Between Grammar and Thought: Contrasting Temporal Encoding in L1 and L2

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Languages typically have various possibilities but also preferences in encoding fundamental semantic categories, such as space and time (Klein, 1994; Slobin, 1996a, 2000). Temporality, for instance, can be conveyed through either lexical (e.g., temporal adverbials, lexical aspect) or grammatical means (e.g., tense, aspect) (Klein, 2009). While lexical means are cross-linguistically available, tense and aspect are grammatical categories of the verb that are language-specific (Comrie, 1976, 1985; Klein, 2009). Based on the prominence of these categories — measured by their degree of grammaticalization, obligatoriness, systematicity, and pervasiveness — languages can be classified as tense-prominent or aspect-prominent (Bhat, 1999). For example, German has an obligatory, grammaticalized tense system but encodes aspect primarily through lexical means, such as temporal adverbials (*gerade* 'now') and aspectual verbs (*austrinken* 'drink up'). In contrast, Mandarin Chinese (henceforth Chinese) lacks tense but features a grammaticalized aspect system, realized through markers like *le* (perfective) (Heinold, 2015; Liu, 2015).

Grammatical categories like aspect are deeply entrenched. They become automatized in first language (L1) acquisition and are hypothesized to influence not only linguistic structures but also speakers' conceptualization processes (Slobin, 1987, 1996; von Stutterheim et al., 2012). This effect may extend to later-acquired languages: for late bi- or multilinguals whose L1 lacks or disfavors certain temporal encoding strategies, grammaticalized aspect has been found particularly resistant to restructuring (Slobin, 1996). Empirical research largely supports the Linguistic Relativity and/or Thinking-for-Speaking Hypothesis in this domain (see Wang & Wei, 2022 for an overview).

This study examines the language-cognition interface by contrasting an aspect-prominent language with a tense-prominent one. It explores whether Chinese (L1) encoding preferences influence the acquisition of temporality in German as a second language (L2) and whether such influence extends to processes of conceptualization. The study hypothesizes that Chinese L1 speakers exhibit greater sensitivity to inherent temporal features of events (ongoing or completed) in non-verbal tasks, and that this sensitivity remain salient in advanced L2 speakers of German in both verbal and non-verbal tasks (Pavlenko 2011).

Three participant groups (n = 50 each) completed in a series of experiments: (I) Chinese L1 speakers, (II) German L1 speakers, and (III) Chinese L1 speakers with advanced German L2 proficiency. Each group was split in half. One half completed three tasks with a verbal component: (a) oral descriptions of everyday causation events, (b) a memory test on temporal features, and (c) a similarity-judgment task comparing event sequences differing only in the phase of the action (ongoing vs. completed). The other half started with a non-verbal version of task (a) (silent observation) before proceeding with the remaining tasks.

Analysis of the elicited descriptions revealed L1 influence among Chinese L2 speakers of German, reflected in tense deviations and increased reliance on adverbials and periphrastic constructions. However, results from non-verbal tasks indicated no significant cross-group differences concerning conceptualization. These findings suggest limited evidence for grammatical aspect influencing L1 cognition and no support for transfer from an aspect-prominent L1 to a tense-prominent L2 which contradict many empirical studies reporting such influence on cognitive processing.

References

Bhat, D.N.S. (1999). *The Prominence of Tense, Aspect and Mood*. Amsterdam/Philadelphia: John Benjamins Publishing Company (Studies in Language Companion Series, 49).

Comrie, Bernard (1976). *Aspect. An introduction to the study of verbal aspect and related problems*. Cambridge, New York: Cambridge University Press (Cambridge textbooks in linguistics).

Comrie, Bernard (1985). *Tense*. Cambridge: Cambridge University Press.

Heinold, Simone (2015). *Tempus, Modus und Aspekt im Deutschen. Ein Studienbuch.* Tübingen: Narr Franke Attempto Verlag.

Klein, Wolfgang (1994). Learning how to express temporality in a second language. *Società di linguistica Italiana* (343).

Klein, Wolfgang (2009). *The Expression of Time*. Berlin/Boston: De Gruyter Inc (The Expression of Cognitive Categories (ECC) Ser, v.3). Online available https://ebookcentral.proquest.com/lib/kxp/detail.action?docID=435672.

Pavlenko, Aneta (2011). *Thinking and speaking in two languages*. Bristol UK, Tonawanda NY: Multilingual Matters (Bilingual education & bilingualism).

Slobin, D. I. (1987). Thinking for speaking. *Proceedings of the Thirteenth Annual Meeting of the Berkeley Linguistics Society, 435-444*.

Slobin, Dan I. (1996a). From “thought to language” to “thinking for speaking”. In John Gumperz & Stephen Levinson (eds.), *Rethinking linguistic relativity, 70–96*. Cambridge University Press.

Slobin, Dan I. (2000). Verbalized events: A dynamic approach to linguistic relativity and determinism. In S. Niemeier & R. Dirven (Eds.), *Evidence for linguistic relativity* (pp. 107-138).

Von Stutterheim, Christiane; Andermann, Martin; Carroll, Mary; Flecken, Monique; Schmiedtová, Barbara (2012). How grammaticized concepts shape event conceptualization in language production: Insights from linguistic analysis, eye tracking data, and memory performance. In: *Linguistics 50 (4)*. DOI: 10.1515/ling-2012-0026.

Wang, Yi & Wei, Li (2022). *Thinking and Speaking in a Second Language*. Cambridge University Press.