DRAFT -- UNDER REVIEW

FOCUS MARKER, SUBJECT MARKER, OR PERSONAL ARTICLE? HAWAIIAN ʻO AND ITS POLYNESIAN COGNATES

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Abstract

In lieu of the Proto-Polynesian personal article *a* before proper and pronominal subjects, Hawaiian uses *ʻo*, the original function of which is to mark discourse relations like focus. This discourse preposition replaced the personal article *a* before proper subjects due to a conspiracy of several factors: 1) association of subjects in clefts with *ʻo* in ForceP via subject movement to FocusP; 2) structural analogy between proper subjects and objects; 3) ambiguous strings of [*ʻo* + null determiner (personal article) + noun] after loss of the personal article. Cross-Polynesian patterns of discourse prepositions cognate to *ʻo* and the personal article *a* support the prediction that if the personal article *a* is lost, the cognate preposition is coopted to replace it.

1. Introduction

The so-called Hawaiian subject marker *ʻo* precedes in situ [+proper] sentential subjects (1) and, with some variation, [+pronominal] subjects (2). However, *ʻo* also marks a variety of discourse/information structural relations such as focus (3), topic, etc.[1]

(1) Ua peku **ʻo Kale** i ke kinipōpō.
TAM kick ʻo Kale OBJ the ball
'Kale kicked the ball.' (Hawkins 1979:24)

(2) Ua ʻai mua **ʻo ia** ma ka hale.
TAM eat already ʻo 3S at the house
'He ate at home already.' (Hopkins 1992:125)

(3) **ʻO ke aliʻi** ka mea i ʻoki i ke kaula.
ʻo the chief the thing TAM cut OBJ the string
'It was the chief who cut the string.' (Hawkins 1979:64)

The cognate *ko*, often considered a focus/topic/prominence marker in various Polynesian languages, has received some attention in the linguistic literature (see Clark 1976; Seiter 1980; Bauer 1993; Massam, Lee and Rolle 2006; *inter alios*), but Hawaiian *ʻo* has not been as thoroughly investigated within a formal framework.

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[1] The orthographic form *ʻo* can be referred to as "okina o." *Okina* is the Hawaiian name for the glottal stop represented by ʻ before the vowel.

While *ko* and *ʻo* are etymologically related, their distribution and syntactic properties are not identical. Interestingly, Polynesian languages like Māori and Niuean do not use the cognate *ko* as a subject marker like Hawaiian *ʻo* but instead use the "personal article" *a* to mark proper subjects while *ko* is restricted to topic/focus-type uses. Thus, Hawaiian employs one form, *ʻo,* for the same functions that other Polynesian languages use two forms, *ko* and *a*. Why should this be the case?

My goals in this paper are as follows: 1) to propose a syntactic derivation for *ʻo*-cleft constructions in Hawaiian; 2) to account for the historical change of *ʻo* as a topic/focus particle to a subject marker/personal article; 3) to determine whether the change that took place in Hawaiian also occurred in other Polynesian languages. By means of comparison with Māori and Niuean, I argue that in Hawaiian *ʻo* cleft constructions, the sentential subject moves into the left periphery as focus in a position following *ʻo*, yielding coreference between the two copies. The frequent string [*ʻo* + focus (displaced subject)] results in the extension of *ʻo* to proper subjects in situ. I also claim that this process was aided by analogy with the structure of object nominals. In sum, Hawaiian lost the personal article *a*, though it survives as a remnant form with the object marker, and *ʻo* now realizes two distinct elements: the original topic/focus particle, and a replacement personal article for [+proper] subjects (a "subject marker").

Since Hawaiian is an endangered language currently undergoing revitalization, a word on my methodological approach to collecting data is in order. The endangered and minoritized status of Hawaiian is due to it being prohibited in schools after the overthrow of the Hawaiian Kingdom in 1893. This interrupted the transmission of the language to younger generations of native Hawaiians, leading to a rapid decline in L1 speakers, which continued until the 1970s when the revitalization movement began. While still endangered, Hawaiian is now widely spoken throughout the islands, thanks in large part to the immersion schools that were established as a result of the revitalization movement.

Given this history, it should be noted that the issue of what sources of data, whether written or spoken, constitute "authentic" Hawaiian can be controversial; v. Wong (1999), NeSmith (2009). Following the precedent established by others conducting formal linguistic research in Hawaiian (Hawkins 1982, Medeiros 2013, 2021), I have collected data primarily from older grammars and texts. The bulk of my corpus is extracted from the Hawaiian translation of the Bible, *Ka Baibala Hemolele*, which was completed by a group of North American missionaries and L1 Hawaiian speakers in the nineteenth century, when Hawaiian was still the majority language (v. Lyon 2017 for the historical account of this process). I have also consulted contemporary L2 speakers to confirm the patterns I have found in the written language.

The format of this paper is as follows. In Section 2, I give basic typological and linguistic information on Hawaiian and Polynesian languages generally. I also review some previous work that has been conducted on Hawaiian *ʻo* and Proto-Polynesian *ko*. In Sections 3 and 4, I present the distributional patterns of *ko/ʻo* and the personal article *a*, respectively, in Māori, Niuean, and Hawaiian. I summarize these patterns in Section 5. In Section 6, I propose a biclausal and a monoclausal derivation of *ko/ʻo*-clefts, each representing a distinct historical stage. I zoom out from Hawaiian, Māori, and Niuean in Section 7 and expand the empirical coverage of my claims by identifying distributional

patterns of *ko/ʻo* and the personal article *a* in several additional Polynesian languages. I conclude in Section 8.

