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PHASAL DIAGNOSTICS: A CRITICAL REVIEW

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ABSTRACT

Phase theory posits that syntactic structures are not generated in a single step, but rather through multiple cyclic derivations. Relevant literature regards CP, *v*P, DP, PredP, and PP as phases. Conceptually, this theory assumes that language is divided into smaller processing units due to the limited capacity of working memory. Empirically, phases are regarded as interface segments that display independent distributions across the perceptual-motor and conceptual-intentional systems. The main criteria used to identify phases include agreement, uninterpretable features, case assignment, extraction, ellipsis, and wh-movement. Our study examined the applicability of these criteria to Turkish, finding that most are incompatible with its structural properties. Consequently, we suggest that the notion of phase should be approached more critically, and that more crosslinguistic data are needed to better evaluate the validity of the phase theory.

Keywords: Phase theory, Multiple spell-out, Agreement, Phasal diagnostics

ÖZ

Evre kuramı, sözdizimsel yapıların tek aşamada değil çoklu döngüler sonucunda üretildiğini savunan bir kuramdır. İlgili alanyazın TÖ, *e*Ö, BelÖ, YükÖ ve İÖ'yü evre olarak görmektedir. Kavramsal olarak bu kuramda işler belleğin sınırlı kapasitesi nedeniyle dilin küçük işlem birimlerine ayrıldığı öne sürülür. Görgül açıdan ise evreler, duyudevinim ve düşünce sistemlerinde bağımsız dağılımlar sergileyen arakesit bölütleri olarak değerlendirilir. Evreleri belirlemede başlıca uyum, yorumlanamaz özellikler, durum atama, çıkarma, silme ve ne-taşıma yapıları ölçüt olarak kullanılmaktadır. Çalışmamızda bu ölçütlerin Türkçeye uygulanabilirliği incelenmiş ve çoğunun Türkçe dil yapısına uygun olmadığı görülmüştür. Sonuç olarak evre olgusuna daha eleştirel bir biçimde yaklaşılması gerektiği ve kuramın geçerliliğinin değerlendirilebilmesi için dillerarası verilerin incelenmesi gerektiği önerilmiştir.

Anahtar Sözcükler: Evre kuramı, Çoklu dağıtım, Uyum, Evre tanıları

1. Introduction

Phase theory is a linguistic framework that posits that syntactic structures are generated in a cyclic manner. While Phase Theory is broadly accepted today, there are also opposing views regarding the framework. This study re-evaluates the arguments supporting the theory and addresses its critics' claims. The primary aim of our work is to question the existence of the phase phenomenon itself. A review of the literature on Phase Theory reveals that most studies bypass the question "Do phases exist?" and instead focus on "Which phrases qualify as phases?"

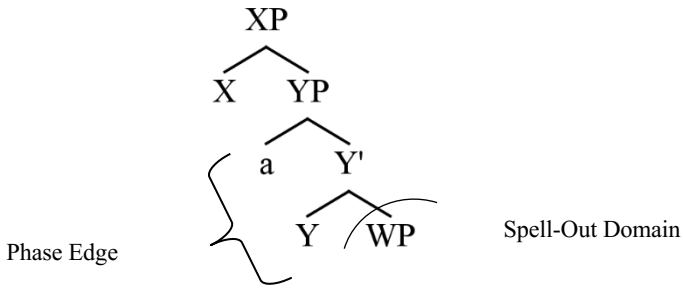
Our study primarily addresses the definitions of phases, concepts related to phases, and the criteria for phase identification before shifting focus to testing the validity of the theory in the context of Turkish. Given that the theory incorporates various sub-theories and concepts, certain sections discuss these sub-theories and concepts with illustrative examples.

1.1 The phase phenomenon

Chomsky (2000) asserts that syntactic structures are formed in phases, or groups of parts, from discrete lexical subarrays. Citko (2014) later offered a similar description, characterizing phases as domains where movement is identified and uninterpretable elements are localized.

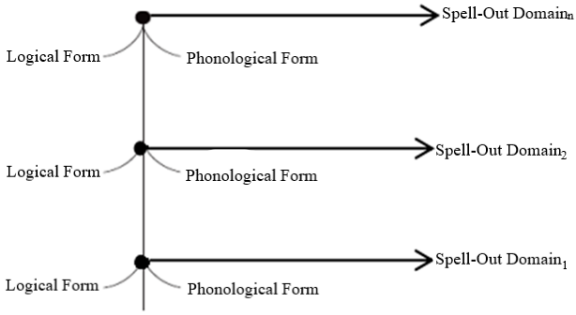
According to Chomsky (2001), phase heads, specifier positions, and spell-out domains are the elements that make up a phase. We can represent Chomsky's definition in the tree as follows:

(1)



Spell-out domains are parts of phases that become inaccessible to subsequent operations. Phase Theory posits that multiple spell-out domains and, consequently, multiple transfers to logical and phonological forms are necessary for the realization of this cyclicity:

(2)



(Chomsky, 2000 and subsequent works)

As can be seen from the above multiple spell-out model, each point represents a spell-out domain, indicating that there must be multiple phases and spell-out domains during the derivation of a sentence.

The first fundamental assumption regarding Phase Theory, as stated by Chomsky (2000), is that phases operate under certain conditions. One of these conditions is known as the Phase Impenetrability Condition (PIC). According to this condition, after a phase is completed, its internal domains—i.e., the complements of the phase head—are sent to the interfaces. Consequently, these internal domains become inaccessible for any operations unless they are within the same phase. Chomsky (2001) later divided this condition into two versions: strong and weak. The main assumption of the strong version is that, except for the phase head and phase-specifier position located at the edge of a phase, all other units are inaccessible from outside the phase. The main assumption of the weak version is that the internal domain of a phrase which is a phase remains accessible until another phase is formed. Once another phase is formed, only the phase head and phase-specifier position of those domains are accessible. From these two versions, we can see that the strong version suggests that the transfer to the interfaces happens immediately after the phase is created. In contrast, the weak version posits that the transfer is delayed until another phase head is merged. During this interim period, the internal domain of a phrase, which constitutes a phase, remains accessible to other constituents.

2. Phasal Diagnostics and Turkish

There are various diagnostics that attempt to identify the borders of phasal domains (*see* Chomsky 2001, Citko 2014, Den Dikken 2006, Gallego 2010, Bošković 2014, Legate 2003, Matushansky 2005). Since phasal domains are convergent ⟨PHON, SEM⟩ objects, literature on phasal diagnostics dwell on interface questions. In this sense, agreement, case features, extraction, ellipsis, and sentential stress are basic test units that

indicate the phasal domains. Below, we focus on such tests and present contradictory cases with respect to Turkish data, applying the tests on renowned classic phases -i.e., CPs, DPs, *v*Ps, and PPs.

2.1 Agreement as a diagnostic for phases

Agreement occurs as follows (Chomsky 2000: 122):

(3) a. A probe *a* enters into an agreement relation with the closest matching goal *b*. The probe *a* carries at least one uninterpretable unvalued feature, while the goal *b* carries a matching interpretable valued feature.

b. *a* c-commands *b*.

c. *b* is the closest goal to *a*.

d. *b* carries uninterpretable unvalued features.

