A Say Verb or Complementzier: analyzing *shuo* following communicatives and non-communicatives

Overview. *Say*-based complementation has been extensively studied cross-linguistically (Lord 1976; Koopman 1984; Chappell 2008; Paul 2014; Major 2021, among others), aiming to determine the syntactic category of 'say'-based complementizers, category V or C. This paper presents a case study of how the *say* verb *shuo* in Mandarin behaves after different predicates. In many dialects of Mandarin the verb *shuo* ('say') can occur after verbs that select for clausal complements, giving it the appearance of a *say*-based complementizer. In this paper, I present novel evidence that *shuo* behaves differently based on the predicate that proceeds it. These differing behaviors lead to an analysis where *shuo* is sometimes a verb in a V-V compound and sometimes a complementizer. I show how this analysis accounts for the different behaviors of *shuo*. These findings and analysis dovetail well with recent work on say-complementation in Kipsigis (Bossi 2023) and Sakha (Yue 2023). This paper hence not only expands our knowledge of *say*-complementation but shows more about the process of grammaticalization and elucidates how the grammaticalized status of *shuo* interacts with other aspects morphosyntactic theory.

Puzzle. *Shuo* in (1) is the speech verb use, which perfectly matches the proposed universal *SAY* schema (Grimshaw 2015). Moreover, *shuo* exhibits versatility in its usage beyond its role as a matrix verb. It also appears after a verb (hereafter the postverbal use), as exemplified in (2) and (3), where *shuo* follows a communicative (comm) and a non-communicative (non-comm) predicate (as defined by Anand et. al (2017)), respectively. Comms are predicates related to speech acts whereas non-comms are further divided into emotive, inferential and doxastic predicates.

(1) Yuēhàn (duì Mǎlì) shuō
John (to Mary) say
míngtiān huì xiàyǔ.
tomorrow will rain

'John said (to Mary) it would rain tomorrow.'

(2) Yuēhàn bàoyuàn shuō
John complain say
míngtiān huì xiàyǔ.
tomorrow will rain

'John complained that it would rain tomorrow.'

(3) Yuēhàn juéde/rènwéi shuō
John think say
míngtiān huì xiàyǔ.
tomorrow will rain

'John thought that it would rain tomorrow.'

Comms vs. non-comms. In the formation of a 'V$_1$ + shuo' construction, a distinction emerges between the use of a comm and non-comm V$_1$, manifesting in several significant aspects: fronting, argument structure, co-occurrence with aspectual markers, *wh*-question formation, coordination, *how*-questions, verb doubling, ellipsis, and contrastive focus with negation. I will focus on fronting, verb doubling and *wh*-question formation in this abstract, leaving others for the presentation. Firstly, in 'V$_1$+shuo+IP', when V$_1$ is comm, 'shuo+IP' is prohibited from being fronted (4a), but it is allowed when V$_1$ is non-comm (4b).

(4) a. *Shuō míngtiān huì xiàyǔ, Yuēhàn
say tomorrow will rain John
bàoyuàn.
complain

'(int.) That it would rain tomorrow, John complained.'

b. Shuō míngtiān huì xiàyǔ, Yuēhàn yě
say tomorrow will rain John too
zhèyàng juéde/rènwéi.
like.that think

'That it will rain tomorrow, John thinks like that too.'

For comms, if only the IP is left-fronted, the sentence becomes felicitous, shown in (5). However, stranding *shuo* at the end with a non-comm verb is degraded, shown in (6).

(5) Míngtiān huì xiàyǔ, Yuēhàn bàoyuàn shuō.
tomorrow will rain John complain say

' "It will rain tomorrow", John complained.'

juéde/rènwéi shuō.
think say

'(int.) That it will rain tomorrow, John thinks like that too.'

(6) *Míngtiān huì xiàyǔ, Yuēhàn yě zhèyàng
tomorrow will rain John too like.that

Secondly, in 'V$_1$+shuo', only instances of *shuo* following comms demonstrate compatibility with verb doubling. In contrast, those following non-comms result in ungrammaticality, as illustrated in (7). This contrast signifies that the status of *shuo* following non-comms does not align with that of a verb.