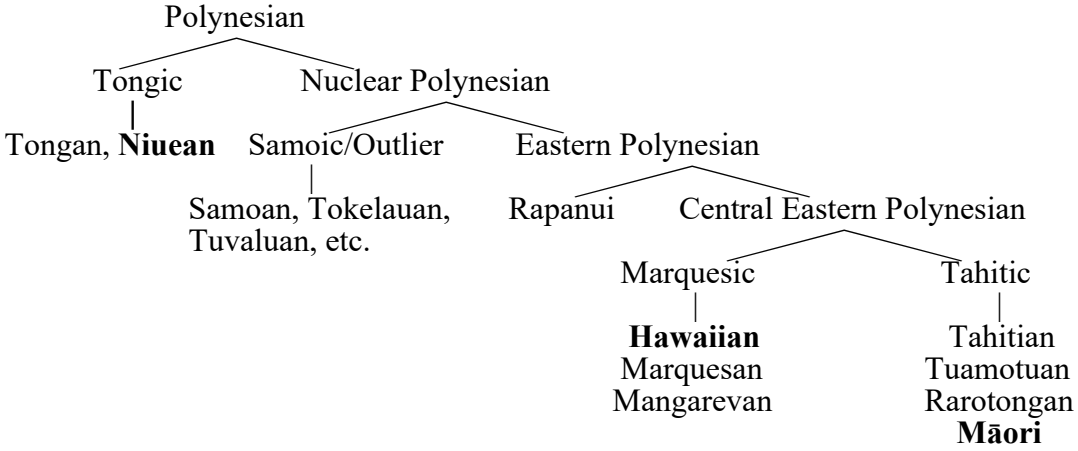
2. Background

In this section, I briefly present some descriptive facts of the Hawaiian language. I review its typology and relation to other Austronesian languages. I discuss basic linguistic properties of Hawaiian, and I summarize previous research into the status of Hawaiian *ʻo*.

2.1 Typology and status

Hawaiian is a member of the Polynesian family of the Oceanic branch of Austronesian languages. Polynesian also includes Niuean, Māori, and many others, as in (4) below, based on Clemens & Massam (2021), following Lynch (1998).

(4)



Hawaiian and Māori are closely related since they are both Central Eastern Polynesian while Niuean is part of the Tongic branch. These three languages vary with respect to their level of endangerment. For example, Ethnologue (2023) classifies Hawaiian and Niuean as "institutional" (less than 10,000 L1 speakers) while Māori is considered "endangered" with between 10,000 and 1 million L1 speakers.

2.2 Linguistic properties

Hawaiian is an analytic/isolating language with nominative/accusative alignment. The basic word order is VSO via verb movement or predicate fronting, depending on the analysis. Pseudo-noun incorporation yields VOS order. Compare (5a) and (5b) below.

(5) a. Inu ana ʻo Noelani i ke kope huʻihuʻi.
drink DIR ʻo Noelani OBJ the coffee cold

b. Inu kope huʻihuʻi ʻo Noelani.

drink coffee cold ʻo Noelani
'Noelani is drinking the cold coffee.' (Medeiros 2013:77)

The order in (5a) is basic VSO while (5b) is the VOS version of the same sentence exhibiting pseudo-noun incorporation (v. Medeiros 2013 for full discussion and analysis). SVO is also possible with certain constructions like the so-called actor-emphatic (6) as well as sentential negation with *ʻaʻole* (7).

(6) na Sara e hānau ke keiki kāne nāu.
DIR Sara TAM bear the child male for-you
'Sara will bear you a son.' (Genesis 17:19)

(7) ʻaʻole ia i hānau keiki nāna.
NEG she TAM bear child for-him
'She bore him no children.' Genesis (16:1)

In both (6) and (7) the sentential subject precedes TAM and the verb, contrary to canonical VSO order.

Hawaiian lacks a copular verb, as seen in (8) below. TAM is marked by pre- and post-verbal particles like *ke* and *nei* in (9), and objects are preceded by the preposition *i* (10).

(8) Maʻaneʻi Ø ka hale.
here is the house
'The house is here.' (Elbert & Pukui 1979:42)

(9) Ke kali nei au.
TAM wait TAM I
'I am waiting.' (Elbert & Pukui 1979:60)

(10) Ua ʻai ke kanaka i ka poi.
TAM eat the man OBJ the poi
'The man ate the poi.' (Elbert & Pukui 1979:39)

Word order in the nominal domain follows the pattern Determiner-Noun-Adjective, as in (11) and (12) below.

(11) he ʻilio nui
a dog big
'A big dog'

(12) kēia mau kānaka moloā.
these PL people lazy
'These lazy people' (Hopkins 1992:87)

I assume DP for nominals in Hawaiian following Medeiros (2013, 2021) though others analyze Polynesian nominals as KPs; v. Massam (2020) for Niuean.

2.3 Previous studies

2.3.1 On Hawaiian *ʻo*. There has been previous work conducted on Hawaiian *ʻo*, though not from a generative perspective. Most of the work is focused on identifying how to categorize *ʻo* within linguistic theory. Carter (1996), for example, considers *ʻo*, along with *he* (the presumed indefinite determiner) and *i* (the object marker) to be copula verbs. He analyzes the *ʻo* topic marker as an element distinct from the copula verb *ʻo*.

Other studies take *ʻo* to be a preposition, which is the traditional assumption. Elbert & Pukui (1979) state that *ʻo* is a nominative preposition which displays complementary distribution with other case-marking prepositions. They claim that it is optional, even in apposition constructions. According to Hawkins (1979, 1982), *ʻo* is a caseless preposition that also marks topics. On her analysis, subjects are preceded by a null preposition, excluding proper nouns and the third-singular pronoun *ia*. *ʻO* also marks predicates that would be preceded by the definite article and optionally marks appositional phrases. Cook (1999, 2002) argues contra Carter (1996) that *ʻo* is a copular preposition and thus a case-marker for proper nouns, locative nouns, and topics. He claims that *ʻo* precedes the third-singular pronoun when it is the subject and [+animate]. Cook analyzes *ʻo* in apposition as a copula.