The uninterpretable φ-features present on the probe are what keep the probe active. The reason T inherits its uninterpretable φ-features from C (feature inheritance 'FI') is due to the closer structural position of the C head relative to the subject. Chomsky (2001) proposes that the probe-goal relationship is a property exclusive to phases, and that agreement plays a significant role in identifying phase heads as a phase diagnostic. In light of this reasoning, we should consider each agreeing phrase as a phase. Conversely, it implies that any phrase lacking an agreement relationship does not qualify as a phase.

Gallego (2010) argued that uninterpretable features identify phase boundaries, suggesting that agreement is an identifying factor in phasal domains. To test this claim, we should begin by examining Determiner Phrases (DPs) where agreement is clearly evident. The primary reason for this is that Turkish is an agglutinative language, meaning agreement is explicitly encoded within the language. First, let us look at the various types of DPs found in Turkish:

(4) a. DPs with possessive agreement
[$_{DP}$ Ali-nin [$_{NP}$ kitab-ı]]
Ali-gen book-poss
"Ali's book"

b. Complex DPs
[$_{DP}$ Doktor-un [$_{PredP}$ hasta-yı muayene-si]]
Doctor-gen patient-acc examination-poss.3sg[1]
"the doctor's examination of the patient"

[1] We employed Leipzig Glossing Rules throughout the paper: https://www.eva.mpg.de/lingua/resources/glossing-rules.php

c. Sentential DPs
[DP Ali-nin [CP kereviz-i ye-diğ-i]]
Ali-gen celery-acc eat-vnom-poss.3sg
"the celery that Ali ate"

(Özgen, 2018: 7)

First, let us analyze a possessive agreement in a DP:

(5) Ben-im kitab-ım
pro-gen.1sg book-poss.1sg
"My book"

In (5), there is a possessive agreement between "ben" (I) and "kitap" (book). Now, let us compare and contrast the following data:

(6) Ben-im kitap-Ø
pro-gen.1sg book-Ø
"My book"

The possessive agreement morpheme is absent in example (6). One possible account of such optionality between (5) and (6) comes from Ouali (2008: 160), suggesting that the optionality arises due to the different outcomes of operations that heads with uninterpretable features apply to those features. In this sense, there are three sub-options of FI: *share*, *donate*, and *keep*.

To generate these possibilities, first, C donates its features. However, if the transfer results in a derivational conflict, the *keep* operation is applied, and Ouhalla (1993) states that the *keep* operation accounts for anti-agreement data in languages such as Tamazight Berber. Finally, if a conflict still occurs during the derivation, C's features are *shared*.

With the following examples, we can see the donate-keep-share triad more concretely:

(7) a. Donate
John drinks coffee.

b. Keep
ytsha wrba thamen.
3sg.eat.PERF boy honey
"The boy ate honey."

c. Share
ma ag inna ali theila (*ilan) araw?
who COMP 3sg.said ali 3sg.FEM.saw (*saw.PART) boys
"Who did Ali say saw the boys?"

(Ouali, 2008)

Looking at the examples above, in the first one we see the donate case. For donate, Ouali (2008) states that the C head donates its

uninterpretable features to the T head without leaving a copy behind. As concrete evidence of this, we observe the subject–predicate agreement that occurs in T, namely the agreement between "John" and "drink," which results in the predicate "drinks."

When we examine the keep case, Ouali (2008) also refers to this option as reverse agreement. The uninterpretable features on C are not transferred to T. Therefore, no subject–predicate agreement arises here, and as a result, C functions as the probe.

Finally, when we look at the share case, C both shares its uninterpretable features with T and retains a copy of them on itself. As we can see from the example, agreement morphemes appear on both the object and the subject. This situation represents the share option.

Let us now examine how this system works:

(8) **Donate > Keep > Share**

a. Donate
C donates the φ-features it has to T without leaving a copy of them on itself.

b. Keep
C does not transfer the φ-features it has to T.

c. Share
C transfers its φ-features to T and retains a copy of them on itself.

(Ouali, 2008)

The first point that draws our attention is that, in principle, the *keep* and *share* options can only be active if the *donate* option causes a conflict in the derivation (Ouali, 2008: 162). If we assume that the *keep* option is active in example (6), we would anticipate that the derivation to cause a conflict due to the *donate* option. However, as we can see from example (5), such a situation does not occur. Therefore, two distinct issues arise here.

The first is the dependency issue. The *donate* > *keep* > *share* options could potentially be selected without being dependent on a conflict in the derivation. The second issue is the optionality issue. The apparent agreement structure in examples (5) and (6), which seems to be optional, creates a problem when aligned with Ouali's (2008) theory. Similarly, if we consider that the *donate* and *keep* options, and thus FI, are optional phenomena, they should be applicable to every DP containing a possessive:

(9) a. *Öğretme-nin hala
teacher-gen aunt
"The teacher's aunt"

b. *makale-nin başlık
article-gen title
"The title of the article"

c. *bina-nın yıkım
building-gen demolition
"The demolition of the building"

(Öztürk & Taylan, 2015: 5)

If the *keep* were present in the "ben-im kitab-ım" (I-GEN book-POSS.1sg) example, examples in (9 a-b-c) would also be fine. Ouali's (2008) proposed trio of donate-keep-share does not explain the agreement in Turkish DP structures, and that agreement is influenced by factors independent of the presence of uninterpretable features on the DP head. Therefore, the lack of agreement in the "ben-im kitap" (I-GEN book-POSS.1sg) example is because the keep operation cannot apply. The presence of the same type of DP in the "bina-nın yıkım"(building-GEN demolition) and "ben-im kitab-ım" (I-GEN book-POSS.1sg) examples should display the same syntactic distribution if we consider DP to be a phase and if we employ agreement to mark the phase. However, while both DPs are identical in terms of uninterpretable features, the fact that agreement is mandatory in "bina-nın yıkım-ı"(building-GEN demolition-POSS.3sg) and optional in "ben-im kitab-ım" (I-GEN book-POSS.1sg) means that the agreement does not form a sound framework for discussing the phases of DPs. Alternatively, we can account for this structure without resorting to the phase concept. Contrary to Ouali's (2008) *keep* approach, Öztürk & Taylan (2016) suggest that in such structures in Turkish, the pronoun is an attachment to the DP, which explains the absence of agreement without relying on phases. Hence, we do not need phase and phasal features to account for this structure. Another issue here relates to Gallego's (2010) claim. Turkish is a language that clearly encodes agreement, and in order for agreement to occur, the head of the phrase must have uninterpretable φ-features. Using uninterpretable φ-features as phase diagnostics for DP structures would cause a problem, since we would conclude that "if there is agreement, uninterpretable features exist; if there is no agreement, uninterpretable features do not exist." Therefore, external factors that affect agreement in Turkish, independent of uninterpretable φ-features, would not offer a solid framework for discussing the phasal status of DPs.

In terms of CPs, Exceptional Case Marking (ECM) constructions in Turkish are a potential candidate for the agreement test. Let us first introduce a crash course on ECMs in Turkish. Şener (2008: 5) proposed that all ECM constructions are CPs and that within these structures, there can be a null C or an overt C:

(10) Pelin [sen-i Timbuktu-ya git-ti-(n) diye] bil-iyor-muş.
Pelin you-acc Timbuktu-dat go-past.(2sg) that know-prog-evid
"Pelin thinks you went to Timbuktu."

