Chinese Voice (*ba/bei*):

Mandarin Chinese *ba* and *bei* (long passive) display subtle Differential Argument Marking (DAM) properties where they preferentially select definite/referential nominal arguments as well as complex verbal predicates with strong transitivity (1b), object complementation (1c), aspect (1d), and multi-syllabicity (1e), which strongly suggests that *ba* and *bei* are merged above little v and aspectual projections (Zou (1995), Li (2006)):

1a) sha-le   huaidan /   ba huaidan sha-le
     kill-COMPL   scoundrel   BA scoundrel kill-COMPL
     '(He) killed the scoundrel' (definiteness obligatory in *ba*) (Li (1990:193))

1b) *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))

1c) 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))

1d) 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))

1e) 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))

While most formal analyses posit movement of the nominal complement to account for its discursive properties (e.g. *ba* **shu** *fang / bei* **Lisi** *da* (1c)),Li (2006), Arcodia and Iemmolo (2014)), A/A'-movement is unlikely in *ba* and *bei* constructions since A'-movement to the internal left periphery would only explain the definiteness/referentiality of the nominal complement and not the complex properties of the matrix verb phrase (1b-c), cf Li (2006:376)) and A-movement is ruled out by the Minimality of Spec-to-Spec movement within the cartographic projection of Light Verbs (Huang (1997), Lin (2001)) where the base-generated external argument (SpecPred) intervenes before the base-generated internal argument (SpecTrans) (Bowers (2002)) and the latter cannot cross over the former in being raised to an adjacent position to *ba* or to the specifier of *bei,* as argued by Li (2006) and Feng (2012). It is proposed here, therefore, that *ba* and *bei* instantiate Voice projections (Active and Passive respectively, *pace* Kratzer (1996)), and while *ba* (Active) selects and (re-)activises a lower passive predicate headed by an affective marker *gei* (2a) (Tang (2001)), *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 cartography of Voice projections (Passive (*bei*) - Active (*ba*) – Affect (*gei*)) explains why the lower matrix verbal predicate (*gei fei le* (2a), *gei pian zou le* (2b)) cannot be bare but phrasal (1a-e) with an internal vP-structure (Kuo (2010)), and the complex verbal properties of *ba* and *bei* (1b-e)) fall out from the fact that verb movement is obligatory for the licensing by Spec-Head agreement the arguments in the specifiers of these Voice heads (SpecAffect (*afang gong* (2a), *yige taitai* (2b)), SpecActive (*pengyou* (2b)). Furthermore, as Spec-to-Spec A-movement is prohibited by Minimality of movement (SpecBEI $_i$ – SpecBA $_j$ – SpecGEI (t_i) – SpecPRED (t_j) – SpecTRANS (t_i)) (Rizzi (1990)), it is argued here that *ba* and *bei* (and *gei*) are Applicative heads which not only permit external merge of coindexed arguments from their base-generated theta-positions in the lower vP (Feng (2002b:147-151, 2012:129-136), cf Pylkkanen (2002)) but also account for the fact that *ba* and *bei* often denote agentivity/volitionality and affectedness respectively which are characteristic of their lexical origins (*ba* 'to take', *bei* 'to receive') in historical serial verb constructions which semantically select agentive and patient-like subjects respectively and undergo restructuring (Peyraube (1989), Feng (1990, 2002b)). Moreover, the argument-alternations in *ba* and *bei* constructions suggest extra projections between T(ense) and Asp(ect) which differ from the Case-driven A-movement in the voice alternation in Western European languages (e.g. passivisation (Roberts (1986:17ff)) in being more semantically driven which not only captures the DAM properties in *ba* and *bei* constructions but also suggests two parallel Voice heads (Passive (*bei*)/Active (*ba*)) which conform with traditional analyses of *ba* and *bei* (Frei (1956), Wang (1959)).

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