Incorporating agents

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Abstract

This study examines agent incorporation, which is a highly productive phenomenon observed in transitive and unergative constructions in Turkish. We account for this piece of data through a pseudo-incorporation analysis which unifies both theme and agent incorporation under the same structure unlike the previous head-incorporation analyses. We suggest that as pseudo-incorporation does not involve head nouns but NPs, it is exempt from the constraints that govern head-movement and the choice of theta-roles for incorporated heads under head-incorporation, and thus it is technically compatible with the incorporation of any argument, including agents.

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1. Introduction

It is generally accepted that both head-incorporation and pseudo-incorporation are reserved for internal arguments (Mithun, 1984; Baker, 1988, 1996; Massam, 2001 among others). While internal arguments in transitive and unaccusative constructions are allowed to incorporate, agents are specifically excluded as they are introduced higher in the structure (Kratzer, 1996).

Turkish has been frequently cited in the literature as a language that exhibits head-incorporation (Mithun, 1984; Knecht, 1986; Nilsson, 1986; Kornfilt, 2003). Theme incorporation is illustrated in (1a) with a transitive predicate and in (2a) with an unaccusative. The examples in (1b) and (2b) illustrate the non-incorporated counterparts of (1a) and (2a), respectively:

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Unlike other head-incorporation languages, however, Turkish exhibits agent incorporation as a very productive phenomenon. Agents both in transitive and unergative constructions can freely undergo incorporation on a par with themes in transitives and unaccusatives:\footnote{Note that agent incorporation is also observed in languages like Hungarian (e.g. (ia)) and Hindi (e.g. (ib)):}

(3) a. Ali-yi arı sokuṭu.\footnote{2}  
Ali-acc bee stung  
‘Ali got bee stung.’

bee Ali-acc stung  
‘The bee stung Ali.’

(4) a. Ağac-ṭa kuṣ ọtuyor.  
Tree-loc bird singing  
‘There is bird singing in the tree.’

b. Kuṣ ağac-ṭa ọtuyor.  
bird tree-loc singing  
‘The bird is singing in the tree.’

In (3a) the agent of a transitive verb gets incorporated, whereas in (4a) the incorporated NP is the agent of an unergative. Examples (3b) and (4b) illustrate the non-incorporated counterparts.

The data above shows that Turkish does not comply with the cross-linguistic generalization that only internal arguments can incorporate. This paper aims to account for this exceptional case of Turkish and fit it into the general picture of incorporation. We will first introduce the general properties of Turkish incorporation then specifically address under which circumstances agent incorporation is possible and what implications it has for the cross-linguistic understanding of incorporation.

\footnote{1 Note that agent incorporation is also observed in languages like Hungarian (e.g. (ia)) and Hindi (e.g. (ib)):  
(i) a. János-t kutya harapdálja  
J-acc dog bite-frequentative-3sg  
‘Janos is being bitten by a dog.’ (Aniko Csirmaz, personal communication)  
b. Puure raat mujhe machchaR kaaTtaa raha  
Whole night I-dat mosquito kept-biting  
‘Mosquitoes kept biting me all night.’ (Dayal, 2003:8)  
\footnote{2 Note that since Turkish is a scrambling language, it is possible to interpret (3a) as a scrambled version of (3b), where arı ‘bee’ can be interpreted as definite. However, this requires a phonological pause between the noun arı and the verb sokuṭ ‘sting’. Such a pause does not exist under the pseudo-incorporated reading, as the incorporated noun and verb act as a single unit. See Orgun and Inkelas (2004) for phonological properties of immediately preverbal bare nouns in Turkish.}
2. Turkish is not a head-incorporation language

As mentioned above, Turkish has been analyzed as a head-incorporation language, where a noun head incorporates into a verb head forming a new $V^0$. Mithun (1984) considers noun incorporation as "a solidly morphological device that derives lexical items," (p. 847). Incorporated nouns have no syntactic status of their own, so they bear no case markers. They do not refer to specific entities but rather qualify their host V's. They are also unmarked for definiteness or number. Their non-referential character usually results in their use for habitual activities. They do not establish discourse referents, either. Without providing exhaustive data, she also describes noun incorporation in Turkish as the morphological combination of a noun stem and a verb stem to form a derived intransitive predicate.

Knecht (1986), on the other hand, argues that examples given in (1) and (2) in Turkish are similar to compound formation, where a noun head and a verb head form a compound in the case of incorporation. Similar to the cases of regular compounds immediately preverbal bare nouns always bear stress as the first constituent of the compound as in (5b). However, as convincingly illustrated by Ketrez (2005), unlike compounds in incorporation the stress can easily shift away from the incorporated noun if focus particles or the negative suffix forcing the stress to fall onto preceding words/syllables are introduced:

(5)  
   a. KALEM kutu-su  
      pencil box-3ps  
      ‘pencil box’  
   b. KİTAP oku-mak  
      book read-INF  
      ‘to do book-reading’

(6)  
   a. Ayşe kitap oku-MUŞ bile.  
      Ayşe book read-perf even  
      ‘Ayşe even book-read.’  
   b. Ayşe kitap okU-ma-muş.  
      Ayşe book read-neg-perf  
      ‘Ayşe did not book-read.’  

Nilsson (1986) assumes a head-incorporation analysis of Turkish along the lines of Baker (1988), however, she simply states that incorporation happens in the lexicon without providing supporting evidence for her account.

Kornfilt (1995, 2003), on the other hand, proposes a head-incorporation analysis, which takes place in syntax. She embeds bare nouns under DPs with empty heads, which are in return embedded under empty KP projections as illustrated in (7). However, she does not explain why there is such a need to project DPs and KPs given that bare nouns are clearly non-referential and lack case morphology, as well as any number interpretation. The fact that they fail to establish discourse references for pronouns are illustrated in (8). Given that in the literature referentiality is associated with DP projections within nominal structures (Longobardi, 1994) it is not obvious why Kornfilt (1995, 2003) opts to project DPs for strictly non-referential bare nouns. Also given the fact that bare nouns are exempt from case morphology, it is also unclear why bare nouns should appear with KPs. What is even more problematic theoretically is to let lexical N heads incorporate

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3 See Öztürk (2004a, 2005a) for an analysis of Turkish as a language lacking the DP projection.
into lexical V heads after passing through functional D and K heads. Allowing head-incorporation of bare nouns embedded under KPs and DPs into a lexical verb head is in strict violation of Li’s Generalization (Li, 1990), i.e. lexical heads cannot move to another lexical head after passing through a functional head. This poses a serious challenge to her account, as well.

(7) a. Before incorporation b. After incorporation

\[
\begin{array}{c}
\text{VP} \\
\text{V'} \\
\text{KP} \\
\text{V} \\
\text{K'} \\
\text{DP} \\
\text{K} \\
\text{D'} \\
\text{e} \\
\text{NP} \\
\text{N'} \\
\text{e} \\
\text{N} \\
\end{array}
\begin{array}{c}
\text{VP} \\
\text{V'} \\
\text{KP} \\
\text{V} \\
\text{K'} \\
\text{DP} \\
\text{K} \\
\text{D'} \\
\text{e} \\
\text{NP} \\
\text{N'} \\
\text{e} \\
\text{N} \\
\end{array}
\]

   Ali book read color-3ps red-past
   ‘Ali did book reading. It was red.’

   b. Ali kitab-ı okudu. Reng-i kırmızı-ydı (referential)
   Ali book-acc read. color-3ps red-past
   ‘Ali read the book. It was red.’

