP_{diye} is important for (40) because there is an important difference between the two operators: the former has an empty specifier while the latter has a PRO subject in its specifier. Since the specifier of $CP_{matrixsubject}$, the higher of the two, is empty, the edge of the domain that includes the complement clause is empty, making the *diye* clause transparent. This transparency allows binding across domains regardless of the complement type under matrix subject-oriented verbs:

(41) a. Çocuklar$_i$ [Ali-nin   birbirlerin-i$_i$ eşleştir-**diğ**-in]-i   düşün-üyor
        children   A-3GEN   each.other-ACC   match-DIK-3S-ACC   think-IMPF
        'Children$_i$ think [that Ali matched each other$_i$]'

    b. ?Çocuklar$_i$ [Ali   birbirlerin-i$_i$ eşleştir-di   **diye**]   düşün-üyor
        children   A   each.other-ACC   match-PST   diye   think-IMPF
        'Children$_i$ think [diye Ali matched each other$_i$]'

Likewise, NPI-licensing by matrix negation is allowed under matrix subject-oriented verbs, as in (41). This is also possible because the *diye* clause is no longer an opaque domain:[98]

(42) a. Ali   [kimse-nin   gel-**diğ**-in]-i   düşün-m-üyor

       A   no.one-3GEN come-DIK-3S-ACC   think-NEG-IMPF

      'Ali thinks [that no one came] (lit. Ali does not know that anyone came)'

     b. ?Ali   [kimse   gel-di   **diye**]   düşün-m-üyor

       A   no.one   come-PST diye   think-NEG-IMPF

      'Ali thinks [diye no one came]'

      (lit. Ali does not think [diye anyone came])

The availability of specific readings of quantifiers also has a similar explanation. Assuming that such readings require association with the utterance context (no matter how it is established), these quantifiers must be able to interact with this context. This is made possible because the *diye* clause is no longer an opaque domain. The relevant examples are repeated below:

(43) a. Pelin   [burada   biri-nin   hasta   ol-**duğ**-un]-u   düşün-üyor

      P   here   someone-3GEN sick   be-DIK-3SACC think-IMPF

      'Pelin thinks [that someone (specific) is sick here]' *(specific)*

      'Pelin thinks [that there is someone sick here]' *(nonspecific)*

     b. Pelin   [burada   biri   hasta   **diye**]   düşün-üyor

      P   here   someone   sick   diye   think-IMPF

      'Pelin thinks [diye someone (specific) is sick here]' *(specific)*

      'Pelin thinks [diye there is someone sick here]' *(nonspecific)*

---

[98] Also see Kayabaşı & Özgen (2018) for a phase-based account of NPI-licensing, namely that NPI-licensing is allowed when there is no phase boundary in Turkish.

These interactions are allowed because the *diye* clause waits for the VP to introduce the antecedent individual in its specifier so that it has a referent for its PRO subject. Once the individual is introduced, full interpretation is achieved but the *diye* operator is no longer syntactically active. The luck here is that the higher operator has an empty specifier, which keeps the embedded clause domain open and results in a transparent domain. If there was a PRO subject with $OP_{matrixsubject}$, this would lead to an inaccessible embedded clause domain. We will see this happening with true factives. Thus, this proposal accounts for the last three generalizations posited. What about the first three? These are addressed in the next section.

4.2.3. *Phrasal content in diye clauses under matrix subject-oriented verbs*

Recall that in Chapter 2, it was suggested that the phrasal elements in the embedded clause come with a variable that needs to be bound by the closest operator. This is represented in (44) for the case when *diye* is under *bil-* 'know':

(44) a. [VP [PersP PRO [CP … [AdvP w' between 4-5]…] λw' diye] V]

   b. [VP [PersP PRO[CP[DP w' the nice woman]…[AdvP w' between 4-5]…[VP w' came]] λw'
       diye] V]

Since the closest operator is OP_{diye} in these cases and there are no other operators, we do not have a problem with choosing the right operator to bind these variables. In the case when *diye* appears under *düşün* 'think'*,* however, it is not as clear. The closest operator is OP_{diye}, but I also suggested that it is $OP_{matrixsubject}$ that is relevant for structural purposes as the higher of the two

similar operators and OP$_{diye}$ is syntactically inactive. This time, I suggest that it is not the closest

operator in terms of distance but rather it is the structurally active operator that is relevant for

binding the variables. The system skips OP$_{diye}$ because it is inactive and forces the binding of the

variables by OP$_{matrixsubject}$. This provides a unified account of why all elements in both –*DIK* and

diye clauses must be reported from the perspective of the matrix subject (as opposed to the case

under perspective-underspecified verbs, where –*DIK* clauses did not need to be reported from the

perspective of the matrix subject only). It is because CP$_{matrixsubject}$ scopes over both the entire –

DIK clause (45b) and the entire *diye* clause (45a):

(45) a. [$_{CPmatrixsubject}$ Spec [$_{PersP}$ PRO [$_{CP}$ … [$_{AdvP}$ w' between 4-5]…] OP$_{diye}$] λw' C$_{matrixsubject}$]

    b. [$_{CPmatrixsubject}$ Spec [$_{DP}$ Spec [$_{CP}$ … [$_{AdvP}$ w' between 4-5]…] –*DIK*] λw' C$_{matrixsubject}$]

Now, onto the generalizations in (21) and (30), repeated below:

(46) **Generalization 1:** All elements in the embedded clause under matrix subject-oriented
       verbs must be reported from the perspective of the matrix subject regardless of the
       complement type.
       Generalization 2: Matrix subject-oriented verbs require *conscious* evaluation by the
       matrix subject on their complement clauses, regardless of complement type.

Generalization 1 is accounted for in the following way: OP$_{matrixsubject}$ scopes over the whole of the

embedded clause and reports all of it from the first-person perspective of the matrix subject. It

binds all the said variables in the embedded clause and forces all to be reported from the matrix

subject's perspective. Generalization 2 speaks to the logophoric nature of the matrix subject

operator as it requires a sentient subject. This is all as expected. However, recall that *de re*

elements are allowed in *diye* clauses under matrix subject-oriented verbs, which contradicts

Generalization 1 & 2. The *de re* element in (47) is *Ali.* Although John does not know that Ali

refers to the same individual as Murat, the use of Ali in the embedded clause is allowed.

(47) *Context:* Murat has two names, Murat and Ali. John knows him only as Murat (i.e.,
he does not know that Murat has another name). Speaker knows both names (i.e.,
knows him as Murat Ali) but always refers to him as Ali. Murat Ali passed his exam.

a. John   [Ali-nin   sınav-ı   geç-**tiğ**-in]-i   düşün-üyor   aslında
    J   A-3GEN   exam-ACC   pass-DIK-3S-ACC   think-IMPF   actually
    'John knows [that Ali passed the exam] actually'

b. John   [Ali   sınav-ı   geç-ti   **diye**]   düşün-üyor   aslında
    J   A   exam-ACC   pass-PST   diye   think-IMPF   actually
    'John thinks [diye Ali passed the exam] actually'

De re reading is related to the utterance context. This can be argued to be achieved via covert

movement of the *de re* element (known as the Scope Theory, which is still adopted in some

recent works such as Woods 2016). If this account is adopted, the *de re* reading is made possible

in the present account because the *diye* clause is no longer opaque under non-factive verbs due to

the availability of CP$_{matrixsubject}$, which does not provide the antecedent individual for the PRO in

diye clauses. This incomplete process makes the movement out of *diye* clauses possible so that

full interpretation can be achieved. However, some recent analyses challenged the Scope Theory

(e.g., Keshet 2008, Anand & Korotkova 2021) and argued that *de re* elements are specified for

the utterance context inside of them. The following is an example of a *de re* element from Anand

& Korotkova 2021):

(48) Mary thinks an adorable dog is ugly.

They state (p. 8) that "If *an adorable dog* were read *de dicto,* the PPTs *adorable* and *ugly* would be evaluated at the same index, the embedded i_1. This would mean that they would be evaluated with respect to the same world and the same judge (by assumption, Mary), yielding a contradiction. However, if *an adorable dog* were read *de re, adorable* would be evaluated with respect to i_0 and the matrix judge (by assumption, the speaker). The resulting interpretation would be non-contradictory". In their account, "*de re* interpretation is done by non-local binding of an index variable (p.8)", where index includes a judge and a world coordinate following Lasersohn (2005, 2017). If this account is adopted, it would mean that the matrix operator would be the non-local binder for the *de re* element in *diye* clauses under matrix subject-oriented verbs and this binding is made possible again because *diye* clauses are not opaque domains in this environment for *de re* elements.

I remain neutral as to the choice between these accounts. But Generalization 1, together with this exception, means that embedded content is represented from the perspective of the matrix subject unless it is marked *de re,* in which case it can escape the *diye* domain. This also speaks to Generalization 2: all elements that are associated with the operator in the embedded clause must be read *de dicto*. But due to transparency, elements now can escape that domain and be read as *de re.* The difference, therefore, lies in the ability of *de re* elements to escape the *diye* domain under non-factive verbs and their inability to do so under factivity-underspecified verbs. This difference results from the availability of $CP_{matrixsubject}$ in the former and the lack of it in the latter. Again, $CP_{matrixsubject}$, not providing an antecedent individual for the PRO in *diye* clauses, makes *diye* clauses transparent.

Another type of *de re* element discussed were overt pronouns and indexicals like *burada* 'here' and I argued that they are lexically specified for the utterance context in their own domains. Recall the following examples (Chapter 3, example 112):

(49) *Context 1:* Mary is in Los Angeles. However, she thinks she is in Irvine. The speaker is in Los Angeles. Mary has an appointment in LA.

Mary	[toplantı	burada/#orada	ol-acak	**diye**]	bil-iyor
M	meeting	here/there	be-FUT	diye	know-IMPF

'Mary knows [diye the meeting will be here/#there]'

Context 2: Mary is in Los Angeles. However, she thinks she is in Irvine. The speaker is in Irvine. Mary has an appointment in LA.

Mary	[toplantı	#burada/orada	ol-acak	**diye**]	bil-iyor
M	meeting	here/there	be-FUT	diye	know-IMPF

'Mary knows [diye the meeting will be #here/there]'

The same holds when the embedding verb is matrix subject-oriented:

(50) *Context 1:* Mary is in Los Angeles. However, she thinks she is in Irvine. The speaker is in Los Angeles. Mary has an appointment in LA.

Mary	[toplantı	burada/#orada	ol-acak	**diye**]	düşün-üyor
M	meeting	here/there	be-FUT	diye	think-IMPF

'Mary think [diye the meeting will be here/#there]'

Context 2: Mary is in Los Angeles. However, she thinks she is in Irvine. The speaker is in Irvine. Mary has an appointment in LA.

