

- b. *Alp dondurma-yı eritti.*
 Alp ice-cream-ACC melt.CAUS.PST
 ‘Alp melted the ice-cream.’
- c. **Dondurma-yı eridi.*
 ice.cream-ACC melt.PST

Hence, the presence of at least two NPs in a given domain triggers what has been called *case competition* between NP pairs, and the assignment of a dependent case like accusative is parasitic on case competition. This, for example, also correctly predicts that under passivization where the agent NP is not present in the structure, the accusative case will not surface, as shown in (2).

- (2) a. *Alp vazo-yu kırdı.*
 Alp vase-ACC break.PST
 ‘Alp broke the vase.’
- b. *Vazo (Alp tarafından) kırıldı.*
 vase Alp by break.PASS.PST
 ‘The vase was broken (by Alp).’
- c. **Vazo-yu (Alp tarafından) kırıldı.*
 vase-ACC Alp by break.PASS.PST
 Intended: ‘The vase was broken (by Alp).’

One formalization of the general logic of dependent case assignment is provided in Baker & Vinokurova (2010: 595), where two dependent cases are assumed for Sakha (Turkic). These dependent cases are accusative and dative, and they are assigned to a given NP based on the rules in (3).¹

- (3) a. If there are two distinct argumental NPs in the same VP-phase such that NP1 c-commands NP2, then value the case feature of NP1 as dative unless NP2 has already been marked for case.

¹ Note that the two rules in (3) differ in that the dative rule is specified to be applicable only in the VP phase whereas the accusative rule merely requires the two NPs to be in the same phase. Accordingly, both the dative and the accusative rules should be applicable in the VP phase. Given that both rules are applicable, a constraint has to make sure that the dative rule bleeds the application of the accusative rule in the VP phase. As is generally case with rule-based systems, the more specific rule can be assumed to have the priority over the elsewhere rule when both rules are applicable. Given the nature of the dependent case rules (only applicable if there is more than one caseless NP in the same domain), the application of the dative rule will bleed the application of the accusative rule. See also Section 5 for the relevant discussion, where we adopt this reasoning in our analysis.

- b. If there are two distinct argumental NPs in the same phase such that NP1 c-commands NP2, then value the case feature of NP2 as accusative unless NP1 has already been marked for case.

According to the rules in (3), case assignment proceeds in two cycles. In the first cycle, if there are two NPs, the higher of the two receives the dependent dative case within the VP-phase (provided that the lower NP is caseless, i.e., has not received lexical case). In the second cycle, if there are two NPs outside the VP-phase (i.e., in the CP phase), the accusative case is assigned to the lower of the two NPs. The rules in (3) successfully account for the distribution of case in canonical clauses in Sakha, as well as Turkish and many other languages.

Our main focus in this paper, however, will be on cases where this calculus for dependent case fails to predict the right case outputs. In particular, we will be investigating sentences that have been argued to feature agent pseudo-incorporation (Öztürk 2005a; b; 2009). As illustrated by the word order contrast between (4)a and (4)b, in agent pseudo-incorporation, the accusative object is *required* to precede the agent NP while the agent NP needs to be immediately preverbal. This surface syntactic contrast goes along with interpretational contrasts concerning the agent NP in sentences like (4)a vs. (4)b. In particular, the agent is understood to be *number-neutral* and *non-referential* in (4)a while it is fully referential, picking out a unique discourse-salient entity in (4)b.

- (4) a. *Ali-yi ari soku.*
 Ali-ACC bee sting.PST
 ‘Ali got bee-stung.’
- b. *Ari Ali-yi soku.*
 bee Ali-ACC sting.PST
 ‘The bee stung Ali.’
- Unavailable: ‘Ali got bee-stung.’ (Öztürk 2009: 355)

Under Öztürk’s account of agent pseudo-incorporation, the agent NP is merged as a complement to the verbal head while the theme object is merged higher than the agent NP and hence c-commands it. As will be discussed in detail in Section 2, a case-theoretic puzzle arises in agent pseudo-incorporation structures under the analysis that takes the agent NP to be merged lower than the theme object. In particular, the rules in (3) fail to explain the presence of the accusative case assigned to the objects of clauses involving agent pseudo-incorporation in Turkish. The question that we are trying to answer in this study is the following: how is that the theme object bears the dependent accusative case although it does not seem to be in a configuration (as far as the surface syntax is concerned) which makes the accusative rule in (3)b applicable to it.

We aim to account for this case-theoretic puzzle in a way that preserves the basic intuition behind DCT, namely the dependency of the accusative case on the presence of a c-commanding NP in the structure. This requires us to rethink the structure of agent pseudo-incorporation configurations in a way that is also consistent with their surface structural properties (e.g., the theme object obligatorily preceding the pseudo-incorporated agent NP). In particular, we will motivate the idea that in a transitive clause involving agent pseudo-incorporation, the agent c-commands the object in the *base* order, hence triggering the dependent accusative case on the object.

The structure of this paper is as follows. In Section 2, we will discuss how the dependent case rules in (3) work in regular cases and explain in detail why they make false predictions in constructions involving agent pseudo-incorporation. In Section 3, we will present our theory of the dependent case assignment in Turkish and propose a novel theory of agent pseudo-incorporation constructions. Section 4 discusses how the assignment of the dative case could be integrated to the presented system. Section 5 concludes the paper.

2. The Case-Theoretic Puzzle in Agent Pseudo-Incorporation Structures

Pseudo-incorporation in Turkish has been argued to be a VP-level process. In particular, it has been shown by several diagnostics that pseudo-incorporated nominals stay inside the VP (Öztürk 2005a; b; 2009). Assuming that the bare manner adverb adjoins to the VP, the sentence in (5)a has a VP-internal pseudo-incorporated object, and a c-commanding subject outside the VP. The case rules in (3) correctly predict that no dependent case is assigned in (5)a. Since there is only one NP in the VP phase in (5)a, the rule in (3)a is not applicable, i.e., no dative case assignment is triggered in the first cycle. Since the pseudo-incorporated NP does not vacate the VP, there is only one nominal, i.e., the subject, in the CP phase. Therefore, in the second cycle, the rule in (3)b is not applicable, either. On the other hand, if the theme object is specific, it obligatorily moves out of the VP (Enç 1991; Diesing 1992; Kennelly 1994; Kelepir 2001; Nakipoğlu 2009; 2019). As shown in (5)b, this results in a configuration in which the CP phase has two nominals. Accordingly, the rule in (3)b becomes applicable, resulting in the object being assigned the dependent accusative case in the second cycle. Note that the ungrammaticality of (5)c shows that the manner adverb is at the edge of the domain that specific objects have to move out of, which we are labeling VP following the literature.