(Şener, 2008: 7)

The T head "diye" is overtly present in the sentence. Consider this example that involves a null T:

(11) Pelin [sen-i Timbuktu-ya git-ti-(n)] san-ıyor.
Pelin you-acc Timbuktu-dat go-past.2sg think-prog
"Pelin thinks you went to Timbuktu."

(Şener, 2008: 7)

We follow Şener (2008) and refer to the example in (10) as Type A ECM and the example (11) as the Type B ECM. Comparing the two examples, the absence of agreement in (10) shows us that the TP domain is defective. In (11), the presence of agreement indicates that T is not defective; however, the fundamental issue here is that, CP domains of both constructions are insensitive to tense constructions. In short, the CP domain is defective in both types of ECM:

(12) a. A-type: Ali [sen-i İstanbul-a git-ti] san-ıyor.
Ali you-acc İstanbul-dat go-past think-prog
"Ali thinks you went to İstanbul."

b. B-type: Ali [sen-i İstanbul-a git-ti-n] san-ıyor.
Ali you-acc İstanbul-dat go-past.2sg think-prog
"Ali thinks you went to İstanbul."

(Özgen & Aydın, 2016: 307)

Comparing the two examples, we observe that the absence of agreement in example (12a) indicates that the T domain is defective. In example (12b), the presence of agreement indicates that T is not defective; however, as we have noted earlier, the TP domains of the constructions are insensitive to tense. Accordingly, one can state that the TP domain is defective in both types of ECM. At this stage, the point that should draw our attention is that although there is a non-defective T in Type B ECMs, these structures are not phases. Özgen & Aydın (2016: 315), based on the tests they conducted on these structures, have stated that although there is a T head with φ features, the entire ECM domain is defective and, thus, the structure is not a phase. Accordingly, testing phasehood solely based on Chomsky's (2001) proposal of agreement and Gallego's (2010) proposal of uninterpretable features and obtaining the same result from both structures accepted as phases and those not accepted as phases in terms of CPs does not seem to provide us with a sound framework for discussion.

In our analysis within the CP framework, we noted that views suggest that uninterpretable features are essentially donated from the C head. As a result, it is concluded that the agreement between the verb

moved from *v* to T and the subject is positioned here. However, the fundamental problem in such an analysis is that when this view is adopted, no tests can be applied to *v*Ps in terms of agreement and uninterpretable features. This leads to the conclusion that uninterpretable features cannot be directly employed in the phase diagnostics of *v*Ps. Therefore, agreement and uninterpretable features exclude *v*Ps in defining the phase phenomenon.

Finally, let us evaluate the PPs in terms of agreement and uninterpretable features. See the example in (13) containing a bare PP:

(13) O adam [PP para **için**] her şey-i yap-ar.
the man money for everything-acc do-aor
"The man does everything for money."

(Göksel & Kerslake, 2005: 155)

The preposition *için* (for) in (13) does not have any φ- features. PP is considered a phase (*see* Drummond, Hornstein & Lasnik, 2010: 690). In this case, either phase heads do not need to bear φ-features, or the situation we observed may be related to the preposition "için". To determine which option is plausible, we need to test with a different PP. Now, let us examine the following example:

(14) [PP Saat iki-ye **kadar**] çalış-tı-k.
o'clock two-dat until work-past-1pl
"We worked until two o'clock."

(Göksel & Kerslake, 2005: 158)

The postposition *kadar* (until) in example (14) is also a P head, yet it does not bear any φ-features. Not only does it lack φ-features, but the P heads in the examples above do not enter into agreement either. However, there are also studies in the literature suggesting that there are P heads that do enter into agreement relationships. See (15) below:

(15) Ben araba-nın$_i$ dün [PP t$_i$ önünde] dur-du-m.
I car-gen yesterday in front of stand-past-1sg
"I stood in front of the car yesterday."

(Şener, 2006: 87)

Bošković (2014: 9) claims that *önünde* (in front of) is a postposition and is in an agreement relationship. However, another issue that should draw our attention here is whether *önünde* is really a postposition. First of all, to see what types of words the -DA morpheme attaches to, let us examine the following example:

(16) ev-de kal-dı
home-loc stay-past

In the example above, the word "ev" (home) is a noun that has taken on the morpheme "-DA." This indicates that the "-DA" morpheme

can attach to nouns. Since case markers are added to nominals in a paradigmatic manner, we can conclude that the phrase "arabanın önünde" (meaning "in front of the car") in example (15) is not a postpositional phrase but rather a Determiner Phrase (DP).

Since the agreement diagnostic proposed by Chomsky (2001) and the uninterpretable features diagnostic proposed by Gallego (2010) are structures not present in PPs in Turkish, as can be seen from our PP analysis above, we cannot employ agreement and uninterpretable features as phase diagnostics concerning PPs. Accordingly, using agreement and uninterpretable features as phase diagnostics also creates a discussion framework governed by independent factors such as the status of the preposition as a noun, or when the word it accompanies is a pronoun or a noun. Another conclusion we can draw is that the concept of the phase may not be as strict as accepted, or there may not be a phase phenomenon at all. To say, there should be a phase phenomenon where agreement is performed optionally and where the non-valuation of uninterpretable features does not cause a crash in the derivation. However, such a phase phenomenon is contrary to the general understanding and the nature of the concept.

2.2 Case as a diagnostic for phases

Miyagawa (2011) argued that phase heads are determined by case features, proposing that the case feature is a more fundamental property in determining phase heads. In (17) below, if case assignment were a result of agreement, we would not expect any case assignment in DPs that we have identified as lacking agreement:

(17) Ben-im ev
I-gen home
"my house"

The genitive case in (17) is assigned despite the absence of any agreement morpheme. See (18), where a complex DP exists:

(18) a. [DP Böcekler-in [PredP ev-I istila-sı]]
bugs-gen home-acc invasion-poss.3sg
görenleri şok et-ti.
who.saw shock-past
"Home invasion of insects shocked those who saw it."

b. [DP Böcekler-in [Predp ev istila-sı]]
bugs-gen home invasion-poss.3sg
görenleri şok et-ti.
who.saw shock-past
"Home invasion of insects shocked those who saw it."

In (18), the accusative case present within the PredP dominated by the DP is not obligatorily present. Its presence only provides a semantic difference in terms of specificity. If the DP head shares its uninterpretable features with the PredP head, and the PredP head licenses the accusative

case, then in the example (18b), the absence of the accusative case should have rendered the sentence ungrammatical. Another issue is that the accusative case makes a difference in terms of specificity. That is, if there is an accusative case licensed by the DP here, and if this case is licensed only when the word "ev" (home) refers to a specific house, this does not provide us with any conclusions in terms of the phasal status. Since the case assignment here varies depending on whether "house" is a definite or a specific house, independently of whether the DP is a phase or not, using case as a phase diagnostic does not provide us with a sound framework for discussion.

Now, in order for us to evaluate the use of verb phrases (*v*Ps) as a phase diagnostic based on case, see the following example:

(19) Ali bir öğrenci-yi başkan olarak seç-ecek.
Ali a student-acc president as elect-fut
"Ali will elect a student as president."

In the example above, the indefinite article "bir" (a) used before "öğrenci" (student) indicates the non-specificity of the student referred to; however, there is still an accusative case assigned to the object by the verb. Observe the contrast in (20a-b):

(20) a. *Ali bir öğrenci başkan olarak seç-ecek.
Ali a student president as elect-fut
"Ali will elect a student as president."

b. Ali bir öğrenci seç-ecek başkan olarak.
Ali a student elect-fut president as
"Ali will elect a student as president."