Mary	[toplantı	#burada/orada	ol-acak	**diye**]	düşün-üyor
M	meeting	here/there	be-FUT	diye	think-IMPF

'Mary thinks [diye the meeting will be #here/there]'

These are different from the *de re* in (49) because they show the same pattern regardless of the embedding verb, or rather regardless of whether the *diye* clause is opaque or not. Thus, it is clear that they are *lexically* specified for the utterance context. That means that $OP_{matrixsubject}$ can only bind elements that are not specified as relating to another context lexically within their immediate projection and the binding of these elements happen within their immediate projection (i.e., not the matrix operator).[99]

4.2.4. Semantics of matrix subject-orientation operator

Admittedly, proposing a semantic denotation for $OP_{matrixsubject}$ is complicated due to compositional reasons. Although $OP_{matrixsubject}$ and OP_{diye} have similar functions in reporting the first-person perspective of an individual, they cannot have the same semantic denotation. For one, the former lacks a PRO subject that the latter has, which requires a different way of handling the individual argument. Second, the latter only takes a CP as its argument while the former can take a DP or a PersP. Therefore, $OP_{matrixsubject}$ needs special handling, which I leave for future research. However, a few points are worth noting regarding the world argument in this operator, which I assume is a part of any semantic definition we propose for $OP_{matrixsubject}$.

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[99] Another potential explanation of this fact is that maybe there is co-reference rather than binding in examples like (50). This is possible, however, I stick to the binding account to keep the consistency across types of data and the correlations I posited in Chapter 3 (i.e., elements bound in embedded context=phrasal content, elements bound either in embedded or utterance context=*pro,* elements bound in the utterance context=lexical items).

Let us now specify a bit further what the function of CP$_{matrixsubject}$ is. de Cuba (2007) argues for a cP in the same position and suggests that the function of the operator in cP is to remove the speaker from responsibility for the truth of the embedded proposition. In his account, the operator in this position makes sure that the actual world is not included in the evaluation of the truth value of the embedded clause. He does not clarify how we can make sure that the actual world is not included in the evaluation worlds, however. Woods (2016) takes a more direct stance on this and suggests the following (for verbs of communication) (p. 172):

> *All items in the [embedded] clause are interpreted according to the*
> *perspectival centre and, though this was not explicitly mentioned*
> *earlier, the embedded world parameter. As such the only reading*
> *available is that which is said or asked in the original discourse; a*
> *reading with respect to the actual world is unavailable because the*
> *actual world parameter has been swapped out.*

Nichols (2001) is a bit more specific. She takes a more generalizable route and refers to the set of evaluation worlds that do not include the actual world as <-w>. She states the following (p. 129):

> *One might even reduce the evaluation set to a single variable*
> *<w>, where non-factive attitude predicates supply a value –w=*
> *'(truth) not (evaluated) in the actual world.*

If we follow Woods and Nichols, matrix subject-oriented(=non-factive) predicates come with a specification that their complement proposition is evaluated in worlds that do not include the actual world. If this operator can be formulated in a way to refer to logophoric alternatives of an

individual, as was the case with the operator in *diye* clauses, this might be a way of positing the non-inclusion of the actual world. I leave this for future research.

4.2.5. *Question elements and McCloskey (2005)*

Another interesting contrast that points out to some potential unification of why the stated syntactic patterns are observed (e.g., why NPI-licensing differences) arises with question elements inside embedded clauses. Narrow scope reading of question elements in *diye* clauses under perspective-underspecified verbs is not allowed (51a) but they are allowed under the matrix subject-oriented *düşün* 'think' (51b):[100]

(51) a. [Ali   mi   gel-di   **diye**]   hatırla-dı-n/bil-iyor-du-n
       A   Q   come-PST diye   remember-PST-2S/know-IMPF-PST-2S
      'Did you remember/know that it was Ali that came?'
      '*/??You remembered/knew whether Ali came'

    b. [Ali   mi   gel-di   **diye**]   düşün-dü-n
       A   Q   come-PST diye   think-PST-2S
      'Did you think that Ali came?'
      'You thought whether Ali came'

In Chapter 3, the availability of high scope reading in (51a) was attributed to the question probe (IntP) being higher than the highest projection in the entire *diye* clause, on an account of

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[100] *-DIK* clauses always require wide scope reading with the question particle regardless of the embedding verb. This indicates that the inability of letting narrow scope with these particles has to do with the internal structure of *–DIK* clauses rather than having to do with the CP$_{matrixsubject}$. Since there is no contrast with these clauses, I do not attempt to explain it. Rather I stick to *diye* clauses.

selective opacity based on height (Poole 2020). The lower scope interpretation is not allowed in (51a). This is not the case with matrix subject-oriented embedding verbs, as in (51b). I suggest that the narrow scope reading of the question elements under matrix subject-oriented verbs is allowed due to the operator in CP$_{matrixsubject}$ because CP$_{matrixsubject}$ and question elements have a feature in common. Recall that OP$_{matrixsubject}$ quantifies over the logophoric alternatives of an individual to evaluate the embedded proposition in these alternatives, which indicates the proposition has not been evaluated in the actual world. Namely, the issue at hand is not resolved. Questions and negation have this same presupposition, which puts them all under the group of elements that indicate 'unresolvedness'. This is the core intuition in McCloskey (2005). It is possible that a syntactic feature (e.g., [+/- resolved]) combines these elements and allow their interaction such that CP$_{matrixsubject}$ in matrix subject-oriented predicates values the unvalued feature on the question element as the probe for 'unresolvedness'.

This kind of interaction is especially noteworthy because these elements have already been shown to interact in the syntax. McCloskey (2005) argues that inversion and adjunction in embedded clauses depends on the meaning of the embedding predicate as well as the elements the embedding predicate combines with. He shows that both inversion and adjunction are possible if the embedding predicate is [+wh] (i.e., a question predicate), as in (52). However, it is not possible if the embedding predicate is a 'resolutive' predicate,[101] a group which includes what I call speaker-oriented and perspective-underspecified predicates (53).

(52)   a. I wondered was he illiterate.
       b. ?He asked me when I got home if I would cook dinner.

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[101] The term 'resolutive predicates' was introduced by Ginzburg and Sag (2000) to refer to verbs that do not embed true questions and as such presuppose that "the embedded question is resolved (p. 65, fn. 10)".

(53) a. *The police discovered who had they beaten up.

  b. *The police established while we were out who had broken in to our apartment.

He also noticed that it was not the case that resolutive predicates never allowed inversion and adjunction. Specifically, they allow inversion when negated (54b) or questioned (54c). Likewise, adjunction becomes possible when the embedding predicate is negated or questioned (55):

(54) a. *I remember was Henry a Communist

  b. ?I don't remember was Henry a communist?

  c. Do you remember was he a communist?

(55) a. I was never sure when he went to England should I go with him.

  b. Do you remember when they were in Derry did they live in Rosemount?

McCloskey proposes to account for these patterns via an extra level of CP available to [+wh] predicates, as in (56). Negation and questions are also compatible with the double CP in this account. This allows for a position through which adjunction and inversion can happen. This proposal is also aligned with the adjunction prohibition, stated in (57) (Chomsky 1986: 6), since adjunction is now separated from the lexical V head by the added CP.

(56)
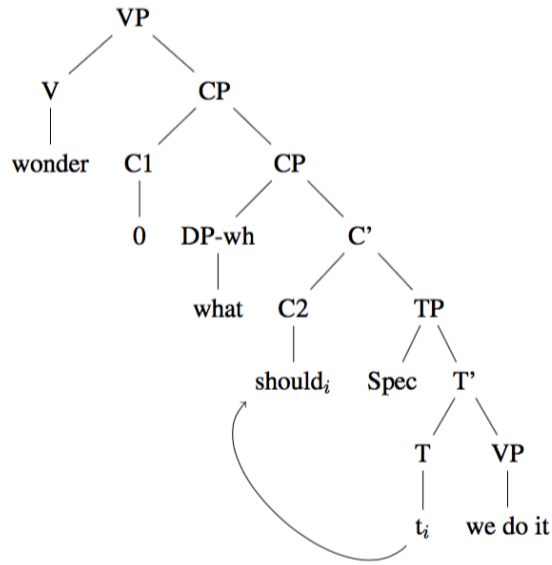
(57) Adjunction to a phrase which is s-selected by a lexical (open class) head is ungrammatical.

Inspired by Krifka (1999), McCloskey proposes that the double CP in this account refers to the 'higher interrogative type', similar to root questions, while the single CP is the 'lower interrogative type', which is sets of propositions. The former hosts a QUEST operator, which takes sets of propositions (in lower CP) and returns an interrogative speech act (in higher CP). [+wh] verbs are compatible with such an operator. Resolutive predicates lead to a clash of presuppositions. If such verbs could combine with the QUEST operator, it would "simultaneously entail and presuppose that the issue defined by the embedded question is resolved for the experiencer and entails or presupposes that it is not (p. 35)". Negation "entails/asserts that the issue defined by the complement is <u>not</u> resolved (for the referent of the experiencer argument). As a consequence, the question act is felicitous in its context (p. 35)". A

similar explanation goes for matrix questions, as in (54c). The question indicates that the issue in the embedded clause has not been resolved and therefore can combine with the QUEST operator.

Although a full semantic analysis of this class of elements is beyond the scope of the present study and was also not developed by McCloskey, we now have an idea of what can allow interaction between $CP_{matrixsubject}$ and embedded questions: both of these elements indicate that the issue in the embedded clause has not been resolved due to their matrix subject-orientedness (non-factivity) and question nature, respectively. On the assumption that the syntax marks this via a feature, we may suggest that they share a feature such as [+/- resolved] that allows them to interact in the syntax (and/or LF). It is via this feature that $CP_{matrixsubject}$ licenses embedded questions that are otherwise not allowed under perspective-underspecified verbs. If this account is pursued, we would have the following distinction between verbs based on the whether they are marked as [+resolved] or [-resolved] (which I take to be encoded in their complement $CP_{matrixsubject}$):[102]

(58)   [-resolved] = matrix subject-oriented, negated verbs, questioned verbs

        [+resolved] = speaker-oriented, perspective-underspecified (?)

In fact, this might also explain why NPIs are licensed under non-factive predicates. Although I attributed NPI-licensing to lack of an opaque domain in the *diye* clause under non-factive verbs rather than to specific features of $CP_{matrixsubject}$, it is possible that a feature on $C_{matrixsubject}$ indicating unresolvedness licenses an embedded NPI, since negation is an indicator of unresolvedness.

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[102] The distinction in (58) is exemplary. There might be more verb types in each category.

On a side note, McCloskey did not discuss matrix subject-oriented, non-interrogative verbs in the same class as [+wh] verbs, negation and questions. The Turkish data, however, imply that they could indeed be considered in the same group. It is yet to be seen whether similar patterns of adjunction and inversion arise with matrix subject-oriented, non-interrogative verbs in the Irish dialect of English but I take this possibility as a promising extension of his insightful proposal.