- (5) a. [CP *Alp* [VP *yavaş kitap okudu.*]]
 Alp slow book read.PST
 ‘Alp slowly did book-reading.’

- b. [CP *Alp* *kitab-t3* [VP *yavaş* *t3* *okudu.*]]
 Alp *book-ACC* *slow* *read.PST*
 ‘Ali read the book slowly.’
- c. *[CP *Alp* [VP *yavaş* *kitab-t3* *okudu.*]]
 Alp *slow* *book-ACC* *read.PST*
 Intended: ‘Ali read the book slowly.’

When there are two caseless NPs in the VP phase, case competition starts in the first cycle. To illustrate, in (6)a, the rule in (3)a is triggered, as a result of which the higher of the two NPs in the VP phase receives the dependent dative case. The theme NP, on the other hand, remains caseless in the second cycle too, for CP phase does not contain two caseless NPs in this configuration, assuming that the nominals in the VP phase is invisible to the case calculus in the second cycle. The theme object does receive the dependent accusative case if it vacates the VP, leading to case competition in the second cycle, as shown in (6)b.

- (6) a. [CP *Alp* [VP *Merve-ye* *kitab* *verdi.*]]
 Alp *Merve-DAT* *book* *give:PST*
 ‘Alp gave Merve book(s).’
- b. [CP *Alp* *kitab-t3* [VP *Merve-ye* *t3* *verdi.*]]
 Alp *book-ACC* *Merve-DAT* *give.PST*
 ‘Alp gave the book to Merve.’

Hence, the rules in (3) successfully account for the distribution of the dependent dative and accusative cases in transitive and ditransitive clauses, including the ones involving *object* pseudo-incorporation. However, we will now show that they cannot predict the distribution of the accusative case in agent pseudo-incorporation constructions.

Given that the pseudo-incorporated agent has to be adjacent to the verb, theme object is *required* to precede the incorporated agent. Accordingly, one hypothesis, which Öztürk (2009) defends, would be to take the linear order of (7) to represent the merge order where the theme object c-commands the agent NP. Under this hypothesis, there are three logical (phase-theoretic) possibilities according to the rules in (3). We discuss each of these possibilities (without commenting on their viability) and show that each fails to derive the correct output, as we discuss below.

- (7) *Ali-yi arı soku.*
 Ali-ACC bee sting.PST
 ‘Ali got bee-stung.’

First, if both the object *Ali* and the pseudo-incorporated agent *arı* ‘bee’ are in the VP-phase, the rule in (3)a will be triggered, incorrectly predicting that the dependent dative case will be assigned to the object. However, an output where the object receives the dative case is ungrammatical, as shown in (8).

- (8) **Ali-ye arı soku.*
 Ali-DAT bee sting.PST
 ‘Ali got bee-stung.’

Second, if the two nominals are in the CP phase, the rule in (3)b will kick in, assigning the dependent accusative case to the lower of the two nominals. This surface form, shown in (9), albeit a grammatical form, is impossible for the intended pseudo-incorporated (non-referential) reading for the agent. In fact, the only reading available is the interpretation where *arı* ‘bee’ is understood as the definite theme object, not as a non-referential agent.

- (9) *Ali arı-yı soku.*
 Ali bee-ACC sting.PST
 Unavailable agent pseudo-incorporation reading: ‘Ali got bee-stung.’
 Available definite object reading: ‘Ali stung the bee.’

Third, if the pseudo-incorporated agent and the object are in distinct phases, neither of the dependent case assignment rules in (3) is triggered, which predicts that both of the nominals will remain unmarked. Again, this is a grammatical output, but is impossible for the intended agent pseudo-incorporation reading, as shown in (10).

- (10) *Ali arı soku.*
 Ali bee sting.PST
 Unavailable agent pseudo-incorporation reading: ‘Ali got bee-stung.’
 Available object pseudo-incorporation reading: ‘Ali stung bee(s).’

In the discussion above, we assumed that the word order in agent pseudo-incorporation structures, where the object precedes the pseudo-incorporated agent, mirrors the merge order of the agent and the theme. However, even when assumes that

the surface order is derived via movement, we do not obtain the correct case outputs under the rules in (3). We discuss two such possibilities below.

First, one could argue that the object is merged with the verb first and the resulting constituent is then merged with the agent. This would preserve the insight that pseudo-incorporation is a VP-level process, keeping the agent within the VP. However, as was shown above for the reverse merge order, when there are two nominals within the VP phase, the rule in (3)a is triggered, predicting that the dependent dative case will appear on the higher of the two NPs, this time on the agent NP. The fact that the theme object has to vacate the VP is irrelevant, for the rule in (3)a kicks in the moment the c-configuration for the dative assignment is created, i.e., before the relevant movement takes place. This predicts an ungrammatical output, as shown in (11).

- (11) [CP *Ali*₃ [VP *arı-ya* t₃ *soktu*.]]
 Ali bee-DAT sting.PST
 Unavailable agent pseudo-incorporation reading: ‘Ali got bee-stung.’
 Available reading: ‘Ali inserted (something) to the bee.’

Second, one could drop the hypothesis that pseudo-incorporation is a strictly VP-level process. In particular, one could assume that in addition to Kratzer’s (1996) regular voice head which introduces the external argument, languages like Turkish, which can pseudo-incorporate agents, have an additional head *voice_{inc}*, the agent pseudo-incorporating variety of voice. Keeping with the idea that theme object comes to precede the agent in agent pseudo-incorporation as a result of movement, one could then entertain the idea that the accusative on the object is obtained at the edge of the VP-phase, where the agent would be c-commanding the theme outside VP phase (in the second cycle), hence activating the rule in (3)b. Finally, the subsequent movement of the theme object derives the correct surface order. The derivation is schematized in (12).

- (12) a. [voiceP *arı* [voice_{inc} [*Ali*₃ [VP t₃ *soktu*]]]]
 dependent accusative →
 b. [CP *Ali-yi* [voiceP *arı* [voice_{inc}. [t₃ [VP t₃ *soktu*]]]]]

There is, however, an independent empirical problem under this account. Since we are in essence dropping the assumption that pseudo-incorporation is a strictly VP-level process, we end up making the false prediction that the pseudo-incorporation reading for agents will still be available when the agent precedes an event modifier. As shown in (13), the pseudo-incorporation reading is not available in this word order, suggesting that *voice_{inc}* approach entertained here fails for reasons independent of the mechanics of case competition.

