

### Chinese *ba* and *bei*: Co-Verbs, Light Verbs, Voice and Argument Alternations:

Mandarin Chinese *ba* and *bei* belong to a group of morphemes known as Co-Verbs (CVs) which are unified in being preverbal (Li and Thompson (1974)), but *ba* and *bei* (and dialectal cognates) differ from the rest in displaying Differential Argument Marking (DAM) as they preferentially select referential nominal arguments which are thematically selected by complex verbal predicates with strong transitivity (1a), complementation (1b), aspect (1c), and multi-syllabicity (1d) (Zou (1995:59ff), Li (2006:413ff), cf Serzant. and Witzlack-Makarevich (2017)):

- 1a) \*ta ba na-difang likai-le / \*ta bei ren kan-le  
He BA that-place leave-ASP he BEI person see-ASP  
(intended) ‘He left that place.’ (Li (2006:397)) / ‘He was seen by someone.’ (Chu (1973:442))
- 1b) qing ni ba shu fang \*(zai zhuozi-shang) / Zhangsan bei Lisi da \*(henduo ci)  
Please you BA book put at table-LOCALIZER Zhangsan BEI Lisi hit many times  
‘Please put the book \*(on the table).’ (Li (2006:392)) / ‘Zhangsan is hit by Lisi \*(many times).’ (Feng (2012:117-118))
- 1c) ta ba nei ge fangzi gai-\*(hao/le) / zhe-ge yusuan bei lifayuan shan\*(-le)  
He BA that-CL house build-ASP this-CL budget BEI legislative.council delete-ASP  
‘He built that house.’ (Liu (1997:63)) / This budget was deleted by the legislative council.’ (Chappell and Shi (2016:471))
- 1d) ba tamen \*(bao)\*(wei) / \*ta bei ta taitai ma  
BA them surround he BEI his wife scold  
‘surround them’ (Feng (2002a:249)) / (intended) ‘he is scolded by his wife.’ (Chu (1973:441))

As there is as yet no formal analysis which satisfactorily accounts for all of these subtle properties (Li (2006:376)), it is here proposed that *ba* and *bei* are Voice heads (Active/Passive) merged relatively high in the cartography of Light Verb (LV) projections proposed by Huang (1997) and Lin (2001), and their argument-licensing is more semantically driven than the Case-driven A-Move in Western European languages (Roberts (1986:17ff)), which not only captures their DAM properties but also suggests a more articulate LV-structure with Voice projections which conform with traditional analyses (Frei (1956), Wang (1959)). In contrast to movement analyses (Li (2006), Yeo (2015)) which account for the referentiality of the preverbal argument via A'-movement (e.g. *ba shu fang / bei Lisi da* (1b)), it is argued instead that *ba* heads an Active projection which (re-)activises a lower passive predicate headed by *gei* (2a) and *bei* in turn (re)passivizes *ba* (2b):

- 2a) yi ba huo jiu ba afang gong gei fei le  
One CL fire then BA A-Fang palace PASS ruin SFP  
‘It took just one fire to ruin the palace of A. Fang.’ (Chappell and Shi (2016:465-466), cf Tang (2001))
- 2b) ta bei pengyou ba yi-ge taitai gei pian zou le  
He BEI friend BA one-CL wife PASS cheat away SFP  
‘He was cheated by his friend of one of his wife.’ (Chen (2003:1173))