4.2.6. Optional elements

First-person *pro* can refer to either the speaker or the matrix subject in *diye* complements but not in –DIK complements both under perspective-underspecified verbs (59) (Chapter 3, example 18) and matrix subject-oriented verbs (60):

(59) a. Esra   [*pro*   sınıf-ta   kal-**dığ**-ım]-ı   bil-iyor
       E   class-LOC   stay-DIK-1S-ACC know-IMPF
      'Esra knows [that I failed the class]'

      (ISG pro=S, #MS)

    b. Esra   [*pro*   sınıf-ta   kal-dı-m   **diye**]   bil-iyor
       E   class-LOC   stay-PST-1S diye   know-IMPF
      'Esra knows [diye I failed the class]'

      (ISG pro=S, MS)

(60) a. Esra   [*pro*   sınıf-ta   kal-**dığ**-ım]-ı   düşün-üyor
       E   class-LOC   stay-DIK-1S-ACC think-IMPF

'Esra thinks [that I failed the class]'

(ISG pro=S, #MS)

b. Esra   [*pro*   sınıf-ta   kal-dı-m   **diye**]   düşün-üyor
   E   class-LOC   stay-PST-1S   diye   think-IMPF
   'Esra thinks [diye I failed the class]'

(ISG pro=S, MS)

Recall that a c-commanding overt pronoun can block reference of *pro* to the matrix subject in

diye clauses under *bil-* 'know' (61), a pattern that was (weakly) attributed to *De Re Blocking*.

The same pattern emerges with a matrix subject-oriented embedding verb (62):

(61) Esra   [ben   sınıf-ta   kal-dı-m   **diye**]   bil-iyor
      E   I   class-LOC   stay-PST-1S   diye   know-IMPF
      'Esra knows [diye I failed the class]'

(ISG pro=S, #MS)

(62) Esra   [ben   sınıf-ta   kal-dı-m   **diye**]   düşün-üyor
      E   I   class-LOC   stay-PST-1S   diye   think-IMPF
      'Esra knows [diye I failed the class]'

(ISG pro=S, #MS)

I have also shown that *pro* in *diye* clauses is not restricted by locality under factivity-

underspecified verbs (63). Again, the same pattern is observed with non-factive verbs (64):

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(63) Esra   [John   *pro*   sınav-ı   geç-ti-m   **diye**]   bil-iyor   diye
    E   J   exam-ACC   pass-PST-1S   diye   know-IMPF   diye

    hatırl-ıyor
    remember-IMPF

    'Esra remembers that John knows [diye I passed the exam]'

    (ISG pro =Esra, John, S)

(64) Esra   [John   *pro*   sınav-ı   geç-ti-m   **diye**]   düşün-üyor   diye
    E   J   exam-ACC   pass-PST-1S   diye   think-IMPF   diye

    hayal   ed-iyor
    dream   do-IMPF

    'Esra imagines that John thinks [diye I passed the exam]'

    (ISG pro =Esra, John, S)

I take this parallel behavior in *pro* to be supporting evidence for the proposal that $OP_{matrixsubject}$ and OP_{diye} are of similar natures, namely that they are both binding operators.[103] The explanations offered for OP_{diye} in Chapter 3 are therefore applicable to the data discussed in this section. I leave a study of epithets under matrix subject-oriented verbs for future work.

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[103] The only difference being in whether they have a PRO subject in their specifier or not.

4.3. Discussion

This section discusses the implications of the proposal for the literature on (non-)factivity of predicates and highlights its contributions. Recall that factive=speaker-oriented and non-factive=matrix subject-oriented in the present study. I will use (non)factivity in the discussion of the literature. The discussion is presented in two sections. Section 4.3.1. discusses the structure of the complements of factive and non-factive predicates and discusses where the present proposal stands in this discussion. Section 4.3.2. discusses default factivity. Section 4.3.3. makes a novel contribution by providing evidence from Turkish that there is a three-way structural difference between the complements of speaker-oriented, matrix-subject-oriented and perspective-underspecified predicates.

4.3.1. Factive versus non-factive predicates

That factive and non-factive predicates behave differently in grammar has been known at least since K & K. K & K noticed different behaviors between factive and non-factive verbs, where they defined factivity as presupposing the truth of their sentential complements. One difference is that only factive verbs can take the noun *fact* as a complement:

(65) a. I want to make clear the fact that I don't intend to participate.
       b. *I assert the fact that I don't intend to participate.

Only factive verbs can have the pronoun *it* as its object:

(66) a. Bill resents it that people are always comparing him to Mozart.

b. *Bill claims it that people are always comparing him to Mozart.

Gerunds can be objects of factive verbs only:

(67) a. I regret having agreed to the proposal.

b. *I believe having agreed to the proposal.

To be able to account for these differences and others, K & K propose that factive predicates have the deep structure in (68a) while non-factives were represented as in (68b), reflecting the semantic difference between them. de Cuba (2007) updated the structures in (68) in current terms as in (69a) and (69b), respectively. For K & K, factive predicates are structurally more complex in that they are headed by the noun *fact,* which non-factives lack. This indicates that factives are special in that they are marked whereas non-factivity is the default. Factive predicates produce the factivity presupposition due to the availability of the noun *fact* inside them. The syntactic differences are accounted again with the noun *fact* and a number of transformations.

(68)   a.   b.

(69)   a.   b.

More recently, however, the argument has gone the opposite way, namely that factives are the
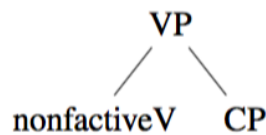
default interpretation whereas it is the non-factive predicates that are special and marked by

grammar. Nichols (2001: 204), for instance, states that "…a plausible default interpretive

strategy is the presupposition of the truth of a proposition unless it is marked otherwise" because

"… the evaluation set containing the actual world can be considered the default evaluation

context (p. 126)". Her analysis goes as follows in brief: CPs have tuples of context variable sets

that include the speaker, (the hearer), time and world. When the value for the first coordinate is

supplied by the current speaker, the actual world is necessarily included in the evaluation set.

What is important is that factive predicates do not supply a speaker value for their complements,

therefore, the first coordinate of the context tuple in the CP defaults to the current speaker. This

is different in non-factives, which can supply a different speaker value than the current speaker

because they come with an assertive operator.

　　Haegeman (2006) takes a more structural take on the factivity issue. She argues that non-

factives have an extra CP-layer for speaker deixis (also including projections like TopicP and

Focus), which factives lack, resulting in the factivity presupposition in the latter. In other words,

she argues that factive predicates are reduced finite structures, with the reduction resulting from

the lack of speaker deixis, and that non-factives are structurally more complex. That is why

factives do not allow various elements such as speaker-oriented adverbials (70a) and main clause

phenomena such as topicalization (70b). Non-factive verbs do not yield the same kind of restrictions (71):[104]

(70) a. *John regrets that Mary probably/obviously/unfortunately did not attend the meeting.
    b. (%)*John regrets that *this book* Mary read.   (Maki et at. 1999:3)

(71) a. John believes that Mary probably/obviously/unfortunately did not attend the meeting.
    b. John thinks that *this book* Mary read.

Based on these and other observations, Haegeman concludes that "presupposed complements are those propositions that do not encode anchoring to the speaker. The 'factive' interpretation of such clauses could be seen as a default reading: their content, not being asserted, or related to the speaker, is, as it were, 'taken for granted' ".

de Cuba (2007) argues that non-factives are marked and structurally more complex. For example, Swedish allows V2 in embedded clause only if the embedding verb is non-factive. In (72) and (73), the (a) examples have the neutral word order. The (b) examples exemplify V2, where the auxiliary *var* appears to the left of the negation *inte.* This inversion is possible with the non-factive *sa* 'say', but not with the factive *ångrade* 'regret':

(72) a. Rickard   sa   at   than   *inte*   *var*   hemma
       R   said that he   *not*   *was*   home

---

[104] The data in (71) and (72) can be due to the complements of factive predicates being more nominal (to be discussed), hence a smaller structure. See Korotkova (2021) for a similar argumentation for Turkish and other languages. I will in fact also argue that Turkish non-factives do not encode speaker-orientation despite being structurally more complex, hence I will argue against Haegeman (2006) in that aspect.

b. Rickard sa att han *var* *inte* hemma

 R said that he *was* *not* home

 'Rickard said that he was not home'

(73) a. Rickard ångrade att than *inte* *var* hemma

   R   regretted that he *not* *was* home

  b. *Rickard ångrade att han *var* *inte* hemma

   R   regretted that he *was* *not* home

   'Rickard regretted that he was not home'

Hungarian *azt* 'it-ACC' occurs when the embedding verb is non-factive (74a) but not when it is factive (74b). Since there is accusative marking on *azt,* it must have originated in the internal argument position of the embedding verb (de Cuba 2007; first noted in de Cuba & Ürögdi 2001):

(74) a. Azt hiszem hogy Mari okos

   it-ACC I.think that M smart.is

   'I think that Mary is smart'

  b. (*Azt) sajnálom hogy Mary okos

   it-ACC I.regret that M smart.is

   'I am sorry that Mary is smart'

If *azt* is not present in a non-factive clause, a factive reading results:

(75) a. Azt mondta Péter, hogy késön kezdödik a meccs

   that-ACC said P that late begins the match

   'Péter said that the match will begin late' (but we do not know if this is true)

b. Mondta   Péter,   hogy   késön   kezdödik   a   meccs

said   P   that   late   begins   the   match

'Péter told (me) that the match will begin late' (and in fact it will)

Based on data such as these, de Cuba proposes that non-factive predicates select for *cP,* extender

of the embedded CP (76b), whereas factive predicates are select for the CP directly (76a):[105]

(76)   a.   b.

cP head hosts an operator, which, according to de Cuba, removes the speaker from responsibility

for the truth of the embedded content (p.9). In the case of Swedish, V2 under the non-factive

predicate in (76b) is possible because the C head is empty, to which the embedded verb moves.

Since the complement of the factive verb is only a CP with no empty position, the embedded

verb has no position to move to, so V2 is not possible. One might ask whether SpecCP might be

argued to be a position where the embedded verb can move to. But the following example shows

that movement over the complementizer (in C) is not allowed in Swedish, implying that SpecCP

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[105] De Cuba later revises the division between as being between those with familiar complements and novel
complements, to which factive and non-factive verbs belong respectively.

is not available for movement. de Cuba attributes this to [+Fin] and [+EPP] features both being checked by the complementizer itself, leaving no attractor in the CP:

(77) *Rickard   ångrade   [_CP_ Dan_i   [_C_ att] [_TP_ t_i [_NegP_ inte] [_vP_ t_i var   hemma]]]
     R   regretted D   that   *not*   *was*   home
     'Intended: Rickard regretted that Dan wasn't home'

The Hungarian *azt* is allowed under non-factive verbs because there is an extra position in the structure where it can appear (cP), which is not possible with factive predicates. Since factive predicates select for a CP, whose head is filled with the complementizer, there is no position for an embedded element to move to.