- (13) a. *Ali-yi arı bahçede/tekrar/çok fena soktu.*
 Ali-ACC bee garden.LOC/again/very bad sting.PST
 Unavailable: ‘Ali got bee-stung in the garden/again/very badly.’
 Available: ‘The bee stung Ali in the garden/again/very badly.’
- b. *Ali-yi bahçede/tekrar/çok fena arı soktu.*
 Ali-ACC garden.LOC/again/very bad bee sting.PST
 ‘Ali got bee-stung in the garden/again/very badly.’

This brings us back to our initial problem: How is the dependent accusative case assigned to theme object in clauses involving agent pseudo-incorporation? In the next section, we will flesh out an analysis of dependent case assignment in Turkish, accounting for the case assignment both in regular cases and those involving pseudo-incorporation. This will require us to rethink the structure of agent pseudo-incorporation, as well.

3. Proposal

For the ease of exposition, let us assume, for the time being, that the only dependent case is accusative in Turkish. We will discuss how the assignment of the dependent dative case can be integrated to the proposed system in Section 5.

In our proposal, we depart from Baker & Vinokurova (2010) and assume that the accusative case assignment is not specified to apply in the second cycle. In other words, in a given CP whenever two caseless NPs are in a c-command relation, the lower one gets assigned the dependent accusative case. Therefore, we slightly modify the accusative rule as in (14).

(14) **Dependent accusative case assignment rule:**

If there are two distinct argumental NPs that are both unvalued for case in a CP such that NP1 c-commands NP2, then value NP2 with a dependent accusative case feature.

A few important notes are in order. First, case competition between two caseless NPs is triggered the moment when the relevant c-command relation is established. Hence, there is no delay in case valuation (Kornfilt & Preminger 2015). Second, we argue that case valuation takes place in narrow syntax while the morphological realization of a case value is determined at PF. In particular, we posit that the dependent accusative case is realized in two distinct forms in PF. It is well-known that specific objects are overtly marked with the accusative case in Turkish (Enç 1991). Adopting an idea proposed in Türk & Caha (2022), we suggest that there are two different realizations of the accusative case in Turkish as presented in (15). When the accusative case feature is

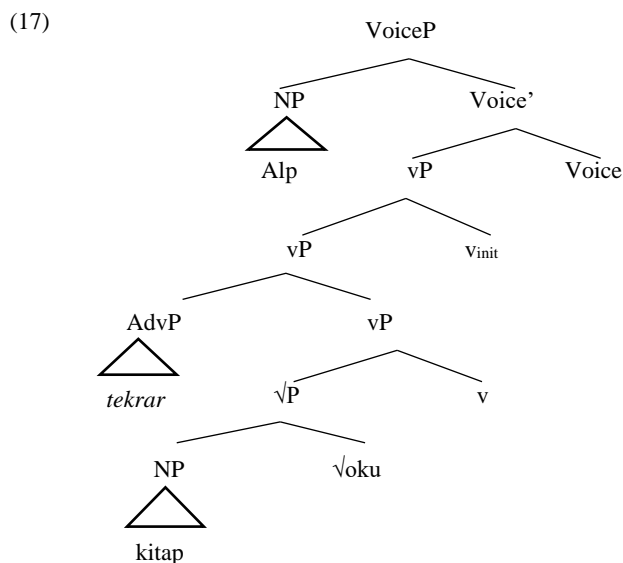
combined with the specificity feature, it is realized as $-(y)I$ as in (15)a and is phonologically null otherwise as in (15)b.

- (15) a. $-(y)I \rightarrow [\text{ACC}, \text{SPECIFIC}]$
 b. $\emptyset \rightarrow [\text{ACC}]$

Before illustrating how the presented case system works, we would like to lay out the syntactic assumptions that we make. Following the proposals in realizational theories like Distributed Morphology (Marantz 1997; Harley & Noyer 2000; Embick & Noyer 2007; Siddiqi 2019; Beavers & Koontz-Garboden 2020), we split the traditional “verb” into a root and a verbalizer. We assume that internal arguments are introduced locally to the verbal root (Perlmutter 1978). In other words, the root specifies whether it requires an object argument or not while the verbal head syntactically indicates the verbalness of the root. Given that this roughly corresponds to the traditional VP, we tentatively take event modification to occur at this level in syntax. Following Kratzer (1996), we assume that external arguments are introduced by a designated functional head, namely, Voice. Furthermore, we follow Harley (2017) in positing that Turkish is a non-Voice-bundling language, which means that Voice only syntactically introduces the initiator/agent argument whereas the semantics of initiation is introduced by an additional v_{init} head. The semantic function of this head is to open a position for the agent/initiator argument. We also tentatively assume that the v_{init} head is also the locus of specificity, attracting an NP to its specifier when it bears the feature SPECIFIC. Having laid out our basic theoretical assumptions, let us illustrate how case calculus works within the proposed system.

The case assignment works in the following way for a transitive clause involving object pseudo-incorporation as in (16). Pseudo-incorporated nominals are non-referential, which also entails that they are not specific (Öztürk 2005a; b; 2009; Kechriotis 2009). Being nonspecific, they remain in their base positions as illustrated in (17). In the proposed system, we predict that the dependent accusative assignment will take place in the structure. There are two argumental nominals in the same CP, both of which are caseless. Hence, the lower of the two NPs is assigned the dependent accusative case, based on the rule in (14). However, since the pseudo-incorporated NP is non-specific, the assigned accusative is phonologically null, as specified by the rule in (15)b.