Another approach is to assume that *ʻo* is a determiner, as in Bardwell et al (2022), what state that *ʻo* is a determiner preceding proper nouns that are sentential subjects and proper nouns not already preceded by a preposition. They also observe that *ʻo* is used for appositional phrases. Kim (2018) argues against the determiner analysis and considers ʻ*o* a "topic marker." However, they do not weigh in on whether it is a preposition or some other category.

2.3.2 On Proto-Polynesian **ko*. According to Clark (1976), Hawaiian *ʻo* and its Polynesian cognates like Māori/Niuean *ko* are derived historically from Proto-Polynesian **ko*, which he analyzes as a preposition that precedes nominal predicates. This preposition was originally required with definite NPs then extended to indefinite NPs. It is also used to mark topics. Clarks observes that **ko* can be used to optionally mark any NPs not already marked by a different preposition. A **ko*-insertion rule may apply after deletion and case-marking. Brown & Koch (2013, 2016) also take a cross-linguistic approach to various **ko* structures in Polynesian, which they claim can be reduced to focus. In SVO Polynesian languages like West Futunan, **ko* structures are being lost. Since subjects are sentence initial, the connection between that position and focus has been severed and thus *ko* has lost its functional utility.

Despite this previous work, there is still no consensus regarding the categorial status of Hawaiian *ʻo*. Some claim it is a type of preposition, whether nominative, caseless, or copular. Others assume *ʻo* is a determiner or topic marker. I return to the issue of how to categorize *ʻo* in Section 6.2.5 below.

3. *Ko/ʻo* constructions in Māori, Niuean, and Hawaiian

As mentioned above, Hawaiian *ʻo* has cognates throughout the Polynesian family. In Māori and Niuean, the cognate form is *ko* (see Section 7 below for a longer list). In this section, I present the distributional patterns of *ʻo* and its cognates (*ko/ʻo*) in all three languages (Māori, Niuean, and Hawaiian). While there are many similarities, this element does not pattern identically across these three languages. This suggests the same analysis of *ko/ʻo* in one language may not be adequate for the same *ko/ʻo* in other languages, despite being closely related. Many different *ko/ʻo* constructions have been identified in the literature and thus the list in this section is not intended to be exhaustive but rather representative of the most frequent occurring or most investigated *ko/ʻo* constructions.

3.1 Distribution of ko constructions in Māori

Māori *ko* occurs with clefts as focus (13), equatives/copular uses (14), as topic marker (15), wh-questions (16), and coordination (17). The data below are adapted from Bauer (1993) and references therein.

(13) **Ko** Hone i kite i te taahae.
ko John TAM see OBJ the thief
'It was John who saw the thief.'

(14) **Ko** te rooia teenei.
ko the lawyer this
'This is the lawyer.'

(15) Mea taahae te TV me ngaa hiriwa, engari **ko** ngaa rama mea inu katoa.
thing stolen the TV with the silver but ko the booze thing drink all
'They stole the TV with the silver, but as for the booze, it was all drunk.'

(16) **Ko** wai i piirangi ki te kaakahu?
ko who TAM want to the garment
'Who wanted the dress?'

(17) te paapaa o Tuu raaua **ko** Mihi
the father of Tu 3DL ko Mihi
'the father of Tu and Mihi'

Notice that *ko* is most often sentence and/or clause initial and frequently marks a focus or topic constituent, suggesting it is associated with some projection in the left-periphery. I assume these constructions are structurally similar and refer to them throughout as "left-periphery" or "information structure" uses of *ko*.

3.2 Distribution of ko constructions in Niuean

In Niuean, *ko* occurs in the following constructions (based on Massam, Lee & Rolle 2006, and adopting their terminology): focus (18), topic (19), predicate nominals/specificational statements/equatives (20), apposition (21), aspectual (22), wh-questions (23), double *ko* (24). The data below are adapted from Massam, Lee & Rolle (2006) and references therein.

(18) **Ko** e tama fifine fulufuluola ne lagomatai e ia.
ko C child girl beautiful NFUT help ERG 3S
'It is the beautiful girl that he helped.'

(19) **Ko** e matua fifine haana, mate tuai.
ko C parent female his die PERF
'As for his mother, she's dead.'

(20) **Ko** Makataukakala i Fakaagi i luga i Avatele e nofoaga haana.
ko Makataukakala LOC Fakaagi LOC top LOC Avatele ABS place his
'His chosen spot was Makataukakala, Fakaagi in the village of Avatele.'

(21) he ha laua a matua **ko** Tihamau.
LOC POSS they LIG father ko Tihamau
'to their father, Tihamau.'

(22) **Ko** e kai e mautolu e talo.
ko C eat ABS 2PL ABS taro
'We are (now) eating taro.'

(23) **Ko** hai ne lalaga e kato ēʔ
ko who NFUT weave ABS basket this
'Who wove this basket?'

(24) **Ko** ia **ko** e matakainaga nī a Tihamau.
ko 3S ko C brother INT POSS Tihamau
'He was Tihamau's brother.'

Although Massam, Lee & Rolle (2006) treat them separately, I group predicate nominals, specificational statements, and equatives together because they are all copula related. Like in the Māori examples in Section 3.1 above, the majority of these sentences have *ko* in a clause-initial position, often marking an information structure relation like focus (18) or topic (19).

3.3 Distribution of ʻo constructions in Hawaiian

The *ko* cognate Hawaiian *ʻo* occurs with focus (25-26), topic (27-28), predicate nominals/equatives (29-30), apposition (31-32), wh-questions (33-34), and coordination (35-36).