Miyagawa (2012) is another study arguing that only non-factives comes with extra structure, which in his case is a speech act projection based on Japanese data. Japanese has two complementizers, *to,* which appears under non-factive predicates and *koto,* which appears under factive predicates (Kuno 1973, Miyagawa 2012). The language also has a politeness marker *mas* that is used in formal contexts, as exemplified in (78a). Lack of it indicates colloquial speech (78b) (Miyagawa 2012: 86, ex. (14)):

(78)   a. Peter-wa   hataraki-mas-i-ta
          P-TOP   work-MAS-PST
          'Peter worked'

       b. Peter-wa   hatarai-ta
          P-TOP   work-PST
          'Peter worked'

The clausal complement of non-factive predicates can accommodate *mas* (79a) (Harada 1976, ex. (102b)) while that of factive predicates cannot (79b). Some verbs can take both *to* and *koto*. When they take the latter, they cannot accommodate *mas* (79c):

(79) a. Taroo-wa   [Hanako-ga   ki-mas-i-ta   to]   it-ta
          T-TOP   H-NOM   come-MAS-PST C$_{NONFACT}$ say-PST
          'Taro said that Hanako came'

      b. Taroo-wa   [Hanako-ga   kita/*ki-mas-u   koto]-o   hitei-sita
          T-TOP   H-NOM   came/come-MAS-PRS C$_{FACT}$-ACC deny-PST
          'Taro denied that Hanako will come'

      c. Taroo-wa   [Hanako-ga   kita/*ki-mas-i-ta   koto]-o   hookokusi-ta
          T-TOP   H-NOM   came/come-MAS-PST C$_{FACT}$-ACC report-PST
          'Taro reported the fact that Hanako came'

Since the politeness marker indicates the speaker's intention towards the hearer, it involves projections relating to the speaker and hearer. Miyagawa therefore proposes to adapt the proposal by Speas & Tenny (2003) to subordinate clauses in Japanese such that non-factive predicates select for the Speech Act Projection (saP, SAP shell) whereas factive predicates select for a regular CP, i.e., a CP without saP/SAP. saP/SAP in Japanese is represented as in (80):

(80)
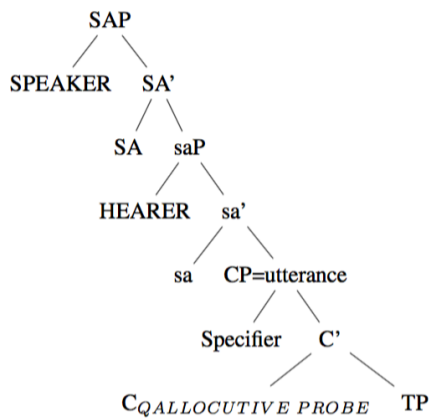
An important note on Miyagawa (2012), which will play a role in the discussion regarding Turkish factive verbs, is that it also argues that there is a factivity operator in factive complements to account for ban on topicalization in these clauses via operator movement. This operator, however, is within the CP, thus factive clauses still have a smaller structure than non-factive clauses, which have a saP embedding a CP. Miyagawa adapts the proposal by Haegeman (2007) as in (81) for Japanese factive clauses:

(81) $[_{CP}[OP_i C \ldots [_{FP} t_i [_{TP} \ldots]]]]$

Although there are various proposals on the structure of non-factive predicates, the cited recent studies agree on one point: non-factives involve more structure than factives. Now the question is where the present study fits. Two points from the literature are addressed: (i) the defaultness of factivity and (ii) reduced structure in factive predicates. I conclude that factivity can indeed be the default reading and therefore also structurally reduced, but true factive verbs select for a

structure as complex as non-factives in Turkish. In other words, there are two ways factivity can arise: by default and by structure.

Before I move onto this discussion, however, it is important to clarify that although I assume extra structure in non-factives (=matrix subject-oriented verbs) in Turkish, this is not related to the availability of the speaker in these verbs, contra Haegeman (2006) and Miyagawa (2012). The argumentation goes as follows: *İyi ki* 'fortunately' is a speaker-oriented adverb in Turkish. It expresses the epistemic stance of the speaker towards the matrix assertion in matrix clauses:

(82) Ali   iyi   ki   gel-di
      A   good   that come-PST
      'Fortunately, Ali came'

In embedded contexts, the matrix subject is the sole evaluator of this adverb, indicating that no speaker-related projection is available in embedded clauses in Turkish. When the embedded clause is formed with –*DIK,* it does not allow evaluation of *iyi ki* 'fortunately' by the matrix subject regardless of the embedding verb type,[106] hence the unavailable readings in (83). The only evaluation is by the speaker but not towards the embedded content. The adverb rather modifies the matrix verb in this case, as indicated by the available reading in (83):

(83) a. Esra   [Ali-nin   iyi   ki   gel-**diğ**-in]-i   bil-iyor
        E   A-3GEN   good   that come-DIK-3S-ACC   know-IMPF
        '#Esra knows [that Ali fortunately came]' *(matrix subject evaluation of iyi ki)*
        'It is fortunate that Esra knows [diye Ali came]' *(speaker evaluation of iyi ki)*

---

[106] There is some variation in the judgments for these data, but this is the tendency.

b. Esra   [Ali-nin   iyi   ki   gel-**diğ**-in]-i   düşün-üyor

E   A-3GEN   good   that   come-DIK-3S-ACC   think-IMPF

'#Esra knows [that Ali fortunately came]' *(matrix subject evaluation of iyi ki)*

'It is fortunate that Esra knows [diye Ali came]' *(speaker evaluation of iyi ki)*

If the embedded clause is a *diye* clause*, iyi ki* can be evaluated by the matrix subject when the embedded content is modified by the adverb. When the speaker is the evaluator, *iyi ki* must modify the matrix verb, similar to the case in *–DIK* clauses.[107] This pattern again holds regardless of the type of the embedded verb:

(84) a. Esra   [Ali   iyi   ki   gel-di   **diye**]   bil-iyor

E   A   good   that   come-PST   diye   know-IMPF

'Esra knows [diye Ali fortunately came]' *(matrix subject evaluation of iyi ki)[108]*

'It is fortunate that Esra knows [diye Ali came]' *(speaker evaluation of iyi ki)*

b. Esra   [Ali   iyi   ki   gel-di   **diye**]   düşün-üyor

E   A   good   that   come-PST   diye   think-IMPF

'Esra thinks [diye Ali fortunately came]' *(matrix subject evaluation of iyi ki)*

'It is fortunate that Esra thinks [diye Ali came]' *(speaker evaluation of iyi ki)*

Although the embedded clause types yield some difference, what is common between (83) and (84) is that the speaker evaluation is not available for embedded content (i.e., the speaker can only evaluate the matrix verb). I take it to mean that speaker projection is not available in

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[107] I assume in these cases, the embedded subject and the adverb are both in the matrix clause. The embedded subject probably undergoes a discourse-related movement such as topicalization.

[108] Imagine a context where the speaker and her friend convinced Esra that Ali's arrival is a good thing while in actuality, it is not. Or adding a previous context like the following helps to judge this reading: "The speaker is angry that Ali attended the party. Esra is happy about it." See Chapter 2, example (74).

embedded clauses, arguing against saP in Miyagawa (2012) and also against the speaker-deixis analysis by Haegeman (2006) for Turkish.

To complete the argumentation, I will show that the same pattern holds with what Miyagawa argues are true speaker-oriented adverbs based on Amano (1999). Amano differentiates between 'attitudinal' adverbs such as *apparently, certainly, definitely, evidently* etc. and 'style' adverbs such as *frankly, truthfully, honestly* (In this classification, *iyi ki* falls under the former group, so it is not a truly speaker-oriented adverb). Amano argues that attitudinal adverbs indicate assertions and they are available just in the environments that allow root transformations in Hooper & Thompson (1973) (namely, their Class A, B and E verbs):[109]

(85)   a. Carl told me that this book *certainly* has the recipes in it.   (Class A)
       b. Bill believes that *certainly,* John will lose the election.   (Class B)
       c. *I doubt Kissinger *certainly* is negotiating for peace.   (Class C)
       d. *I regret that I *unfortunately* attended the concert.   (Class D)
       e. I know that Santa *certainly* has lost a lot of weight.   (Class E)

Style adverbs indicate the speaker's style of expression (Greenbaum 1969) and they need not modify an assertion (Amano 1999). Amano argues that this group of adverbs are only compatible with Class A verbs of Hooper & Thompson:[110]

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[109] I have two sources of suspicion for the data in (85) and (86): some native speakers do not agree with the judgments. *Frankly* leads to a semantic oddity and with *honestly,* some of these options (e.g., (85d-e)) and some find (85c) and (85f) acceptable. The other suspicion is the use of a first-person subject in some and third person in others. This might affect the judgments in non-trivial ways, given that the target item is speaker-oriented. Yet, I will take the results in their face value for sake of argumentation and accept the division Amano made as it is.

[110] Notice in (86) that style adverbs in English are available only in the environment where the Japanese politeness marker –mas- is available, indicating that saP is available with these adverbs just as it is with –*mas*-. This is because these adverbs are argued to be the only adverbs that are strictly speaker-oriented because they have the speaker as one of their arguments (Bellert 1977).

(86) a. She said that *honestly* she does not know anything about their plans.   (Class A)

  b. *Bill believes that *honestly,* John will lose the election.   (Class B)

  c. *I doubt Kissinger *frankly* is negotiating for peace.   (Class C)

  d. *I regret that I *frankly* attended the concert.   (Class D)

  e. *I know that Santa *honestly* has lost a lot of weight.   (Class E)

It turns out that in the Turkish case, style adverbs are always speaker-oriented, and therefore need to modify the matrix verb (i.e., they cannot modify the embedded content) regardless of the complement clause type as well as the embedding verb type ((87)-(88)). This strengthens the previous conclusion that speaker is not represented in either of the embedded clauses we are concerned with in the present study:[111]

(87) a. Esra   [Ali-nin   açıkçası   gel-**diğ**-in]-i   bil-iyor
      E   A-3GEN   frankly   come-DIK-3S-ACC   know-IMPF
      '#Esra knows [that Ali frankly came]' *(matrix subject evaluation of açıkçası)*
      'Frankly, Esra knows [diye Ali came]' *(speaker evaluation of açıkçası)*

  b. Esra   [Ali-nin   açıkçası   gel-**diğ**-in]-i   düşün-üyor
      E   A-3GEN   frankly   come-DIK-3S-ACC   think-IMPF
      '#Esra knows [that Ali frankly came]' *(matrix subject evaluation of açıkçası)*
      'Frankly, Esra knows [diye Ali came]' *(speaker evaluation of açıkçası)*

(88) a. Esra   [Ali   açıkçası   gel-di   **diye**]   bil-iyor
      E   A   frankly   come-PST   diye   know-IMPF

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[111] A question that arises with respect to how *açıkçası* 'frankly' appears at all in a *diye* clause given that the word order seems to be neutral and thus *açıkçası* 'frankly' is in the embedded clause. This is a problem because as was argued in Chapter 2 and 3 that *diye* clauses are strictly matrix-subject-oriented. But notice that the meaning of the adverb is such that it modifies matrix content. Thus, I will assume that the adverb is actually not in the embedded clause but is generated in the matrix clause. The embedded subject must have undergone some movement such as topic movement to the matrix clause over the adverb. This yields a neutral-looking structure but one where some elements have been displaced over others.