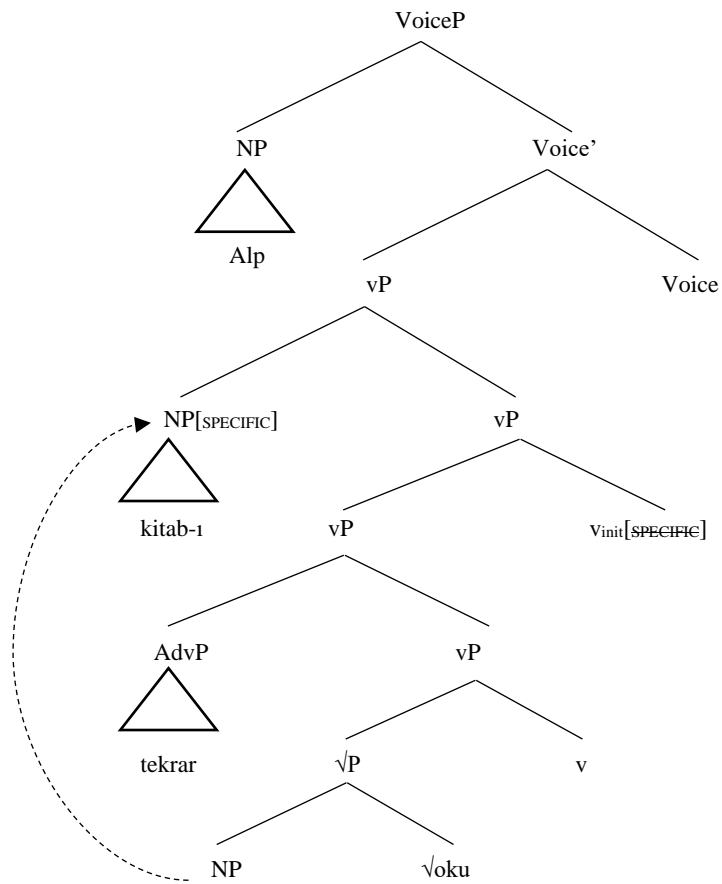
- (16) *Alp tekrar kitap okudu.*
 Alp again book read.PST
 ‘Alp did book-reading again.’



In (18), we present a transitive clause that does not involve object pseudo-incorporation. The derivation proceeds as schematized in (19). The object is merged as the complement of the root. However, since the object is specific, when the v_{init} head that hosts the SPECIFIC feature is merged, it attracts the object. At this stage of the derivation, the object NP is still caseless. However, once the Voice head is merged, it introduces the second nominal, i.e., the agent NP, which triggers case competition, resulting in the assignment of the accusative case in accordance with the rule in (14). Since the object is specific, the resulting combination of features, namely the features [ACC, SPECIFIC], is realized as $-(y)I$ on the nominal at PF.

- (18) *Alp kitab-ı tekrar okudu.*
 Alp book-ACC again read.PST
 ‘Alp read the book again.’

(19)



Our proposal directly extends to a group of nominals that are referential, but nonetheless can be non-specific or specific, namely indefinites (Dede 1986; Kechriotis 2009; Keleşir 2001). Given the proposed theory the indefinites in (20)a and (20)b both receive the dependent accusative case, as they are both c-commanded by another NP in the CP that contains them. Under the realizational rules for the dependent accusative case in (15), the difference in the case realizations is predicted. In (20)a, we have a non-specific object, which remains inside the VP, and the realization of the dependent accusative case is phonologically null as it does not have the additional SPECIFIC feature. In (20)b, we have a specific object, which is going to be attracted by the v_{init} head upon its merger. Given that it receives the dependent accusative case and furthermore has the SPECIFIC feature, its realization must be $-(y)I$, as also confirmed by the ungrammaticality of the string in (20)c.

- (20) a. *Alp bahçede/tekrar bir kitap okudu.*
 Alp garden.LOC/again a book read.PST
 ‘Alp read a book in the garden/again.’
- b. *Alp bir kitab-ı bahçede/tekrar okudu.*
 Alp a book-ACC garden.LOC/again read.PST
 ‘Alp read a specific book (i.e., one of the books) in the garden/again.’
- c. **Alp bir kitap bahçede/tekrar okudu.*

Let us finally consider sentences that involve agent pseudo-incorporation. Recall that the agent in pseudo-incorporated agents cannot precede any event modifier (cf. (13)). This fact, when taken together with the observation that the theme has to precede the agent in agent pseudo-incorporation structures, led earlier accounts to propose structures where the theme argument is introduced higher than the agent and outside the VP (Öztürk 2009; Sağ 2019). As we explicate below, we depart from these accounts and propose that the theme argument is base-generated as the complement to the verbal root even in constructions involving the agent pseudo-incorporation.

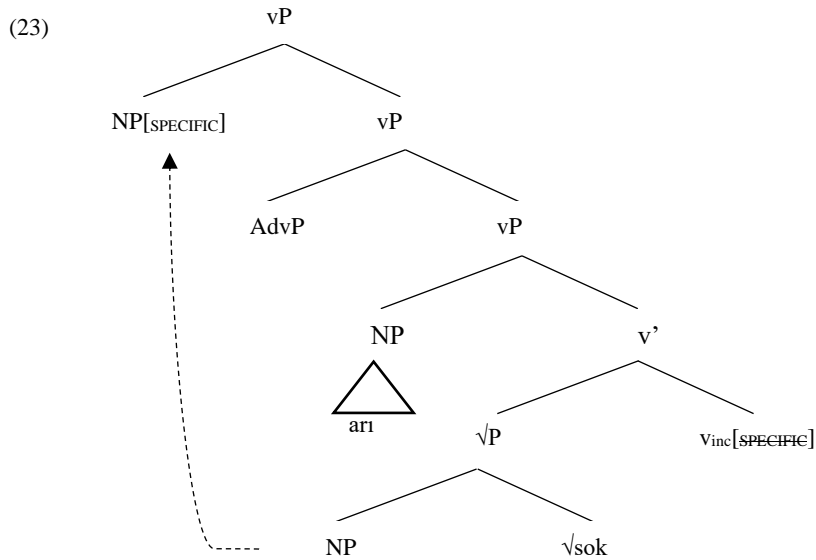
What is novel in our account is that we posit a special type of v head, which we will call v_{inc} in constructions involving agent pseudo-incorporation. This head in essence bundles the (functions of) three distinct heads that we normally see in transitive clauses: v (the head that verbalizes the root), v_{init} (the head that semantically opens a slot for the agent), and voice (the head that syntactically brings in the agent to saturate the slot that v_{init} opens). In addition, it is the head that makes it possible to semantically incorporate an NP to an event. In particular, we adopt Sağ’s (2019) semantics for pseudo-incorporation (according to which bare nouns denote singular kinds) and propose the denotation in (22) for v_{inc} . It denotes a function that takes a predicate of events and

returns a function from kinds k to predicates of events whose agents are entities that belong to the instantiations of k . (See Sağ (2019) for detailed discussion.)

$$(21) \llbracket v_{inc} \rrbracket = \lambda P_{\langle v, t \rangle}. \lambda x^K. \lambda e. \exists y [\text{belong-to}(y, x^K) \wedge P(e) \wedge \text{agent}(e)=y]$$

Accordingly, the sentence in (22) will have the derivation in **Error! Reference source not found.**

- (22) *Ali-yi bahçede/tekrar/çok fena arı soktu.*
 Ali-ACC garden.LOC/again/very bad bee sting.PST
 ‘Ali got bee-stung in the garden/again/very badly.’



