

## Floating Universal Quantifier as a Base-Generated Head in the VP Periphery

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Like English *all* and French *tous*, the universal quantifier *niz* ‘all’ in Kavalan, an Austronesian language in eastern Taiwan, can immediately precede a DP (1a) or appear in a quantifier-floating construction where it is not adjacent to its DP associate (1b).

- (1) a. m-lizaq tu wasu [ya m-niz sunis].  
AV-like OBL dog ABS AV-all child  
‘All the children like dogs.’  
b. m-niz m-lizaq tu wasu [ya sunis].  
AV-all AV-like OBL dog ABS child  
‘The children all like dogs.’

According to Sportiche (1988) and Shlonsky (1991), quantifier floating results from the stranding of a universal quantifier in an intermediate position where its DP associate passes. Doetjes (1997) however argues that a floating quantifier is base-generated in the left periphery of VP. The present paper argues for the base-generation approach to floating *niz* ‘all’, which exhibits semantic and morphosyntactic differences from non-floating *niz*.

The first difference between floating and non-floating *niz* concerns scope interaction with negation. (2a) shows that either non-floating *niz* or the negation marker *mai* can take wider scope over the other. In contrast, floating *niz* exhibits scope-freezing effects, as illustrated by the unambiguity of (2b) or (2c). The ambiguity of (2a) can be attributed to reconstruction. The absolute DP in (2a) occupies Spec, TopP (Lin 2013), which is higher than *mai*, whereas its base position is VP-internal and lower than *mai*. Reconstruction cannot take place in (2b) or (2c), as floating *niz* is base-generated above the lexical verb, either higher than *mai* (2b) or lower than *mai* (2c), and thus there is no lower copy that licenses reconstruction.

- (2) a. mai qibasi-an-na ni imuy [ya m-niz qudus].  
NEG wash-PV-3ERG ERG Imuy ABS AV-all clothes  
‘Imuy didn’t wash all the clothes.’ (NEG > all; all > NEG)  
b. m-niz mai qibasi-an-na ni imuy [ya qudus].  
AV-all NEG wash-PV-3ERG ERG Imuy ABS clothes  
‘Imuy didn’t wash all the clothes.’ (\*NEG > all ; all > NEG)  
c. mai m-niz qibasi-an-na ni imuy [ya qudus].  
NEG AV-all wash-PV-3ERG ERG Imuy ABS clothes  
‘Imuy didn’t wash all the clothes.’ (NEG > all ; \*all > NEG)

Secondly, while non-floating *niz* is a nominal modifier, floating *niz* should be analyzed as a full-fledged verb. The contrast between (3a) and (3b) shows that floating *niz*, but not its non-floating counterpart, can take the imperative suffix. Floating *niz*, but not non-floating *niz*, can also take the causative prefix (4). As illustrated in (5), floating *niz* can be affixed with the patient voice marker, whereas non-floating *niz* cannot. Moreover, the voice markers on floating *niz* are verb-defining *v*, which can determine the argument structure of a sentence. While PV *-an* by itself can assign an external argument and an affected theme, AV *m-* cannot (Lin 2013). PV-marked *niz* in (6a) is thus grammatical even without a lexical verb, but this is not true of AV-marked *niz* in (6b). All these facts suggest that floating *niz* should be analyzed as the main verb of a sentence. This empirical generalization is incompatible with the stranding analysis, which predicts that the stranded quantifier should be embedded inside a specifier position and cannot undergo head movement to *v*. Instead, as low adverbials in the VP periphery are all realized as a verb in Kavalan (Chang 2006), the facts shown in (3) – (6)

corroborate the analysis of floating *niz* as a base-generated head in the VP periphery below *v* (cf. the high base-generation site of Malagasy *daholo* proposed by Koopman 2005).

(3) a. niz-ika m-liyam [ya sudad]. b. \*m-liyam [ya niz-ika sudad].  
 AV-IMP.PV AV-read ABS book AV-read ABS all-IMP.PV book  
 ‘Read all the books!’