'#Esra knows [diye Ali frankly came]'   *(matrix subject evaluation of açıkçası)*

'Frankly, Esra knows [diye Ali came]' *(speaker evaluation of açıkçası)*

b. Esra   [Ali   açıkçası   gel-di   **diye**]   düşün-üyor

E   A   frankly   come-PST diye   think-IMPF

'#Esra thinks [diye Ali frankly came]'   *(matrix subject evaluation of açıkçası)*

'Frankly, Esra thinks [diye Ali came]' *(speaker evaluation of açıkçası)*

4.3.2. *Factivity can be default*

Recall that nominalized clauses do not have a factivity specification, as they adopt the factivity specification of the verb that embeds them. This is unlike *diye* clauses, which are non-factive regardless of the embedding verb. This is exemplified below (Özyıldız 2016):

(89)   *Context:* Trump won the election, but…

a. #Tunç   [Bernie-nin   kazan-**dığ**-ın]-ı   bil-iyor

T   B   -3GEN   win-DIK-3S-ACC   know-IMPF

'#Tunç knows [that Bernie won]'

b. Tunç   [Bernie   kazan-dı   **diye**]   bil-iyor

T   B   win-PST   diye   know-IMPF

'Tunç knows [diye that Bernie won]'

(90)   *Context:* Trump won the election, but…

a. Tunç   [Bernie-nin   kazan-**dığ**-ın]-ı   düşün-üyor

T   B   -3GEN   win-DIK-3S-ACC   think-IMPF

'Tunç thinks [that Bernie won]'

b. Tunç   [Bernie   kazan-dı   **diye**]   düşün-üyor

    T   B   win-PST   diye   think-IMPF

    'Tunç thinks [diye that Bernie won]'

We see in (89) that the embedding verb *bil-* also does not have a specification for factivity, as it has different interpretations depending on its complement, which is unlike a verb like *düşün-* 'think', which is always non-factive (=matrix subject-oriented).

    Neither *–DIK* nor *bil-* 'know' is specified as factive in (89a), and yet the resulting interpretation of their combination is factive. I take this to mean that when no specification is available for (non)factivity, we get a factive interpretation (i.e. speaker-orientedness) by default. This provides support for the literature on (non)-factivity arguing that factivity is the default interpretation and therefore has reduced structure (e.g., Nichols 2001, Haegeman 2006, de Cuba 2007, Miyagawa 2012). This type of factive interpretation is structurally reduced in that there is no extra CP encoding this reading. Next section, however, will show that factivity can be marked in some cases.

4.3.3. *Factivity can be marked*

In this section, I argue that:

(91) a. both non-factive and true factive verbs select for the same amount of structure, as opposed to factivity-underspecified verbs, which are bare VPs -no extra structure-. True factivity refers to structural encoding of factivity, as opposed to default factivity, which was discussed in the previous section.

     b. However, the properties of the extra structure are slightly different.

In arguing for extra structure in both factive and non-factive predicates, I bring together the arguments in traditional studies with more recent observations.

4.3.3.1.   What are factive verbs?

Factive verbs are those that trigger the "presupposition by the speaker that the complement of the sentence expresses a true proposition (K & K: 43)". Presuppositions have projective meaning. That is, they survive under the scope of entailment-canceling operators (Simons et al. 2010). (92a) presupposes that the embedded proposition is true. (>: presupposition), which survives under entailment-canceling operations such as negation (92b), questions (92c), conditionals (92d) and modals (92e):

(92) a. John knows that Mary loves him. >Mary loves John.
        b. John doesn't know that Mary loves him. >Mary loves John.
        c. Does John know that Mary loves him? >Mary loves John.
        d. If John knows that Mary loves him, we are in trouble. >Mary loves John.
        e. John might know that Mary loves him. >Mary loves John.

However, factivity has long been a controversial concept. The factivity inference in most factive verbs can be canceled. For example, Beaver (2004) showed that although the factivity inference of *know* cannot be canceled in conventional entailment-canceling contexts, it can be canceled in story-telling contexts (93) (cf. (2)):

(93) a. Then, if the observer can get notification from the owner, the observer knows that the owner has still stayed in the net. If not, the observer knows that the observer has already disappeared since the reset occurred.

b. One day Chuang Tzu and a friend were walking by a river. "Look at the fish swimming about" said Chuang Tzu, "They are really enjoying themselves." "You are not a fish," replied the friend, "So you can't truly know that they are enjoying themselves."

Other factive verbs are looser in that the conventional entailment-canceling environments can cancel their factivity inference. For instance, the conditional can cancel the inference in *realize, discover* (94b) but not that of *regret* (94a) (Karttunen 1974):

(94)   a. If I regret later that I have not told the truth, I will confess it to everyone.
        b. If I {realize, discover} later that I have not told the truth, I will confess it to everyone.

The verbs whose factivity inference can be canceled in entailment-canceling environments such as negation, conditionals, questions etc. are known as the 'semi-factive' verbs, which include verbs like *realize, discover. Regret* and *know* are taken to be more 'factive' in that their factivity inference survives these environments. However, just like in the case of *know* in (92), the factivity inference of *regret* can be canceled in some other environments (95) (Karttunen 1974).

(95)   John didn't regret that he had not told the truth. How could he have done that when he knew that what he had said was true?

What seems to be the case is that the factivity inference of some verbs are harder to cancel than others (harder to cancel=survives negation, conditions, questions and modals). The easier-to-cancel ones are semi-factives and the harder ones are (true) factives. At the end of the day, however, they can all be canceled and that is why some studies considered all cognitive factives as cancelable. The discussion on factivity-cancelation is therefore not at a place to draw

definitive conclusions on how to group verbs based on factivity in English, specifically based on where factivity inference survives and where it does not. The present study is helpful at this point because it aims to account for interpretive properties based on structural differences. This is a newer approach (following studies such as de Cuba 2007, Miyagawa 2012, among others). I show how this approach works after I discuss true factive verbs in Turkish, specifically how they differ from factivity-underspecified verbs, which led to the most debate in the literature.

4.3.3.2. *Speaker-oriented (True Factive) Verbs in Turkish*

Speaker-oriented verbs in Turkish are an independent class of verbs based on their semantic and syntactic patterns. They differ from perspective-unspecified verbs in a number of ways. For one, their factivity inference, derived from speaker-orientedness, cannot be overridden. The factive inference in *know,* a perspective-underspecified verb in Turkish that does not report a knowledge report, can be overridden by factors such as focus in embedded clause whereas the one that arises with *forget* cannot be. To see this in example, contrast (96) and (97). If the main focus is on the embedding verb, factivity inference arises under *know+DIK* (96a), but not when an element in the embedded clause is focused (96b).[112] In other words, the factivity inference of *know* does not always project, indicating that it is not a lexical property of the verb. I argued in previous sections that it arises as the default reading. In other words, this inference is not structurally encoded. *Forget* and *discover* do not participate in this alternation (97), as they are always factive regardless of focus. This indicates that their factivity is encoded somewhere in the structure these verbs occur in and this differentiates them from the default factive reading. This

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[112] Focus in embedded clause introduces alternatives, which indicates truth is not established, which conflicts presumably with the factivity inference of the embedding verb.

structural endocing makes them true factives in Turkish. The following examples are from

Özyıldız (2017). Capital letters indicate the locus of main stress.

(96) a. Dilara   [Ali-nin   sigara   iç-**tiğ**-in]-i   BIL-IYOR
         D   A-3GEN   cigarette   smoke-DIK-3S-ACC   know-IMPF
         'Dilara knows [that Ali smokes cigarettes]'

      b. Dilara   [Ali-nin   SIGARA   iç-**tiğ**-in]-i   bil-iyor
         D   A-3GEN   cigarette   smoke-DIK-3S-ACC   know-IMPF
         'Dilara knows [that Ali smokes cigarettes]'

(97) a. Dilara   [Ali-nin   sigara   iç-**tiğ**-in]-i   UNUT-TU/KEŞFET-TI
         D   A-3GEN   cigarette   smoke-DIK-3S-ACC   forget-PST/discover-PST
         'Dilara forgot/discovered [that Ali smokes cigarettes]'

      b. #Dilara   [Ali-nin   SIGARA   iç-**tiğ**-in]-i   unut-tu/keşfet-ti
         D   A-3GEN   cigarette   smoke-DIK-3S-ACC   forget-PST/discover-PST
         'Dilara forgot/discovered [that Ali smokes cigarettes]'

This is similar to the observation for English effect of focus on factivity alternation is not unique

to Turkish. When the verb *discover* is focused in English (98b), it is implied that the student is

guilty (i.e., factive inference). When the complement is focused (98a), there is no such

implication (Beaver 2004, Abrusán 2011). This does not hold for *know* (99), in which case

factivity inference stays regardless of the position of focus:

(98) a. If the TA discovers that [your work is plagiarized]F, I will be [forced to notify the
         Dean]F.

b. If the TA [discovers]ꜰ that your work is plagiarized, I will be [forced to notify the Dean]ꜰ.

(99)   a. If the TA knows that [your work is plagiarized]ꜰ, I will be [forced to notify the Dean]ꜰ.

b. If the TA [knows]ꜰ that your work is plagiarized, I will be [forced to notify the Dean]ꜰ.

Subcategorization is another important difference. Both true factive verbs like *regret* and semi-factives like *realize* take *that*-complements in English. In Turkish, however, verbs like *forget, discover* do not combine with *diye* while they freely combine with *–DIK* (100). Verbs like *know, remember* combine with *diye* to yield a non-factive meaning whereas they combine with *–DIK* to yield a factive (presuppositional) reading (101). Finally, verbs like *think, dream* combine with *diye* and *–DIK* to yield non-factive readings in both cases (102). Since there is no overlap in distribution, all belong to different categories:

(100)   a. Esra   [Ali-nin   gel-**diğ-**in]-i   unut-tu/keşfet-ti
        E   A-3GEN   come-DIK-3S-ACC   forget-PST/discover-PST
        'Esra forgot/discovered [that Ali came]'

b. *Esra   [Ali   gel-di   **diye**]   unut-tu/keşfet-ti[113]
        E   A   come-PST   diye   forget-PST/discover-PST
        'Intended: Esra forgot/discovered [diye Ali came]'

(101)   a. Esra   [Ali-nin   gel-**diğ-**in]-i   bil-iyor/hatırl-ıyor
        E   A-3GEN   come-DIK-3S-ACC   know-IMPF/remember-IMPF
        'Esra knows/remembers [that Ali came] (>Ali came)'

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[113] The only available reading here is if the *diye* clause is interpreted as an adjunct. See Chapter 5.

b. Esra   [Ali   gel-di   **diye**]   bil-iyor/hatırl-ıyor

     E   A   come-PST   diye   know-IMPF/remember-IMPF

     'Esra knows/remembers [diye Ali came] (≯Ali came)'

(102) a. Esra   [Ali-nin   gel-**diğ-**in]-i   düşün-üyor/hayal   ed-iyor

       E   A-3GEN   come-DIK-3S-ACC   think-IMPF/dream   do-IMPF

       'Esra thinks/dreams [that Ali came] (≯Ali came)'

b. Esra   [Ali   gel-di   **diye**]   düşün-üyor/hayal   ed-iyor

     E   A   come-PST   diye   think-IMPF/dream   do-IMPF

     'Esra thinks/dreams [diye Ali came] (≯Ali came)'

Thus, speaker-oriented verbs are the only ones that cannot combine with *diye* among cognitive attitude verbs. This suggests that they form a group with their own unique properties. This is even more highlighted when we ask *why* speaker-oriented verbs are not compatible with *diye*. Is it due to a meaning clash between *diye* and these verbs? It might be a factor, but the real reason seems to have to do with the structure of the complement clause. Specifically, speaker-oriented verbs in Turkish do not take non-nominal complements. To understand this better, see the data set in (103), which shows another necessarily postverbal lexical complementizer-like item, *ki* 'that', which can combine with perspective-underspecified verbs (102b) and matrix subject-oriented verbs (103c) but not with speaker-oriented verbs (103a). *Ki* is the only post-verbal complementizer-like element in Turkish:[114]

(103) a.*Ali   unut-tu/unut-uyor   **ki**   Esra   gel-di

      A   forget-PST/forget-IMPF   that   E   come-PST

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[114] But see Predolac (2017), who argues that *ki* clauses are not true complementation structures. Even if they are not true complements to verbs, however, the distinction between the three verb classes in (103) still remains.

