

# The Dynamic Standpoint on the Semantics of Localizers in Mandarin Chinese

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From the dynamic perspective on Mandarin Chinese localizers, The parts of speech of Mandarin localizers have been extensively debated for many decades. They are always considered to be adjectives, adverbs, nominal suffixes, postpositions, particles, pronouns and/or light nouns (Huang et al. 2009). This work proposes that a localizer, such as *shang* ‘top’, denotes a semantic type of  $\langle\langle e, t \rangle, e \rangle$ , and signals a definite facet of a location/spatiality.

In modern Mandarin Chinese, a monosyllabic localizer itself cannot exist alone as a DP with a referential construal, as seen in (1). Conversely, a disyllabic localizer *shangmian* ‘top’ can serve as a DP, as seen in (2).

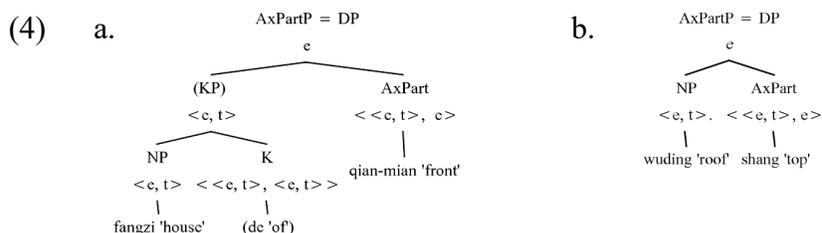
- (1) a. \*Shang you yi-zhi ying.  
top have one-CL eagle  
b. Wuding shang you yi-zhi ying.  
roof top have one-CL eagle  
‘There is an eagle on top of the roof.’
- (2) a. Shang-mian you yi-zhi ying.  
top-face have one-CL eagle  
‘There is an eagle on top (of the roof).’  
b. Wuding shang-mian you yi-zhi ying.  
roof top-face have one-CL eagle  
‘There is an eagle on top of the roof.’

Based on (1) and (2), a localizer can generate an inherent locative/spatial construal, specifying a definite location/spatiality, contrary to a bare noun *wuding* ‘roof’, denoting an indefinite reading, i.e., of  $\langle e, t \rangle$ . One of piece of evidence, following Cheung (2016: 130) results from that a localizer phrase is incompatible with a unit word phrase, as seen in (3a), in contrast with (3b). Interestingly, a DP is incompatible with a unit word phrase, as seen in (3c), as well.

- (3) a. \*san-shan men qian/qian-mian  
three-CL door front/front-face  
Int: ‘the facets of three doors’  
b. san-san men  
three-CL door  
‘three doors’  
c. \*san-san nan men  
three-CL that door

Therefore, a localizer can bind a location and generate an inherent a locative/spatial construal; namely, it functions as D, such as English *the*, signaling an eigenplace. Additionally, since each localizer has its own facet (=eigenplace), it hence reveals that each facet of location is specific. It

makes a referential property generate an inherent construal, i.e., eigenplace. The syntactic structure, following Svenonius (2008) and semantic denotation are manifested in (4) respectively, where AxPart of AxPartP refers to a localizer and K of KP refers to the optional genitive particle *de* ‘of’ (Jiang and Pan, 2013). The genitive particle *de* is seen as a vacuous functor for it is either optional or meaningless; therefore, the semantic type of *de* is of  $\langle\langle e, t \rangle, \langle e, t \rangle\rangle$ , as seen in (4a).



Besides, when a localizer is monosyllabic, the genitive particle *de* is prohibited in such that *\*wuding de shang*; therefore, KP is not required here. Recall that in (1b) and (2b), both AxPartPs can serve as DPs in the grammatical subject positions, this study proposes that AxPartP projects DP because it can be supported by (2a) that a bare AxPartP itself can occur alone in the grammatical subject position for there is a covert location/spatiality in any context where it refers to something that is already familiar at the current stage of the conversation, such as in that (*fangzi shang-mian you yi-zhi ying* ‘There is an eagle on top of the house’).

Taking the analysis together, the denotation of a localizer, such as *qian* ‘facade’, is depicted in (5a), where in any given context, the function whose domain is those  $\langle e, t \rangle$  functions  $f$  which assign true (=1) to exactly one entity, and which for all such functions  $f$ , yields that unique entity  $y$  such that  $f(y) = 1$ .

(5)  $\llbracket qian \rrbracket = \lambda f: f \in D_{\langle e, t \rangle}$  and there is exactly one  $x \in C$  such that  $f(x) = 1$ , the unique  $y \in C$  such that  $f(y) = 1$ .

When an AxPartP like *men qian* ‘in front of the door’ is conveyed, it is referred to the unique location/spatiality from  $C$  that satisfies *men* ‘door’. In other words, there are many door-facades in the word ( $D_e$ ), the AxPartP *men qian* can be conveyed in a context exactly when the set of contextually relevant entities ( $C$ ) contains one and only one door-facade that the context refers to. To be simplified, this research adopts Strawson (1950)’s  $\tau$  to illustrate the definite referential property. (5) is modified as (6a), and the denotation of the AxPartP *men qian* is sketched in (6b).

(6) a.  $\llbracket qian \rrbracket = \lambda P [\#\{x \in D_e \mid P(x)\} = 1 \mid \tau P] = \lambda P \tau x P(x)$   
 b.  $\llbracket men \ qian \rrbracket = \llbracket qian \rrbracket (\llbracket men \rrbracket) = \lambda P [\tau x P(x)] ([\lambda y [MEN(y)]] = \tau x [\lambda y [MEN(y)(x)]] = \tau x [MEN(x)]$ , of type  $e$ .

To sum up, this study has manifested that the localizers (AxParts) serve as D, specifying a unique location/spatiality, and are of type  $\langle\langle e, t \rangle, e\rangle$ . This study also shows that the part of speech of Mandarin Chinese localizers should be one kind of Ds. The future work will investigate the AxPartP with a numeral classifier phrase or a determiner, as seen in (7), where the AxPartP may involve a type-shifting operation, from  $e$  to  $\langle e, t \rangle$ . Also, the study looks at the asymmetry between (1a) and (2a), semantically.

- (7) Na   wu-ge wuding shang/shang-mian   dou   you   yi-zhi ying.  
that   five-CLroof   top/top-face           Q    have   one-CL eagle  
'There is an eagle on each top of those five houses.'

#### **SELECTED REFERENCES**

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