

Longitudinal Development of Chinese Directional Complements in L2 Chinese: Use, Type Expansion, and Accuracy

Chinese directional complements (DCs) constitute a core grammatical resource for expressing motion events, yet they pose persistent challenges for L2 learners due to their complex form–meaning mappings and construction-specific ordering constraints involving verbs, directional elements, and objects. Typologically, Chinese differs from English in that it is often characterized as an equipollently-framed language where motion meaning is distributed across verbs and directional elements, whereas English is satellite-framed (Slobin, 2004; Talmy, 2000). These cross-linguistic differences have been shown to influence how L2 learners conceptualize and linguistically encode motion events (Cadierno, 2010; Slobin, 1996). However, longitudinal evidence on how learners develop the full system of Chinese directional complements across instructional and post-instructional stages remains limited.

This longitudinal study examines the acquisition of Chinese directional complements in English-speaking learners of Chinese, focusing on three dimensions: overall frequency of DC use, diversification of DC construction types, and accuracy of individual DC tokens. Thirty participants completed a motion-event retelling task based on the silent *Pear Story* video at four time points over three academic years. The time points were aligned with instructional stages: (1) the end of the first semester of first-year Chinese, when learners had been exposed only to “verb + 来 Lai/去 Qu” constructions functioning as deictic directional markers without lexical directional complements; (2) the end of the second semester of first-year Chinese, following instruction on major DC constructions; and (3–4) the ends of the first semesters of the second and third years, capturing longer-term development and consolidation.

Learners’ productions were coded for five types of directional complement constructions, ranging from simple verb–DC combinations to more complex constructions involving multiple directional elements, objects, and the Chinese-specific 把 Ba construction. Mixed-effects modelling revealed robust growth in overall DC use over time, accompanied by clear type-specific developmental patterns. Simpler DC constructions emerged early and remained dominant, whereas structurally more complex constructions—particularly those combining multiple directional elements or involving 把 Ba—showed delayed but accelerated growth in later stages. Analyses of type expansion further demonstrated that learners steadily increased the number of DC construction types used, as well as the number used correctly, though accurate type expansion lagged behind overall structural diversification. Token-based accuracy analyses showed a strong overall improvement in correctness over time, with accuracy development proceeding in a largely type-general manner across constructions.

Taken together, these findings suggest that L2 acquisition of Chinese directional complements involves a progression from limited, form-based strategies toward increasingly diversified and accurate constructional use, shaped by typological constraints and instructional input. Pedagogically, the results highlight the importance of sequencing DC instruction and providing sustained opportunities for motion-event description. In the context of Chinese language education in the age of AI, the study points to the potential of AI-assisted practice—such as AI-generated motion event description tasks and automated feedback—to support learners’ long-term consolidation of complex grammatical constructions.