

The ambiguity of the post-verbal modal morpheme DE in Sichuanese

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This work investigates the post-verbal modal morpheme DE in Sichuanese, a Mandarin variety, showing that Chinese has several modal projections in line with Cinque’s hierarchy. Furthermore, Chinese also realizes a modal AlethicP rather low in the structural spine, contra Cinque, who merely sets the alethic in a fairly high position (higher than all root modals). In Sichuanese, DE always appears after the verb in the form V-DE and is traditionally considered to be a potential suffix (Chao 1968) or infix (Li & Thompson 1981). While in Standard Chinese the modal reading has been almost lost and only the resultative construction V-DE-Res remains, the intermediate stage as a “potential” morpheme is preserved in some Chinese varieties like Cantonese (Cheng&Sybesma 2004). Sichuanese is peculiar in that DE still functions as a regular modal morpheme and almost entirely covers the whole spectrum of non-epistemic modality (as illustrated in (1)):

(1) *Zang¹san¹ ho¹ de² pi²jiu³.*

Zhangsan drink **DE** beer.

- a. (pure possibility) ‘Zhangsan can drink beer (because nothing prevents him from drinking beer, e.g. he doesn’t have any health problem).’;
- b. (permission) ‘Zhangsan is permitted (by someone) to drink beer.’;
- c. ((strong) ability) (with an emphasizing tone) ‘Zhangsan is able to drink a lot of beer.’

The ambiguity could in principle cause a problem for the cartographic approach: do we still need multiple projections for root modality if a single morpheme is responsible for nearly all root modal readings? This work will show that the ambiguity introduced by DE is not at all problematic from a cartographic perspective but rather may be used as strong support for the root modal hierarchy, by assuming that alethic modality is also represented in Cinque’s hierarchy in a rather low position, as illustrated in (2):

(2) [ModObligation *gai* ‘should’ V_{[NegP *bu* V_{[ModAbility *da* ‘quant.’ V_{[ModPermission V_{[ModAlethic **DE**}}}}]]]]]

I argue that DE is not a multi-functional modal morpheme, but just an alethic modal morpheme that expresses an underspecified ‘pure possibility’ reading. It occupies an alethic modal position located lower than all root modal projections in the clausal spine, allowing the verb to move past it. The various modal readings of V-DE can be disambiguated by the co-occurrence with the sentence-final particle *le* plus optional overt modal auxiliaries (cf. (3)), by the (overt/covert) presence of a functional quantifying morpheme (as in (4)), or by moving the verb to check relevant modal features in higher root modal projections. (3) shows that the lexical verb is lower than the modal auxiliary *gai* ‘should’. (4) shows that the lexical verb is raising to a position higher than the negative marker *bu* and the quantifier *da* ‘big; very’.

(3) (*Gai¹*) *xi³ de² yi¹fu² le.*

(Should) wash **DE** clothes LE.

‘(You) should wash your clothes (now).’

(4) *Zang¹san¹ ho¹ bu² (da⁴) de² (pi²jiu³).*

Zhangsan drink Neg. (very) **DE** (beer).

‘Zhangsan is not able to drink a lot (beer).’

When the ‘pure possibility’ V-DE is negated, the negative form V-*bu*-DE ‘V-Neg.-DE’ has always an additional strong ‘necessity’ reading, translated to ‘must not’. This suggests that the projection ModObligation must be activated through verb movement when negating the ‘pure possibility’ V-DE. Hence, it is not necessary to assume that DE has grammaticalized as a highly ambiguous modal marker, it is just an alethic marker, a type of modality that is at the

basis of all other modal readings. In particular, marking the various positions can be performed by the verb raising, a rather unique property in the domain of Chinese varieties.

Selected references: Cheng, L. & Sybesma, R. (2004). Postverbal 'can' in Cantonese (and Hakka) and Agree. *Lingua*, 114 (2004) 419–445. Chao, Y. R. (1968). *A grammar of spoken Chinese*. Berkeley and Los Angeles: University of California Press. Cinque, G. (1999). *Adverbs and functional heads: A cross-linguistic perspective*. New York: Oxford University Press. Cinque, G. (2006). *Restructuring and Functional Heads. The Cartography of Syntactic Structure*. Vol. 4. Oxford University Press.

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