

A cognitive sociolinguistic analysis of the theme-recipient alternation in Mandarin Chinese, and of its sensitivity to lectal factors

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Research Question: Guided by theorizing in Cognitive Sociolinguistics, the present study seeks to explore the probabilistic nature of lectal variation in Mandarin Chinese. Specifically, it aims to empirically assess how the theme-recipient alternation (or: “dative” alternation) in Mandarin is conditioned by language-internal and language-external constraints, and how these constraints interact with each other.

Background: As in other languages, in Mandarin the ordering of the theme and the recipient constituents in ditransitive constructions is variable: the theme can occur before the recipient (theme-first), as in (1), or the recipient can occur before the theme (recipient-first), as in (2). Despite previous empirical analysis of the alternation with corpus data (e.g., Yao & Liu 2010; Zhang & Xu 2019) and psycholinguistic experimentation (e.g., Liu & Hwang 2022), there is still a dearth of analysis investigating how lectal factors such as region and genre affect the effect sizes and/or directions of the language-internal constraints such as end-weight effects. Given our knowledge of the impact of lectal factors on grammatical alternations in languages such as English (e.g., Röthlisberger et al. 2017) and Mandarin (e.g., Tian et al. 2022), it would be surprising if the theme-recipient alternation should turn out to be stable in the face of lectal factors.

(1) 他 送 了 [书]_{theme} 给 [我]_{recipient}
tā sòng le shū gěi wǒ
1SG send PST book DAT 3SG
“He sent a book to me.””

(2a) 他 送 了 [我]_{recipient} [书]_{theme}
tā sòng le wǒ shū
1SG send PST 3SG book
(2b) 他 送给 了 [我]_{recipient} [书]_{theme}
tā sònggěi le wǒ shū
1SG send-give PST 3SG book

(2c) 他 给 [我]_{recipient} 送 了 [书]_{theme}
tā gěi wǒ sòng le shū
1SG DAT 3SG send PST book
“He sent me a book.”

Data & Method: We obtained the data using a total of eight corpora of Mandarin Chinese covering two regions (Mainland Mandarin, Taiwan Mandarin) and five genres (telephone conversation, broadcast news, press, fiction, non-fiction) of Mandarin. We extracted $N=4,266$ tokens from the corpora, using a verb list of 62 ditransitive verbs obtained from the extensive literature on verbs that may appear in theme-recipient constructions in modern Mandarin (e.g., Li & Thompson 1981; Zhu 1979) and intensive hand-coding. We used mixed-effects logistic regression modeling to gauge the conditioning of the theme-recipient alternation. Model selection followed a forward selection procedure with sequential ANOVA tests. The optimal model contains 11 fixed-effects, 2 random effects (verb, corpus structure), and 2 interaction terms (variety: recipient complexity, genre: theme concreteness).

Findings & Implications: Our analysis reveals that the recipient-first ordering is consistently more frequent than theme-first ordering and even more common in Mainland Mandarin than in Taiwan Mandarin. Regression analysis also suggests that the probabilistic grammar that shapes the theme-recipient alternation is fundamentally stable across regional and genre varieties of Mandarin. This general stability notwithstanding, significant differences are detected regarding the importance of language-internal constraints across different language-external constraints. Crucially, we found that recipient complexity has a much greater effect in Taiwan Mandarin than in Mainland Mandarin, and that the effect of theme concreteness is significantly reduced in telephone conversation transcripts compared to other genres. Analyzing a language that is typologically unrelated to the languages focused by previous scholarships, our findings contribute to current research in Cognitive Sociolinguistics by assessing the extent to which language users' probabilistic grammar varies across lects.

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