

Frequency Effect on Subject Pronoun Use in Mandarin Chinese  
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In recent years, some studies have been conducted to investigate the role of lexical frequency in phonological and syntactic variation since Bybee's proposal of the central importance of frequency in language use (Bayley, Ware & Holland, 2013; Bybee, 2002; Erker & Guy, 2012; Walker, 2012). So far, the results suggest a complicated and even puzzling picture of frequency effect. On phonological level, Bybee (2002) found a strong frequency effect on t/d deletion whereas Walker (2012), after examining the effects of different measures of frequency, found that t/d deletion is best accounted for by formal approach instead of usage-based approach. Erker & Guy (2012) extended the investigation of frequency into syntactic variation. The variable they examined was subject pronoun use in Spanish. They found no independent effect of frequency and frequency amplifies or activates other constraints. Bayley et al. (2013) used the same frequency measure as Erker & Guy (2012) and also examined Spanish subject pronominal expression. They found a minor independent effect of frequency and stronger constraint effects in nonfrequent verbs.

This study investigates the effect of frequency on subject pronominal expression in Mandarin. The data were collected from twenty Chinese native speakers (13 college students and 7 college teachers) in three discourse contexts including informal conversations, elicited narratives, and teacher classroom speech with a total number of 7,291 tokens. Frequency was measured in two ways. One was the general frequency with reference to *A Frequency Dictionary of Mandarin Chinese* (Xiao, Rayson, & McEnery, 2009) and the other followed Erker & Guy's (2012) and Bayley et al.'s (2013) dataset frequency measures. Preliminary two runs of multivariate analyses with different frequency measures indicated that frequency does have a relatively minor independent effect. Since the variation patterns in teacher speech and student speech were very different (the teachers use overt pronouns at a much higher rate than the students) (AUTHOR, 2012), four additional runs of analyses were conducted – two frequency measures by two speaker groups. The results showed that frequency had no independent effect at all for either teachers or students with general frequency measure, whereas frequency demonstrated a minor effect for both groups with dataset frequency measure. Then twelve runs of analyses were conducted – three speaker groups (teachers, students and the two groups combined) by two frequency groups (frequency vs. nonfrequent) under two frequency conditions (general vs. dataset). Subject person/number and switch reference turned out to be significant in all the runs and other factors were on and off in terms of significance in different runs.

The results suggest that subject pronoun use in Mandarin can not be best explained by usage-based approach and frequency does not play a central role in the use of this linguistic feature. Rather, when discussing frequency effect, many other factors need to be taken into consideration such as frequency measures, speaker groups, discourse and so on. In addition, the “Cheshire cat” (Bayley et al., 2013) nature of frequency effect was demonstrated even within the same dataset.

## References

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