This Voice representation (Passive (*bei*) - Active (*ba*) – Passive (*gei*)) explains why the lower verbal predicate (here *gei fei le* (2a), *gei pian zou le* (2b)) cannot be a bare V but a phrasal VP with Aspect and Accusative Case (1a-e) which entail an internal vP-structure with external argument (SpecPRED) and internal argument (SpecTRANS) (Kuo (2010), cf Bowers (2002)). Furthermore, as Spec-to-Spec A-Move is prohibited by Minimality of movement (SpecBEI<sub>i</sub> – SpecBA<sub>j</sub> – SpecGEI (t<sub>i</sub>) – SpecPRED (t<sub>j</sub>) – SpecTRANS (t<sub>i</sub>)) (Rizzi (1990)), it is suggested here that these arguments are merged externally in specifier positions where they may or may not be co-indexed with a lower argument in the matrix vP (cf Feng (2002:147-151, 2012:129-136)). The DAM properties may hence be accounted for by the lexical origins of *ba* (‘to take’), *bei* (‘to receive’) and *gei* (‘to give’) which semantically select agentive, patient-like and ‘affected’ arguments respectively as they are formed via restructuring of arguments in serial verb constructions in historical Chinese (Peyraube (1989), Feng (1998, 2002b)). Furthermore, in accordance with the thematic hierarchy of LV-projections (Lin (2001:436ff)), the distribution of these Voice-alternating CVs suggests more LV-projections above the vP-Phase which derive semantic/thematic argument relations of volitionality/intentionality (*ba*) and affectedness (*bei/gei*).

### (Selected) References:

- Bowers, J. (2002): ‘Transitivity’. *Linguistic Inquiry* 33(2):183-224; Chappel, H. and Shi, D-X. (2016): ‘Major Non-Canonical Clause Types: *ba*, *bei* and ditransitives’, in Shi, D-X. and Huang, C-H. (eds), *A Reference Grammar of Chinese*, Cambridge: Cambridge University Press, pp. 451-483; Chu, C. (1973): ‘The Passive Construction: Chinese and English’. *Journal of Chinese Linguistics* 1(3):437-470; Feng, S-L (2002a): ‘Prosodically Constrained Bare-Verb in *Ba* Constructions’, *Journal of Chinese Linguistics* 29:243-280; Feng, S-L (2002b): ‘Prosodic structure and the origin of *ba* Construction’, in Triskova, H. (ed), *Tone, Stress and Rhythm in Spoken Chinese*, *Journal of Chinese Linguistic monograph* 17:119-168; Feng, S-L. (2012): ‘Empty operator movement in Chinese passive syntax’, in Wang, L-J. (ed), *Shuli luoji zhi mei*, Beijing: Beijing Language and Culture university, pp. 117-137; Frei, H. (1956): ‘The ergative construction in Chinese.’ *Gengo kenkyuu* 31/32; Huang, C-T. (1997): ‘Lexical structure and syntactic projection’, *Journal of Chinese Languages and Linguistics* 3:45-89; Kuo, P-J.(2010): ‘Transitivity and the BA construction’. *Taiwan Journal of Linguistics* 8(1):95-128; Li, A. (2006): ‘Chinese Ba’, in Everaert, M. and van Riemsdijk, H. (eds), *Blackwell Companion to Syntax: Volume I*, Blackwell, pp. 374-468; Liu, F-H. (1997): ‘An Aspectual Analysis of *ba*’, *Journal of East Asian Linguistics* 6:51-99; Lin, T-H. (2001): *Light Verb Syntax and the Theory of Phrase Structure*. PhD dissertation, UC Irvine; Peyraube, A. (1989): ‘zaoqi “ba” ziju de jige wenti’ [Several issues regarding early *ba* sentences], *Yuwen Yanjiu* 1:1-9; Rizzi (1990): *Relativized Minimality*. Cambridge: MIT Press; Roberts, I. (1986): *The Representation of Implicit and Dethematized Subjects*. Dordrecht: Foris; Serzant, I. A. and witzlack-Makarevich, A. (2017): *Diachronic typology of differential argument marking*. Berlin: Language Science Press; Wang, H. (1959): *Baziju he Beiziju*. Shanghai: Shanghai Education Publications; Yeo, N. (2015): ‘Maximality and the *ba*-construction’. MS, University of York; Zou, K. (1995): *The Syntax of the Chinese BA-constructions and Verb Compounds: a Morphosyntactic Analysis*. PhD dissertation, University of Southern California.