'Intended: Ali forgot/keeps forgetting that Esra came'

    b. Ali   bil-iyor   **ki**   Esra   gel-di

    A   know-IMPF that E   come-PST

    'Ali knows that Esra came'

    c. Ali   düşün-üyor   **ki**   Esra   gel-di

    A   think-IMPF   that E   come-PST

     'Ali thinks that Esra came'

Unut 'forget' is compatible with other nominalized complements (less acceptable with *–mE* than

–(y)Iş but this is true for all three types; *-mE* clauses do not easily combine with cognitive verbs):

(104) a. Bu   ülke…   Özal   gibi   Amerikan   dost-lar-ın-ın…   [savaş-ın

      this   country   Ö   like   American   friend-PL-3S-3S   war-3GEN

      eşiğ-in-e   gel-**me**-sin]-i   unut-muş   değil[115,116]

      edge-3S-DAT come-mE-3S-ACC forget-INDPST   not

      'This country has not forgotten that American allies like Özal came to the edge

       of war'

      (lit. … American allies like Özal's coming to the edge of war)

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[115] from https://www.evrensel.net/haber/125386/turkiye-yi-savasa-cekmeye-geliyor)
[116] Another example (https://www.hepsiburada.com/altus-al-611-d-900w-dik-elektrikli-supurge-pm-HB0000044JMR-yorumlari):
(Kargo biraz geç gel-di ama ürün güzel ol-unca) [kargo-nun   geç gel-**me**-sin]-i   unut-tu-m   bile
                                          [package-3GEN late come-mE-3S-ACC forget-PST-1S even
(The package arrived a bit late but since the product was nice) I forgot that the package came late'
(lit. package's coming late)

b. Ali   Esra-nın   gel-**iş**-in-i   unut-tu

   A   E-3GEN   come-(y)Is-3S-ACC   forget-PST

    'Ali forgot (the way) Esra came'

The restriction posed by these verbs is therefore due to the structural properties of their complement clause rather than being related to the interpretation of *diye*. More specifically, speaker-oriented predicates only accept nominal complements. This is not a new finding. Factive predicates have been argued to have more nominal character than non-factives. The initial analysis by K & K, for example, already indicates that with the added head noun *fact*. Moreover, K & K observed that *that*-complementizer drop is allowed only in non-factives in English (105(a)-(b)) while it is obligatory in factives (105(c)-(d)):

(105)   a. John thinks (that) Mary stole the money.
            b. Bill said (that) Max was the author of the review.
            c. Jane regrets that/*Ø Bill won the lottery.
            d. It bothers Joe that/*Ø Mabel wants to tag along all the time.

Webelhuth (1992) argues that this difference arises due to different categorizations of factive and non-factive predicates. Based on the argument that a clause headed by *that* has nominal properties due to the etymological relationship between the complementizer and the demonstrative *that* and the observation that only factives require the complementizer, he takes factive clauses to be nominal and non-factive clauses to be verbal (at least when they do not have the complementizer).

      Nichols (2001) provides cross-linguistic evidence that factive predicates are often marked nominally, as opposed to non-factive predicates. An example from Korean is in (106) (Nichols

2001: 45, ex. (56-57)). Korean factive predicates take a clausal complement either headed by the external noun head *kes* 'thing' (106a) or the nominalizer *–um* (106b) while non-factive predicates take a complement headed by non-nominal finite complementizer *–ko* (106c):

(106)   a. Chelswu-ka   miswuk-i   pokkwen-ey   taŋchemtoy-n   kes-ul
          C-NOM   M-NOM   lottery-at   win-PST-SUBORD   thing-ACC

          a-n-ta
          know-PRES-DECL

          'Chelswu knows that Miswuk won the lottery'

        b. Chelswu-ka   miswuk-i   pokkwen-ey   taŋchemtw-ayss-um-ul   a-n-ta
           C-NOM   M-NOM   lottery-at   win-PST-NMLZ-ACC   know-PRES-DECL
           'Chelswu knows that Miswuk won the lottery'

        c. Chelswu-ka   miswuk-i   ton-ul   hwumchy-ess-ta-ko(*-lul)
           C-NOM   M-NOM   money-ACC   stole-PST-DECL-C(-*ACC)

           sayŋkakhanta
           thinks

           'Chelswu thinks that Miswuk stole the money'

A less direct but still illustrative example comes from Hausa. Complement clauses of non-factive predicates in Hausa are derived from verbs (107(a)-(b)) whereas the complement clauses of factive predicates is headed by *dà* (107c), which is also used in nominal-headed relative clauses (107d) (Newman 2000, Nichols 2001):

(107) a. yârân   sun   tsayà: cêwa: sun   maido:

        child-PL   3.PL.COMPLET insist   C   3.PL.COMPLET repay

        manà   dà   kudì-nmù

        with   money-our

        'The children insisted that they had paid us back our money'

        cêwa: ='saying'

   b. na: sâ   râi   wai   zâi   zo:

      1.S.COMPLET expect C   3.M.FUT   come

      'I expect that he will come'

      wai''it is said that'

   c. mun   yi   farin cikì: dà kukà   zo:

      1.PL.COMPLET do   pleasure   C   2.PL.PRET come

      'We are happy that you came'

   d. ya:rinyàr~ dà   ta   faɗ:ì

      girl   REL 3.F   fall

      'The girl who fell'

Kastner (2015) argues that presuppositional predicates, a sub-part of which includes factive predicates, have complements whose highest level is a DP with a covert definite determiner. His discussion of the data revolves around the classification in (108) (Cattell 1978, Hegarty 1990), defined in (109) (Hegarty 1992: fn 12):

(108)   a. Non-Stance: regret, know, remember, realize, notice etc.[117]

        b. Response Stance: deny, accept, agree, admit, confirm, verify etc.

        c. Volunteered Stance: think, suppose, assume, claim, suspect etc.

(109)   **Non-Stance:** Presuppose, as a matter of conventional meaning, that the content
        of the complement is part of the body of background beliefs. This class includes most
        standard factive verbs.
        Response Stance: The content of the complement is under consideration for inclusion
        in the body of background beliefs. This class includes the non-factives *confirm* and
        verify, and the negative verbs *deny* and *doubt.*
        Volunteered Stance: The content of the complement is being offered by the speaker
        for inclusion in the body of background beliefs.

Kastner argues that volunteered stance verbs take a CP complement. Non-stance and response

stance verbs take a DP complement with a covert D head, which in turn takes the embedded CP

as complement. Since the head of this DP is filled with a covert determiner, presuppositional

verbs induce weak islands while non-presuppositional verbs are not islands at all (Hegarty 1990)

(weak islands are those where arguments can be extracted but adjuncts cannot):[118]

(110)   a. What do you think (that) John stole ____?
        b. Why do you think John stole the cookies ____?
        c. What do you remember/deny that John stole ____?
        d. #Why do you remember/deny that John stole the cookies ____?

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[117] Notice that the class of Non-Stance verbs include both factives and semi-factives, which I have shown behave
differently in Turkish. But Kastner's arguments are relevant in that true factives in Turkish require nominal
arguments. True factives fall in the category (a) of (108), which Kastner also argues have nominal arguments.
[118] Notice that the data in (110) and (111) also suggest that verbs like *think* have a larger complement through which
elements can be extracted and topicalized. This is largely in line with the proposal in this chapter that the
complement to these verbs are not opaque domains due to the extra structure available in their complement clauses.

Likewise, fronting is possible only with non-presuppositional verbs, as presuppositional verbs induce weak islands due to the existence of the DP layer above the embedded CP:

(111)   a. John thinks that [this book, Mary read]
          b. *John regrets that [this book, Mary read]

Overall, then, there is good evidence that factive predicates, however they are categorized, subcategorize for nominal complements.

Going back to Turkish, I suggest that speaker-oriented predicates in Turkish select for $CP_{speaker}$, which introduces an operator, $OP_{speaker}$ (as in Miyagawa 2012) on its head that has a PRO as its subject in $SpecCP_{speaker}$ coindexed with the speaker, reporting the embedded clause from the perspective of the speaker. The availability of extra CP in both speaker-oriented and matrix subject-oriented predicates accounts for the generalization in (91a) that they both have an equal amount of added structure. But this time, the perspective holder is the speaker and the actual world is therefore necessarily included in the evaluation worlds (Nichols 2001). This extra CP takes a DP as its complement. This is represented in (112), defined in (113).

(112)

```
                    VP_speaker
                   /        \
        matrix subject      V'_speaker
                           /        \
                   CP_speaker        V_speaker
                   /        \
          PRO_speaker    C'_speaker
                         /        \
                       DP        OP_speaker
                      /  \
                   Spec   D'
                         /   \
                       CP     D
                      /  \    |
                   Spec  C'  -DIK
                        /  \
                      TP    C
```
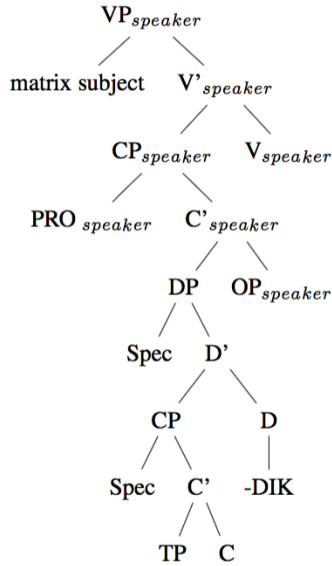
(113) $[[OP_{speaker}]]^{c,g} = \lambda p_{<s,t>}. \lambda x_e. \lambda w_s. p(w)=1. \forall <w', x'>:<w', x'> \in FORGET_{x,w}.$

$$p(w')(x')=1$$

where x is the speaker and

$FORGET_{x,w} = \{<w', x'>: w'$ is compatible with x's mental state

in w and x' is the individual in w' that x identifies as himself$\}$

The operator is similar to OP_matrixsubject and OP_diye in that it introduces a perspective. OP_matrixsubject, OP_speaker and OP_diye are all perspective operators, differing in (i) whose perspective they take as arguments (OP_matrixsubject and OP_diye, the matrix subject versus OP_speaker, the speaker) and (ii) whether they have a PRO in their specifier (yes for OP_diye and OP_speaker and no for OP_matrixsubject). Going back to the correlation between speaker-oriented predicates and nominal complements, I assume that it is the structural encoding of the actual world in OP_speaker that requires a nominal complement. How that requirement comes about is a topic for future research, however, perhaps

it has to do with the fact that the actual world is a specific world, and this might correspond to a DP in the syntax, as DP is related to specificity in the syntax as well. Future research can confirm or refute if this intuition is on the right track as well as how to formulate this semantically.