Comparing the two examples above, although in (20a) the example containing an object with an unlicensed accusative case is ungrammatical, in example (20b) the object with an unlicensed accusative case does not render the sentence ungrammatical. From this, we can deduce that altering the positions of words within a sentence affects the grammaticality independently of the case marking on the object. It indicates that if we employ case as a phase diagnostic, the grammaticality of sentences will change due to independent factors such as specificity, suggesting that the framework for such a discussion would not be reliable. From the perspective of *v*Ps, case assignment, according to the data we have examined, is affected by independent factors such as agreement and syntactic position within the sentence. The fact that the grammaticality of the sentence changes with focus when case is absent, or becomes grammatical through a change of position, is an independent reasons that affect case. The same issue applies to PredPs as well. Due to their inability to take complements, no case testing can be performed on PredPs. This shows that using case assignment as a phase diagnostic does not provide a sound framework for discussion.

Let us examine the case diagnostic from the perspective of CPs. The general consensus is the view that among Ouali's (2008) Donate>Keep>Share options, the *share* option operates for CPs, and uninterpretable features are transferred to T. Accordingly, T is accepted as a probe, and subjects are assigned nominative case through feature matching. At this point, there are essentially two problems. The first of these problems is that CPs cannot be tested with respect to Case. If the C phase head activates the T head after feature inheritance and is no longer active itself, all independent tests will be applied to the T head, not to C. Second, Miyagawa (2011) argues that Case and agreement are independent in Turkish. However, in the following example, no agreement occurs in the TP domain:

(21) *Ben okul-a git-ti.
I school-dat go-past
"I went to school."

As we can see from the example above, when the agreement is absent in Turkish, the sentence is ungrammatical. Therefore, the only way we can test whether Case is dependent on agreement in terms of CPs is by using ECM constructions, since a CP structure that can be grammatical despite the absence of agreement is observed only in ECM clauses:

(22) a. Ali [ben-i okul-a git-ti diye] bil-iyor.
Ali I-acc school-dat go-past that know-prog
"Ali thinks that I went to school."

b. Ali [ben-i okul-a git-ti-m diye] bil-iyor
Ali I-acc school-dat go-past-1sg that know-prog
"Ali thinks that I went to school."

Regardless of the presence of agreement, the accusative case appears on "ben" (I). However, the fundamental issue here is that ECM constructions are not accepted as phases. We can test Miyagawa's (2011) claim only with the ECM structure, which is not considered a phase. If we apply a test with a root clause structure that is accepted as a phase, we obtain the following contradiction:

(23) a. Ali [ben okul-a git-ti-m diye] bil-iyor.
Ali I school-dat go-past-1sg that know-prog
"Ali thinks that I went to school."

b. *Ali [ben okul-a git-ti diye] bil-iyor.
Ali I school-dat go-past that know-prog
"Ali thinks that I went to school."

As we can see from the example above, the structure accepted as a phase also contains agreement. The example (23b), where agreement is absent, is ungrammatical. Therefore, from the perspective of CP, the fact that the case hypothesis can only be tested with phrases not considered as

phases poses problems in using this hypothesis as a diagnostic for phasal status. Additionally, the obligatory presence of agreement in Turkish hinders our examination within the CP framework. Again, if we consider this claim in terms of the Donate>Keep>Share options proposed by Ouali (2008), all the tests we conduct occur within the TP framework, and we cannot test the CP. However, case is a syntactic phenomenon that shows where case is valued in the syntax, not at the interfaces. Therefore, using case as a phase diagnostic does not provide us with a sound framework for discussion.

Note that case determines phase heads for another phrase accepted as a phase, i.e. the PP:

(24) a. [PP sınav için]
exam for
"for the exam"

b. [PP Bira kadar] güzel içecek yok.
beer as good drink no
"There is no drink as good as beer."

Again, in the examples above, there is no case assigned by P; however, there can also be PPs that license case:

(25) a. [PP sen-in gibi]
you-gen like
"like you"

b. [PP sen-in için]
you-gen for
"for you"

c. [PP Ankara-ya kadar]
Ankara-dat up to
"up to Ankara"

d. [PP Ders-ten önce]
ders-abl before
"before the class"

There are multiple conceptual issues here. First, according to the phrases we have examined so far, in Turkish, case seems to be related to agreement. At the same time, PPs in Turkish do not enter into any agreement relations. Therefore, the genitive cases in examples (25a-b) must not have been licensed by the PP. Another issue is that the dative case present in the example (25c) is licensed due to semantic reasons. That is, it is not necessarily a case assignment. In the event of a change in context, the dative case also disappears:

(26) [PP Ankara kadar] kirli bir şehir yok.
Ankara as dirty a city no
"There is no city as dirty as Ankara."

As we can see from the example above, there are instances where the case is not licensed, and this actually shows that in PPs, the case is licensed due to semantic and contextual factors. Further, see the distinction between demonstrative and personal pronouns from the perspective of PPs:

(27) a. bu ev
this house
"this house"

b. *bu-nun ev
this-gen house
"the house of this one"

c. *bu için
this for
"for this"

d. bu-nun için
this-gen for
"for his"

PPs behave differently from DPs regarding the case assigned to demonstrative pronouns. While demonstrative pronouns cannot receive cases in DPs, they obligatorily receive cases in PPs. In this context, the case hypothesis will give us different results depending on each sentence, context, and phrase we test. In line with the phrases we have examined above, the fact that case is not always assigned in the same way in every context, with respect to Miyagawa's (2011) claim that case should be a phase diagnostic, indicates that this claim does not provide us with a sound framework for discussion, or suggests that no phrase in Turkish can be a phase. Now, we will examine the examples of extraction constructions in Turkish as a phase diagnostic.

2.3 Extraction as a phase diagnostic

Bošković (2014) has proposed that the extraction process can be used to test phasehood and that, as a result of the test, the heads V, P, and N should also be accepted as phases. The reason underlying this view is that the edge positions of phases are considered escape hatches, and thus, extractions from phases should be allowed.

According to Chomsky (2000), the only way an element can be extracted from a phase is if that element either moves to or is merged at the edge position of the phase. This view dates back to Huang (1982: 505), who defines the Condition on Extraction Domain as follows:

(28) *Condition On Extraction Domain*

An A-phrase can only be extracted from a domain B if B is properly governed.

Here, by proper government, Huang (1982) means that the extraction domain is a lexical head of A and that A is locally licensed. We can consider this licensing as the head V licensing the complement NP:

(29) Who$_i$ did you see [a picture of t_i]?

(Stepanov, 2007: 80)

As we can see from the example above, "a picture of who," which is the complement of the verb "see," is licensed by the verb. The fact that it is licensed by the verb shows that the complement "a picture of who" is properly governed, and therefore, extraction can take place. Moving "who" to the beginning of the sentence does not create any ungrammaticality. However, an extraction from other structures, namely subjects and adjuncts, apart from the object, renders the sentence ungrammatical:

(30) a. ?*Who$_i$ does [a picture of t_i] hang on the wall?

b. ?*Who$_i$ did Mary cry [after Peter hit t_i]?