Taylan (1984) presents one piece of evidence challenging the head status of immediately preverbal bare nouns. She shows that focus particles like dA ‘too’ and the question particle mI can intervene between the verb and the bare noun in incorporation constructions. This implies that the verb and the noun do not form a single morphological unit V0. Note that such particles can target both phrasal and head categories:

(9) a. Ali kitap mı oku-du?
   Ali book Q read-past
   ‘Did Ali BOOK-read?’

   Ali book too read-past
   ‘Ali did BOOK-reading, too.’

Kornfilt (2003) argues that the evidence provided by Taylan (1984) is not enough to argue against head-incorporation, as such particles can also appear in between verbal suffixes which are typically taken to be morphological realizations of functional heads as seen in (10). She suggests that morphology of agglutinative languages like Turkish is ‘looser’ in nature than other types of morphological systems, thus, it is not surprising to find such particle insertion in between agglutinated suffixes denoting syntactic heads. However, she fails to develop an independent
theory of Turkish morphology, which would explain what is intended by ‘the looser nature of morphology.’ Furthermore, there are focus particles like bile ‘even’ in Turkish, which can only target phrasal categories but never head categories. Bare nouns in incorporation structures are compatible with this particle as shown in (11). The fact that bile can come after bare nouns in incorporation structures clearly challenges the head-incorporation account by Kornfilt (2003), as it indicates that bare nouns in incorporation are not head categories but are phrasal in nature:

   Ali read-Neg-DM too EM-aorist
   ‘He may not be able to read it, too.’

   b. Sen oku-yor mu-sun?
   you read-prog Q-2ps
   ‘Are you reading?’

   Ali book even read
   ‘Ali did even book reading.’

   b. *Ali oku-ma-ya bile bil-ir.
     Ali read-Neg-DM even EM-aorist

     you read-prog even-2ps

The presence of productive agent incorporation, furthermore, challenges the head-incorporation proposals for Turkish, as this will require lowering of the agent noun into the verb head. This is clearly a violation of head-movement and is strictly disallowed under Baker’s (1988) approach. Furthermore, Baker (1996) introduces a new model of incorporation based on m-command rather than c-command in order to accommodate head-incorporation of internal arguments merged at Spec positions rather than complement positions. Although agents are also introduced at Spec positions (whether at [Spec, VP] or [Spec, vP]), Baker strictly rules out the possibility of head-incorporating agents due to economy considerations as presented in Chomsky (1993). See Baker (1996) for the full argumentation.4

There is further evidence against the head status of incorporated nouns in Turkish. First, it is possible to delete the verb under identity in incorporation, as in (12). Second, conjunction of either the verb with another verb (13a) or that of the bare noun with another bare noun (13b) is

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4 One of the reviewers suggested that agent incorporation in Turkish can be handled under head-incorporation if it is assumed that the agent incorporates into the verb after the verb head raises to a position where it can c-command the agent, e.g. the T head. However, as discussed in full detail in Baker (1996) such a derivation will be ruled out as it will not be economical in the sense of Chomsky (1993). Furthermore, Baker (personal communication) states that V-to-T is irrelevant for head-incorporation. Languages like Mohawk exhibit such movement, whereas Mapudungun does not have V-to-T. However, both languages allow for head-incorporation of internal arguments but never agents. Therefore, arguing that agents can head-incorporate in Turkish given that there is V-to-T does not comply with cross-linguistic facts of head-incorporation. Furthermore, if we assume that V-to-T gives way to agent incorporation, then we incorrectly predict that both a theme and an agent argument can incorporate together in Turkish. (I thank Meltem Kelepir for bringing this possibility to my attention.) First, the internal argument incorporates and then the agent does once the verb reaches the level of T. However, incorporation of two arguments is not possible in Turkish. Therefore, the proposal of the reviewer that agent incorporation can be handled under head-incorporation does not seem to be feasible for Turkish, in compliance with the cross-linguistic observations made by Baker.
possible. Third, it is possible to modify the incorporated noun by adjectives (14a) or by participals (14b). Finally, under specific discourse conditions, it is possible to scramble the incorporated bare nouns as in (15)³:

(12) Ali kitap okudu, dergi değil.
Ali book read, magazine not
‘Ali did book reading, not magazine (reading).’

Ali book bought and sold
‘Ali did book buying and selling.’
b. Ali kitap ve dergi okudu.
Ali book and magazine read
‘Ali did book reading and magazine reading.’

(14) a. Ali eksi elma yedi.
Ali sour apple ate
‘Ali did sour apple eating.’
Ali read-participle book bought
‘Ali bought books to read.’

(15) a. Çayi, ben ti iç-me-di-m.
tea I drink-neg-past-2ps
‘I did not do tea-drinking.’
b. Ben ti ye-me-di-m pastaı.
eat-neg-past-1ps cake
‘I did not do cake-eating.’

The evidence given in (11)–(15) strongly challenges the head-incorporation analyses provided for Turkish in the literature and clearly suggests that immediately preverbal bare nouns are not head categories, but that they are phrasal in nature. This in turn implies that what has so far been analyzed as a case of head-incorporation in Turkish in fact must have a different structure.

3. Bare nouns are pseudo-incorporated NPs

Massam (2001) proposes a new account of the Niuean data given in (16b) below, which had previously been analyzed as a case of head-incorporation (Seiter, 1980). She calls these structures *Pseudo-incorporation* and argues that bare nouns in these constructions are NPs, rather than DPs, which are base-generated as the complement of the lexical verb. Failing to check objective case, these NPs cannot move out of VP, thus undergoing predicate fronting along with the verb head, yielding the (pseudo-)incorporated word order VOS, rather than the canonical VSO word order in Niuean:

(16) Takafaga ika tumau ni a ia.
hunt fish always Emph erg he Abs
‘He is always fishing.’

³ See Orgun and Inkelas (2004) for a discussion of the phrasal nature of incorporated bare nouns in Turkish from a phonological point of view.
Massam (2001) also addresses the (non-)referentiality of pseudo-incorporated nominals. Pseudo-incorporated nouns in Niuean are of modifying type and fail to establish external discourse referentiality. She concludes that pseudo-incorporated nouns are non-referential and ensure an unbounded or non-delimited reading of the event (Tenny, 1994), providing a habitual or frequentative interpretation.

As discussed above incorporated nouns in Turkish are also phrasal in nature. They also do not set discourse referents, thus, are clearly non-referential. Furthermore, they lack number interpretation failing to denote singularity or plurality and provide habitual activity. In the literature, referentiality is associated with DP projections within nominal structures (Longobardi, 1994) and number with Number Phrases (NumP) (Ritter, 1991; Borer, 2005). Therefore, we propose that lacking number and referentiality, as well as case, incorporated nouns are bare NPs without any functional projections. They are merged as immediate sisters of the lexical verb in parallel to Massam (2001) as in (17). Thus, what Turkish illustrates is a case of pseudo-incorporation unlike what is assumed in the previous literature:

(17) \[ VP \]
\[ NP \]
\[ V \]

However, there is one immediate problem with considering the Turkish data as a case of pseudo-incorporation. Massam (2001) proposes her account only for internal arguments, whereas the Turkish data involves agents as well. The structure in (11) implies that both external and internal arguments are merged as complements of the verb. We will tackle with this problem in the next section.