(25) **ʻO** ke aliʻi ka mea i ʻoki i ke kaula.
ʻo the chief the thing TAM cut OBJ the string
'It was the chief who cut the string.' (Hawkins 1979:64)

(26) **ʻO** ka haʻina ka i hewa.
ʻo the answer the TAM wrong
'It is the answer that is wrong.' (Hawkins 1979:71)

(27) A **ʻo** ʻIsemaʻela, ua hoʻolohe hoʻi au iā ʻoe nona.
and ʻo Ishmael TAM hear INT I OBJ-PERS you POSS
'And as for Ishmael, I have heard you.' (Genesis 17:20)

(28) **ʻO** ka pōpoki, lele ʻo ia ma luna o ka noho.
ʻo the cat jump ʻo 3S on high of the chair
'As for the cat, it jumped up high on the chair.' (Bardwell el al 2022:149)

(29) He kahu iwikuamoʻo **ʻo** Kūanuʻuanu.
a steward personal ʻo Kūanu'uanu
'Kūanu'uanu was a personal steward.' (Hawkins 1982:69)

(30) **ʻO** nehinei ka lā ʻino loa.
ʻo yesterday the day stormy very
'Yesterday was the stormiest day.' (Hawkins 1982:70)

(31) i ka nonoi ʻana o kāu kauā nei, a **ʻo** kou poʻe kānaka hoʻi
OBJ the ask-for NOMIN of your servant DIR and ʻo your group person also
ʻo Iseraʻela.
ʻo Israel
'...the supplication of your servant and of your people, Israel, also...' (I Kings 8:30)

(32) haʻalele ʻo Kama-puaʻa i nā wāhine ā me kona makuahūnōai **ʻo Kāne-iki.**
leave ʻo Kama-puaʻa OBJ the women and with his father-in-law ʻo Kāne-iki
'And Kama-puaʻa left the women and his father-in-law, Kāne-iki.'
(FS 243, cited in Elbert & Pukui 1979:150)

(33) **ʻO** wai kou inoa?
ʻo what your name
'What is your name?'

(34) **‘O** wai ia kanaka e hele mai ana i ke kula e hālāwai me kākou?
'o who that man TAM walk DIR NOMIN in the field to meet with us
'Who is that man walking in the field to meet with us?' (Genesis 24:65)

(35) **‘o** Ionatana lāua **‘o** Dāvida wale nō kai ‘ike ia mea.
‘o Jonathan 3DL ‘o David only INT who know it thing
'Only Jonathan and David knew about the matter.' (1 Samuel 20:39)

(36) **‘O** ke kumu lāua **‘o** Kalae. -- (title of a story in a textbook)
‘o the teacher 3DL ‘o Kalae
'The teacher and Kalae.' (Hopkins 1992:34)

Hawaiian *‘o*, like Māori/Niuean *ko*, also occurs in clause initial positions, often associated with topic/focus relations. Nevertheless, there is one pattern that to my knowledge does not occur in either Māori or Niuean. Consider the data below.

(37) Ua peku **‘o Kale** i ke kinipōpō.
TAM kick ‘o Kale OBJ the ball
'Kale kicked the ball.' (Hawkins 1979:24)

(38) Ho‘opio ihola **‘o Iosua** i nā kūlanakauhale...
capture DIR ‘o Joshua OBJ PL city
'Joshua captured all the cities...' (Joshua:11:12)

(39) A ho‘opakele **‘o Dāvida** i nā kānaka o Keila.
and deliver ‘o David OBJ PL people of Keilah
'Thus David delivered the inhabitants of Keilah.' (1 Samuel 23:5)

In (37) to (39), each subject is preceded by *‘o* and these verbs are clearly transitive since each object is preceded by the object marker *i*. Furthermore, the subject has not been displaced to any topic or focus type of projection (though it may have moved to Spec,T depending on how we derive VSO, a topic I return to in Section 6.1.2 below). This suggests that *‘o* in this context (in situ or TP/*v*P internal) is a different element than the *‘o* that occurs in left-periphery and wh-question type environments represented by examples (25) to (36).

4. Personal article patterns in Māori, Niuean, and Hawaiian

In this section, I layout the distributional patterns of the personal article *a*, which was used to mark [+animate] arguments in Proto-Polynesian. Compared with *ko/‘o* as seen in the previous section, there is more cross-linguistic variation. While Māori mirrors the original Proto-Polynesian situation, Hawaiian has lost the personal article almost completely. Niuean, on the other hand, is somewhere in between these two.

4.1 Māori personal article

According to Bauer (1993), the Māori personal article *a* is used before proper names, pronouns, and "local nouns" (which may include place names). Consider the following data.

(40) I tīhore **a** **Pita** i te hipi.
TAM skin PERS Pita OBJ the sheep
'Pita skinned the sheep.' (Harlow 1986:297, cited in Pearce 2021:219)

(41) I te poo roa, ka waiata, ka kanikani **a** **raatou**.
at the night long TAM sing TAM dance PERS 3PL
'They sang and danced all night long.' (Bauer 1993:126)

(42) He whero **a** **roto.**
CLS red PERS inside
'The inside is red.' (Bauer 1993:109)

The proper subject in (40), the pronominal subject in (41), and the local noun in (42) are all preceded by the personal article. Note that the Māori personal article is used for both subjects and objects, the latter of which can also be proper nouns (43) or pronouns (44).

(43) Kua kore te ika e ngau i **a** **Hōne**.
TAM NEG the fish TAM bite OBJ PERS Hōne
'The fish doesn't bite Hōne.' (Hohepa 1969b:22, cited in Pierce 2021:246)

(44) E patu ana te hoa o Hone i **a** **ia**.
TAM beat TAM the friend of John OBJ PERS 3SG
'John's friend is hitting him.' (Bauer 1993:169)

Both Bauer (1993) and Yamada (2014) consider the Māori personal article to be a determiner, but neither present a formal analysis.

