**Licensing Pseudo-Noun Incorporation in Turkish**

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This study addresses pseudo-noun incorporation (PNI) in Turkish. The first goal of this study is to show that Turkish allows agent PNI as in (1a) contrary to the common view, as well as theme PNI in (1b).

(1) a. Ali-yi arı sok-tu. (Agent PNI; Öztürk 2009)
Ali-acc bee sting-pst 'Ali got bee-stung.'
b. Ali kitap oku-du. (Theme PNI; Öztürk 2009)
Ali book read-pst 'Ali did book-reading.'

The possibility of agent PNI poses a nontrivial problem for the previous accounts which claim that PNI takes place only between a verb and its complement (Baker 2014; Dayal 2011, 2015; Massam 2001; Öztürk 2009). Since Chomsky (1995) and Kratzer (1996), agent has been commonly taken to be introduced by an independent head, v or Voice, rather than by a lexical verb. Under this view, the complementation accounts are not readily compatible with agent PNI in Turkish. The second goal of the study is to offer an alternative account of PNI that overcomes this problem and captures the PNI facts in Turkish as well as in other languages. Specifically, we suggest that PNI is subject to two conditions, one holding at LF and the other at PF, and that cross-linguistic variations regarding PNI are resulted from different ways in which the operations in the syntax feed these components.

**Incorporating agent**: Theme PNI is widely recognized in Turkish literature (cf. Öztürk 2004, 2009), but the possibility of agent PNI remains rather controversial (cf. Cagri 2009). Yet evidence suggests that agent PNI does exist in Turkish as the signature properties of PI-ed nominals are exhibited by PI-ed agent as well. First, as Öztürk (2004, 2009) notes, PI-ed agent does not have referential force; so, it is not capable of supporting pronominal discourse anaphora nor of controlling into the purpose clause. Second, when agent is PI-ed, a weak interpretation can be attained in a following elided clause as in (2), where the dog that bit Can does not have to be the same dog that bit Ali. The non-PNI counterpart of (2), however, can only have the interpretation that Can is bitten by the same dog that bit Ali.

(2) Ali-yi köpek ısır-dı, Can-ı da.
Ali-acc dog bite-pst, Can-acc too. 'Ali got dog-biting, and Can too.'

Furthermore, PNI is licensed only when the resulting complex predicate represents an institutionalized concept in the culture where the language is spoken (cf. Mithun 1984). We observed that this holds for agent PNI in Turkish: e.g., the nominal for 'child' can be PI-ed to the verb for 'cry' but the nominal for 'man' cannot as in *Parkta* {*çocuk*/**adam*} *ağlıyor* '{child/*man}-crying takes place in the playground'.

The case-marking facts are much neglected evidence for agent PNI in Turkish. Unlike main clauses, the subject in nominalized complement clauses is obligatorily marked with genitive. Yet PI-ed agent cannot be marked with genitive case in the nominalized clause and maintain the PI-ed interpretation.

(3) Ali-yi arı(*-nin) sok-tuğ-u-nu duy-dum.
Ali-acc bee(*-gen) sting-nmlz-poss-acc hear-pst 'I heard that Ali got bee-stung.'

Also, PI-ed agent in Turkish exhibits a distinct interpretation that cannot be captured by the semantics of a bare singular NP (cf. Dayal 2011). When an agent bare singular is not PI-ed, it can only refer to a unique entity; but when it is PI-ed, it loses the uniqueness semantics generating the plural implicature.

(4) Dün Ali-yi tekrar tekrar arı sok-tu.
yesterday Ali-acc again again bee sting-pst
'Yesterday, Ali was bee-stung again and again.' (→ Different bees could have kept stinging Ali.)

Lastly, PI-ed agent and the host predicate form a prosodic word with no pause between the two units as in [$_\omega$ *çocuk ağladı*] 'child-crying took place'. When the sentence has a non-PNI interpretation, however, agent and the verb do not form a prosodic word as in [$_\omega$ *çocuk*] [$_\omega$ *ağladı*] 'the child cried'.

**The two proposed conditions licensing PNI**: The existence of agent PNI in Turkish indicates that the complementation accounts are too strong: nominals undergoing PNI do not need to be the immediate complement of a lexical verb. In light of this, we suggest that PNI is licensed at LF when the target nominal is in the "quasi"-complementation relation with the predicate as defined in (5).

(5) An argument X is in the quasi-complementation relation with a predicate iff there is no argument Y, distinct from X, such that Y is dominated by the lowest branching node dominating X.