3.1. Syntactic status of pseudo-incorporated NPs

The question we will be investigating in this section is whether pseudo-incorporated NPs are syntactic arguments or not. If they are true syntactic arguments, then given that agents introduced higher in the structure (Kratzer, 1996) can incorporate in Turkish is highly problematic theoretically. To shed light onto this problem, we will first discuss the syntactic status of pseudo-incorporated themes, and then focus on pseudo-incorporated agents.

(18a) introduces a typical transitive construction in Turkish where the object is marked accusative. As the object stands as an independent syntactic argument, when (18a) is passivized as in (18b) what we get is a personal passive, where the object is promoted to the subject position.

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6 Massam (2001) follows the definition of referentiality provided by Givon (1978), Rapaport (1987) and Akmajian (1970). Referential nominals have nonempty references, which exist in a particular universe of discourse. Non-referential nominals, on the other hand, do not introduce potential discourse referents, but instead are used as a label, referring to type not token.

7 Massam (2001) provides some instances of pseudo-incorporation with agents. The verb *nonofo* ‘to sit/stay/settle’ typically requires an agent as in (ii). Therefore, Massam mentions the possibility of considering *tagata* ‘people’ in (i) as an agent, yet she opts to call it an instrumental to be consistent with the rest of her data reserved for internal arguments.

(i) \[ ko e liga ne kamata nonofo tagata a Niue. \]
\[ pred Abs likely Nfut begin settle people Abs Niue \]
‘the likelihood that people begin to settle in Niue [fifteen hundred years ago]…’

Massam (2001) states that the verb *no nofo* ‘settle’ usually takes an agent as its single argument:

(ii) \[ Kua nonofo a lautolu ki lalo. \]
\[ perf sit/stay/dwell Abs they to down \]
‘They sat down.’ (Massam, 2001:172)
However, passivization of incorporated themes given in (19a) yields an impersonal passive construction, which is typically associated with unergatives (Knecht, 1986). Consider (20):

   Ali book-acc room-loc read-past
   ‘Ali read the book in the room.’

      book room-loc read-pass-past
      ‘The book was read in the room.’

   Ali room-loc book read
   ‘Ali did book reading in the room.’

      room-loc book read-pass-past
      ‘Book-reading was done in the room.’

   *‘The book was read in the room.’

(20) a. İnsanlar koştu.
   people ran
   ‘People ran.’

      run-pass-past
      ‘Running happened.’

This suggests that under passivization the sentence in (19a) is not treated as transitive but as an unergative construction. Therefore we conclude that incorporated themes are not visible as syntactic objects, but are part of predicates, which are on a par with unergatives.

Now let us consider agent incorporation (21):

   Ali-acc bee stung
   ‘Ali got bee stung.’

In (21), where agent is incorporated, the object is clearly marked for accusative, which seems to imply a truly transitive construction. However, if this were a true transitive construction, the structure should be able to passivize, which is clearly not the case (22). Yet, the referential counterpart of (21), which is a real transitive construction (23a), on the other hand, allows passivization (23b).

(22) *Ali sok-ul-du.
   Ali sting-pass-past
   ‘Ali was bee stung.’

    bee Ali-acc stung
    ‘The bee stung Ali.’

      Ali (this) bee by sting-pass-past
      ‘Ali was stung by (this) the bee.’
This implies that pseudo-incorporated agents cannot be considered as syntactic subjects and that these structures are not transitive in nature. In fact, they pattern with unaccusatives which also lack external arguments, as unaccusatives also fail to passivize:

8 Note that (22) is ungrammatical if it is read as a passive counterpart of an active sentence with agent incorporation, otherwise if it is interpreted as an equivalent of (23b) with the optional by-phrase dropped, then it is fully grammatical consider:

(i) a. Ali bu arı tarafından sok-ul-du mu?
   ‘Was Ali stung by this bee?’
   ‘Yes sting-pass-past / no sting-pass-neg-past’

Note that one of the reviewers suggested that the following passive sentences can be considered as passivized counterparts of sentences with agent incorporation. However, it is not possible to consider that these sentences are derived from an active sentence with agent incorporation, since they very easily allow insertion of a *taraftan* ‘by’ phrase which immediately forces a specific reading for the agent unlike for the case with incorporated agents as seen in (iv) and (v):

(ii) Üniversite kusat-il-di.
    ‘The university got surrounded.’

(iii) Köy bas-il-di.
    ‘The village got raided.’

(iv) Üniversite polis tarafindan kusat-il-di.
    ‘The university got surrounded by the police’

(v) Köy eskiye tarafindan bas-il-di.
    ‘The village got raided by the robbers.’

Another reviewer also provided (vi) and (vii) below and argued that (vii) is derived from (vi), thus, suggesting that sentences with agent incorporation allow for passivization. However, as seen in (viii) the phrases *yüze* ‘hundreds’ and *bir sürü* ‘bunch of’ act as adverbials modifying the whole VP, rather than the NP, thus can occur postverbally just like other frequency denoting adverbs illustrated in (x), which is not possible for the same phrases in (ix), as they act purely as adjectivals within the NP (see Öztürk, 2004a, 2004b for further discussion). Therefore, it is not possible to argue that (vii) is derived from (vi) and hence to say that agent incorporation allows for passivization.

(vi) Ali-yi yüzlerce/ bir sürü arı sok-tu.
    Ali-acc hundreds/whole.bunch bee sting-past
    ‘Ali got hundreds of/a whole bunch of bee-stungs.’

    Ali hundreds/whole.bunch bee by sting-pass-past
    ‘Ali got hundreds of/a whole bunch of bee-stungs.’

(viii) Ali-yi tı arı sok-tu [yüze/ bir sürü].
    Ali-acc bee sting-past hundreds/whole.bunch
    ‘Ali got hundreds of/a whole bunch of bee-stungs.’

    Ali bee by sting-pass-past hundreds/whole.bunch
    ‘Ali got hundreds of/a whole bunch of bee-stungs.’

(x) a. Ali üç kere şarkı söyle-di.
    ‘Ali sang three times.’

In brief, our claim remains the same. Given that incorporated agents are not visible as syntactic arguments, they do not allow for passivization similar to the case of unaccusatives.
(24) a. Çiçek büyü-du.
   "The flower grew up."

b. *Büyün-du. 9
   "The fact that agent incorporation cases pattern with unaccusatives under passivization implies that agents in pseudo-incorporation constructions cannot be in the syntactic subject position. That is, they are not external arguments."

There is further evidence for the non-argument status of bare nouns in Turkish. Both theme and agent incorporation structures are also opaque for binding. Incorporated themes and agents cannot act as syntactic binders as (25c) and (26c) illustrate, respectively. Note that the lack of binding in (25c) and (26c) cannot be reduced to the lack of a c-command relation between the binder and the bindee, because as seen in (25a–b) and (26a–b), in the case of unincorporated arguments changing the word order via scrambling does not effect the binding relations as widely noticed in the literature (Kural, 1991, 1992; Öztürk, 2005a, 2007):

   "Ali put the picture in its/his frame."

