

Saturating theta roles via implicit arguments

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Introduction This study shows how implicit arguments contribute to argument linking: when a theta role is saturated by an implicit argument that does not require Case, Case is freed to license additional arguments bearing alternative or null theta roles. I illustrate this claim with evidence from Mandarin, where certain verbs allow alternation in the surface ‘object’ position between (A) selected theme arguments (B) unselected location/instrument arguments (dubbed ‘non-canonical objects’, hereafter NCOs; Lin 2001 a.o.) or (C) semantically inert objects (dubbed ‘dummy objects’, Cheng and Sybesma 1998), which are in complementary distribution.

- (1) a. chi **niuroumian** b. chi **canting** c. chi **fan**
eat **beef-noodle** eat **restaurant** eat **meal**
‘eat the beef noodle’ ‘eat at the restaurant’ ‘eat’

I identify a novel connection between NCOs and dummy objects: verbs that take the former also take the latter. I propose that both constructions involve an implicit argument that saturates a theta role without requiring Case. A derivational ordering in which theta-role saturation precedes Case assignment frees structural Case for arguments bearing alternative or null theta roles. The work has broader implications for the typology of implicit arguments.

Clearing the empirical scope: new classification of NCOs. I propose 3 types of NCOs:

	NCO Types	Passivization	Arg Ellipsis	Optional Preposition
(2)	PP Arguments (P-Arg NCOs, e.g., ‘sleep the bed’)	✓	✓	✓
	DP Arguments (DP-Arg NCOs, e.g., ‘eat the restaurant’)	✓	✓	✗
	DP Modifiers (DP-Mod NCOs, e.g., ‘cut the knife’)	✗	✗	✗

Evidence: ① *Argument vs. Adjunct:* P-Arg NCOs and DP-Arg NCOs are preposed in passives and can undergo ellipsis. P-Mod NCOs cannot (further examples to be given in the presentation).

- (3) **fangjian bei** Zhangsan zhu le
room Pass Zhangsan live Part.
‘The was lived in by Zhangsan.’ (P-Arg NCO)
- (4) **canting bei** Jay Chou chi le tai-duo ci, dou chu-ming le
restaurant Pass Jay Chou eat PFV too-many times, even famous Part. (DP-Arg NCO)
‘The restaurant has been eaten at by Jay Chou too many times, and it has become famous’
- (5) ***xiao dao bei** qie le henduo ci, dou dun le
small knife Pass cut PFV too-many times, even dull Part. (*P-Mod NCOs)
Intended: ‘The small knife was used to cut too many times and it has become dull.’

② *PP vs. DP:* P-Arg NCOs allow optional realization of prepositions, while DP-Arg NCOs don’t.

- (6) a. wo zhu (**zai**) **zhe jian fangjian**. b. wo chi (***zai**) **zhe jia canting**.
I live (**in**) **this Cl room** I eat (***at**) **this Cl restaurant**
‘I live in this room.’ (V-P-P-Arg NCOs) ‘I ate at this restaurant.’ (*V-P-DP NCOs)

Two new generalizations about NCOs. I focus on DP Arg NCOs. Previous analyses treat NCOs as verb complements (Larson and Zhang 2022), pseudo-incorporated objects (Barrie and Li 2015), event kind-classifying modifiers (Zhang 2018) or high applicatives (Li 2022). However, these approaches cannot account for the following data: *Novel generalization* ① The sentences that contain unselected locative/instrument objects obligatorily entail a non-referential theme object that cannot be discourse-anaphoric. For example: (1b) is infelicitous in the context (7) because the context has a discourse salient object ‘birthday cake’, whereas the object in (1b) is not syntactically projected in a way that allows for any kind of reference. So the infelicity of (1b) in the context (7) suggests that non-projected objects require a different modelling.

- (7) *Infelicitous Context of (1b):* The colleagues purchased a birthday cake, and decided to eat it at a restaurant. They didn’t order food from the restaurant.

Novel generalization ② Crucially, only verbs that license dummy objects can take NCOs.

This constraint cannot simply be attributed to contextual factors, as suggested in previous approaches (e.g., Barrie & Li 2015). (The full list of verbs will be given in the presentation.)