In **Error! Reference source not found.**, the theme NP *Ali* is merged as the complement of the root as usual. Then, the constituent that contains the root and the theme NP is directly merged with the v_{inc} head. This head takes an NP as a specifier and semantically incorporates it as an agent to the event. At the moment the agent NP is merged, the rule for dependent accusative assignment is triggered, allowing the theme NP to receive accusative. While this is all that is needed to derive the correct case outputs, there are two important issues that we must address.

The first issue concerns the word order, in particular the fact that the theme has to precede the pseudo-incorporated agent. Recall that we assume that v_{init} is normally the head that hosts the SPECIFIC feature, responsible for attracting specific objects to its specifier. Since the v_{inc} head effectively subsumes the role of v_{init} in agent pseudo-incorporation structures, we naturally assume that that v_{inc} is responsible for hosting this feature. As a matter of fact, we stipulate that v_{inc} *always* lexically comes with this feature (while v_{init} has two varieties: v_{init} and $v_{init}[SPECIFIC]$). This assumption ensures that theme NP always ends up preceding the pseudo-incorporated agent, as it will be attracted to satisfy the SPECIFIC feature of the v_{inc} . We admit that this is an *ad hoc* solution and nothing *a priori* excludes a v_{inc} head that does not come with the SPECIFIC feature. Therefore, we hypothesize that this is really about the inventory of heads (and the features they carry) in a given language and there could in principle be variation among languages concerning this. Accordingly, all else being equal, we predict that a language that can pseudo-incorporate both themes and agents will not be able to pseudo-incorporate both at the same time provided that the v_{inc} head in that language obligatorily carries the SPECIFIC feature. This follows from the assumption that a pseudo-incorporated NP has a kind denotation and is not a referential NP that can bear the specific feature. Furthermore, in the same language, we also predict that nonspecific indefinites will be barred in agent pseudo-incorporation structures. This predicted correlation is borne out in Turkish, as shown in (24). Both nonspecific indefinites, as in (24)a, and pseudo-incorporated themes, as in (24)b, bleed the agent pseudo-incorporation, as predicted under the hypothesis that v_{inc} necessarily comes with the SPECIFIC feature. However, if we find a language where it doesn't, we predict that the unavailable readings for the sentences in (24) will both be available in that language.

- (24) a. *Piknikte arı bir çocuk soktu.*
 picnic.LOC bee a child sting.PST
 Unavailable intended reading: 'At the picnic, a child got bee-stung.'
 Available reading: 'At the picnic, the bee stung a child.'
- a. *Dün tüm gün bahçede kedi fare kovaladı.*
 Yesterday all day garden.LOC cat mouse chase.PST
 Unavailable intended reading: 'In the garden, cats chased mice all day yesterday.'
 Available reading: 'In the garden, the cat chased mice all day yesterday.'

The second issue concerns the position of the event modifiers. In regular transitive clauses, we had assumed that event modifiers are adjoined to the maximal projection of the lowest v head, which is the verbalizer itself. However, as shown in **Error! Reference source not found.**, in agent pseudo-incorporation structures, there is no distinct verbalizer other than the v_{inc} head. Therefore, event modifiers are adjoined to the

maximal projection of the v_{inc} head. Since this is the only verbalizer in the structure, if there is a requirement to adjoin event modifiers to the lowest vP, this requirement is vacuously satisfied under the bundling approach. This correctly predicts that a pseudo-incorporated agent will be able to and in fact has to occur below event modifiers.

5. Integrating the Dependent Dative Rule

We have focused on the dependent accusative case assignment thus far. However, it is also important to show how the proposed mechanism explains the distribution of the dependent dative case. Note that in Baker & Vinokurova (2010)'s formulation of the dependent case assignment rules, phases are crucial both for specifying which rule is applicable in a given syntactic domain (i.e., whether the dependent accusative case rule or the dependent dative case rule is applicable) and for whether the case competition is triggered or not. For example, if there are two distinct argumental nominals in the VP phase, the dependent dative case assignment rule is triggered, and the c-commanding nominal is valued with the dependent dative case. Similarly, if there are two nominals in the CP phase, the dependent accusative case assignment rule is triggered, and the c-commanded nominal is valued with the dependent accusative case. Crucially, if the two nominals occupy distinct phases, the case competition is not triggered even when the c-command relation is established. Differently from Baker & Vinokurova (2010), we argued that the accusative case assignment rule is triggered whenever two caseless nominals are in a CP. However, we have not yet shown how the dependent dative case is assigned. Although the focus of this paper is not to explain the mechanism responsible for the assignment of the dependent dative case, in the following, we will sketch an analysis of the dependent dative case assignment compatible with the assumptions presented for the assignment of the dependent accusative case.

Recall that we have argued that the dependent accusative case is triggered whenever the relevant syntactic configuration is created. Hence, the dependent accusative case rule is an *elsewhere* rule in that it is applied whenever the syntactic conditions for its application is met as specified in (14). However, as is the case for any elsewhere rule, more specific rules can override its application in certain environments. We propose that the dependent dative assignment rule is the more specific rule that can bleed the application of the dependent accusative assignment rule. In particular, we argue that the rule in (25) is responsible for assigning the dependent dative case.

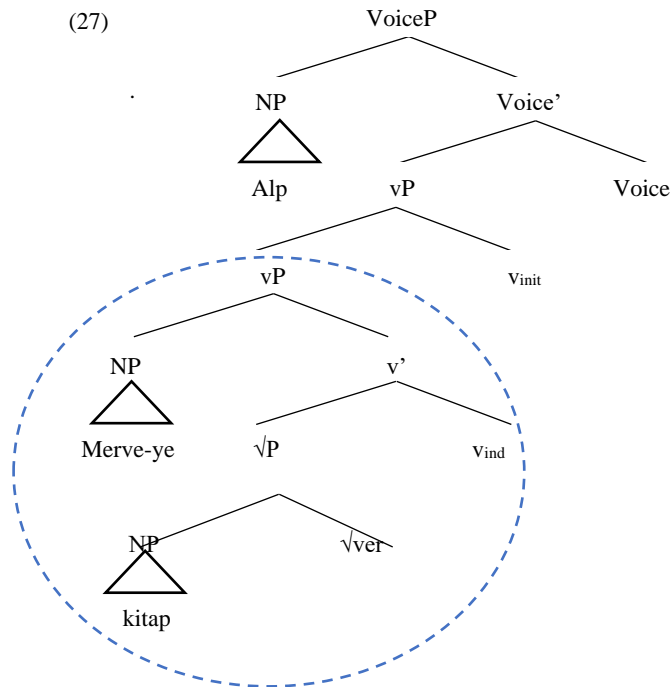
(25) **Dependent dative case assignment rule:**

If there are two distinct argumental NPs in the *root phase* that are both unvalued for case such that NP1 c-commands NP2, then value NP1 with a dependent dative case feature.