   "Ali put the picture in its/his frame."

   "Ali picture-put in his/its frame."

(26) a. Doktor i hasta-sin-i gör-dü.
   "The doctor examined his patient."

b. [Hasta-sin-i doktor i]i gör-dü.
   "The doctor examined his patient."

   "His patient underwent doctori-examination."

9 As indicated by one of the reviewers, unaccusatives in Turkish allow for passivization if presented in the aorist as widely noticed in the literature. However, in the aorist under passivization unaccusatives are always interpreted as having an implied [+human] subject in parallel to impersonal passives derived from unergatives. It clearly blurs the distinction between unergatives and unaccusatives, which is otherwise very distinctively available in the past tense. Aorist as an operator also introduces a modal reading. That is, why the examples in (24) are intentionally presented in the past tense, which provides the right testing ground for differentiating unaccusatives from unergatives. See Nakipoğlu-Demiralp (2002) for the tests to differentiate between unaccusatives and unergatives in Turkish:

(i) Burada büyün-ür.
   "One can grow here." (Not as: ‘Flowers can grow here.’)
The non-argument status of bare agents is further illustrated in control structures. As seen in (27a) the referential subject polis can control PRO, whereas the incorporated agent in (27b) fails to control into the purpose clause. Furthermore, pseudo-incorporated agents are not compatible with adverbs oriented towards agentive external arguments:

(27)  
   police Ali-acc intentionally interrogate-to for arrest-past  
   ‘The police arrested Ali to interrogate him.’

   Ali-acc interrogate-to for intentionally police arrest-past  
   ‘Police-arresting happened to Ali to interrogate him.’

To summarize, pseudo-incorporated bare nouns in Turkish do not function as syntactic arguments, even though they have full NP status. In other words, pseudo-incorporation yields intransitive structures, where theme incorporation patterns with unergatives and agent incorporation with unaccusatives.

3.2. Immediately preverbal bare nouns as complex predicates

In the section above we have shown that bare NPs in pseudo-incorporation do not function as syntactic arguments. If immediately preverbal bare nouns are not syntactic arguments, then what are their syntactic status?

Taylan (1984) discusses the characteristics of non-derived modifiers in Turkish, which are morphologically ambiguous between adjectives and adverbs. In order to act as VP adverbs, these modifiers have to occur immediately preverbally, following objects (28a). If they occur preceding the object as in (28b), they are interpreted as adjectives modifying the object:

(28)  
   Ali book-acc quickly read  
   ‘Ali read a book quickly.’

b. Ali hızlı kitab-ı okudu.  
   Ali quickly book-acc read  
   (i) ‘Ali read the book quickly.’  
   (ii) ‘Ali read the quick book.’

However, unlike the case in (28b) non-derived modifiers are totally acceptable preceding pseudo-incorporated nouns as seen in (29) and can allow for both adjectival and adverbial readings. Crucially in (29) the adjectival interpretation is not preferred due to pragmatic reasons but an adverbial reading is enforced, where the modifier is taken to be modifying the whole VP including the bare NP.10

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10 Note that in addition to the adverbial reading bare modifiers in (29) are also compatible with an adjectival reading in parallel to example (14) above as long as pragmatics allows them. Given that bare nouns are phrasal categories it is possible for them to be modified by adjectives. However, the crucial point here is not the availability of the adjectival reading but that of the adverbial reading in the case of incorporated nouns, which is never possible for specific arguments given in (28).
Ali quickly book read
(i) ‘Ali did book reading quickly.’
(ii) ‘Ali read quick books.’

b. Biz-i bu akşam iyi sivrisinek soktu.
we-acc this evening good mosquito stung
(i) ‘We got mosquito bites well.’
(ii) ‘We got bitten by good mosquitos.’

The data above provides further evidence for the non-argument status of pseudo-incorporated NPs. The fact that non-derived modifiers can precede them retaining their adverbial reading suggests that pseudo-incorporated NPs should be analyzed as part of the verb complex as represented in (17) above. In (17) NP and V, acting as a single constituent, form a complex predicate. Semantically, such a complex predicate formation follows from the predicative nature of the complement NP (Van Geenhoven, 1998; Chung and Ladusaw, 2004; Farkas and de Swart, 2003; Dayal, 2003).\(^{11}\) Syntactically, lacking functional categories, this level is a purely predicative level consisting of solely lexical categories.

Note that pseudo-incorporated bare nouns always take the narrowest scope possible with respect to other scopally relevant elements in the structure (30)–(32). This is expected under the proposal made above. Given that they are not syntactic arguments but are part of a complex predicate, they must be merged as low as the verb and take the narrowest scope possible along with the verb\(^{12}\):

(30) John polis görmek istiyor. [want>policemen]
John policeman see wants ‘John wants to see policemen.’

(31) John tekrar tekrar tavşan öldürdü. [repeatedly>rabbits]
John repeatedly rabbit killed
‘John killed rabbits repeatedly.’

(32) *John polis bulmaya çalışıyor, Mary de (onu) bulmaya çalışıyor.\(^{13}\) [try>policeman]
John policeman find-to try Mary too him find-to try
‘John is trying to find policeman and Mary is trying to find him, too.’

Another construction in Turkish that involves immediately preverbal bare nouns is light verb constructions, which are formed with a non-Turkic noun root and the light verb \textit{et-} “do”. In (33) the light verb \textit{et-} functions as a denominalizer, whereas the noun \textit{redd} is also predicative in nature.\(^{14}\) The fact that the light verb acts as true denominalizer is evidenced by the nominal counterpart of (33), where in the absence of the light verb, the same arguments with the same theta-roles and case markers are available (34):

\(^{11}\) Kornfilt (2003) suggests that incorporated nouns in Turkish are also predicative categories.

\(^{12}\) Note that these examples are adopted from Carlson (1977).

\(^{13}\) Note that the ungrammaticality of (32) cannot simply be due to that the pronoun \textit{onu} ‘him’ fails to refer to non-specific nouns. Even in the absence of such a pronoun as indicated by the parantheses above, the verb still takes wide-scope over the bare noun.

\(^{14}\) Saito (2002) claims that nouns in Japanese light verb constructions are also predicative.
On a closer look it is seen that these constructions also have the [NP+V] structure, where a predicative noun forms a complex predicate with the light verb, parallel to the case of pseudo-incorporation. The full NP status of these nouns is also attested by the focus particle insertion (35) and coordination tests (36).

    assembly law-acc reject even do-neg-past
    ‘The assembly did not even reject the law.’

    assembly law-acc reject not accept do-past
    ‘The assembly did not reject but accept the law.’

As seen above both pseudo-incorporation and light verb constructions share the same [NP+V] structure. Thus, sisterhood to the lexical verb head leads to complex predicate formation in Turkish (see also Öztürk, 2005b, 2006).