(Stepanov, 2007: 80)

In example (30a), extraction has been made from the subject, and in example (30b), extraction has been made from within an adjunct. The result of extracting from subjects and adjuncts renders the sentence ungrammatical. As for the extraction structure in Turkish, Jo & Palaz (2019: 22) state that in Turkish, the object can be extracted from the VP domain:

(31) Ali [şarkı-yı güzel / *güzel şarkı-yı] söyle-di.
Ali the song-acc beautifully beautifully the song-acc sing-past
"Ali sang a song beautifully."

(Jo & Palaz, 2019: 23)

The adverbial "güzel" (beautifully) has been attached to the VP as an adjunct. In order for the DP "şarkı-yı" (the song-ACC) to receive the accusative case, it has been moved to the specifier position of *v*P. This prevents "güzel"(beautifully) from appearing before "şarkı-yı" (the song-ACC) because "şarkıyı" (the song-ACC) is in a higher position. That is, it shows that it has been extracted from the VP. Although this provides an explanation in terms of phasehood, as we mentioned under the section on case as a phase diagnostic, ungrammaticalities arise due to independent factors in tests involving adverbs and objects that have received accusative case. For example, when an adverb intervening between the verb and an object that has not received the accusative case is focused, the sentence becomes grammatical:

(32) Ali şarkı güzel söyle-r.
Ali the song beautifully sing-aor
"Ali sings a song beautifully."

As we can see from the example above, when the focused element is the adverb "güzel" (beautifully), the adverb intervening between the verb and an object that has not received the accusative case does not affect the grammaticality of the sentence. Therefore, the grammaticality of the sentence is also determined by focusing the adverb. This suggests that adverbs can occur between verbs and objects that have not received the accusative case, which is contrary to the idea that an object that has received the accusative case has been extracted from the VP. The fact that the sentence is affected by this independent factor means that if extraction is used as a test for the phasehood of the VP, factors such as focus will influence this test.

Ulutaş (2009:11), unlike Jo and Palaz (2019), has focused on extraction from the CP domain:

(33) a. Dinleyici-ler [_____ viski-yi iç-ti]
listener-pl whiskey-acc drink-past
san-ıyor-lar biz-i.
think-prog-3pl we-acc
"The listeners think that we drank the whiskey."

b. ?Dinleyici-ler [_____ viski-yi iç-tiğ-imiz]-i
listener-pl whiskey-acc drink-vnom-poss.1pl-acc
san-ıyor-lar biz-im.
think-prog-3pl we-gen
"The listeners think that we drank the whiskey."

c.*Dinleyici-ler [_____ viski-yi iç-ti-k]
listener-pl whiskey-acc drink-past-1pl
san-ıyor-lar biz.
think-prog-3pl we
"The listeners think that we drank the whiskey."

d. *Can [___ Manisa-ya gid-elim] isti-yor biz.
Can Manisa-dat go-sbjnc.1pl want-prog we
"Can wants us to go to Manisa."

e. *Dinleyici-ler [[___ bütün viski-yi iç-tiğ-imiz]
listener-pl all whiskey-acc drink-vnom-poss.1pl
için] biz-i sarhoş san-ıyor-lar biz-im.
for we-acc drunk think-prog-3pl we-gen
"The listeners think we are drunk because we drank all the whiskey."

As we can see from the examples above, extraction is permitted in embedded clauses where agreement is present, that is, when the C head is defective—examples (33a-b). However, extraction is not allowed in examples (33c-d-e), where the C head is non-defective. This suggests that the subject extracted from the embedded clause may have been sent to the Spell-Out domain by the complete C. Considering example (33a), since the

accusative case of "biz-i" (we-ACC) is assigned by the verb, it may be possible to extract it adjacent to the main verb:

(34) *pro* sen-i_i [$_{CP}$ t_i viski iç-ti] bil-iyor-du-m.
pro you-acc whiskey drink-past know-prog-past-1sg

(Moore, 1998: 169)

In the analysis above, Moore (1998: 169) has stated that the subject "sen-i" (you-ACC) is raised to the main clause as an object. Therefore, subjects that receive the accusative case from the main clause, and thus can be raised to the main clause as objects, can be extracted. That is, they are actually within the main clause. This shows that the reason for the extraction of ECM subjects that have received the accusative case may not be due to phasehood, yet could stem from raising or movement to the main clause.

On the other hand, in none of the examples (33b-c-d-e) can the cases on the extracted subject "biz" (we) be licensed by the main verb. In example (33b), the case is licensed by the D head; in example (33c), by the C head of the embedded clause; and in example (33d), again by the C head of the embedded clause. The presence of cases licensed by these heads may have emerged independently of the main clause. Additionally, in sentence (33e), the extracted "biz-im" (we-GEN) is a DP branched from a PP. Therefore, the presence of the genitive case on "biz" (we) also creates ungrammaticality. Thus, extracting the object of the verb, which is the head that licenses the case, should not cause a problem. However, in examples (33b-c-d-e), the words "biz" ("we") are not in the object position of the verb. If the edge positions of phases are escape positions, we would expect that all the subjects in examples (33) could be extracted. Therefore, another reason affecting the extraction here is the Case. That is, for a word to be extracted to a different position, there needs to be case licensing by the unit in the position to which it is extracted. In examples (33b-c-d-e), the cases on the subjects that cannot be extracted are licensed within the embedded clause. However, in example (33a), the main clause verb licenses the accusative case. This shows us that in example (33a), extraction is triggered by the main clause verb, and that case licensing affects extraction. Therefore, regardless of whether the C head is defective or not, extraction is related to the case licensing by the main clause verb. This indicates that if extraction is accepted as a phase diagnostic, factors independent of phasehood, such as case and position, will influence this diagnostic.

Now, in the light of the information we have examined, see the first test the DPs in Turkish:

(35) a. [$_{DP}$ Ali-nin deri cüzdan-ı] çal-ın-dı.
Ali-gen leather wallet-poss.3sg steal-pass-past
“Ali's leather wallet was stolen.”

b. *Deri$_i$ [$_{DP}$ Ali-nin t_i cüzdan-ı] çal-ın-dı.
leather Ali-gen wallet-poss.3sg steal-pass-past
"Ali's leather wallet was stolen."

Regarding the examples above, in example (35b), it seems that extraction is not possible; however, this may be due to an independent reason, namely, that the position to which it is moved is a position that does not allow extraction:

(36) a. ?[$_{DP}$ Ali-nin t_i cüzdan-ı] çal-ın-dı deri$_i$.
Ali-gen wallet-poss.3sg steal-pass-past leather
"Ali's leather wallet was stolen."

b. [$_{DP}$ Ali-nin yakışıklı arkadaş-ı] gel-di.
Ali-gen handsome friend-poss.3sg come-past
"Ali's handsome friend arrived."

Regarding the examples above, firstly, moving the adjective to a position after the verb, as in example (36a), is not as ungrammatical as in sentence (36b). Therefore, performing the extraction into a post-verbal position or to the sentence-initial position yields different grammaticality results. Similarly, another factor affecting extraction is agreement:

(37) a. [$_{DP}$ Ali-nin sınıf] okul-dan kaç-tı.
Ali-gen class school-abl escape-past
"Ali's class escaped from school."

b. *Sınıf$_i$ [$_{DP}$ Ali-nin t_i] okul-dan kaç-tı.
class Ali-gen school-abl escape-past
"Ali's class escaped from school."

c. *[$_{DP}$ Ali-nin t_i] okul-dan kaç-tı sınıf$_i$.
Ali-gen school-abl escape-past class
"Ali's class escaped from school."

d. [$_{DP}$ Ali-nin t_i] okul-dan kaç-tı sınıf-ı$_i$.
Ali-gen school-abl escape-past class-poss.3sg
"Ali's class escaped from school."

