

P-Insertion and Ellipsis

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This work shows that even though a potential ellipsis licensor may be present overtly and seemingly available, it may come into existence too late to license ellipsis.

Mandarin *de* is the potential licensor in question. The relevant patterns are in (1a-b) below. In these cases, only the pattern in (1a/a') allows the following NP to be null. This is so regardless of whether the classifier is a measure word/massifier as in (1a,b) or a count-classifier as in (1a',b') (cf. among others, Tai and Wang 1990, Cheng and Sybesma 1999).

(1) a. san-bao de (shu)	a'.san-(da)-ben de (shu)	-property
three-bag DEbook	three-big-CL DE book	
'books that are of three bags'	'books that are of three (big ones)'	
b. san-bao de *(shu)	b'.san-(da)-ben de *(shu)	-quantity
three-bag DE book	three-big-CL DEbook	
'three bags of books'	'three (big) books'	

It will be argued that the *de*'s in the above constructions of the form [Number + Classifier + *de* + NP] should be distinguished according to how they are derived. The *de* in (1a/a') is base-generated; whereas the one in (1b/b') is inserted when phonological phrasing rules apply. The former is like the regular cases with an adjectival or clausal modifier modifying an NP, requiring the base-generation of the modification marker *de*. This marker has the property of a head licensing NP ellipsis (Li 2008). In contrast, the insertion of *de* in (1b/b') is motivated phonologically and the phonological need is not met in the cases containing a null NP (cf. Li 2009, Tsai 2011). Evidence is mainly from the corresponding patterns in Taiwanese, which have identical properties as those in Mandarin. However, Taiwanese, unlike Mandarin, has clear tone variations reflecting structures.

Taiwanese does not use stress to mark focus (cf. stress-focus correspondence). To encode the quantity expression [Number + Classifier] as the information focus in the quantity reading pattern (1b/b'), in contrast to just the NP or the entire [Number + Classifier + NP] as focus, it applies the strategy of phonological phrasing (see e.g. Pierrehumbert & Bekman 1988, Kanerva 1990, Downing et al. 2004, Koch 2008 regarding phonological phrasing for focus). This strategy means that the focused

[Number + Classifier] should be a tone group by itself, not including the following NP. The two options of phonological phrasing for [Number + Classifier + NP] reflecting different foci are shown below: (curly brackets in (2a-b) indicate phonological phrases)

- (2) a. {Number + Classifier + NP} -one phonological phrase;
 information focus on NP or [Number + Classifier + NP]
- b. {{Number + Classifier} + { NP}} -two phonological phrases;
 information focus on {Number + Classifier}

However, according to the tone group formation and tone sandhi rules in Taiwanese (every syllable except the last of a major category (NP/VP) must undergo tone change, not keeping its citation tone), the classifier, which is a head taking the following NP as its complement, must form a tone group with this NP. Namely, (2b) is not possible phonologically. This conflict between the requirement of tone sandhi rules and the need of two phonological phrases to reflect focus as in (2b) is resolved by the insertion of *e*. The insertion allows for a break in phonological phrasing; two tone groups are therefore created {{Number + Classifier} + {*e* NP}}. In other words, *e* is inserted in the quantity reading pattern (2b) in order to make it possible for the [Number + Classifier] to be an independent phonological phrase reflecting its focus status.

Correspondingly, the Mandarin *de* in (1b/b') is inserted phonologically, even though the phonological motivation is not as obvious because of the absence of clear and consistent tone sandhi phenomenon in Mandarin and because of the availability of an additional strategy of using stress to encode focus. Nonetheless, phonological phrasing is also relevant in Mandarin (manifested through pauses) and the identical facts between Mandarin and Taiwanese regarding the interpretations of and the (im)possibilities of NP deletion in the patterns in (1) call for the same analysis. This analysis of *de/e* can be straightforwardly extended to other cases where *de/e* does not license the following phrase to be empty. Examples are the patterns involving verbal classifiers and pseudo-possessives.

The proposed insertion of *e* to resolve the conflict between the requirement of tone sandhi rules and the encoding of focus is reminiscent of the P (prosodically motivated)-movement in Zubizarreta 1998, which is to resolve the conflict between the Nuclear Stress Rule and Focus Prominence Rule in the grammar. Zubizarreta

notes that P-movement should be subject to the condition of Last Resort. That is, it does not apply if it is not needed. Similarly, *e* should not be inserted when an empty NP, being empty, cannot constitute a phonological phrase. The [Number + Classifier] expression is already a tone group by itself when it is followed by a null NP. (Also see Nunes' (2009) economy condition that enforces faithfulness between the lexical items present in the numeration and the lexical items present in the PF output.) The insertion of *e* and Zubizarreta's P-movement are two of the same process P-operation (P-insertion and P-movement).

An implication of this P-insertion analysis for the approaches to ellipsis concerns ordering. P-movement, according to Zubizarreta, should apply at the end of the syntactic derivation – the Λ -structure, before branching into PF and Assertion Structure. Taking P-insertion as the same as P-movement, the timing of insertion should be the same as well. If ellipsis is deletion in syntax or base-generation of empty categories, it naturally follows that *e* would not be wrongly inserted.

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