The structure given in (37) is proposed as the main phrase structure of Turkish, where any NP merged as the immediate sister of the lexical verb will be interpreted as part of a complex predicate. To be interpreted as syntactic arguments, such as subjects or objects, NPs need to occur in the Spec of higher functional projections (FP). Note that we assume a full-blown Neo-Davidsonian model (Lin, 2001; Borer, 2005), where all arguments of a verb are introduced via separate functional projections and VPs are solely reserved for the predicative domain. For details see Öztürk (2004a, 2005a):

(37)

```
  FP₂
   \   /
  └───┘
       |   
     F₂'  

  FP₁
   \   /
  └───┘
       |   
     F₁'

Complex Predicate ➔ V

NP V
```

3.3. Thematic interpretation in pseudo-incorporation

In the discussion above we have shown that bare NPs both in pseudo-incorporation and light verb constructions are a part of the predicate and do not function as arguments. However, the two
constructions differ from each other. Pseudo-incorporated verbs act as intransitives, whereas light verb constructions do allow presence of a subject and an object in addition to the bare NP, which is already a part of the predicate. We have seen that in pseudo-incorporation immediately preverbal bare NPs are associated with specific theta-roles, even though they do not act as full syntactic arguments. However, in light verb constructions bare NPs are not associated with any theta-roles. Given that pseudo-incorporated NPs are not syntactic arguments, then what enables them to bear theta-roles and why does not such a reading exist for NPs in light verbs?

Furthermore, unlike light verb constructions, pseudo-incorporated bare NPs affect the choice of case morphology in Turkish, which is sensitive to the number of NPs bearing syntactic case in a given clause. Turkish exhibits a double-case constraint, which does not allow for the presence of the same case morphology more than once within a single clause (Aissen, 1974; Zimmer, 1976; Taylan, 1979; Göksel, 1993). When an unergative as in (38a) is causativized, the agent gets accusative morphology at the morphophonological level (38b). However, when a transitive construction with an already accusative marked object as in (39a) is causativized, the agent has to get dative but not accusative (39b):

(38) a. Ali koş-tu.
   Ali run-past
   ‘Ali ran.’

   Ayşe Ali-acc run-cause-past
   ‘Ayşe made Ali ran.’

   Ali fish-acc catch-past
   ‘Ali caught the fish.’

   Ayşe Ali-dat/acc fish-acc catch-cause-past
   ‘Ayşe made Ali caught the fish.’

Now let us consider how pseudo-incorporated themes (40a) behave under causativization. Given that under passivization they pattern similar to unergatives, the expectation is that they should also behave as if they are unergatives under causativization, requiring accusative on the agent. However, on the contrary, they pattern with transitives. Causativized theme incorporation cases require the agent to be marked with dative but not with accusative, as in (40b), which has been widely observed in the literature (Aissen, 1974; Zimmer, 1976; Taylan, 1984; Kornfilt, 1984; Ketrez, 2005). This implies that the pseudo-incorporated theme is still associated with a syntactic case.

(40) a. Ali balık tut-tu. (pseudo-incorporation)
   Ali fish catch-past
   ‘Ali went fishing.’

15 As widely noticed in the literature (Kuroda, 1988; Miyagawa, 1991; Marantz, 1991; Harley, 1995) syntactic case licensing is not equal to morphological case realization. Note that we also assume that morphological case realization is done linearly following syntactic case-checking at the level of morphophonology, that is, it is post syntactic. See Öztürk (2004a, 2005a) for details.
   Ayşe Ali-dat/acc fish catch-cause-past
   ‘Ayşe made Ali go fishing.’

The association of pseudo-incorporated themes with case indicates that these constructions cannot totally be on a par with unergatives. This is further supported by the impossibility of introducing an accusative marked object doubling the theme under pseudo-incorporation (41). Unergatives, however, can be transitivized by the introduction of an accusative marked object (42).

(41) *Ali Romeo ve Juliet-i kitap okudu. (theme-doubling in pseudo-incorporation)
    Ali Romeo and Juliet-acc book read
    ‘Ali book-read Romeo and Juliet.’
(42) Ali pist-i üç saat-te koş-tu.
    Ali track-acc three hour-loc run-past
    ‘Ali ran the track in three hours.’

Note that the same holds for agent incorporation. The fact that accusative morphology is available on the referential objects in these constructions implies that there must be another NP associated with syntactic case in the structure, as accusative case is a dependent case (Yip et al., 1987; Harley, 1995; Woolford, 2003). Thus, although agent incorporation patterns with unaccusatives under passivization, case morphology-wise it patterns with transitives. This is further supported by the lack of agent doubling in these constructions (43):

(43) *Fido Ayşe-yi köpek ısır-dı.
    Fido Ayşe-acc dog bite-past
    ‘Fido dog-bit Ayşe.’

Note that bare NPs in light verb constructions are never associated with syntactic case. Accusative is always available for true syntactic objects (44a). The ungrammaticality of (44a) does not follow from the double accusative restriction in Turkish. The same ungrammaticality arises even in the presence of an inherently dative-marked object, where accusative morphology is still not allowed (44b):

(44) a. Meclis yasa-yı redd-(*i) etti
    assembly law-acc reject-(acc) did
    ‘The assembly rejected the law.’

b. Adam kadın-a ihanet-(*i) etti.
    man woman-dat betrayal-(acc) did
    ‘The man betrayed the woman.’

If pseudo-incorporated NPs are not true arguments, then we need to explain how they can be associated with case and theta-roles unlike the bare NPs in the cases of light verbs. In other words, we need to account for why pseudo-incorporation patterns with intransitives under passivization, but behaves differently with respect to case.

In order to address these questions, let us start with the derivation of regular transitive constructions that we assume for Turkish here:
Within the Neo-Davidsonian model, NPs which are to act as arguments are introduced by being merged to Specs of higher functional categories above the lexical VP level (45b). Note that for ease of reference, we name such functional projections with the names of the theta-roles they introduce. Öztürk (2004a, 2005a) argues that Turkish is a case in-situ language. That is, in Turkish case features are not introduced via higher functional heads such as TP or vP but syntactic case features are available within the thematic domain on the theta-role introducing functional projections. TP in Turkish does not play a role in syntactic case checking for subjects and Turkish phrase structure lacks vP as a functional projection bearing object case. See Öztürk (2004a, 2005a) for details. Thus, in (45b) when NPs are merged to Specs of theta-role introducing functional projections, and check case in situ, they become syntactic arguments without forming case-chains with higher functional projections (TP or vP).