One implication of this proposal is that the complements of true factives must be opaque, since their complement domain is marked with an operator with a PRO subject, just like *diye* clauses under factivity-underspecified verbs. The prediction is borne out, since true factives do not allow binding across domains (114) –for some speakers including me-, NPI-licensing (115) across domains and specific reading of embedded quantifiers (116):

(114) %Çocuklar$_i$ [Ali-nin   birbirlerin-i$_i$ eşleştir-**diğ**-in]-i   unut-tu
       children   A-3GEN   each.other-ACC match-DIK-3S-ACC   forget-PST
       'Children$_i$ forgot [that Ali matched each other$_i$]'

(115) #Ali   [kimse-nin   gel-**diğ**-in]-i   unut-ma-dı
      A   no.one-3GEN   come-DIK-3S-ACC forget-NEG-PST
      'Ali did not forget [that anyone came]'

(116) Pelin   [burada   biri-nin   hasta   ol-**duğ**-un]-u   unut-tu
      P   here   someone-3GEN   sick   be-DIK-3SACC forget-PST
      '#Pelin forgot [that someone is sick here]' *(specific)*
      'Pelin forgot [that there is someone sick here]' *(unspecific)*
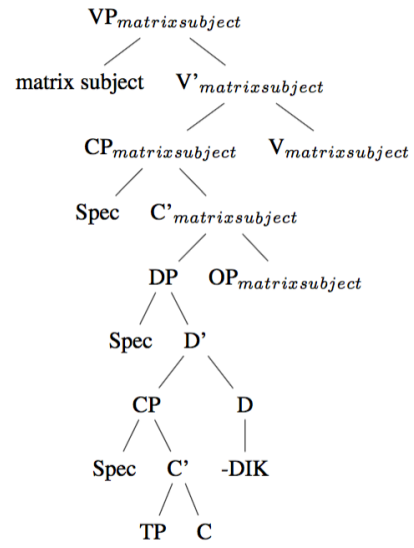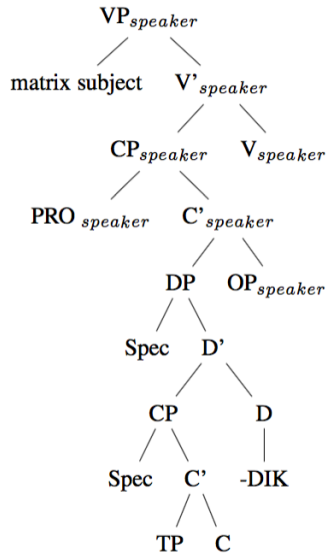
Now notice how the present study can contribute to the clarification of the distinctions between factive and semi-factive verbs, an area which has to proved to be the most challenging. The study makes a clearer distinction between these verbs because it focuses on the structural differences first and connects the interpretative differences to the structural differences. For example, true

factives and factivity-underspecified verbs in Turkish are different because (i) they have different selectional properties but also (ii) different structural properties such as their complements being opaque domains (i.e., –*DIK* clauses are not opaque under factivity-underspecified verbs and are opaque under true factive verbs). Both of these follow if we rely on the meaning of these verbs, i.e., that true factives encode evaluation in the actual world by the speaker, reporting the speaker's perspective on the embedded clause. Semi-factives (i.e., factivity-underspecified verbs) do not have the parameters to establish evaluation domains, hence their differences from true factives. Taken together, I make a three-way distinction between cognitive verbs in Turkish, represented in (117):

(117)   a. Speaker-oriented (e.g., forget)   b. Matrix subject-oriented (e.g., think)

```
            VP_speaker                                           VP_matrixsubject
           /        \                                           /            \
  matrix subject   V'_speaker                           matrix subject   V'_matrixsubject
                  /        \                                            /            \
            CP_speaker   V_speaker                              CP_matrixsubject   V_matrixsubject
           /        \                                          /          \
    PRO_speaker   C'_speaker                              Spec      C'_matrixsubject
                 /       \                                        /          \
              DP      OP_speaker                               DP        OP_matrixsubject
             /  \                                             /  \
          Spec   D'                                        Spec   D'
                /  \                                             /  \
             CP     D                                        CP     D
            /  \    |                                       /  \    |
         Spec  C'  -DIK                                  Spec  C'  -DIK
              /  \                                            /  \
            TP    C                                         TP    C
```

c. Perspective-Underspecified (e.g., know)

```
            VP
           /  \
  matrix subject  V'
                 /  \
               DP    V
              /  \
           Spec   D'
                 /  \
              CP     D
             /  \    |
          Spec  C'  -DIK
               /  \
             TP    C
```
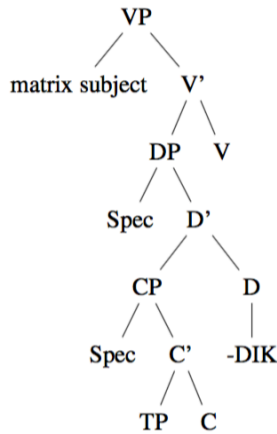
(117c) represents perspective-underspecified verbs such as *bil-* 'know', which do not have an extra CP encoding perspective. These verbs are bare VPs and they get interpreted as factive by default (see Nichols 2001, among others, for factivity being the default interpretation) unless there is another element or factor contributing (non)-factivity (e.g., *diye* clauses, focus etc). Speaker-oriented (true factive) verbs such as *unut-* 'forget' as in (117a) and matrix subject-

oriented verbs such as *düşün-* 'think' as in (117b) both have evaluation worlds specified in different ways in their complement clauses via the extra CP in their complements. This proposal indicates that both perspective is always marked, whether it is that of the speaker's (=factivity) or of the matrix subject (=non-factivity), albeit in somewhat different ways. This is a way of reconciling facts discussed in traditional studies indiciating extra structure in factive predicates (e.g., K & K) and those in more recent studies arguing for extra structure in non-factive verbs (e.g., de Cuba 2007, Kastner 2015). The differences that emerge with respect to the opaqueness of the complement clause in true factive and non-factive predicates are attributed to the nature of the extra CP: CP$_{speaker}$ has a PRO subject, forming an opaque complement domain, whereas CP$_{matrixsubject}$ has an empty specifier, resulting in a transparent domain. All in all, this account can handle both the differences and the similarities between true factives and non-factives.

4.4. Summary and Conclusion

This chapter has discussed *diye* and *–DIK* clauses when they are embedded under matrix subject-oriented verbs like *düşün-* 'think', as opposed to perspective-underspecified verbs like *bil-* 'know', and later also contrasted with speaker-oriented verbs like *unut-* 'forget' in Turkish. I have shown that the differences between *diye* and *–DIK* clauses are neutralized under matrix subject-oriented verbs such that both report evaluation from the matrix subject's conscious perspective. I attributed this neutralization to an extra structure such verbs select for that serves to mark an evaluation domain associated with the matrix subject. Since the extra structure is higher than all of the complement clause, it forces it to be interpreted from the matrix subject's perspective. This is unlike verbs like *bil-* 'know' and *hatırla-* 'remember', which lack this

structure, and matrix subject's perspective is enforced only if the embedded clause marks it as such, as in the case of *diye* clauses. I have also argued that *diye* clauses are not opaque domains under matrix subject-oriented verbs (unlike when they are under perspective-underspecified verbs) due to the existence of this structure, which extends the domain but keeps the edge empty for interaction between an external probe and the embedded clause.

After I discussed the structure of matrix subject-oriented verbs in Turkish, I put together the findings about fperspective-underspecified verbs like *bil-* 'know' and *hatırla-* 'remember' in Turkish as well as speaker-oriented verbs like *keşfet-* 'discover'. This allowed us to see a three-way distinction between cognitive verbs in Turkish based on perspective: (i) speaker-oriented verbs, whose complements mark evaluation in the actual world (e.g., *keşfet* 'discover') related to the speaker, (ii) matrix subject-oriented verbs, whose complements mark evaluation in the logophoric alternatives of the matrix subject (e.g., *düşün* 'think') and (iii) verbs underspecified for perspective, which are bare VPs and do not mark perspective (e.g., *bil-* 'know). The complement to the last group of verbs gets evaluated in the actual world by default, unless the complement marks a different specification for evaluation. That is why *–DIK* clauses under these verbs get interpreted as factive although *–DIK* clauses themselves are not factive. That is also why *diye* clauses under these verbs can get a non-factive interpretation. As for the first group, I argued that they also come with the same extra structure as in matrix subject-oriented verbs, but with a different evaluation domain specification: while the extra structure under matrix subject-oriented verbs mark the logophoric alternatives of the matrix subject as the evaluation domain, speaker-oriented verbs mark the actual world as the evaluation world and the speaker as the evaluator. This difference might be a way to account for their requirement for a nominal complement in Turkish (and possibly cross-linguistically). I also argued that one difference

between the extra structure in speaker-oriented verbs and the one in matrix subject-oriented verbs is that only the former has a PRO subject in its specifier. This accounts for the fact that only the complement to the former forms an opaque domain, and in fact it turns an otherwise transparent domain of *-DIK* clauses into opaque domains. I argued that this proposal combines two competing lines of study in the structure of (non-)factivity: traditional studies arguing for extra structure marking factivity in factive verbs (e.g., Kiparsky & Kiparsky 1971) and more recent studies arguing for extra structure in non-factive verbs (e.g., de Cuba 2007, Kastner 2015) but it also retains that these two verb classes come with their differences.

CHAPTER 5

CONCLUSION

This dissertation undertook the endeavor of discovering the role of perspective in the syntax of

Turkish via a detailed analysis of complement clauses formed with the nominalizer *–DIK* and the

non-nominal *diye* in light of recent studies arguing that perspective plays a role in syntactic

derivation and interactions (e.g., Sundaresan 2012, Charnavel 2019) rather than being a pure

discourse-pragmatic phenomenon (Clements 1975, Kuno 1987). What differentiates the present

study is its broad focus on the perspectival domain. In other words, the present study focuses on

elements of different natures in the perspectival domain instead of a single type of element. This

helped bring out various properties of the perspectival domain that have shed light on

phenomena that are otherwise difficult to explain. The conclusions are summarized below.