4.2 Niuean personal article

In Niuean, the personal article *a* precedes [+human] proper complements (nominal or pronominal) of the goal/locative preposition *ki* per Massam (2020, 2021). In (45) below, *Sione* is preceded by the personal article because it is [+human] while *Niue* does not allow the personal article because it is a place name.

(45) Ne fakafano e tohi ki **a** **Sione** / (*a) Niue.
TAM send ABS letter GOAL PERS Sione PERS Niue
'The letter was sent to Sione.' (Massam 2020:217)

In (46), the third-person singular pronoun is the complement of the preposition *ki* and is also marked by the personal article.

(46) Kia fakaeneene a koe ki **a** **ia**.
EXHRT be-careful ABS 2SG GOAL PERS 3SG
'Be cautious with him.' (Sp.56, cited in Massam 2020:28)

Importantly, Niuean differs from Māori and Hawaiian in having ergative/absolutive alignment. In fact, absolutive case and the personal article are homophones, both realized as *a*. This homophony is due to a reanalysis of the PPN personal article *a* into the absolutive case marker in Proto-Tongic (v. Clemens & Tollan 2021:90 and references cited). Massam (2020) glosses *a* as PERS when preceded by a preposition (47a), but elsewhere as ABS (47b).

(47) a. Manako a Moka ki **a** **Sione**.
like ABS Moka GOAL PERS Sione
'Moka likes Sione.' (Massam 2020:169)

b. Ne inu kofe **a** **Sione**.
TAM drink coffee ABS Sione
'Sione drank coffee.' (Massam 2020:23)

Note that even as an absolutive case marker, *a* can also precede pronouns (48), and it can also precede proper noun objects (49).

(48) manako **a** **ia** ke momohe e nā tama.
want ABS 3S SBJV sleep ABS pair child
'He wants the two children to sleep.' (Massam 2020:191)

(49) Kua kamata e ekekafo ke lagomatia e ia **a** **Sione.**
PERF begin ABS doctor SBJV help ERG 3S ABS Sione
'The doctor began to help Sione.' (Massam 2020:188)

Although Massam considers these two distinct elements, I henceforth group them together given their shared historical source. On Massam‘s (2020, 2021) account, the Niuean personal article merges in D, heading a DP selected by the appropriate preposition.

4.3 Hawaiian personal article

Unlike Māori and Niuean, Hawaiian descriptive grammars do not typically mention a "personal article." This is because while personal article *a* was used to mark both subjects and objects in PPN, the subject marking use was lost in Hawaiian, with Māori, Rarotongan, and Penrhyn reflecting "the closest approximation to the PPN situation" (Clark 1976:58ff).[2]

[2] The Ni‘ihau variety of Hawaiian appears to have maintained the personal article with subjects, given data like (i) below from Medeiros (2021:168).
(i) He aka ka mea a Kekoa i kū‘ai ai.
a what the thing PERS Kekoa TAM buy ai

Nevertheless, this original PPN personal article is still present in the Hawaiian object marker. The Hawaiian multifunctional preposition *i* becomes *iā* before proper nouns and pronouns when they occur as objects. This *ā* is a remnant of PPN **a* personal article (Elbert & Pukui 1979:133). In (50) below, for example, both *Pua* and *Maui* are [+proper] objects, though the latter is a place name, and both are marked with *iā*. Additionally, the first-person singular pronoun *au* regularly coalesces with *iā* to form *iaʻu* as an object.

(50) Nānā iā Pua / iā Maui / iaʻu
look OBJ-PERS Pua OBJ-PERS Maui OBJ-PERS-me
'Look at Pua / me / Maui.'

Crucially, however, the personal article *a* does not precede sentential subjects, contrary to what was observed in Māori and Niuean. Consider (51) below.

(51) Lawe aʻela **ʻo ʻAʻarona** iā ʻEliseba
take DIR ʻo Aaron OBJ-PERS Elisheba
'Aaron married Elisheba.' (Exodus 6:23)

In (51), there are two [+proper] arguments, but only the object is marked with *iā* (*i* + personal article *a*) and the in-situ subject is preceded by *ʻo*. Out of the three languages under consideration so far, this pattern is unique to Hawaiian.

5. Interim Summary

Before moving on to the analysis, a summary of the patterns thus far discussed is in order. First, Table 1 below summarizes the patterns observed for *ko/ʻo* in Māori, Niuean, and Hawaiian.

Table 1. *Ko/ʻo* constructions

	Māori *ko*	**Niuean *ko***	**Hawaiian *ʻo***
Copular, predicate nominals, equatives, specificational statements	✓	✓	✓
Focus, topic, wh-questions	✓	✓	✓
Coordination	✓		✓
Apposition		✓	✓
Isolation/titles		✓	✓
Double *ko*		✓	
Aspectual		✓	
In situ (TP/*v*P internal) subject			✓

'What is the thing that Kekoa bought?'
However, in most of Medeiros' examples *ʻo* appears befores [+proper] subjects instead of the personal article, suggesting may be a change in progress for Niʻihau speakers.

Māori is the most conservative language, on the assumption that the original functions of *ko/ʻo* were to indicate copular constructions and mark elements in the left-periphery. Both Niuean and Hawaiian are more innovative since they display *ko/ʻo* in a greater variety of environments. Crucially, neither Māori nor Niuean *ko* mark sentential subjects in-situ but rather the appropriate case marker (in Niuean) or the personal article (in Māori). Only Hawaiian *ʻo* is used to mark subjects in this context.

Now consider Table 2, in which the distributional patterns of the personal article *a* are summarized.