Now let us consider pseudo-incorporation of themes. Causative constructions imply that even though bare NPs do not act as syntactic arguments, they are still associated with syntactic case and the theme theta-role. The fact that under causativization accusative case is not available for another argument, e.g. the agent, suggests that ThemeP exists in the structure. If ThemeP were totally absent without a syntactic case feature available on it, the agent in theme incorporation cases should be marked accusative morphologically under causativization, in parallel to unergatives:

\[(46) \quad \text{a. } \text{Çocuk } \text{kitap } \text{oku-du.} \quad \text{‘The child did book-reading.’} \]

\[(46) \quad \text{b.} \]

```
MERGE \rightarrow
-AgentP
  \rightarrow
    subject \ Ag'
  \rightarrow
    Çocuk \ ThemeP \ Ag \ [Strong Case]
-Complex Predicate \rightarrow VP
  \rightarrow
    NP \ V
    \rightarrow
    kitap \ okudu
```

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Then the question is what differs (45a) from (46a) above. We believe this has to do with the feature specifications of the head in ThemeP. We propose that case in true transitive constructions is strong and needs to be checked by merging an NP into the Spec’s of theta-role introducing functional projections. However, in pseudo-incorporation, the case feature is weak and is incompatible with referential NPs that are to be interpreted as arguments along the lines of de Hoop (1996). Thus, [Spec, ThemeP], which hosts true arguments, is not projected under pseudo-incorporation but the Theme head still bears a weak case feature to be checked. In (46) first the NP kitap “book” is merged as a sister to the lexical verb. At this point it is not associated with any theta-roles but is simply a part of the predicate. Then once the Theme head is merged, the bare noun within the verbal complex having the full NP status checks off the weak case via Agree as a Last Resort strategy, in the absence of a referential NP to be merged into [Spec, ThemeP]. If weak case is not checked off through this last resort mechanism, the derivation would crash due to inverse case filter (Bošković, 2002).

The next question is how bare NPs within the verbal complex interpreted thematically. In Chomsky (1986), it is proposed that the case filter follows from a more general requirement of visibility for interpretation at the levels of LF and PF. Under this view, the case filter is not an independent module of UG, but derives from the visibility condition. The visibility condition is related to theta theory, and states that NPs must be case-marked in order to become visible for theta marking. A predicate can only assign a theta-role to NPs that are visible, and case is what renders DPs visible for theta-role assignment. Overt NPs must have theta-roles; therefore they need case to become visible. In (46) the Theme head bears weak case and given that there is no NP to be merged into [Spec, ThemeP], the only way to check off this weak case is to form an Agree relation with the VP internal bare noun as a Last Resort strategy. Given that this bare noun kitap is actually an NP in form, it is compatible to check off the case feature on the Theme head.

---

16 See Öztürk (2004a, 2005a) for a theory which defines what it means to be a syntactic argument and the parametric variation observed in the case of establishing argumenthood. It is proposed that unless an NP is introduced both case and referentiality features it cannot qualify as a syntactic argument. In languages like English, referentiality is introduced by the DP projection as the NP is being merged into the theta domain, whereas case is introduced higher in the structure through the functional categories TP and vP. Thus, argumenthood is established through a chain linking the thematic and the functional domains. In languages like Turkish, on the other hand, there is no semantic, syntactic or morphological evidence for the presence of a DP category, however, as noticed widely in the literature case effects the referentiality interpretation of nouns (Enç, 1991; Kornfilt, 2003; Öztürk, 2004a, 2005a, among many others). In the absence of DPs, case acts as a type-shifter. Furthermore, TP and vP in Turkish are not charged with case features, but case is available within the thematic domain. Hence argumenthood is established without forming a chain between the thematic and the functional domains but is established in situ purely within the thematic domain in Turkish. See Öztürk (2004a, 2005a) for full details and argumentation.

17 It is also possible to interpret the strong case in the sense of Chomsky (1995), which requires direct merge or (overt movement) into [Spec, XP], when the X head bears a strong feature or in the sense of Chomsky (2000) where it is obligatory to project specifiers of certain functional projections if that projection bears the EPP feature, otherwise specifiers are not projected at all. See Bobaljik and Jonas (1996) and Alexiadou and Anagnostopoulou (1998) for projections without specifiers.

18 Note that the analysis proposed here differs from Massam (2001) at a few major points. In Massam’s account the bare NP and the V head undergo movement together and the bare NP does not check for case. However, in our system pseudo-incorporated NPs do check case and can undergo movement independent from the verb as illustrated in (15) above. Thus, we adopt the term pseudo-incorporation by Massam (2001) in a loose sense, only implying an instance of complex predicate formation by merging a V head with a bare NP similar to the case in Niuean, but the machinery we suggest differs substantially.

19 See Öztürk (2004a) for a proposal as to how to handle visibility condition within the current framework, where independent evidence has been provided for the visibility condition through cross-linguistic data. Due to space limitations I opt not to dwell on the issue any further here.
Note that unless this case is checked off the derivation crashes due to Inverse Case Filter (Bošković, 2002). As the bare noun checks off case on the Theme head, it gets associated with the theme role in compliance with the visibility condition. This is how the sentence is interpreted as a case of pseudo-incorporation of themes. This further explains why in pseudo-incorporation realization of accusative case on another argument is blocked in parallel to transitives under causativization. In return, the non-referential pseudo-incorporated noun entrapped within VP and bearing weak case incompatible with referential arguments fails to act as a syntactic argument, therefore under passivization the whole structure patterns with unergatives.

Let us now consider the derivation of agent incorporation:

20 Kornfilt (2003) considers the unavailability of accusative case for arguments other than incorporated themes to be “an insurmountable problem” for the head incorporation analysis. She states that under causativization accusative case is not available for the causee in lexical units involving predicate nouns and light verbs:

   Hasan Ali-dat prayer do-caus-past
   ‘Hasan made Ali pray.’ (Kornfilt, 2003:148)

b. *Hasan Ali-yi dua et-tir-di
   Hasan Ali-acc prayer do-caus-past
She argues that it is not possible to analyze the predicate dua et- as a complement noun dua and a case-assigning main verb et-, given that there is no corresponding sequence with an unincorporated complement surfacing with accusative such as:

(ii) *Hasan bu dua-yı et-ti.
    Hasan this prayer-acc do-past
    ‘Hasan prayed this prayer.’
She argues that since lexical units such as dua et- are also treated the same way under causativization, i.e., as if they are transitives, “the fact that sequences consisting of bare objects and main verbs are also treated like transitives in causatives is not problematic” for the head incorporation analysis. She suggests that this can be considered to follow from the nature of causativization in Turkish, which she does not present an account for. However, quite a number of native speakers find the construction given in (ii) perfectly acceptable if it is given in a discourse of the following kind:

(iii) Hep mutlu olun, ins¸allah! Hasan siz-e bu dua-yı et-ti.
    always happy be, hopefully Hasan you-dat this prayer-acc do-past
    ‘Always be happy! Hasan said this prayer for you.’
Furthermore, note that it is possible to insert focus particles like bile ‘even’ after dua ‘prayer’, which highlights its phrasal nature:

(iv) Hasan dua bile etti.
    Hasan prayer even do-past
    ‘Hasan even prayed.’ This implies that dua et- should also be considered as a complement and an accusative assigning verb.

Therefore, despite what is assumed by Kornfilt (2003), the fact that incorporation cases behave as if they are transitives poses a serious problem for the head incorporation analysis.