Please keep in mind that I define (non)factivity based on perspective: non-factive=matrix

subject-oriented (i.e. matrix subject's perspective), factive=speaker-oriented (i.e. speaker's

perspective), factivity-underspecified/semi-factive=perspective-underspecified (i.e. no

perspective):

(1) a. *diye* is the overt realization of a perspectival operator in the head of Pers(pective)P,

which reports the embedded content from the first-person perspective of the closest

matrix subject. Incidentally, the complement of PersP is the embedded CP. SpecPersP

hosts PRO, which saturates the individual argument of the *diye* operator via its

association with the matrix subject.

b. Each phrasal content (e.g., adjectives in AP, temporal and lexical elements in PP) in the *diye* clause with comes with an anaphoric world variable that needs to be bound by the closest operator (à la Percus 2000), which is OP$_{diye}$.

c. *diye* clauses under perspective-underspecified verbs such as *bil-* 'know' in Turkish form an opaque domain and as such they do not allow interactions between the matrix clause and the embedded clause such as NPI-licensing cross clauses. This is unlike –*DIK* clauses, which do not form opaque domains.

d. *pro* that comes with the first-person agreement (and presumably epithets) are optionally bound by the speaker or any of the matrix subjects due to the pronominal inside them that come with a topic feature that needs to be valued by the topic probe in the main clause. I argue that these exceptions to the opaqueness of *diye* clauses are systematic and *diye* clauses are in fact selectively opaque (Keine 2019, Poole 2020). The systematicity is due to topichood. Since the topic probes are higher than PersP, the full size of *diye* clauses, on the selective opacity account of Keine (2019) and Poole (2020), it can probe into the *diye* clause and into the *pro* with the unvalued topic feature within the *diye* clause, as can other higher probes such as Int(errogative)P.

e. Some elements such as overt pronouns and locative expressions such as *burada* 'here' must be associated with the utterance context regardless of whether they appear in a –*DIK* or *diye* clause due to the lexical encoding for such within these elements, following the traditional Kaplanian account. Since these elements are single words,

this might be evidence for the lexical encoding.

f. When the embedding verb is matrix subject-oriented, phrasal elements in both –*DIK* and *diye* clauses must be reported from the perspective of the matrix subject and the optionality pattern and the pattern with elements that are lexically encoded for utterance context remains the same. However, *diye* clauses are no longer opaque domains under such verbs. I attributed this to the extra structure that matrix subject-oriented verbs select for, following studies such as de Cuba (2007) and McCloskey (2005). This structure is CP$_{\text{matrixsubject}}$, which takes PersP as its complement. CP$_{\text{matrixsubject}}$ hosts an operator much like the *diye* operator but with one difference: CP$_{\text{matrixsubject}}$ has an empty specifier and does not form an opaque domain. This allows interactions between the matrix clause and the embedded clause.

g. Speaker-oriented verbs cannot combine with *diye.* They require nominal complements. –*DIK* clauses under them are opaque domains, unlike the case under perspective-underspecified verbs. I suggested that this is because speaker-oriented verbs also come with extra structure, CP$_{\text{speaker}}$, with a similar operator. This time, however, the specifier is filled with PRO that takes the speaker as its antecedent. This leads us to have a complete evaluation domain and an opaque domain in syntax.

These points point to the systematicity of *diye* clauses in Turkish as well as in the structure of embedding verbs. *Diye* consistently has the same structure, involving the same single operator. The differences derive from the bound elements and embedding verbs.

There are many remaining questions. For one, how can the semantics capture these generalizations? Since I investigated elements that are not semantically combinable in any easy way, coming up with a single semantics for the *diye* clause in all these situations is a challenging task. For present purposes, I assumed a generalized operator, but future research should look into what the implications of this proposal can be.

Other questions arise when we extend the data. I only focused on cognitive attitude verbs. What happens with, for example, emotive verbs? Here are some sample data: Like perspective-underspecified verbs, emotives verbs allow alternation in the interpretation of their complements. When they combine with –*DIK*, the inference is that the embedded proposition is true (2a). When they combine with *diye*, this inference is not available (2b).

(2) a. Ali   [Esra-nın   gel-**diğ**-in]-e   üzül-dü
     A   E-3GEN   come-DIK-3S-DAT be.sad-NEG-PST
     'Ali was not sad [that Esra came]'   >Esra came

   …#ama Esra gelmedi
   …#but Esra did not come

   b. Ali   [Esra   gel-di   **diye**]   üzül-dü
     A   E   come-DIK   diye   be.sad-PST
     'Ali was sad [diye Esra came]'   ≯Esra came

   …ama Esra gelmedi
   …but Esra did not come

However, unlike perspective-underspecified verbs (3a) and like speaker-oriented verbs (3b), emotive verbs (3c) seem to force their complement clauses into opaque domains:

(3) a. Ali   [kimse-nin   gel-**diğ**-in]-i   bil-m-iyor

      A   no.one-3GEN come-DIK-3S-ACC   know-NEG-IMPF

    'Ali knows [that no one came]'

   b. ??Ali   [kimse-nin   gel-**diğ**-in]-i   unut-ma-dı/unut-m-uyor

      A   no.one-3GEN come-DIK-3S-ACC   forget-IMPF/forget-NEG-IMPF

     'Intended: Ali forgot/keeps forgetting [that no one came]'

   c. ??Ali   [kimse-nin   gel-**diğ**-in]-e   üzül-me-di/üzül-m-üyor

      A   no.one-3GEN come-DIK-3S-DAT   be.sad-NEG-PST/be.sad-NEG-IMPF

     'Intended: Ali was sad/is sad [that no one came]'

Thus, emotive verbs are not like any of the verb categories I have looked into (but *diye* behaves

similar under them). Their behavior therefore requires further detailed analysis. It is likely that

diye under emotive verbs has a causative meaning, as the causation can be challenged. Note that

I use a clear causative marker *için* 'for' in the continuation:

(4) Ali   [Esra   gel-di   **diye**]   üzül-me-di

   A   E   come-DIK diye   be.sad-NEG-PST

   'Ali was not sad [diye Esra came]'

   …Merve git-tiğ-i için üzüldü

   …but he got sad because Merve left

Another category of verbs is speech-verbs, which I have touched briefly in Chapter 3. *De-* 'say',

which *diye* derives from, and the other verb for 'say' in Turkish, *söyle,* do not combine with *diye*

if *diye* is immediately next to the verb (5a). A *diye* clause can appear further from the verb (5b),

in which case the element that is next to the verb is focused:

(5) a. *Ali   [Esra   gel-di   **diye**]   de-di/söyle-di

   A   E   come-PST diye   say-PST/say-PST

   'Intended: Ali said [diye Esra came]'

   b. [Esra   gel-di   **diye**]   Ali   de-di/söyle-di

   E   come-PST diye   A   say-PST/say-PST

   'It was Ali who said [diye Esra came]'

Other speech verbs combine with *diye,* where the *diye* clause expresses the content of speech:

(6) Ali   [Esra   gel-di   **diye**]   bağır-dı

   A   E   come-PST diye   shout-PST

   'Ali shouted [diye(=saying) Esra came]'

Speech verbs also report the embedded content as the matrix subject says, similar to first-person perspective reporting under cognitive verbs. But they have other different patterns than cognitive verbs. For example, as discussed briefly in Chapter 2 based on Yıldırım-Gündoğdu (2017a), they enforce *pro* to refer to the matrix subject (7b):

(7) a. Ahmet$_i$ [ben   ödev-i   bitir-di-m   **diye**]   düşün-üyor

   A   I   homework-ACC   finish-PST-1S diye   think-IMPF

   'Ahmet thinks that he$_i$/I finished the homework.'

   b. Ahmet$_i$ [ben   ödev-i   bitir-di-m]   d-iyor

   A   I   homework-ACC   finish-PST-1S   say-IMPF

   'Ahmet says that he$_i$/*I finished the homework.'

Thus, *diye,* when combined with speech verbs, deserves separate treatment as well. I refer the

reader to Yıldırım-Gündoğdu (2017a) for this combination.

When *diye* combines with nouns, it is difficult to analyze it as a perspective marker.

Evidence that it behaves differently than under cognitive verbs comes from (8c), where the *pro*

must refer to the speaker:

(8) a. Ali   diye   bir   adam

     A   diye   one   man

     'A man named Ali'

    b. Ali   gel-di   diye   bir   dedikodu

      A   come-PST diye   one   gossip

      'A gossip [diye Ali came]'

    c. Ali   [*pro*   gel-di-m   **diye**]   bir   dedikodu   duy-muş

      Ali   come-PST-1S diye   one   gossip   hear-INDPST

      'Ali heard a gossip [diye *he/I came]'

The overall pattern in these data is that *diye* heavily relies on the embedding verb for meaning.

What it generally provides is a perspective different from that of the speaker's. For example, it

reports the matrix subject's perspective on the causation. Under speech verbs, it reports what the

matrix subject said, which the speaker uses to indicate that it is not what s/he himself/herself

said. When there is no immediate embedding verb, as in the case when they appear with a noun

head, they might have a different structure, as the noun argument would not saturate the *diye*

operator I proposed. Indeed, *diye* under nominals behave radically different. How (or whether)

these differences can be integrated into a single analysis is a topic for future research.

A note on when *diye* appears as a reason clause. There are two reason clauses in Turkish: one formed with *diye* and one formed with *için* 'for'. The two behave differently, however. For example, only *diye* allows optional reference for *pro*:

(9) a. Ali   [hasta-yım   **diye**]   doktor-a   git-ti
      A   sick -1S   because doctor-DAT go-PST
      'Ali went to the doctor [because/saying that he/I is/am sick]'
      (I=S, AH)

     b. Ali   [hasta   ol-duğ-um   **için**]   doktor-a   git-ti
      A   sick   be-DIK-1S   for   doctor-DAT go-PST
      'Ali went to the doctor [because/saying that I/*he is sick]'
      (I=S, *AH)

Diye seems to have a similar function as a reason clause in that it reports the perspective of the closest individual despite the lack of an immediate embedding verb. I believe that this is not alarming, however. The main function of the verb in my account was to provide the individual argument. If we assume that reason clauses are CAUS(ITIVE)P(HRASE)s with an individual argument for who evaluates the cause and the embedded content and they can take PersP as their complement (i.e., CAUSP>PersP), then CAUSP would do what VP does in my account, where VP provides the antecedent for the individual argument. *Için* cannot allow optionality because it is a CAUSP that does not combine with PersP. This type of analysis would be similar to Charnavel (2018) for English and French and therefore has a precedent for other languages. This line of proposal can be tested for Turkish in future research and be refuted or confirmed. The potential parallels are, however, promising.

Diye is a widely-used element in Turkish, so it is difficult to combine all of its functions under the same analysis. But I believe this overview provides some hopes that some common elements can be found and a unifying account of *diye* in Turkish is possible.

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