Widening the future: Ca-reduplication in Atayal

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I argue that the readings of *Ca*-reduplication in Atayal (Austronesian) are unifiable by widening the quantificational domain of future operators encoded by non-reduplicated forms. *Ca*-reduplication provides cross-linguistic evidence for domain wideners outside nominals (cf. Kadmon & Landman 1993) and a new dimension of understanding the nature of future readings.

<u>Ca-reduplication applies to future time reference</u>. The reflex of Proto-Austronesian Ca-reduplication in Atayal, which is realized as C- by copying the initial consonant of the stem, and reducing the vowel [a] to a schwa, applies to overt, obligatory future marking on actor-voice verbs, (1), but applies to future readings of non-actor-voice verbs, which are unmarked, (2).

- (1) a. m-bazi 'bought/buy (AV)'
 - b. **p**-bazi 'will buy (AV)'
 - c. **p~p**-bazi (reduplicated)
- (2) a. haypas-un 'made/make jokes (NAV)'
 - b. haypas-un 'will make jokes (NAV)'
 - c. **h**~haypas-un (reduplicated; future-only)

<u>Unifying stronger futures and imminent futures</u>. Unlike plain future forms (*p*-forms and unmarked forms), which are compatible with a wide range of future contexts (e.g., intentions, predictions, expectations, promises, plans, etc.), *Ca*-reduplicated verbs systematically create two types of readings: stronger future statements, often indicated by the speaker's higher degree of certainty or commitment, or imminent future readings; see e.g., (3) and (4) respectively.

(3) Context: Don't bring him to the mountain. He is a mukan (i.e., a person from the plains).

{hriq-un / **h**~hriq-un}=nya'

kwara' turu' na qsinuw.

destroy-PV/RED- destroy-PV}=3sg.ERG all back GEN

back GEN wild.animal

'He will destroy all wild animals' tracks.'

Consultant's comment on *hhriqun*: "I'm sure he will destroy all the tracks."

(4) Context: You see that clouds have gathered (adapted from Copley 2002:112).

kta! {p-qwalax $/ \# \mathbf{p} \sim \mathbf{p} - \mathbf{q} \mathbf{w} \mathbf{a} \mathbf{a} \mathbf{x}$ }

look.IMP.AV FUT.AV-rain / RED~FUT.AV-rain PRT

'Look! It's going to rain.'

Consultant: "Not good with *ppqwalax*; you can't observe the moment when the rain drops."

lat

Under Kratzer's (1991, 2012) framework, we propose that plain future forms encode a (future-oriented) universal modal, which lexicalizes a metaphysical modal base (Condoravdi 2002), but leaves its ordering source up to the context. *Ca*-reduplication enforces that more worlds are quantified over by having fewer propositions in the modal's ordering source, the result of which is a stronger claim. I argue that imminent futures are a special subset of the strengthening effects: An event that will happen very soon is also an event that will necessarily happen. Adopting a branching model (cf. Thomason 2002), the imminent-and-strong future reading arises when the preparatory stage of an event takes place in the actual world w, and hence in all other worlds, which are identical to w up to now; the event that begins soon after will very likely occur in all (stereotypical) worlds. This analysis explains why Atayal *Ca*-reduplication yields much more "imminent" readings than English progressive-based futures (Copley 2002), as shown by the consultant's comment in (4); *Ca*-reduplication also serves as a language-internal argument for a modal analysis of non-reduplicated futures.

References

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