Table 2. Personal article *a*/*iā*

	Māori *a*	**Niuean *a***	**Hawaiian *iā***
Objects [+pronominal]	✓	✓	✓
Objects [+human]	✓	✓	✓
Objects [+proper]	✓	✓ (*absolutive case)*	✓
Subjects [+pronominal]	✓	✓ (*absolutive case*)	
Subjects [+proper]	✓	✓ (*absolutive case*)	

Māori and Niuean both use the personal article (also absolutive case marker in Niuean) to mark various types of subjects and objects. Hawaiian only uses it to mark objects, albeit in a form where the object marking preposition (*i*) and the personal article (*a*) form a single syllable *iā*. Thus, Hawaiian is the innovative variety vis-à-vis the personal article.

Overall, only Hawaiian uses *ʻo* to mark in situ subjects and only in Hawaiian has the personal article *a* been lost before subjects. This is not a coincidence but rather these two developments are historically related, as I lay out in Section 6 below.

6. Diachronic changes: From focus particle to subject marker/personal article

Given the patterns observed in Section 4 and summarized in Section 5 above, the question arises as to what explains the variation of *ko/ʻo* and the personal article *a* in these languages? All three belong to the Polynesian family and yet they appear to have diverged significantly with respect to *ko/ʻo* and the personal article. In this section, I discuss patterns of historical change, focusing on the more conservative language, Māori ("conservative" with respect to the structures under consideration), and comparing it with its more innovative relative, Hawaiian. I propose that in Hawaiian, after the loss of the PPN personal article *a*, the polysemous information structure *ʻo* preposition was coopted as its replacement. This reanalysis was encouraged by surface strings where *ʻo* preceded a focus constituent coreferential with the sentential external argument (subject); i.e., cleft sentences introduced by *ʻo*.

6.1 Assumptions regarding the derivation of VSO in Hawaiian

6.1.1 Approaches to deriving VSO in Polynesian languages (in brief). While much work has been done on the derivation of VSO in a variety of language families, here I summarize those focused on Polynesian specifically. In general, there are two main approaches to

deriving the verb initial sentence: head movement or VP movement. Otsuka's (2000, 2002, 2005) work on Tongan is most representative of the T-to-C head-movement approach, according to which the subject moves to Spec,T for EPP and the verb moves to the T-head which is spelled out as the TAM particle, and then on to C. The object remains in situ, resulting in the surface order of VSO. Tongan (52a) has the structure in (52b) based on the Otsuka-type analysis.

(52) a. Na‘e lanaga ‘e Sione ‘a e fale.
TAM build ERG Sione ABS SPEC house
'Sione built a house.'

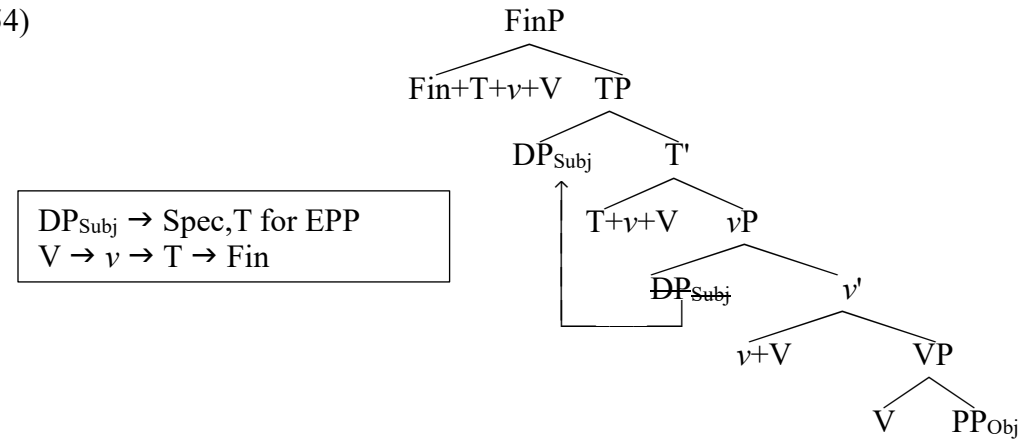
b. [$_{CP}$ C-$T_{Na‘e}$-*v*-lanaga [$_{TP}$ ~~$T_{na‘e}$ *v*-lanaga~~ ‘e Sione [$_{vP}$ ~~‘e Sione~~ ~~*v-lanaga*~~ [$_{VP}$ ~~lanaga~~ ‘a e fale]]]]

Massam‘s (2000, 2001) work on Niuean is representative of the VP-movement approach. On this analysis, the subject and object DPs move to case projections and the VP remnant (left behind after the verb has vacated the VP shell) moves to Spec,T. Thus, EPP on Massam's early analyses is satisfied by VP movement rather than subject movement. Medeiros (2013, 2021) is the only formal analysis of VSO in Hawaiian specifically and he also adopts phrasal predicate movement rather than head movement. However, he incorporates cyclic linearization following Fox & Pesetsky (2005) and Müller (2007). Medeiros assumes that movement triggering features are on the item undergoing movement, not the movement target. Items with relevant unvalued features cannot be linearized until they are checked. The subject remains in situ in Spec,*v*. The verb has an uninterpretable T-feature which is checked when the VP raises to T for EPP. The subject and object are linearized prior to the VP because the VP still has an uninterpretable T-feature until it moves to T. When the VP moves to Spec,T it becomes visible.

6.1.2 Toward an analysis of Hawaiian VSO. For VSO in Hawaiian, following Otsuka (2000, 2002, 2005) for Tongan, I assume that the verb moves to a projection above TP and the subject moves to Spec,T for EPP. In lieu of CP, I adopt Rizzi's (1997) left periphery with Force/Topic/Focus/Topic/Fin projections. At this point, I remain agnostic as to whether the object moves to a specifier of *v* (per Holmberg's Generalization regarding object shift). The steps in a canonical VSO sentence are as follows. First, the arguments merge in *v*P per standard Minimalist assumptions (Chomsky 1995, 2000), with Agree for Case/theta-roles. The subject is in Spec,*v* and the direct object is within a PP headed by the object marker *i*. The subject moves to Spec,T for EPP, followed by head movement of V to *v* to T to Fin. Thus, the sentence in (53) below has the structure represented in (54).

