Quantifier Float in Polynesian

1 Introduction. Quantifier Float (QF) is a cross-linguistic phenomenon where a quantifier optionally appears linearly separated from the noun it modifies. QF has two main theoretical approaches. The stranding analysis of Sportiche (1988) has the quantifier directly modifying the subject DP, generated in SpecvP. Obligatory movement of the subject to SpecTP for case checking can either target the Q+DP or just the DP. In the latter, the quantifier is left stranded in SpecvP, while the subject raises, creating the surface phenomenon of QF. The adverbial analysis (Benmamoun 1999) has the floated quantifier as a different part of speech than its non-floated counterpart. The floated quantifier is simply an adverb which adjoins to the vP like other verbal modifiers. This quantifier is coindexed with the noun it modifies.

With QF informing some of our fundamental syntactic theories, such as the vP-internal subject hypothesis (Koopman and Sportiche 1991), there is a lack of research on this phenomenon in non-European languages. This squib examines the Polynesian language family, which are significant for their verb-initial word order. I propose the adverbial analysis is most suitable for Polynesian QF.

Although the forms of the quantifier *all* are diverse across the family (Māori: *katoa*; Tokelauan: *uma*; Niuean: *oti*), the characteristics of quantifiers are nearly homogeneous. Non-floated quantifiers follow their associated nominals (1a). Floated quantifiers appear in the verbal complex; with the interaction of V(P)-raising, QF in these languages is leftward, with the floated quantifier appearing prior to the argument is modifies (1b). This abstract proposes stranded Qs are adverbial in nature, rather than stranded from a DP. I will argue this on account of the position of the floated quantifier, its verbal morphology and the phenomenon of long distance QF.

(1) a. Na kiki atu e Ioane **nā** **polo** **uma**.
PST kick DIR ERG Ioane **DEF.PL** **ball** **all**
'Ioane kicked all the balls (away).' (Tokelauan)

b. Na kiki atu **uma** e Ioane **nā** **polo**.
PST kick DIR **all** ERG Ioane **DEF.PL** **ball**
'Ioane kicked all the balls (away).' (Tokelauan)

2 Quantifier position in QF. In the stranding analysis, floated quantifiers are anticipated to appear in positions where nominals were located during the derivation, as they form a constituent with the associated DP. In Polynesian, floated quantifiers do not appear in nominal positions. To form VSO word order via VP-raising, the generally accepted analysis is that the object raises out of the VP before VP-movement (Massam 2001). Under a stranding analysis, the object DP would raise out of the VP, stranding the quantifier; subsequent fronting of the VP would result in the V-Q-S-O word order. However, Pseudo Noun Incorporation (PNI) indicates the floated quantifier is not in the noun position in the VP. PNI is where a non-specific non-referential NP object may be incorporated with the verb (Massam 2001). The incorporated NP appears adjacent to the verb, forming a VOS word order. Massam proposes that DP objects raise out the VP, while NP objects remain inside the VP and are incorporated. Therefore, if stranding accounts for QF, floated quantifiers from objects should appear in the same position as incorporated objects. In Tokelauan, floated quantifiers directly follow directional particles, such as *atu* (1b). However, incorporated NPs precede directional particles (2). As verbal modifiers like *atu* have a strict word order in respect to other verbal particles, it is clear that floated quantifiers do not appear in a nominal position, as expected for the stranding analysis.

(2) Na kiki **polo** atu ia Ioane.
PST kick **ball** DIR ABS Ioane
'Ioane kicked balls (away).' (Tokelauan)

3 Verbal morphology. In the stranding analysis, a floated quantifier is a nominal modifier that is stranded after the DP moves. Therefore, we expect a stranded quantifier to have nominal modifier characteristics. Instead, stranded quantifiers in Māori have verbal modifier characteristics. The Eastern Polynesian arm of the Polynesian language family has a passive transformation; the object is

promoted to subject and the verb takes a *–(C)(i)a* suffix, where C is a lexically determined consonant. In Māori, not only does the verb take the suffix, but so do several verbal modifiers, including *tonu* 'still', *rawa* 'really', *kē* 'already', *noa* 'only', and *kau* 'alone' (Bauer 2001:392), as illustrated for *rawa* in (3). In addition to these, a floated quantifier also takes the passive suffix (4), even though a non-floated quantifier never does. This supports an analysis of QF where the quantifier is a verbal modifier, which takes the appropriate verbal morphology, rather than a stranded nominal modifier.

(3) I peehi-**a** rawa-**tia** ngaa waahine.
TA oppress-**PASS** INTENS-**PASS** the.PL women
'The women were severely oppressed' (Māori, Bauer 2001:92)

(4) Kua kai-**nga** katoa-**tia** ngā āporo.
PRF eat-**PASS** all-**PASS** the.PL apple
'The apples have all been eaten.' (Māori, Moorfield 2001: 92)

4 Long distance QF. In Polynesian languages, Apparent Raising is a process where an argument in a subordinate clause is optionally raised to the matrix clause (Otsuka 2000, Polinsky 2016). Apparent Raising differs from true raising; only certain verbs trigger Apparent Raising, and both subjects and non-subjects can undergo Apparent Raising. In Tuvaluan, verbs that trigger Apparent Raising can also cause quantifiers to 'raise' to the higher clause, forming what appears to be long distance QF (5-6). The lower clause is enclosed in square brackets below.

(5) Koo oti [ne oko **olotou** **vaka** **katoa** ki uta].
TAM finished PST reach **their-3** **canoe** **all** to land
'All their canoes have landed.' (Tuvaluan, Besnier 2000:253)

(6) Koo oti **katoa** [ne oko **olotou** **vaka** ki uta].
TAM finished **all** PST reach **their-3** **canoe** to land
'Their canoes have all landed.' (Tuvaluan, Besnier 2000:253)

While we might be able argue for the stranding analysis for QF in a single clause with V(P)-raising, it becomes difficult to argue that stranding could occur in a higher clause. As the associated noun never appears in the matrix clause, there would be no point during the derivation where the noun and quantifier would appear together as a constituent. In contrast, the adverbial analysis accounts for this construction easily, with the floated quantifier in the higher clause simply coindexed with the argument in the lower clause.

5 Conclusion. This abstract has given a preliminary account of QF in Polynesian languages, with evidence pointing towards an adverbial analysis, as opposed to a stranding analysis. The evidence presented in Tokelauan, Māori and Tuvaluan can be replicated in many of the other Polynesian languages. For example, the distribution of directionals, stranded quantifiers and incorporated NPs is also seen in Tongan. In Vaeakau-Taumako, a transitive suffix attaches to transitive verbs, verbal modifiers, as well as a floated quantifier (Naess and Hovdhaugen 2011). Lastly, long distance QF is also seen in Niuean (Seiter 1980). Consequently, this abstract suggests the adverbial analysis for QF is suitable for most, if not all, Polynesian languages.

References

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