(7) a. Shuō, Yuēhàn shì bàoyuàn shuō
   say John FOC complain say
   míngtiān huì xiàyǔ.
   tomorrow will rain

   'Saying, it was the case that John complained that it would rain tomorrow.'

b. *Shuō, Yuēhàn shì juéde shuō
   say John FOC think say
   míngtiān huì xiàyǔ.
   tomorrow will rain

   '(int.) Saying, it was the case that John thought that it would rain tomorrow.'

Thirdly, in *wh*-question formation, as exemplified in (8a), *shuo* is allowed to co-occur with the comm predicate *dunang* ('mutter') when the complement is replaced by a *wh*-word. Conversely, as observed in (8b), *shuo* is prohibited from co-occurring with the non-comm predicate *renwei* ('think').

(8) a. Yuehan dunang (shuo) le shenme?
   John mutter say ASP what
   'What did John mutter?'

b. Yuehan juede/renwei (*shuo) shenme?
   John think say what
   'What did John think?'

Analysis. Following Bossi's (2023) and Yue's (2023) analyses of other languages, I argue that *shuo* following non-comms and comms have different syntactic status. What distinguishes this paper is that the analysis of Mandarin diverges from Bossi (2023) and Yue (2023) in contending that the postverbal *say*, rather than forming a converbial structure, combines with the preceding verb to form a V-V compound (also called *AND*-compounds in Li 1990), which is a very productive and well established process in Mandarin morphosyntax. *Shuo* following non-comms is a complementizer (9) whereas following comms is a verb and forms a V-V compound with the preceding predicate (10).

(9) [$_{VP}$ V-comm [$_{CP}$ [$_C$ shuo] IP]]

(10) [$_{VP}$ [$_V$ (V-V Compound) V+comm [$_{CoordP}$ [$_{Coord}$ $\emptyset$] [$_V$ shuo]]] IP]

This explains how *shuo* responds to various diagnostics. For instance, the complementizer *shuo* cannot co-occur with *wh*-questions, aligning with English in the exclusion of complementizers in *wh*-questions (e.g., "What did John say/think (*that)?"). *Shuo*+IP fronting is allowed whereas fronting only the IP is not when *shuo* is a complementizer, conforming to Abels's (2003) generalization where stranding of a C head is illicit. *shuo*+IP with comms cannot front because they do not form a constituent. Only *shuo* following comms survives in verb doubling, validating its verbal status and difference from *shuo* following non-comms.

Selectional differences. Under this analysis, one may wonder why non-comms cannot form V-V compounds with verbal *shuo* or why comms cannot take complementizer *shuo*. As for why non-comms can't take verbal *shuo*, I propose the semantic similarity constraint associated with *AND*-compounds: i. It has been noted previously that there are restrictions on *AND*-compounds where only verbs that have very similar/opposite meanings can occur in them (for more details, see Li 1990). ii. I propose that two verbs can only form an *AND*-compound if they select for the same type of complement, following Speas (2004) and much subsequent work: *say* and other communicative verbs select for a larger complement (say a speech act phrase) than what non-comms select. This explains the only potential parse of *shuo* as a complementizer following non-comm since the verbal *shuo* and non-comms are not compatible for *AND*-compounding. As for why comms can't take the complementizer *shuo*, I propose two avenues of exploration: i. Diachronically speaking, the complementizer *shuo* is grammaticalized from the verbal *shuo*. When language acquirers are exposed to 'V$_{+comm}$+shuo', they would prioritize the verbal *shuo* because of the meaning connection. Compounding is possible due to the similar meanings between the two elements and they select for the same size of complement. ii. Semantic incompatability: the evidential flavor of the complementizer *shuo* itself makes it incompatible with Say+Manner/Attitude comms since those comms indicate the agent's level of certainty about the embedded proposition, following the ban of the complementizer *shuo* after factives.

Selected references. [1] Bossi, M. 2023. Two types of 'say'-complementation in Kipsigis. *WCCFL*. [2] Grimshaw, J. 2015. The light verbs say and SAY. *Language Science*. [3] Li, Y. 1990. On VV compounds in Chinese. *NLLT*. [4] Major, T. 2024. Reanalyzing 'say' complementation. *NLLT*. [5]Paul, W. 2014. Why particles are not particular. *SL*. [6] Speas, M. 2004. Evidentiality, logophoricity and the syntactic representation of pragmatic features. *Lingua*. [7] Yue, C. 2023. Sakha 'say' complementization. *NELS*.