Also introducing arguments: The Mandarin ba-construction
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Introduction. This paper examines the Mandarin *ba* construction. Modern Mandarin is SVO (1a), but the *ba*-construction exhibits a surface word order of subject-*ba*-object-verb (SOV) (1b). The atypical word order, argument structure and numerous syntactic and semantic restrictions have made it the subject of extended debate.

(1) a. Xi-Xi he-le niunai. **(canonical SVO sentence)**
         Xi-Xi drink-ASP milk.
         'Xi-xi has drunk milk.'
     b. Xi-xi **ba** **niunai** he-le. **(*ba*-construction)**
         Xi-xi **BA** **milk** drink-ASP
         'Xi-xi has drunk up the milk.'

The puzzle. Recent analyses treat *ba* as a functional head projected at different positions on the verbal spine: at v (Sybesma, 1999) or above vP (Huang et al., 2009). Their underlying assumptions are: 1) the NP after *ba* (the *ba*-NP) and the following VP form a constituent excluding *ba*: [*ba* [NP VP]]; 2) *ba*-sentences are derived from non-*ba* sentences, like passives and actives. Though these analyses can account for some properties of *ba*-constructions, they fail to derive the right word order when manner adverbs modify the VP and are unable to account for all the data, such as the ability of *ba* predicates to take an additional complement.

Any proposed syntactic structure for *ba*, to be descriptively adequate, has to derive the observed linear order of *ba* sentences with respect to adverb placement and also account for the semantic properties, such as the affected interpretation of the *ba*-NP (Wang Li, 1945; Lü, 1948; Sybesma, 1999), the aspectual restrictions on the predicate, namely telicity (Young, 1993; Sybesma, 1999) and the definiteness of the *ba*-NP (Lü, 1948; F. Liu, 1999).

My proposal. Applying constituency tests, I propose that *ba* and the *ba*-NP form a constituent [[*ba* NP] VP]. Based on the constituency and aspectual properties of the complex *ba* VPs and the argument structural differences between *ba* sentences and canonical SVO sentences, I propose that *ba* and the *ba*-NP merge at the specifier position of an FP between VoiceP and vP.

Evidence for my claims is threefold. First, my research has found that *ba* predicates are Accomplishments and Achievements, and therefore telic; telicity is a vP-level property. I claim that the head of FP holds a telicity feature that agrees with a telic *ba* VP, following Kratzer's (2002) analysis of Finnish case. Second, *ba* and the *bei*-passive can co-occur, and the morpheme *bei* (the passive) always precedes *ba*. As passive is well established as a Voice, *ba* must therefore be between Voice and v. Third, when *ba* appears with ditransitive verbs, it does not add an argument, but allows the theme NP of double object constructions (DOCs) to merge in a higher position. Pylkkänen (2008) argues that DOCs are low applicatives, situated in VP, whereas high applicatives are below both causatives and passives but above VP. This is consistent with the observed order of the Mandarin causative, passive and *ba*. My proposal accounts for the syntactic behaviour of all the VP types in *ba*-constructions, the semantics of *ba* constructions (telicity of VPs and the affectedness interpretation of *ba*-NPs), and the word order issue.

Implications. These facts, and the observations that *ba* allows an extra NP in the canonical object position (the defining property of applicatives) suggests that *ba* can mark a high applicative in the sense of Pylkkänen (2008). Further support for this idea comes from the availability of benefactive, malefactive, instrumental, and locative interpretations of the *ba* NP. The telicity of the *ba* VP and the definiteness of the *ba* NP may well be formally linked. Finally, ordering relations among *ba*, the *bei*-passive, and the causative (*shi/rang*) implies that the Mandarin Voice system occupies several functional heads.

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