Furthermore, Ketrez (2005) provides the following examples, which she claims to challenge the mechanism of associating incorporated themes with the accusative case, as accusative is still available for arguments other than incorporated nouns. However, what she fails to observe is that in Turkish yap- ‘make’ can also be used as a light verb similar to the cases of light verbs with et- ‘do’, where again accusative is expected to be available for unincorporated nouns. Compare (v) with (vi), where yap- is easily paraphrased into a verb deriving functional suffix. Thus, the examples by Ketrez (2005) are not true counter examples, either:

(v) Ays¸e kitap-lar-ı paket yap-tı.
    Ays¸e book-pl-acc package make-past
    ‘Ays¸e wrapped the books’ (Ketrez, 2005:46)

(vi) Ays¸e kitap-lar-ı paket-le-di.
    Ays¸e book-pl-acc package-I-IA-past
    ‘Ays¸e wrapped the books.’
In agent incorporation, too, we assume that it is not possible to project [Spec, AgentP], due to the weak nature of case. First, the bare NP is merged and forms a complex predicate. At this point it is free from any theta-roles. Then the Theme head is introduced specified with strong case, which needs to be checked by Merge into [Spec, ThemeP]. Therefore, the bare NP entrapped within VP cannot check this case feature via Agree, but a referential NP is required. Then the Agent head with weak case is introduced. As no Spec can be projected, the pseudo-incorporated bare noun being a full NP checks off weak case as a Last Resort strategy and is interpreted as the agent in accordance with the visibility condition. That is why at the morpho-phonological level, presence of accusative morphology on the object is possible, which is dependent on the presence of another case-related NP in the clause. Also, as there is no other unchecked case feature left in the structure, a true agent argument doubling the incorporated agent cannot be introduced.

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Note that the crucial point in the account above is that the NP within verbal complex is not associated with any theta-role within the lexical VP domain up until it checks the weak case as a Last Resort strategy. If all Spec positions of theta-role introducing functional heads are charged with strong case features and filled with referential NPs then the bare NP within the verbal complex does not need to be associated with any theta-role and retain its predicative interpretation. This is what yields light verb constructions, where bare nouns are interpreted purely as predicates:

(47) a. Ayşe-çi köpek ısrar-dı.  
Ayşe-acc dog bite-past  
‘Dog-biting happened to Ayşe.’ (‘Ayşe got dog-bitten.’)

b.   AgentP
     |      ThemeP  Ag  [Weak Case]
     |     MERGE → Ayşe-acc  Theme'  
     |         Complex Predicate → VP  Theme [Strong Case]
     |         NP  V
     |              köpek ısrar-dı

assembly law-acc reject did  
‘The assembly rejected the law.’

b.   AgentP
     |      Theme  Agent [Strong Case]
     | |     MERGE → Meclis  Agent'  
     | |         Theme  Agent [Strong Case]
     | |         MERGE → yasa-yı Theme'  
     | |         VP  Theme [Strong Case]
     | |         NP  V
     | |              redd etti
In summary, we have shown that under the complex predicate analysis it is possible to accommodate the derivation of both pseudo-incorporation and light verb constructions in Turkish. Also through this analysis a unified account for pseudo-incorporation of both agents and themes can be presented, which is not possible in the previous accounts of the data.

4. Head-incorporation vs. pseudo-incorporation

We would like to discuss briefly how the complex predicate analysis outlined above can account for the differences between head-incorporation and pseudo-incorporation. First, it is known that head-incorporation of external arguments is strictly forbidden as it violates head-movement constraint. However, in pseudo-incorporation as bare nouns do not originate from an argument position but are complements of the lexical verb, where they acquire thematic interpretation via in situ case checking, the constraint that only internal arguments can incorporate via movement becomes irrelevant. As opposed to head-incorporation, technically, pseudo-incorporated NPs can bear any theta-role, as illustrated by Hungarian where in addition to themes and agents, goals can also undergo pseudo-incorporation:

(49) Hungarian:

Gyereknek adtam a cukorkát.  
child-dat gave-1ps the candy-acc

‘I did child-giving the candy.’ (‘I gave children the candy.’) (Aniko Csirmaz, personal communication)

Note that there is only one NP position available for complex predicate formation syntactically, which implies that it is not possible to have more than one NP forming a complex predicate along with the verb head. Example (i) is a case of pseudo-incorporation, where hasta ‘patient’ is interpreted as a non-referential noun. Given the analysis above, this suggests that hasta should be forming a complex predicate along with the complex verb muayene et-. As seen in (ii) it is possible to insert the focus particle after hasta implying that the noun is an NP category. However, it is not possible to insert the focus particle after the noun muayene in (iii), still retaining a non-referential interpretation for the noun hasta. This indicates that muayene et- here is taken to be a single verb head which is not formed syntactically. This further implies that in (iii) hasta and muayene compete for the same syntactic position to be considered as part of the complex predicate, that is, for the complement position of the verb and hasta wins, forcing muayene to form a morphological unit with the verb. The true nature of this morphological cohesion requires further investigation:

(i) a. Doktor hasta muayene etti.  
   doctor patient examine did
   ‘The doctor did patient examining.’

b. Doktor hasta mı muayene etti?  
   doctor patient Q examine did
   ‘Did the doctor do patient examining?’

c. *Doktor hasta muayene mi etti?  
   doctor patient examine Q did
   ‘Did the doctor do patient examining?’

Note that goals do not undergo pseudo-incorporation in Turkish, due to the morphological properties of dative case specified for goals. This is, however, neither a syntactic nor a semantic problem, but it is a morphological constraint. (See Öztürk, 2004b for details.)

The evidence to argue that the dative marked goal in (49) is incorporated comes from two sources. First, Hungarian does not allow bare singulars unless they are incorporated (Donka Farkas, personal communication) and as seen in (49) gyerek-nek ‘child-dat’ appears as a bare singular. Second, Farkas and de Swart (2003) uses the parallelism observed between the distribution of bare singulars and the distribution of pre-verbal particles in Hungarian as a diagnostics for incorporation. Both pre-verbal particles and bare singulars typically occur immediately preverbally but appear postverbally in negative sentences as seen in (i) and (ii) respectively. Thus bare nouns whose distribution patterns with preverbal particles are considered to be incorporated by Farkas and de Swart (2003):
Another difference is that unlike pseudo-incorporation, under head-incorporation it is possible to strand determiners or modifiers, bearing case morphology in argument positions (50):

(50) Greenlandic Eskimo:
Tuttu-p neqi-tor-punga
Reindeer-erg meat-eat-indic/1sS
‘I ate reindeer’s meat.’ (Baker, 1988:96)

In pseudo-incorporation as bare nouns already check case on theta-role related functional heads, the introduction of an extra syntactic argument is not possible. However, in head-incorporation as the noun head originates from an argument position, determiners/modifiers marked with case can be stranded behind after the noun head incorporates, which might surface as a case of argument doubling. Note that under pseudo-incorporation as the bare NP never starts out from an argument position but as the sister of the verb head, as seen in (51b) and (52b), it is not possible to find stranded determiners or modifiers similar to the case in (50):

(51) a. [NP Bu kitabı]-ı ben oku-du-m.
   this book-acc I read-past-1ps
   ‘I read this book.’

   b. *[NP Bu tı]-nu ben kitapı oku-du-m.
   this -acc I book read-past-1ps
   ‘This, I book-read.’

(52) a. [NP Ali-nin kitabı]-ı ben oku-du-m.
   Ali-gen book-3ps-acc I read-past-1ps
   ‘I read Ali’s book.’

   b. *[NP Ali-nin tı] ben kitapı oku-du-m.
   Ali-gen I book read-past-1ps
   ‘I book-read Ali’s.’

