The role of discourse-level expectations in non-native speakers' referential choices

Native-language processing is not only fast and incremental, but predictive. Listeners – child and adult – use information from various sources to create expectations about likely continuations (Altmann&Kamide 1999; BorovskyEtAl 2012). Recent work shows age-related individual differences in native speakers' ability to engage in expectation-based processing (Federmeier 2007). Weakness in using cues like gender-marking to anticipate upcoming nouns were also observed in adult *non-native* speakers (Lew-Williams&Fernald 2010), spurring the proposal that non-native speakers struggle to actively predict during syntactic processing (KaanEtAl 2010). Here we consider *discourse*-level expectations: do non-native speakers fully utilize linguistic information known to help native speakers (KehlerEtAl 2008) create expectations about who will be mentioned next in a discourse?

A **story-continuation task** (adapted from RohdeEtAl 2006) was completed by 34 adult L2 learners of English (17 L1-Japanese, 17 L1-Korean) and 39 native speakers; they wrote continuations following a context sentence that described a transfer-of-possession event (see (1)). A 2x2 design varied verbal aspect (perfective/imperfective) in the context sentence and prompt type in the continuation (pronoun/free). Continuations were coded for (i) intended referent of the subject, i.e., SOURCE (of the context sentence; see (2)), GOAL (3), ambiguous, or other, and (ii) choice of referential expression for the subject (pronoun/name/other) in the free-prompt condition. Previous work shows next-mention expectations of native speakers are modulated by aspect: transfer-of-possession events yield more GOAL-continuations when marked by perfective than imperfective. This effect, observed in English (RohdeEtAl 2006), Japanese (Ueno&Kehler 2010) and Korean (KimEtAl 2013), has been tied to end-state salience: perfectives describe completed events, which are compatible with end-state focus, whereas imperfectives describe ongoing events with no salient end-state. Perfectives thus create expectations for continuations about completed events, and these in turn favor next-mentions of the GOAL-referent. Importantly, an independent **truth-value judgment task** (adapted from Gabriele2009) verified that L2ers possess the requisite knowledge of grammatical aspect in English (Fig.1).

Biases for next-mention in the story-continuation task (Fig.2) showed an aspect-by-group interaction ($F_1(1,70)=4.6$, $p<0.01$): L2ers showed weaker influence of aspect on the proportion of SOURCE/GOAL reference (for both prompt-types) than L1ers, suggesting L2ers made less use of aspect to generate expectations about next-mentions, despite the known effect of this bias in their L1. Moreover, L2ers showed an overall GOAL-bias (main effect of group on %SOURCE; $F_1(1,70)=8.0$, $p<.01$), suggesting recency plays a stronger role in L2 than L1 processing (cf. KehlerEtAl 2011, for child L1 processing). Like L1ers, however, L2ers produced more pronouns for SOURCE than GOAL referents (Fig.3; main effect of referent on %Pronoun: $F_1(1,35)=77.09$, $p<0.001$; no interactions with group or aspect), indicating effective use of appropriate cues for referential-form choice, once a referent had been decided upon. The difference between L1 and L2 referential processing may thus lie not in these speakers' differential *sensitivity* to relevant cues, but in *the point at which they make use of them*: native speakers use them proactively to create expectations about next mention, while non-native speakers predominantly rely on recency and cues relevant to form, deploying that knowledge only at the point that a referential expression is required.

(word count: 500)

(1) Experimental context sentence: Patrick gave/was giving a towel to Ron. (He) __
(2) SOURCE-continuation for (1), i.e., He = Patrick: He made sure to give him a dry one.
(3) GOAL-continuation for (1), i.e., He = Ron: He took it and said "Thank you."

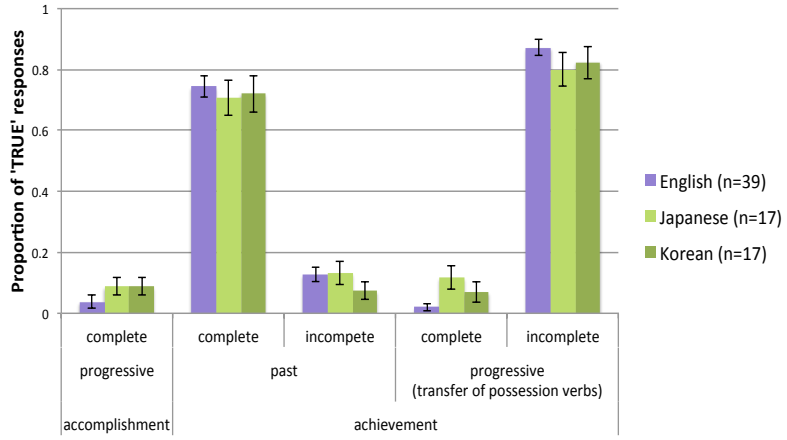

Fig.1. % 'true' responses, by condition and group, on the truth-value judgment task assessing knowledge of grammatical aspect. (No main effect of group, nor group-by-condition interaction.)

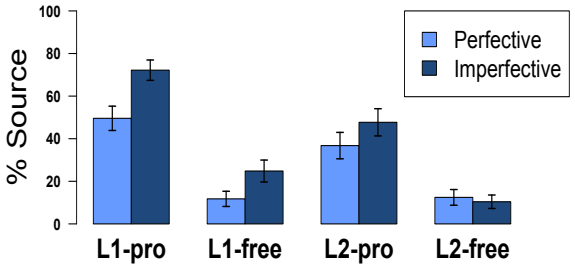

Fig.2. % SOURCE-reference by Group (L1, L2) and Prompt Type (pronoun, free)

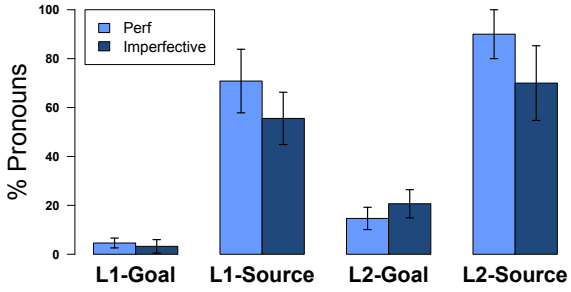

Fig.3. % pronouns in the free-prompt condition, by Group (L1, L2) and Referent-role (SOURCE, GOAL)

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