The environment in (5) allows both agent and theme PNI as long as there is no other argument within the domain at issue. To be more precise, agent PNI is possible in the transitives in Turkish as indicated so far because the quasi-complementation environment is created due to the well-known obligatory A-movement of acc-marked theme to outer Spec,VoiceP in this language (cf. We assume with Öztürk (2009) that T in Turkish lacks the EPP feature, so the subject stays in the inner Spec,VoiceP). This is in contrast to other PI-ing languages like Tamil, where acc-marked theme is not extracted making agent PNI impossible. Notice that the proposed analysis is in keeping with the property analysis of PNI in Dayal (2011) with the assumption that a phrase such as $\overline{\text{Voice}}$ can also be a host predicate of PNI. The example in (1a), for instance, will have the following semantics under the property analysis.

(6) $\lambda$e[bee-sting(e,Ali)], where $\exists$e[bee-sting(e,Ali)] = 1 iff $\exists$e'[sting(e,Ali)&$\exists$x[bee(x)&agent(e',x)]]

The assumption that PNI occurs in the environment (5) predicts that agent PNI is not possible in the ditransitives in Turkish, for dat-marked goal introduced below VoiceP does not undergo A-movement and so remains within the domain at issue. This prediction is borne out as in (7). Note that scrambling goal does not make agent PNI possible in (7) either. The current approach also captures why this is so: Ā-moved goal reconstructs at LF and accordingly destroys the quasi-complementation environment.

(7) * Öğrenciler$_i$-e ödev-i öğretmen $t_i$ ver-di.
students$_i$-dat homework-acc teacher $t_i$ give-pst 'The students got teacher-given homework.'

The same analysis applies to the impossibility of agent PNI in a language like Tamil noted above. Scrambling acc-marked theme out of the extended verb phrase does not make agent PNI possible since the scrambled theme reconstructs; hence, agent PNI is always disallowed in this language.

Yet the quasi-complementation requirement alone is not sufficient to account for the PNI facts in Turkish. The PNI interpretation is not possible in (8) even though the scrambled theme reconstructs at LF and occurs in the quasi-complement relation with the host predicate.

(8) Kitap$_i$ Ali $t_i$ oku-du.
book$_i$ Ali $t_i$ read-pst 'Ali read a book/*Ali did book-reading.'

Hence, we contend that an additional condition holds at PF as described in (9). What (9) does is to ensure the correspondence between form and meaning by requiring that a predicate derived via a covert semantic process be phonologically marked.

(9) The elements constituting a complex predicate must form a single prosodic word.

Since the PI-ed nominal *kitap* is separated from the verb via scrambling in (8), it cannot form a prosodic word with the host predicate in violation of (9). Thus, the PNI interpretation is unavailable despite its being in a quasi-complementation relation with the host predicate at LF.

(9) is also responsible for the unavailability of the PNI interpretation of a sentence where a bare nominal and the verb are separated by a stand-alone element like a VP-adjoining adverb or an adjunct nominal: the bare nominal and the verb cannot form a single prosodic word.

(10) (Sokak-ta) Ali-yi polis (*sokak-ta) döv-dü.
(street-loc) Ali-acc police (*street-loc) beat-pst 'Ali got police-beaten in the street.'

Notice that when the loc-marked nominal scrambles out of the intervening position in (10), the PNI interpretation becomes available. This option was not possible in the ditransitive in (7). The contrast motivates the LF condition discussed above as a condition independent of the PF condition in (9): the loc-marked nominal in (10) is not an argument and thus is irrelevant to determining the quasi-complementation relation.

Lastly, scrambling of a PI-ed nominal is possible in Hindi as in (11), contrary to Turkish.

(11) kitaab$_i$ anu zaroor $t_i$ becegii. (Hindi; Dayal 2011)
book$_i$ Anu definitely $t_i$ sell.fut 'Anu will definitely do book-selling.'

The difference between Turkish and Hindi can easily be accounted for if it is assumed that scrambling feeds prosody in Turkish but not in Hindi. In fact, it is reported that in Hindi, the phonological characteristics are maintained after PI-ed nominals are separated from the verb (Wescoat 2002).

**Conclusion**: Based on the existence of agent PNI in Turkish, we have suggested that the complementation analysis is not adequate. Empirical evidence indicates that PNI needs to be licensed both at LF and PF. By comparing Turkish with other PI-ing languages, we have also shown that cross-linguistic differences of PNI are due to how syntax feeds the two components of the grammar in each language.

**Selected References** Baker, Mark C. 2014. Pseudo noun incorporation as covert noun incorporation: Linearization and crosslinguistic variation. *Language and Linguistics* 15:5–46. • Öztürk, Balkız. 2009. Incorporating agents. *Lingua* 119:334–358.