There is again an independent factor affecting extraction. In examples (37b) and (37c), where agreement is not explicitly encoded, the sentence becomes ungrammatical regardless of the position to which the extraction is made. However, as we can see from example (37d), when the agreement is explicitly present, the sentence remains grammatical after extraction. Therefore, the explicit coding of agreement affects both extraction and the grammaticality of the sentence. This shows that independent factors, such as the explicit encoding of case and agreement, will influence the test if we use extraction as a phase diagnostic.

Now, let us perform the same tests within the CP framework. Since the ECM structure is used as a phase diagnostic, we need to examine the extraction phenomenon in both ECMs and root clauses:

(38) a. Polis [$_{CP}$ sen-i kimse-ye vur-du] bil-mi-yor.
police you-acc anyone-dat hit-past know-neg-prog
"The police do not know that you shot anyone."

b. Sen-i$_i$ polis [$_{CP}$ t_i kimse-ye vur-du] bil-mi-yor.
you-acc police anyone-dat hit-past know-neg-prog
"The police do not know that you shot anyone."

(Özgen & Aydın, 2016: 311)

In the examples above, sentence (38a) is an ECM sentence. As we can see from (38b), extraction is allowed. Observe the contrast in the grammaticality between ECM construction in (38b) & (39b):

(39) a. Ali [$_{CP}$ sen İstanbul-a gid-iyor-du-n] san-mış.
Ali you İstanbul-dat go-prog-past-2sg think-evid
"Ali thought that you were going to Istanbul."

b. ?*Sen-i$_i$ Ali [$_{CP}$ t_i İstanbul-a gid-iyor-du-n] san-mış.
you-acc Ali İstanbul-dat go-prog-past-2sg think-evid
"Ali thought that you were going to Istanbul."

c. ?Ali [$_{CP}$ t_i İstanbul-a gid-iyor-du-n] san-mış sen-i$_i$.
Ali İstanbul-dat go-prog-past-2sg think-evid you-acc
"Ali thought that you were going to Istanbul."

Comparing the examples above, we can once again observe the effect of moving the extraction to a position after the verb on grammaticality. Therefore, when we apply the same test to two structures, one accepted as a phase and one not accepted as a phase, we see that we can obtain similar results depending on the position of the extraction. This leaves us with two options. First, using Bošković's (2014) extraction hypothesis as a phase diagnostic would create an unhealthy framework for discussion; second, CPs in Turkish cannot be phases, which would be an undesired outcome.

The extraction does not seem to work well from the perspective of *v*Ps:

(40) a. Ali kitab-ı oku-du.
Ali book-acc read-past
"Ali read a book."

b. Kitab-ı Ali oku-du.
book-acc Ali read-past
"Ali read a book."

c. Ali kitap oku-du.
Ali book read-past
"Ali read a book."

d. Kitap Ali oku-du.
book Ali read-past
"Ali read a book."

In terms of transitive *v*P structures, the assignment of accusative case does not have any effect on the extraction process. Note that Turkish is a language with flexible word order (Göksel & Kerslake, 2005; Kornfilt, 1997), which means that all the tests we have conducted so far may have been permitted due to PF-driven displacement. Therefore, we are once again faced with two options. The first is that applying the extraction diagnostic may not be possible in Turkish because the free word order in Turkish generally allows words to change positions. The other option is that if we accept Bošković's (2014) extraction claim as a phase diagnostic notwithstanding these independent factors, we are forced to conclude that all phrases and syntactic structures in Turkish are phases, which would be another unwelcome result.

Bošković's (2014: 9) final claim regarding extraction is that there are two different PP structures in Turkish. PP is a phase if it allows extraction; otherwise, it is not a phase:

(41) a. *Biz [$_{NP}$ Pelin-in arkadaş-ı]$_i$
we Pelin-gen friend-poss.3sg
dün [$_{PP}$ t_i için] para topla-dı-k.
yesterday for money collect-past-1pl
"We collected money yesterday for Pelin's friend."

b. Ben araba-nın$_i$ dün [$_{PP}$ t_i önünde] dur-du-m.
I car-gen yesterday in front of stop-past-1sg
"I stood in front of the car yesterday."

The locative morpheme -DA attaches to the nominal paradigm, as mentioned earlier. Thus, the alleged PP in example (41b) is not a PP but a DP. Accordingly, as in example (41a), extraction cannot be made from genuine bare PPs in Turkish. This again leads us to accept that PPs in Turkish are not phases.

Considering that Bošković's (2014) extraction hypothesis cannot be employed as a phase diagnostic in Turkish due to the scrambling property of Turkish and the fact that extraction cannot be performed in PP structures, we should deduce either that there is no concept of phase in Turkish or that Bošković's (2014) extraction hypothesis is not a phase diagnostic.

2.4 Ellipsis as a phase diagnostic

Another tool used as a phase diagnostic in the literature is ellipsis (*see* Bošković, 2014; Rouveret, 2012; Gengel, 2007; Bošković, 2012). İnce (2012: 248) argues that, contrary to the common belief, ellipsis can occur in languages like Turkish, even though they do not use wh-movement. Since the sluicing is known to be TP deletion, in languages like English,

the wh-word moves to CP, and the TP is deleted. However, Turkish is a language that does not obligatorily perform wh-movement (Arslan, 1999):

(42) a. Hasan biri-yle konuş-uyor.
Hasan someone-with talk-prog
ama Hasan kim-le konuş-uyor bil-mi-yor-um.
but Hasan who-with talk-prog know-neg-prog-1sg
"Hasan is talking with someone, but Hasan doesn't know with whom Hasan is talking."

b. Hasan biri-yle konuş-uyor.
Hasan someone-with talk-prog
ama kim-le bil-mi-yor-um.
but whom-with know-neg-prog-1sg
"Hasan is talking to someone, but I don't know with whom."

(İnce, 2012: 250)

In example (42a), "Hasan" and "konuşuyor" (talk-prog) have been elided in example (42b). However, since Turkish does not undergo wh-movement, after the ellipsis operation, the entire clause "Hasan kimle konuşuyor" ("Hasan is talking with whom") should have been deleted. At this point, İnce (2012: 252) proposed that Turkish actually does perform wh-movement, but due to the weak wh-question feature in the C head, the lower copy is pronounced instead. In other words, through the remnant movement phenomenon we mentioned earlier, "kim-le" (whom-with) first moves to the specifier position of CP, leaving a copy in its original position. However, because the wh-question feature at the specifier of CP is weak, it's not the wh-word in the specifier of CP that is pronounced, but the lower copy of the wh-word. İnce (2012) suggested in this regard that movement in Turkish occurs not at the LF but at the PF level. On the other hand, there are also views suggesting that this structure in Turkish is a cleft construction, and that ellipsis does not occur in languages that do not perform wh-movement:

(43) *The case feature of the elided wh-word must be the same as that of the main clause.*

(Merchant, 1999: 48)

That is, in accordance with the constraint above, the case feature in the ellipsis structures we construct must be identical to the case feature in the antecedent clause. Now, see these examples:

(44) a. Ahmet birin-i döv-müş
Ahmet someone-acc beat-evid
ama kim-i bil-mi-yor-um.
but who-acc know-neg-prog-1sg
"Ahmet has beaten someone, but I don't know whom."

b. Ahmet birin-e kitap ver-miş-ti
Ahmet someone-dat book give-evid-past
ama kim-e-ydi hatırla-mı-yor-um.
but who-dat-past remember-neg-prog-1sg
"Ahmet had given a book to someone, but I don't remember to whom it was."