(53) Ua ‘ai ke kanaka i ka poi.
TAM eat the man OBJ the poi
'The man ate the poi.' (Elbert & Pukui 1979:39)

(54)



Several issues arise based on the derivation for VSO in (54). First, what evidence is there for subject movement to Spec,T? Medeiros (2013:82-83) assumes the subject remains in situ and points out, based on Chung & Ladusaw (2004), that in at least Māori, [+specific] subjects must vacate the verbal domain; i.e., move to Spec,T. However, since in Hawaiian [-specific] subjects may also remain postverbal, Medeiros maintains that subjects can remain in situ, though he does not assert that they must in all contexts.

A second question to address is: what motivates movement of T to Fin? Otsuka (2000) links obligatory V-T-C movement in Tongan to absence of an overt complementizer but that would presumably not apply to a simple clause like Hawaiian (53) above. Nevertheless, in *ʻo*- structures, we need V-to-T-to-Fin movement to derive the correct order. Additionally, what evidence is there for V-T-Fin movement outside of surface word order? Medeiros (2013:81) observes this complication and thus assumes VP raises to Spec,T with subsequent T-C movement. Given these issues, I leave a complete analysis of Hawaiian VSO for future work. Meanwhile, the assumptions in this section serve as a basis for the derivation of *ʻo* constructions in the following section.

6.2 Ko/ʻo clefts as ambiguous strings

6.2.1 Massam, Lee & Rolle (2006) - Analysis of Niuean *ko.* In section 3.2 above, I listed the various types of *ko* constructions identified in Niuean by Massam, Lee & Rolle (2006) (henceforth MLR). Since Niuean *ko* is the cognate of Hawaiian *ʻo*, it is worth considering whether MLR's analysis can be extended to Hawaiian before formulating a different one. On MLR's analysis, *ko* is a default/expletive preposition that marks non-arguments, following Clark (1976). The phrase headed by *ko* merges as sister to copular *v* (v_{BE}). MLR adopt Spec,Pred instead of Spec,T and propose that the *v*P moves to Spec,Pred, taking the *ko*-phrase along with it. Thus, the structure of (55a) is represented in (55b) below.

(55) a. Ko e kāmuta a au.
ko C carpenter ABS I
'I am a carpenter.' (Massam, Lee & Rolle 2006:7)

b. [$_{PredP}$ [$_{vP}$ v_{BE} PP-*ko e kāmatu*] Pred$_{EPP}$ [$_{AbsP}$ *a au* Abs ~~[$_{vP}$ v_{BE} PP *ko e kāmatu*~~]]]

There are several reasons why this analysis is not adequate for Hawaiian *ʻo*-cleft structures. First, as MLR state on page 24: "...*ko* phrases will never appear in argument or adjunct positions and will be found only in predicate ... or non-thematic positions such as topic and focus." Recall that the critical pattern that differentiates Māori/Niuean *ko* from Hawaiian *ʻo* is that only the latter can precede subjects that have not undergone movement to the left periphery; i.e., subjects in Spec,T or Spec,*v*. Furthermore, the assumption that the *ko*-phrase is selected by *v* may be unnecessary, on the assumption that *v* is the functional head responsible for the external argument and agent theta role (Chomsky 1995, Kratzer 1996). Given that the *ko* equatives like (55a) in Niuean are verbless, they lack an external argument and agent theta role. Consequently, postulating *v* in Niuean *ko* structures may be superfluous. And finally, Niuean is ergative/absolutive language while Hawaiian is nominative/accusative. Given the distinct way argument structure works in these two languages, it would be surprising if a single analysis could account for all the *ko/ʻo* patterns in both languages.

6.2.2 Setting the stage: Ambiguous clefts, reanalysis, and extension. As shown in Section 3 above, Māori *ko* and Hawaiian *ʻo* are used frequently in left periphery/information structure related constructions like topic or focus. At the same time, Hawaiian *ʻo* is used to mark subjects that remain in TP/*v*P and Māori *ko* is not. Let us assume that the left periphery uses of *ko/ʻo* is the earlier one historically since it is the most widely attested. Any analysis then needs to account for how an element in CP (*ʻo*) comes to be associated with a subject argument in situ (TP/*v*P), ultimately taking over the role of the personal article *a*.

To that end, consider the sentences in (56) and (57) below.

(56) Ko Hone i kite i te taahae. (Māori)
ko John TAM see OBJ the thief
'It was John who saw the thief.' (Bauer 1993:220)

(57) ʻO Keoki **ke** kōkua nei iā Pua. (Hawaiian)
ʻo Keoki TAM help DIR OBJ-PERS Pua
'It is Keoki who is helping Pua.'

Bauer (1993:220ff) discusses Māori (56) which he considers to be clefts as opposed to canonical relative clauses, though he notes variation in how his informants render it into English. In (56), the subject *Hone* is preceded by *ko* and receives a focus interpretation. Hawaiian has the same kind of cleft in (57), where *ʻo* is used instead of *ko*. Notice that the English translation has two clauses but in (56) and (57) there is no overt evidence (like a relative pronoun) that two clauses are structurally present.

My proposal is that clefts with focused subjects like Māori (56) and Hawaiian (57) are structurally ambiguous, lending themselves to diachronic reanalysis. This ambiguity is present in several respects. For example, compare the Hawaiian cleft in (57) with the canonical relative clause in (58) below.

(58) ʻO Keoki **ka mea e** kōkua nei iā Pua. (Hawaiian)
ʻo Keoki the one TAM help DIR OBJ-PERS Pua
'Keoki is the one who is helping Pua.'