Two notes are in order at this point: First of all, the notion of phase is used differently in the rule from the standard understanding of phase (cf. Chomsky 2000; 2001) in that it does not necessarily mark a spell-out domain. It is used to indicate the domain of applying a specific dependent case assignment rule, namely the dependent dative case assignment rule. In this, we follow Fox and Pesetsky (2005) and Baker (2015) who argue that the spell-out domains of phases are not necessarily deleted from the syntax. In addition, the rule in (27) is more specific in that its domain of application is more restricted. Therefore, whenever the conditions for it is satisfied, it will be preferred over the dependent accusative case assignment rule, whose only condition is the presence of two caseless nominals in a c-command relation. Second, we define *the root phase* as the structure including the verbal root up to, but excluding v_{init} . To illustrate, if one assumes that a special v head introduces the indirect object (along the lines of Pylkkänen 2008 among many others), let us call it v_{ind} , it should belong to the root phase. In essence, the dative case rule is only applicable within the complement of the v_{init} . The general idea we entertain here for the dependent dative case assignment rule is that it has priority over the elsewhere accusative rule and it is applied within the root phase whenever the conditions for its application are met.

We illustrate our proposal on the sentence in (26). As shown in the derivation in (27), the root phase contains both the theme and the goal NPs, correctly predicting that the dative assignment rule will be applicable. If the object was specific, the dative assignment rule would still be applicable. The only difference would be that upon merging v_{init} carrying the SPECIFIC feature, the specific theme object would be attracted to the specifier of v_{init} . (Notice that in both cases (movement or no movement), when *Alp* is merged, the dependent accusative assignment rule will be triggered.)

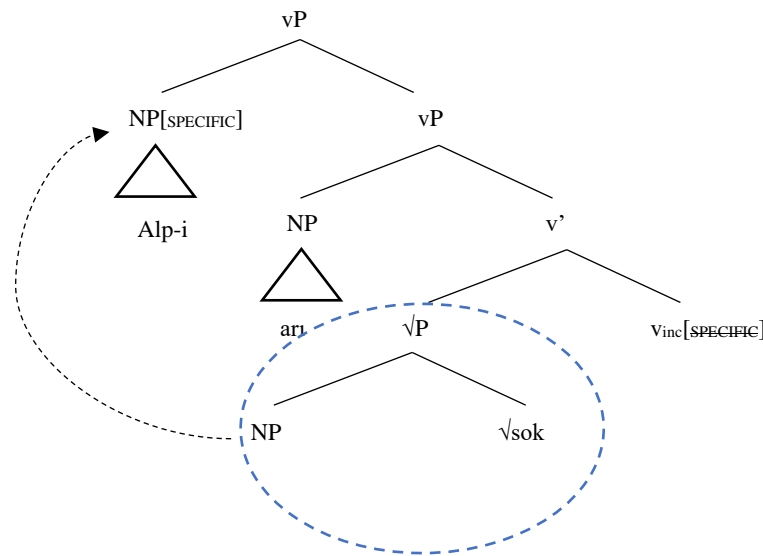
- (26) *Alp Merve-ye kitap verdi.*
 Alp Merve-DAT book give.PST
 ‘Alp gave Merve a book.’



Now the question is whether the dative case rule incorrectly predicts the dative case on pseudo-incorporated agents. This is a possibility that we need to bar. Recall that in constructions involving subject pseudo-incorporation, we argued that the pseudo-incorporated agent is introduced by v_{inc} . Since v_{inc} bundles v_{init} and v , we assume that it necessarily marks the end of the root phase. In other words, just as in ditransitives where it is the complement of the v_{init} that constitutes the root phase, it will also be the complement of v_{inc} that constitutes the root phase. Accordingly, the thematic argument which v_{inc} introduces (the agent that it semantically incorporates to the event) will not belong to the root phase. Hence, in a configuration like (29) for the sentence in (28), the dative case assignment rule is never triggered as the root phase only has one nominal. Crucially, however, once v_{inc} introduces the pseudo-incorporated NP, the conditions for the accusative case assignment rule are satisfied, resulting in the valuation of the theme object with accusative.

- (28) *Alp-i arı soku.*
 Alp-ACC bee sting:PST
 ‘Alp got bee-stung.’

(29)



6. Concluding Remarks

In this paper, we showed that the well-established DCT rules do not explain the presence of the dependent accusative case on the objects of transitive clauses involving agent pseudo-incorporation in Turkish. If one assumes that the pseudo-incorporated agent initially *c*-commands the object, these rules predict that the *c*-commanding NP receives the accusative case, an outcome not present in Turkish. If one assumes that the surface order represents the base order, the standard rules predict that the object will receive the dative case. If the pseudo-incorporated subject and the non-incorporated object occupy distinct phases, they predict no case marking on either one of them. In order to solve this puzzle, we argued that the pseudo-incorporated NP is introduced by a bundling verbalizer v_{inc} , and that it *c*-commands the theme in its base position. We further argued that the accusative case assignment rule is an elsewhere rule which is triggered whenever the conditions for its application are met unless its application is blocked by a more specific rule, which we argued to be the dative case assignment rule. We argued that the dative case assignment rule is specific to the root phase and will be triggered whenever the root phase hosts two caseless nominals. Since the structure that we proposed for agent pseudo-incorporation does not have two nominals in the root phase, the dative case assignment rule is not triggered. On the other hand, since the pseudo-incorporated NP *c*-commands the non-incorporated theme, the accusative case assignment rule *is* triggered, resulting in the valuation of the non-incorporated theme with the accusative case. Assuming that v_{inc} comes with the SPECIFIC feature, the theme always moves to its specifier position, creating the correct surface order as well as explains the overt case realization.