(İnce, 2012: 255)

As we examine the above examples, in example (44a), the accusative case marked on "kim-i" (who-ACC) is identical to "biri-ni" (someone-ACC) in the main clause. Changing the case on "kim" (who) yields ungrammaticality. In example (44b), the case marked on "kim" is the same as "biri" ("someone") in the main clause. Thus, it is insufficient for us to observe the difference between stripping and ellipsis in terms of case. However, we can see this difference when using the copula "ol-" (to be). In Turkish, while the copula "ol-" (to be) can be used in stripping constructions, using this copula in ellipsis constructions leads to ungrammaticality:

(45) a. Ahmet-in borç ver-diğ-i-nin
Ahmet-gen debt give-vnom-poss.3sg-gen
Hasan ol-duğ-un-u bil-iyor-um.
Hasan be-vnom-acc-poss.3sg know-prog.1sg
"I know that it is Hasan to whom Ahmet lent money."

b. *Araba-yı onar-dı ama
car-acc repair-past but
nasıl ol-duğ-un-u bil-mi-yor-um.
how be-vnom-poss.3sg-acc know-neg-prog.1sg
"He repaired the car, but I don't know how it happened."

(İnce, 2012: 11)

In example (45a) the copular verb "ol-" (be) can be used in a stripping sentence, in example (45b), which involves an ellipsis construction, the copular verb "ol-" (to be) results in ungrammaticality.

In English VP-ellipsis, the elided structure must be structurally identical to the main clause. First, observe examples involving objects that have received the accusative case and those that have not, in relation to the ellipsis operation:

(46) a. Ali kitap oku-du, Ayşe de ~~kitap oku-du~~.
Ali book read-past Ayşe too book read-past
"Ahmet read a book, and Ayşe read too.''

b. Ali kitab-ı oku-du, Ayşe de ~~kitab-ı oku-du~~.
Ali book-acc read-past Ayşe too book-acc read-past
"Ahmet read a book, and Ayşe read too."

The unit "kitap" (book) in (46a) that has received the accusative case is in the VP domain. In contrast, the unit "kitab-ı" (the book-acc) in (46b) that has received the accusative case is in the specifier position of the *v*P. Bošković (2014) has stated that only the complements of phase heads (i.e., spell-out domains) or entire phases can be elided. In the numbered examples (46) we analyzed above, Bošković (2014) argues that the V head is a phase, and that the fact that the object in its complement and the entire VP can be elided demonstrates the phasehood of the VP. Note that, in example (46a), the entire VP (= spell-out domain) is elided; whereas in example (46b), the entire *v*P (= phase) is elided. In fact, the ellipsis here suggests the phasehood of the *v*P, not the VP. If we accept the view that the VP is a phase and that only the complement of the V head and the VP are elided, we cannot explain the elision of "kitabı" (the book), which has been moved to the specifier of the *v*P in example (46b).

Another issue at this point is that the tense marker on the verb "oku-du" (read-past) is also elided. We have previously noted that in Turkish, verbs must raise to the T head to acquire tense and agreement features. Unlike in English, where tense can be carried by an auxiliary, in Turkish, it is directly marked on the main verb. Consequently, if the verb "oku-du" (read-past) displays tense marking, it indicates that the verb has raised to T. Therefore, if the part of the structure undergoing ellipsis also includes the tense morphology from T, then the domain of ellipsis must encompass T. This implies that the construction in (46) cannot be mere VP-ellipsis. Instead, a larger syntactic domain (including T) is elided. Thus, examples like those in (46) do not constitute a straightforward VP-ellipsis case.

In terms of DPs see this example:

(47) [DP [AGRP Ben-im ev-im] sat-ıl-dı
I-gen house-poss.1sg sell-pass-past
ama [DP [AGRP Ayşe-nin ~~ev i~~]] sat-ıl-ma-dı.
but Ayşe-gen house-poss.3sg sell-pass-neg-past
"My house was sold, but Ayşe's house was not sold."

In (47) we are dealing with a structure that poses a problem for ellipsis. First, within the DP, the fact that the element "evi" (the house-ACC), which has raised to the head of the AGRP, can be elided while "Ayşe'nin" (Ayşe-GEN) remains unelided does not clearly indicate which exact domain has been elided. If we also consider the possibility that the element "Ayşe'nin" (Ayşe-GEN) has moved out of the AGRP to another position, then extracting and eliding the genitive-case possessor units in the DPs becomes impossible:

(48) *[DP [AGRP Ben-im ev-im] sat-ıl-dı
I-gen house-poss.1sg sell-pass-past
ama [DP [AGRP ~~Ayşe-nin ev i~~]] sat-ıl-ma-dı.
but Ayşe-gen house-poss.3sg sell-pass-neg-past
"My house was sold, but Ayşe's house was not sold."

As we can see from the example above, in example (48), "Ayşe-nin" (Ayşe-GEN) was not elided because it moves to a higher position, but rather that the elements in the specifier positions of the AGRP are not identical. Accordingly, it is evident that independent factors, such as the use of different words within the phrase, also influence the ellipsis operation.

Now see apply the same test to sentential DPs as well:

(49) a. [DP Ali-nin [CP kereviz ye-diğ-i]] yalan ama
Ali-gen celery eat-vnom-poss.3sg lie but
[DP Ayşe-nin [CP ~~kereviz ye-diğ-i~~]] gerçek.
Ayşe-gen celery eat-vnom-poss.3sg real
"It is a lie that Ali ate celery, but it is true that Ayşe ate celery."

b. [DP Ali-nin [CP kereviz ye-diğ-i]] duy-ul-muş
Ali-gen celery eat-vnom-poss.3sg hear-pass-evid
ama [DP ~~Ali'nin [CP kereviz ye-diğ-i~~]]
but Ali-gen celery eat-vnom-poss.3sg
hiç gör-ül-me-miş.
ever see-pass-neg-evid
"Ali's having eaten celery has been heard, but Ali's having eaten celery has never been seen."

(Özgen, 2018: 13)

c. [DP Ali-nin [CP kereviz ye-diğ-i]] duyulmuş
Ali-gen celery eat-vnom-poss.3sg hear-pass-evid
ama [DP ~~Ali nin [CP kereviz in~~ turşu-sun-u
but Ali-gen celery-gen pickle-poss.3sg-acc
kur-duğ-u hiç gör-ül-me-miş.
set-vnom-poss.3sg ever see-pass-neg-evid
"It has been heard that Ali ate celery, but it has never been seen that Ali pickled the celery."

In the sentential DP types above, we encounter a similar situation. If at this stage we accept the view that in certain cases an entire DP can be elided while in other cases only its complement can be elided, then, considering that the elided portions differ depending on the specifier element even though they appear in the same structure, we run into a problematic discussion in terms of phasehood. Further, if we observe the example in (49c), we see that the elided portion differs from its antecedent, suggesting that independent factors may influence the ellipsis process. Consequently, using ellipsis to test the phasehood of DPs does not provide us with a reliable framework because ellipsis may fail to occur for reasons unrelated to phasehood. As in example (49), it may be unclear precisely which domain is elided.