(i) a. Mari fel olvasott Petinek
   Mari up read-past Peti-dat
   ‘Mari read aloud to Peti.’ (Farkas and de Swart, 2003:90)

   b. Mari verset olvasott Petinek
   Mari poem.acc read-past Peti-dat
   ‘Mari read poetry to Peti.’ (Farkas and de Swart, 2003:90)

    Mari not read.past up Peti-dat
    ‘Mari didn’t read aloud to Peti.’ (Farkas and de Swart, 2003:91)

   b. Mari nem olvas verset.
    Mari not read poem-Acc
    ‘Mari does not read poem/poems.’ (Farkas and de Swart, 2003:93)

As seen in (iii) below the preverbal dative goal in (49) appears postverbally when negation is introduced, thus its distribution also patterns with the distribution of incorporated nouns and the verb particles illustrated in (i) and (ii) above:

(iii) Ne ad-j-al soha gyerek-nek cukorká-t
    not give-Subj-II never child-dat candy-acc
    ‘Don’t ever give candy to a child/children.’ (Donka Farkas, personal communication)

For details regarding the distribution of pre-verbal particles and bare singulars see Farkas and de Swart (2003).
Chamorro, another pseudo-incorporating language (Chung and Ladusaw, 2004) seems to introduce an exception to the absence of argument doubling at first sight:

\[(53)\text{Hami gai-ga \#ennao na ga’lagu} \]
\[\text{we wh-nom.agr.have-pet that L dog} \]
\[\text{We own that dog.’ (lit: ‘We pet-own that dog.’) (Chung and Ladusaw, 2004:89)}\]

In (53) ‘that dog’ seems to double the incorporated NP ‘pet’. If in Chamorro, too, the pseudo-incorporated NP checks weak case, then, how is it possible to introduce an extra object into the structure? Under the analysis proposed here, ‘that dog’ cannot be a true argument as there is no case left for it to check. This is actually what is shown by Chung and Ladusaw (2004). Even though their analysis does not really rely on case, they show that extra objects in Chamorro are not arguments but adjuncts. Such a conclusion is obligatory under the proposal we have made above. Thus, Chamorro also provides evidence for case-checking by pseudo-incorporated NPs.24

5. Why is pseudo-incorporation of agents rare?

As discussed above, as pseudo-incorporation is not subject to head-movement, technically any argument can undergo pseudo-incorporation. However, cross-linguistically it is generally observed that pseudo-incorporation of agents is much rarer in comparison to that of internal arguments. We believe the reason behind this follows from how EPP on T is checked in a given language. Languages which require Move/Merge XP for EPP satisfaction will fail to exhibit pseudo-incorporation of agents, as this will require EPP checking via scrambling of another XP argument or an adjunct into [Spec, TP], which would be a marked and a costly operation. Japanese is such a language, where EPP can only be checked by Move/Merge XP (Miyagawa, 2003). As shown in (54), Japanese allows pseudo-incorporation of internal arguments only in transitive constructions, where the subject can still check EPP on T after the internal argument incorporate, but blocks the incorporation of the sole argument both in unergatives and unaccusatives as in (55) and (56), respectively. If the sole argument incorporates in an intransitive construction, then there is nothing left to check EPP:

\[(54)\text{Sensei-ga gakusei-ni kin-no-kunsyoo:zyuyo-go.} \]
\[\text{teacher-nom student-dat golden-gen-decoration:award-after} \]
\[\text{‘After the teacher awarded a golden decoration to the student.’ (Miyagawa, 1991:15)}\]

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24 As shown in (41) and (43) above, Turkish pseudo incorporation does not allow for doubling of the pseudo-incorporated NP with an adjunct like the Chamorro case illustrated in (53). This might be due to differences governing the distribution of adjuncts in both languages, which requires further investigation. Furthermore, as pointed out by one of the reviewers under the proposal here it should be possible to find constructions like (43) above where Fido assumes to be checking the strong case, while VP internal köpek ‘dog’ purely acts as a modifier of the predicate on a par with light verb constructions. The difference between such constructions and light verb constructions is that in the case of light verb constructions the V head is free from any semantic interpretation, whereas in the case of examples like (41) and (43) we have lexical verbs. The absence of such constructions might follow from the semantic properties of lexical verbs. However, it is not totally impossible to find such examples in Turkish. The verb yap- ‘make’ in Turkish can be used as a lexical verb, which always requires a predicative NP complement in addition to a true specific argument marked with accusative and interpreted as associated with the VP internal NP. So the absence of productive cases of examples like (41) and (43) might follow from individual properties of verbs in Turkish, which clearly requires further investigation.

(i) Aysê yumurta-ýı omlet yap-tı.
\[\text{Aysê egg-acc omelette make-past} \]
\[\text{‘Aysê made the egg an omelette.’} \]
(55) a. Kodomo-ga taisoo-tyuu → Unergative
    child-nom exercise-while
    ‘while the child exercises’

    b. *kodomo:taisoo-tyuu → Pseudo-incorporation
       child:exercise-while
       (Miyagawa, 1991:16)

(56) a. Hoteru-ni kyaku-ga tootyaku-go → Unaccusative
    hotel-dat guest-nom arrive-after
    ‘After the guest arrives at hotel’

    b. *Hoteru-ni kyaku:tootyaku-go → Pseudo-incorporation
       hotel-dat guest:arrive-after
       (Shigeru Miyagawa, personal communication)

Languages like Turkish, however, do not require [Spec, TP] to project overtly, as EPP is checked via the pronominal agreement on the verb à la Alexiadou and Anagnostopoulou (1998), but not via Merge/Move XP (see Öztürk, 2002 for details). The fact that Turkish allows impersonal passives in the absence of an expletive provides further support for the lack of EPP checking via Move/Merge XP (see (20) above). Hungarian – another language allowing agent incorporation – also patterns with Turkish in terms of forming impersonal passives without expletives as seen in (57). Further support for the lack of EPP checking via Merge/Move XP in Turkish is also provided by the lack of obligatory movement into matrix [Spec, TP] in raising constructions as in (58):

(57) Fut-nak.
    run-3pl
    ‘Running is happening.’ (Aniko Csirmaz, personal communication)

(58) a. [TP _____ bana [senı yarışma-yı kazan-acak-sın] gibi geliyor].
    to-me you competition-acc win-fut-2ps like come-prog
    ‘It seems to me that you will win the competition.’

    b. [Senı bana [tı yarışma-yı kazan-acak] gibi geliyor-sun].
    you to-me competition-acc win-fut like come-prog-2ps
    ‘It seems to me that you will win the competition.’ (Uygun, 2005:4)

In brief, we suggest that the fact pseudo-incorporation of agents is rarer cross-linguistically, has to do with how EPP is satisfied in a given language.

6. Conclusion

As the discussion above shows, despite the attempts of former accounts, head-incorporation analysis is not compatible with Turkish, as it exhibits productive agent incorporation. However, agent incorporation does not have to remain an exception if the model of pseudo-incorporation proposed here is adopted rather than the head-incorporation account. This model can not only successfully capture both agent and theme incorporation in Turkish with the same structure, but also account for the differences between languages with pseudo-incorporation and the ones with head-incorporation discussed by Baker (1988, 2006).

References


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Further reading