Nominal tense: An experimental approach

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This is the first study to experimentally demonstrate that nominal tense (Nordlinger & Sadler 2004, Lecarme 2012) provides temporal information on its own. Evidence comes from Pomak, a Slavic dialect spoken in Greece, where the definite article for referents in the interlocutor's sphere (i.e., *t*-article) is also used for past reference that the speaker considers the addressee to be aware of (Adamou 2011). The *t*-article contrasts with the distal *n*-article, employed for irrealis, habitual, and realis future, and the *s*-article, restricted to 'here and now' for referents close to the speaker's sphere.

Experiment 1 is a 5-point Likert-scale acceptability judgment task testing Pomak speakers' sensitivity to agreement between the temporal reference of a definite NP and the temporal reference of the predicate. Forty L1-Pomak speakers from Greece participated in this experiment. Participants judged the acceptability of 55 auditorily-presented sentences in total. The experimental items included two conditions. In Condition 1, sentences with *t*-articles agreed with clausal tense; in Condition 2, sentences with *t*-articles combined with future clausal tense. As predicted, the sentences with *t*-articles that agreed with the past tense of the clause received significantly higher ratings than sentences with *t*-articles and future tense, confirming the importance of temporal reference.

Experiment 2 is a response time experiment adapted from Walker, Bergen & Núñez (2017). Our goal was to test whether articles in Pomak carry temporal information on their own, independently of other linguistic means (verbal or adverbial) or semantic and pragmatic cues. Forty participants listened to Pomak noun phrases related to the life of the experimenter, with past and future temporal reference. Half of the noun phrases had grammatical-only temporal reference (e.g., the[*t*-article] *friends* vs. the[*n*-article] *friends*) while the other half had grammatical and semantic-pragmatic temporal reference. Participants responded by pressing a left key for past and a right key for future referents, or vice-versa (each participant completed 160 experimental trials, i.e., 4 blocks x 40 stimuli). As predicted, responses were as accurate and fast in temporally ambiguous items (i.e., when temporal information was provided only through the articles) and unambiguous items (i.e., when semantic and pragmatic cues combined with the articles). In accordance with previous studies, speed was related to the reading experiences of the participants, though not in the language of education. In addition, the experimenter's location had a facilitation effect on the accuracy of past responses, revealing a cognitive representation of time that had hitherto gone unnoticed.

To explore the nature of the facilitation effect, we repeated Experiment 2 with 40 L1-Pomak participants in L2-Greek (Experiment 3). Twenty stimuli corresponded to referents in the experimenter's past (e.g., *my baby teeth*) and 20 stimuli corresponded to referents that were likely to occur in the experimenter's future life (e.g., *my wedding ring*). In this experiment, we replicated the effect found in the Pomak version for reaction times, but not the effect of the experimenter's location. This suggests that the facilitation effect is language-related and not due to general attentional processes.

Taken together, these experiments demonstrate that nominal tense, as expressed through deictic suffixes in Pomak, provides temporal information on its own. In addition, the Pomak data support cognitive models that promote flexible representations of time combining cultural, linguistic, and sensorial processes (see Bylund & Athanasopoulos 2017).

References

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