(4) pa-niz=iku [tu sunis] pa-taqsi.  
 CAUS-all=1SG.ABS OBL child CAUS-study  
 ‘I make all the children study.’

(5) a. niz-an-na=ti ni abas q<m>an [ya byabas].  
 all-PV-3ERG=PFV ERG Abas <AV>eat ABS guava  
 ‘Abas ate all the guavas.’

b. \*qan-an-na=ti ni abas [ya niz-an byabas].  
 eat-PV-3ERG=PFV ERG Abas ABS all-PV guava

(6) a. niz-an-na=ti ni abas ya byabas.  
 all-PV-3ERG=PFV ERG Abas ABS guava  
 ‘Abas ate/used up all the guavas.’

b. \*m-niz ti-abas tu byabas.  
 AV-all NCM-Abas OBL guava

Another piece of evidence against the stranding analysis of floating *niz* is its insensitivity to A/A’ distinction. A DP that undergoes A’-movement cannot strand a quantifier, unless it first undergoes short A-movement (7a) (Bobaljik 2003). In (7b), the relative operator that floating *niz* quantifies over undergoes A’-movement without incurring ungrammaticality. This challenges the contention that a floating quantifier is only licensed in an A-chain due to its immediate adjacency to the DP-trace of its associate. This explanation does not apply to Kavalan. On the base-generation approach to floating *niz*, the grammaticality of (7b) is expected, as floating *niz* and its DP associate never form a constituent and thus the movement type of the associate does not determine whether *niz* can float or not.

(7) a. \*the professors who Taylor will have all met before the end of term (Bobaljik 2003)

b. byabas [RC niz-an-na=ay ni buya m-Rasa]  
 guava all-PV-3ERG=REL ERG Buya AV-buy  
 ‘the guavas that Buya all bought’

Finally, if floating *niz* and non-floating *niz* are not derivationally related, as claimed by the base-generation approach, it is predicted that they should be able to co-occur in a sentence. As shown in (8), this prediction is borne out. Non-floating *niz* in (8) quantifies over a set of entities, whereas its floating counterpart in the same sentence quantifies over events.

(8) niz-an-na ni abas q<m>an [ya m-niz byabas].  
 all-PV-3ERG ERG Abas <AV>eat ABS AV-all guava  
 ‘Abas ate up all the guavas.’

In conclusion, floating *niz* is not derived from non-floating *niz* as a result of stranding. The two differ both semantically and syntactically. Non-floating *niz* is a nominal modifier, whereas floating *niz* is base-generated in a head position in the VP periphery below *v* and exhibits properties of a full-fledged verb just like other adverbial verbs in Kavalan.

**References:** Bobaljik, Jonathan David. 2003. Floating quantifiers: Handle with care. In *The second Glot international state-of-the-article book: The latest in linguistics*, eds. by Lisa Cheng and Rint Sybesma, 107-148. Berlin/New York: Mouton de Gruyter. Chang, Yung-li. 2006. The guest playing host: Adverbial modifiers as matrix verbs in Kavalan. *Clause Structure and Adjuncts in Austronesian Languages*, eds. by Gärtner Hans-Martin, Paul Law, and Joachim Sabel, 43-82. Berlin: Mouton de Gruyter. Doetjes, Jenny Sandra. 1997. Quantifiers and selection: On the distribution of quantifying expressions in French, Dutch and English. PhD Dissertation, Leiden University, The Hague. Lin, Dong-yi. 2013. Interrogative constructions in Kavalan and Amis. PhD dissertation, University of Florida, Gainesville. Koopman, Hilda. 2005. Malagasy imperatives. In *Proceedings of AFLA XII*, eds. by Jeffrey Heinz and Dimitris Ntelitheos, 141-160. (UCLA Working Papers in Linguistics 12) Los Angeles: UCLA. Shlonsky, Ur. 1991. Quantifiers as functional heads: A study of Quantifier Float in Hebrew. *Lingua* 84.159-180. Sportiche, Dominique. 1988. A theory of floating quantifiers and its corollaries for constituent structure. *Linguistic Inquiry* 19.425-449.