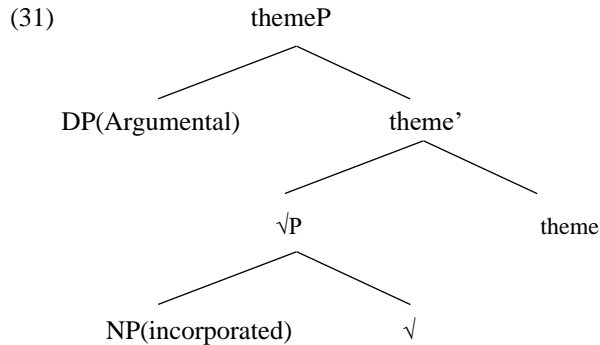
Appendix

An anonymous reviewer rightly points out that bare adverbs are incompatible with non-specific indefinites as shown in (30a) while specific indefinites as well as bare NPs are compatible with them as shown in (30b) and (30c), respectively. Given that bare adverbs have been used to diagnose object pseudo-incorporation, in particular to show that pseudo-incorporation is a VP-level process, the idea that non-specific indefinites remain within the VP is challenged by their incompatibility with bare adverbs.

- (30) a. *Ali yavaş bir kitap oku-du.
 Ali slow one book read-PST
 Intended: ‘Ali read a book slowly.’

- b. Ali bir kitab-ı yavaş oku-du.
 Ali one book-ACC slow read-PST
 ‘Ali read a particular book slowly.’
- c. Ali yavaş kitap oku-du.
 Ali slow book read-PST
 ‘Ali read books slowly.’

To declutter the syntactic representations in the main text, we did not fully articulate our assumptions about where objects/themes enter the derivation. Although the issue of where they are merged in syntax is somewhat orthogonal to the case theoretic puzzle concerning subject pseudo incorporation in Turkish, we will sketch an analysis here that readily accommodates the contrast in (30). An analysis of this type calls for a distinction between the merge position of pseudo-incorporated NPs and argumental DPs, reflecting the original insight in Öztürk (2005a,b, 2009), where she argues that while pseudo-incorporated objects are introduced under VP, DP arguments are introduced via separate functional heads on top of the VP. Translating this proposal to our representations where we maintain a fully decompositional approach in the verbal domain, we propose that a theme head is responsible for introducing argumental DPs which are themes. Notably, occurring immediately below the verbalizer, the theme head is not a verbalizer, and directly combines with the root phrase in syntax as shown in (31).



As we shall see, this addresses one half of the puzzle concerning the contrast in (30). The other half concerns the attachment site of bare adverbs. We argue for a lower attachment site for bare adverbs than regular VP modifiers. In particular, we propose that bare adverbs attach at the root level, i.e., before any verbalization applies. Our evidence comes from the so-called deverbal nouns that are able to license theme NPs as their complements. Arguably, these deverbal nouns are not verbal at any point in the derivation as shown by

their incompatibility with manner adverbials in (32a). Crucially, however, they, along with their incorporated theme complements, are able to co-occur with bare adverbs as shown in (32b).

- (32) a. (*hızlıca) kek yap-ım-1
 fast cake do-NMZ-CM
 ‘(*fast) cake-baking’
- b. hızlı kek yap-ım-1
 fast cake do-NMZ-CM
 ‘fast cake-baking’

The contrast between (32a) and (32b) supports the idea that bare adverbs attach to a position before verbalization, which we hypothesize to be the root phrase. Combining the two proposals, namely that argumental DPs are introduced in [spec, th], and that bare adverbs attach to the root phrase, we account for the inability of non-specific indefinites to occur under bare adverbs. As shown in (33), the string where the bare adverb precedes the argumental non-specific indefinite is ruled out on the grounds that there is simply no position for non-specific indefinites to occur under the root phrase.

- (33) *Ali yavaş bir kitap oku-du.
 Ali slow one book read-PST
 Intended: ‘Ali read a book slowly.’

Under this analysis, there is still a pattern that is expected to be ruled in, but is nevertheless unacceptable. As shown in (34), the non-specific indefinite DP *bir kitap*, preceding the bare adverb, should be able to remain without an overt accusative case given that it is still within the first phase. We argue that what rules out (34) is not a syntactic, but a prosodic restriction that disallows any material between the verb and non-specific indefinites.

- (34) *Ali bir kitap yavaş oku-du.
 Ali one book slow read-PST
 Intended: ‘Ali read books slowly.’

While we do not know why non-specific indefinites, albeit being argumental DPs, exhibit this behavior, unlike other argumental DPs, there is evidence that the nature of the restriction is prosodic. Turkish allows right adjunction of bare adverbs as well as left adjunction as shown in (35). We hypothesize that the left vs. right adjunction of bare adverbs uniformly targets the same level in the structure, i.e., the root phrase.

- (35) Ali koş-tu yavaş.
 Ali run-PST slow
 ‘It was Ali whose running was slow.’

When we also employ right adjunction in (34), the sting becomes acceptable.

- (36) Ali bir kitap oku-du yavaş.
 Ali one book read-PST slow
 ‘It was Ali who read books slowly.’

To be able to accommodate non-specific indefinites into the picture, we had to make two assumptions, namely that bare adverbs modify root phrases, and that there is a prosodic constraint active in the grammar of Turkish which can be obviated by the right adjunction of the bare adverb. Although it may seem that these are *ad hoc* assumptions, they are in fact independently supported. In what follows, we discuss the interaction of bare adverbs with agent pseudo-incorporation, and argue that the two assumptions needed for non-specific indefinites are independently justified. The relevant piece of data is the inability of bare adverbs to occur in agent incorporation structures. For example, although the semantic content of the adverbial is compatible with the event described by the verb as illustrated in (37b), the bare adverb with the same semantic contribution cannot occur when the agent is pseudo-incorporated (37c).

- (37) a. Arı Ali-yi yavaş/yavaşça sok-tu.
 bee Ali-ACC slow/slowly sting-PST
 ‘The bee stung Ali slowly.’
- b. Ali-yi yavaşça arı sok-tu.
 Ali-ACC slowly bee sting-PST
 ‘Ali got bee-stung slowly.’
- c. *Ali-yi yavaş arı sok-tu.
 Ali-ACC slow bee sting-PST
 Intended: ‘Ali got bee-stung slowly.’

The contrast between subject and object pseudo-incorporation with respect to the compatibility with bare adverbs is a welcome result in our analysis where agent pseudo-incorporation is made possible by v_{inc} which semantically combines with its complement and then the agent NP in its specifier. The string in (37c) cannot be generated given that

there is no position for the bare adverb above the pseudo-incorporated agent considering that v_{inc} is introduced above the root phrase.