CPs, first, in order to see whether there is a difference in terms of ellipsis between the ECM structure, which is not accepted as a phase, and the CP, which is accepted as a phase, we need to apply this test to ECM structures as well:

(50) a. *Murat [$_{CP}$ ben-i öl-dü] san-ıyor,
Murat I-acc die-past think-prog
Özgün-se [$_{CP}$ ben-i ~~öl-dü~~] san-mı-yor.
Özgün-while I-acc die-past think-neg-prog
"Murat thinks I am dead while Özgün does not think I am dead."

b. *Murat [$_{CP}$ ben öl-dü-m] san-ıyor,
Murat I die-past.1sg think-prog
Özgün-se [$_{CP}$ ben ~~öl-dü-m~~] san-mı-yor.
Özgün-while I die-past.1sg think-neg-prog
"Murat thinks I am dead while Özgün does not think I am dead."

With regard to both of the above examples, we observe that in the ECM construction in (50a) and in the root clause structure in (50b), the sentences become ungrammatical if the verb is deleted. However, in both the ECM construction and the root clause, the entire CP can be elided:

(51) a. Murat [$_{CP}$ ben-i öl-dü] san-ıyor,
Murat I-acc die-past think-prog
Özgün-se [$_{CP}$ ~~ben-i öl-dü~~] san-mı-yor.
Özgün-while I-acc die-past think-neg-prog
"Murat thinks I am dead while Özgün does not think I am dead."

b. Murat [$_{CP}$ ben öl-dü-m] san-ıyor,
Murat I die-past.1sg think-prog
Özgün-se [$_{CP}$ ~~ben öl-dü-m~~] san-mı-yor.
Özgün-while I die-past.1sg think-neg-prog
"Murat thinks I am dead while Özgün does not think I am dead."

From example (51a), we can see that the entire CP can be elided in the ECM construction, which is not accepted as a phase. At this stage, we would expect the root clause structure in (51b), which is accepted as a phase, to present a contrasting scenario; however, as we can observe from the examples, the entire CP can be elided in both constructions. Therefore, using ellipsis to test the phasehood of the CP does not provide a sound framework for discussion.

2.5 Sentential stress rule as a phase diagnostic

In the literature, the sentential stress rule is another structure recognized as a phase diagnostic. Legate (2003), following Bresnan

(1972), argues that the Sentential Stress Rule (SSR) must be used in its phonetic form to demonstrate the phasehood of the VP, functioning as a phase diagnostic. Similarly, Kahnemuyipour (2004) states that the SSR constitutes evidence for the presence of multiple spell-out domains within phases. Focusing first on Legate (2003:511), she observes that in English, the primary stress is assigned to the unit containing the final stress within VPs:

(52) Mary fixed the bike[1].

(Legate, 2003: 511)

In the example above, the points marked with [1] indicate the stress.

Another study that uses the SSR as a phase diagnostic is found in Kahnemuyipour (2004):

(53) *Sentential Stress Rule*

Sentential stress is assigned to the highest element in the spell-out domain within a phase.

Regarding Turkish, Tarhan (2006:20) has noted that the same situation applies in Turkish as well:

(54) Ali [**hızlı** kitap oku-du].
Ali quickly book read-past
"Ali read a book quickly."

(Tarhan, 2006: 20)

First, in the example above, we need to determine whether the stress on "hızlı" (quickly) arises from its position in the sentence or if it is related to the fact that "hızlı" is functioning as an adverb:

(55) Ali kitab-ı **hızlı** oku-du.
Ali book-acc quickly read-past
"Ali read a book quickly."

When we change the position of the adverb "hızlı" the stress it carries remains unchanged. Therefore, the first conclusion we can draw is that the stress on the adverb is not affected by its position.

Now, observe the focus on unergative and unaccusative sentences:

(56) a. A: Sabah ne ol-du?
morning what happen-past
"What happened in the morning?"

B: Ali **koş-tu.**
Ali run-past
"Ali ran."

b. A: Haber-ler-i duy-du-n mu?
news-3pl-acc hear-past-2sg Q
"Have you heard the news?"

B: Hayır. Ne ol-muş?
No what happen-evid
"No. What happened?"

A: **Bir gemi** bat-mış.
A ship sink-evid
"A ship has sunk."

(Tarhan, 2006: 50-51)

As for the unergative example in (56a), Tarhan (2006: 50) states that the stress falls on the verb "koştu" ("ran"). According to Tarhan (2006), this is because in an unergative structure, the subject remains in *v*P, making "koş-" (run) the highest element. However, since there is agreement between "Ali" and "koş-tu" (run-past) and "Ali" is in the nominative case, "Ali" must have moved up to the specifier of T. Under these conditions, the highest element in the spell-out domain should not be "koştu," but rather "Ali." Despite that, we observe that "koş-tu" (run-past) bears stress, even though it is not actually the highest element in the domain. Therefore, according to this test, unergative verbs commonly accepted in the literature as phases cannot be phases after all. By contrast, in the unaccusative example (56b), which is not accepted as a phase, "bir gemi" (a ship) is the highest element in the spell-out domain. We see that stress falls on "bir gemi," showing once again that the Sentential Stress Rule can yield similar results in structures not considered phases and can even give contrary results in structures that are considered phases.

3. Concluding Remarks

Up to this point, we have examined whether the structures viewed as phase diagnostics can be explained without resorting to the concept of phasehood, and whether these structures are affected by factors independent of phasehood. Based on the data we obtained and the comparisons we made, we found that these diagnostics do not work in Turkish. Let us look at this situation through the table below:

Table 1. The applicability of phase diagnostics in Turkish

PHASE DIAGNOSTICS	TURKISH
Chomsky (2000) Agreement determines phase heads.	×
Gallego (2010) Uninterpretable features determine phase heads.	×
Miyagawa (2011) Case determines phase heads.	×
Den Dikken (2003) Phases can be tested via the WH-movement structure.	**Not applicable**
Bošković (2014) Phases can be tested via deletion.	×
Bošković (2014) Phases can be tested via extraction and stranding.	×
Matushansky (2005) & Legate (2003) Phases can be tested via stranding.	×
Legate (2003) Phases can be tested via sentential stress rules.	×
Den Dikken (2006) Phases can be tested via WH-fronting.	×

From the table above, we can see that none of the structures proposed in the literature for testing the concept of phase are applicable to Turkish. This observation leads us to several different conclusions. The contradictory results that emerged from our analyses point to three different possibilities:

1. If the testing methods we have examined are considered valid phase diagnostics, then it becomes impossible to identify any phrase as a phase in Turkish or in other languages with similar typological features. In other words, these purported phase diagnostics may not actually test for phasehood in a general sense.
2. If these phase diagnostics are accepted, then no phrase in Turkish or in any language with similar typological characteristics should be considered a phase.
3. The phenomenon called 'phase' is, in fact, a misconception.

When supported by crosslinguistic data, it will become clearer which of these options is more plausible. Likewise, further research on

phasehood could offer different perspectives on the universality of phase theory. If, as a result of such research, phasehood proves to be illusory, then a more comprehensive theory that yields consistent findings despite varying typological features of languages could be proposed instead of phase theory.

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