(3) *Correlation between V-NCO and V-dummy Object:*

V	V + Dummy Obj.	V + DP-Arg NCO
<i>chi</i> ‘eat’	<i>chi fan</i> ‘eat’	<i>chi shitang</i> ‘eat at the dining hall’
<i>tun</i> ‘devour’	*	* <i>tun shitang</i> ‘devour at the dining hall’
<i>chang</i> ‘sing’	<i>chang ge</i> ‘sing’	<i>chang wutai</i> ‘sing on a stage’
<i>heng</i> ‘hum’	*	* <i>heng wutai</i> ‘hum on a stage’
<i>kan</i> ‘read’	*	* <i>kan tushuguan</i> ‘read in the library’

Proposals (i) Implicit argument \exists . Mandarin has an implicit argument \exists that does not require Case. It is selected by a small set of high frequency verbs (such as *chi* ‘eat’, *chang* ‘sing’). Other transitive verbs (e.g., *tun* ‘devour’, *kan* ‘read’) lack this property. Specifically, \exists is merged in the lexical head, following Bruening (2021)’s proposal for English intransitive verbs. Moreover, \exists is *syntactically inactive*. Evidence: in (8), *chi* ‘eat’ takes \exists as lexically internal argument and thus does not have an underlying object that can be anaphoric.

- (8) [Context: Someone asked the speaker if they should invite Ming to have dinner together.]
 ta yijing chi # ___ guo le. Suiran chi le yiban # ___ jiu zou le.
 he already eat # ___ Asp Part. although eat Asp half # ___ then leave Part.

Intended: ‘He has already eaten, although he left after he ate half of the meal.’

(ii) **Analysis of NCOs.** DP-Arg NCOs are high applicatives, with a caseless implicit argument \exists merged in the V head prior to the introduction of the NCO by a high applicative.

(9) *Derivation of NCOs*

a. Merge \exists in the lexicon: $[_{V^0} \text{eat} - [\Theta - \exists]]$

b. Case-assigned by Voice: $[_{\text{VoiceP}} \text{Voice} - \text{Veat} - \exists \underbrace{[_{\text{Appl}_{\text{LOC}}\text{P}} \text{the restaurant}[_{\text{Appl}_{\text{LOC}}}] \emptyset [_{\text{VP}} \text{t}]]]}]$

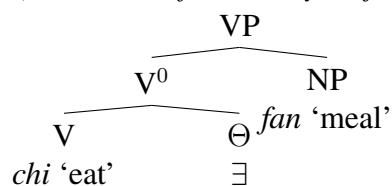
Suppression of Theme objects Theme objects and NCOs are in complementary distribution because they compete for Case: I assume that the $\text{Appl}_{\text{INST}/\text{LOC}}$ head does not assign Case. The only Case-assigner is Voice. Namely, there is only one Case probe, i.e. Voice, while two Case goals i.e. the Theme object and NCO in the structure. Therefore, the derivation crashes.

(10) *Competition between Theme obj and DP-Arg NCO*

$[_{\text{VoiceP}} \text{Voice} - \text{eat} \text{ } _i[\text{Case}] \underbrace{[_{\text{Appl}_{\text{LOC}}\text{P}} \text{restaurant} \text{ } _i[\text{Case}]]}_{\text{Appl}_{\text{LOC}}} \emptyset [_{\text{VP}} \text{t} \text{ } [_{\text{NP}} \text{beef-noodles} \text{ } _i[\text{Case}]]]]]] \times$

Connection with dummy objects. The dummy object merges as a placeholder in the verb complement position with the theta role saturated by an implicit argument (\exists) in the lexical head (cf. (10)) (while I adopt the term from Cheng Sybesma (1998), my classification is subtly different. The distinction between true and pseudo dummy objects will be discussed in the presentation).

(10) *Structure of V-dummy Objects*



Correlation between dummy objects and DP Arg NCOs: Verbs selecting \exists license both dummy objects and DP Arg NCOs because \exists uniquely saturates theta roles without requiring Case: this frees Case for semantically inert placeholders (dummy objects) and high Appl arguments (DP-Arg NCOs). Verbs lacking \exists can license neither construction.

Conclusion. By introducing new data and diagnostics, this study revisits Mandarin argument linking. I argue that introduction of unselected and dummy objects is restricted by implicit arguments saturating theta roles without requiring Case, thereby freeing structural Case for additional arguments that either bear alternative theta roles (non-canonical objects) or require none (dummy objects). This analysis contributes to the typology of implicit arguments by showing that they can mediate theta-role saturation without projecting syntactically active arguments.

References.

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