## Hawaiian Nominalization

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Elbert & Pukui (1979) (EP, henceforth) describe several overt nominalizing processes in Hawaiian (a nom/acc language in the Polynesian sub-family of Austronesian). Of these processes, the two most common include suffixation with -na and inclusion of the free morpheme 'ana, which (EP) describe as a particle. -Na behaves like a typical suffix, and can induce length change on vowels in the root, in a way which has not yet been described fully (1,2). 'Ana, however, is a free morpheme and can be separated from the main verb by adverbs such as ' $\bar{a}w\bar{i}w\bar{i}$  'quick' in (3). (All data in this paper are from EP or corpus analysis of Elbert & Pukui (1986)).

- (1) -na suffixation with vowel shortening (2) -na suffixation with vowel lengthening
  - a. hāpai 'to carry'  $\rightarrow$  hapai-na 'carrying'
- a. 'ali 'to scar'  $\rightarrow$  'āli-na 'scar'
- b. kālai 'to carve'  $\rightarrow$  kalai-na 'carving'
- b. koi 'to urge'  $\rightarrow$  kōi-na 'urging'

(3) ka hele 'āwīwī 'ana mai the come quick NOM here 'the quick coming'

In this paper, I show that the properties of -na and 'ana should be understood in terms of distinctions which are familiar from the generative literature on nominalization. Specifically, -na nominalizations behave like R(eferential)-nominals, while those with 'ana behave like Argument Structure (AS)-nominals (Borer 2003). I further argue on the basis of corpus data that suffixation of -na affects allomorph selection for the causative prefix ho'o, whereas nominalization with 'ana does not. Given these broader interactions within the grammar of valency, the Hawaiian data support the hypothesis that the R/AS nominal distinction should be understood in terms of height of syntactic attachment (Alexiadou 2001/2009, Embick & Marantz 2008, Harley 2009, and Embick 2010, among others). Therefore, the proposed analysis ultimately supports the view articulated by Chomsky (1970) that non-categorically specified roots may either form nominals directly (or via 'low attachment' in more modern terms), or via nominalization of a root which has already been specified as a verb, thereby retaining the verb's argument structure.

Nominalization with -na has hallmarks of R-nominals (Borer 2003). For example, these can have idiosyncratic interpretations (4) and derive nominals without event structure (5).

- (4) a. hiki 'to arrive'  $\rightarrow$  hiki-na 'east'
  - b. holoholo 'to run about'  $\rightarrow$  holoholo-na 'animal'
  - c. waiho 'to leave'  $\rightarrow$  waiho-na 'depository'
- (5) a. kuhi 'to show'  $\rightarrow$  kuhi-na 'councilor'
  - b. 'ohā 'taro shoot'  $\rightarrow$  'oha-na 'family'

Further, -na nominalizations differ from those with 'ana in that the former indicate single events or results, while the latter can be interpreted with complex event structure, as defined in the work of Grimshaw (1990). For example, EP cite Alexander (1968), who describes suffixation with -na as denoting the "result or means of the action" and not "the action itself." By contrast, EP suggest that nominalization with 'ana "usually represents an ongoing process ... frequently translated into English by the present participle," as in the contrast between a sentence without nominalization (6a) and a sentence with 'ana nominalization (6b).

- (6) a. Pehea kāna hāuna lā'au? how his hit club 'How is his club stroke?'
- b. Pehea kāna hāuna lā'au 'ana? how his hit club NOM 'How is his club fighting?'

In addition to the aspectual properties of nominalization with 'ana, EP also note that 'ana can apply to nouns as well, such that 'ana "seems to give a verblike meaning to the noun head," as in (7,8), a fact which I seek to explain below.

- (7) a. 'āina 'land'
  b. ka 'āina 'ana the land NOM 'the giving/forming/distribution of the land
- (8) a. mahi'ai 'farmer'b. ka mahi'ai 'ana o ka 'āina the farmer NOM of the land 'the farming of the land'

However, in addition to the differences between -na and 'ana discussed above, only -na interacts with causative formation. EP describe two causative prefixes which they view as separate: the highly productive prefix ho 'o, as well as the more restricted prefix ha 'a, each of which have a set of phonologically conditioned allomorphs. However, Medeiros (2017) argues that ho 'o and ha 'a are syntactically conditioned allomorphs which realize a general valency-increasing morpheme. While both ho 'o (9,10) and ha 'a (11,12) can independently raise the valency of nouns and verbs, corpus analysis bears out EP's suggestion that, if both ho 'o and ha 'a apply to a root (raising the valency further), then the order must be ha 'a as the inner prefix and ho 'o as the outer. On the basis of this data, Medeiros (2017) suggests that ha 'a is the inner or root-attached allomorph of the valency increasing morpheme, whereas ho 'o is the outer or non-root-attached allomorph (13,14).

(9) a. 'ai 'to eat' (10) a. hale 'house' b. hō-'ai 'to feed' b. ho'o-hale 'to house'

(11) a. 'āpuka 'to cheat' (12) a. kia 'nail, spike' b. ha'-āpuka 'to cause to cheat' b. hā-kia 'to nail, fasten'

(13) a. nui 'large'
b. ha'a-nui 'to brag, exaggerate'
c. ho'o-ha'a-nui 'to cause to brag'
c. ho'o-ha-nini 'to cause an overflow'

Corpus analysis over an electronic version of Elbert & Pukui's (1986) Hawaiian dictionary illustrates that -na nominalizations only co-occur with the ho'o allmorph, not ha'a (15,16).

a. kahu 'to pray in chant'
b. kahu-na 'priest'
c. ho'o-kahu-na 'to ordain a kahuna'
d. 'ike 'to see [transitive]'
b. 'ike-na 'view, seeing, knowing'
c. ho-'ike-na 'to see, know [intransitive]'

To the extent that the analysis of ho'o and ha'a as allomorphs is on track, the co-occurrence restriction on -na nominalized forms and ha'a can be explained via a syntactic approach to nominalization, though arguably not a lexical approach. Under a syntactic analysis which harkens back to Chomsky (1970)'s analysis, the data in (16) would have the representation in (17), whereby a root, not specified for category, combines with the nominalizing n which is realized as -na, within a DM approach to exponence. Because n has already attached to the root in (17), the valency increasing morpheme must surface as ho'o (the 'outer' allomorph), not ha'a.

(17) a. [ 'ike 
$$n$$
 ]= 'ikena b. [  $v_{cause}$  [ 'ike  $n$  ] ]= ho'ikena

Under this analysis, 'ana nominalizes roots which have already combined with v, explaining their status as AS-nominals. Given that 'ana is a free morpheme, (3) illustrates that it may appear attached to vPs, where it can be situated 'outside' verb+adverb combinations but always interior to directional particles (EP), which Massam (2010) argues to be between TP and vP. At the same time, I argue that 'ana may attach to roots with are ostensible nouns, as in (7,8), derving the gerundive-like interpretation of these examples.