That said, if bare adverbs attach to the root phrase before the verbalization applies, that raises the question why the bare adverb prevents agent pseudo-incorporation construal in the sentence in (38). Given that the agent NP is a specifier to the verbalizer v_{inc} , the low attachment of the bare adverb within the root phrase would rule in (38) for the pseudo-incorporation construal, all things being equal.

- (38) Ali-yi arı yavaş sok-tu.
 Ali-ACC bee slow sting-PST'
 Available: The bee stung Ali, and it was slow. (Definite reading)
 Intended but unavailable: Ali got bee-stung, and it was slow.
 (Pseudo-incorporation reading)

We already have an account of why this reading is not ruled in. Recall that in explaining the inability of non-specific indefinites to precede bare adverbs, we invoked a prosodic constraint that could be obviated by right adjunction of the bare adverb. We argue that the same constraint is also active in case of agent pseudo-incorporation. The evidence that the prosodic constraint rules out the pseudo-incorporation reading in (38) is shown in (39) where the right adjunction of the bare adverb saves the pseudo-incorporation reading, allowing the adjacency between the incorporated agent and the verb, as opposed to (38) where pseudo-incorporation reading is unavailable.

- (39) Ali-yi arı sok-tu yavaş.
 Ali-ACC bee sting-PST slow
 'Ali got bee-stung slowly.'

References

- Alexiadou, Artemis & Anagnostopoulou, Elena. 2001. The subject-in-situ generalization and the role of case in driving computations. *Linguistic inquiry* 32(2). 193–231.
- Baker, Mark. 2015. *Case: Its principles and its parameters*. Cambridge University Press.
- Baker, Mark C. & Vinokurova, Nadya. 2010. Two modalities of case assignment: case in Sakha. *Natural Language & Linguistic Theory* 28(3). 593–642.

- Bárány, András & Sheehan, Michelle. 2019. When dependent case is not enough. In GLOW 42, Oslo.
- Beavers, John & Koontz-Garboden, Andrew. 2020. The roots of verbal meaning. Oxford University Press.
- Chomsky, Noam. 2000. Minimalist inquiries: The framework. *Step by step: Essays on minimalist syntax in honor of Howard Lasnik* 89–155.
- Chomsky, Noam. 2001. Derivation by phase. In Kenstowicz, Michael (ed.), *Ken Hale: A life in language*, 1–52. MIT Press, Cambridge: MA.
- Dede, Müşerref. 1986. Definiteness and referentiality in Turkish verbal sentences. *Studies in Turkish Linguistics*. Amsterdam: Benjamins 147–164.
- Diesing, Molly. 1992. *Indefinites: Linguistic inquiry monographs*. Cambridge, Massachusetts: MIT Press.
- Embick, David & Noyer, Rolf. 2007. Distributed morphology and the syntax/morphology interface. *The Oxford handbook of linguistic interfaces* 289–324.
- Enç, Mürvet. 1991. The Semantics of Specificity. *Linguistic Inquiry* 22(1). 1–25.
- Fox, Danny and Pesetsky, David. 2005. Cyclic Linearization of Syntactic Structure. *Theoretical Linguistics*, vol. 31, no. 1-2, pp. 1-45. De Gruyter Mouton.
- Harley, Heidi. 2017. The “bundling” hypothesis and the disparate functions of little v. *The verbal domain* 3. 28.
- Harley, Heidi & Noyer, Rolf. 2000. Formal versus encyclopedic properties of vocabulary: Evidence from nominalizations. In Peeters, B. (ed.), *The Lexicon-Encyclopedia Interface*, 349–374. Oxford: Elsevier.
- Kechriotis, Zeynep Arslan. 2009. Referentiality in Turkish: Np/dp. In *Essays on Turkish linguistics: Proceedings of the 14th international conference on Turkish linguistics, August 6-8, 2008*, vol. 79. 83. Otto Harrassowitz Verlag.
- Keleş, Meltem. 2001. *Topics in Turkish Syntax: Clausal Structure and Scope*. Massachusetts Institute of Technology dissertation.
- Kennelly, Sarah D. 1994. Caseless existential DPs in Turkish. *Paris-8 Working Papers in Linguistics* 158.

- Kornfilt, Jaklin & Preminger, Omer. 2015. Nominative as no case at all: an argument from raising-to-accusative in Sakha. In *Proceedings of the 9th workshop on Altaic formal linguistics*, vol. 76. 109. Cambridge, MA: MITWPL.
- Kratzer, Angelika. 1996. Severing the external argument from its verb. In *Phrase structure and the lexicon*, 109–137. Springer.
- Levin, Theodore & Preminger, Omer. 2015. Case in Sakha: Are two modalities really necessary? *Natural Language & Linguistic Theory* 33(1). 231-250. <http://www.jstor.org/stable/43697767>.
- Marantz, Alec. 1991. Case and Licensing. In Westphal, German & Ao, Benjamin & Chae, Hee-Rahk (eds.), *Proceedings of ESCOL '91*, Cornell Linguistics Club. 234-253.
- Marantz, Alec. 1997. No escape from syntax: Don't try morphological analysis in the privacy of your own lexicon. *University of Pennsylvania working papers in linguistics* 4(2). 14.
- Nakipoğlu, Mine. 2009. The semantics of the Turkish accusative marked definites and the relation between prosodic structure and information structure. *Lingua* 119(9). 1253-1280.
- Nakipoğlu, Mine. 2019. Towards a model of the relation between prosodic structure and object displacement in Turkish. In *Word order in Turkish*, 261–284. Springer.
- Öztürk, Balkız. 2005a. *Case, referentiality, and phrase structure*. John Benjamins.
- Öztürk, Balkız. 2005b. Pseudo-incorporation of agents. In *University of Pennsylvania working papers in linguistics* 213–226.
- Öztürk, Balkız. 2009. Incorporating agents. *Lingua* 119(2). 334–358.
- Perlmutter, David M. 1978. Impersonal passives and the unaccusative hypothesis. In *annual meeting of the Berkeley linguistics society*, vol. 4. 157–190.
- Pylkkänen, Liina. 2008). *Introducing arguments*. Linguistic Inquiry Monographs vol. 49. MIT press.
- Sağ, Yagmur. 2019. The semantics of number marking: Reference to kinds, counting, and optional classifiers: Ph. D. thesis, Rutgers University, New Brunswick, NJ dissertation.
- Siddiqi, Daniel. 2019. On morpho-syntax. *Catalan journal of linguistics* 153–163.
- Türk, Utku & Caha, Pavel. 2022. Nanosyntactic analysis of Turkish case system. In *Proceedings of the workshop on Turkic and languages in contact with Turkic*, vol. 6. 5051.