Notice that in the previous example (57) there is a single item, the preverbal particle *ke*, between *Keoki* and the verb *kōkua*. On the other hand, in (58), there are three items separating *Keoki* and *kōkua*: a definite article *ka*, a relative pronoun *mea*, and a TAM particle *e*. Other than this, (57) and (58) are identical sentences. Interestingly, this *ke* is a contraction of *ka mea e* (v. Bardwell et al 2022:176). This contraction is homophonous with the imperfective TAM particle *ke* which typically occurs with the directional *nei* in independent clauses as in (59) below.

(59) **Ke** kōkua nei ʻo Keoki iā Pua. (Hawaiian)
TAM help DIR ʻo Keoki OBJ-PERS Pua
'Keoki is helping Pua.'

Thus, when faced with the *ʻo*-cleft in (57) above, it is unclear to the language learner whether it is a contracted relative clause or an independent clause with a sentence initial subject (a pattern that is possible in certain constructions as seen in Section 2.2 above). Crucially, if the learner does process it as an independent clause, the subject is marked with *ʻo*.

Furthermore, an additional level of ambiguity is observable with respect to the position of the subject in (57). Is it sentence initial as a result of movement or is that its first merge position? If it is a displaced subject, did it move up to a position lower than *ʻo*, or is it in the same maximal projection as *ʻo*? This ambiguity is in part what triggered the replacement of the personal article *a* with *ʻo* in Hawaiian. I postulate that the historical change took place in two stages affecting the derivation of *ʻo*-clefts: stage 1, biclausal; stage 2, monoclausal. The second stage is the result of reanalysis fed by ambiguity, which frequently results in structural simplification. Let us look at each stage in detail.

6.2.3 Stage 1: Biclausal clefts. Much of what I propose here follows Pearce's (2021) analysis for Māori, though we depart in some details. Like Pearce, I also adopt the Rizzi (1997) fine-grained left periphery in lieu of the traditional CP. During stage 1, the derivation of the Hawaiian *ʻo*-cleft in (57) above is as follows. The sentence is comprised of two clauses: a higher equative clause (ForceP-1) and the lower transitive clause (ForceP-2) which is the complement of *v* in ForceP-1. I adopt the notion of a copular *v* (v_{BE}) from Massam, Lee & Rolle (2006), which introduces the subject *Keoki* in the specifier of *v*.

In ForceP-2, *ke* spells out the hybrid Fin/T head (following Pearce's adaptation of Massam's (2010) proposal for Niuean preverbal particles) since it is the TAM particle. The ForceP-2 has a subject *pro* in Spec,*v* that moves to Spec,Fin/T for EPP. In ForceP-1, the

subject *Keoki* also moves to Spec,Fin/T for EPP. An additional movement may take place, depending on how we analyze Focus and Force. As Pearce (2021:249) notes for her analysis of topic constructions, there are two possibilities for *ko* as a head: a) *ko* is a Topic head that moves to Force; or b), *ko* is the Force head itself. Either of these options maintains the correct surface order and since we are dealing with focus instead of topic, we can assume that *ʻo* is a Focus head. Thus, the higher subject, *Keoki*, moves to Spec,Foc and *ʻo* moves to Force. Finally, the verb in ForceP-2 moves to *v* and then to Fin/T which usually yields VSO, but in this instance the subject is null and thus the observable surface order is VO. Whether copular v_{BE} in ForceP-1 also moves is an open question which is not relevant at this point since it is null anyway. The derivation of (57) is represented in abbreviated form in (60) below.

(60) [$_{ForceP-1}$ Force-Foc-ʻo ... [$_{FocP}$ Keoki ~~Foc-ʻo~~ ... [$_{FinP/TP}$ ~~Keoki~~ Fin/T [$_{vP}$ ~~Keoki~~ v_{BE} [$_{ForceP-2}$ Force ... [$_{FinP/TP}$ pro Fin/T-ke-*v*-kōkua [$_{vP}$ ~~pro~~ ~~*v*-kōkua~~ [$_{VP}$ ~~kōkua~~ ... iā Pua]]]]]

6.2.4 Monoclausal clefts. Given to the ambiguous surface string in (57), I claim that *ʻo*-clefts in Hawaiian were reanalyzed by language learners as a single clause. This type of reanalysis is an example of structural simplification. Following Roberts (2007:131ff), when presented with an ambiguous structure, language learners exhibit a preference for the simpler structure; i.e., the "simplicity preference." Since one clause has less structural content than two, the monoclausal analysis is expected to win out historically over the biclausal one described in the preceding section. In fact, I propose that the monoclausal derivation reduces to a normal VSO sentence where the sole sentential subject has undergone movement to a specifer of FocusP, with *ʻo* as Focus-head moving to Force, as was also proposed for the biclausal analysis. Thus, the monoclausal derivation of the *ʻo*-cleft in (57) is as represented in (61) below.

(61) [$_{ForceP}$ Force-Foc-ʻo ... [$_{FocP}$ Keoki ~~Foc-ʻo~~ [$_{FinP/TP}$ ~~Keoki~~ Fin/T-ke-*v*-kōkua [$_{vP}$ ~~Keoki~~ *v*-kōkua [$_{VP}$ ~~kōkua~~ ... iā Pua]]]]]

Now, comparing (60) and (61), in both cases the subject moves to a position adjacent to *ʻo*, suggesting to the language learner that *ʻo* and subjects are related generally. However, the monoclausal structure helps reenforce this connection and encourages extension of *ʻo* to subjects in situ because the same lexical item, albeit with different copies, is both the subject of the transitive verb and also focus at the level of information structure.

This raises the question: why does *ko* not get extended to in situ subjects in Māori, given that the *ko*-cleft is presumably just as ambiguous as Hawaiian *ʻo* cleft? A multitude of factors can influence historical change but, in this case, the likely culprit is the personal article *a* which persists in Māori. In fact, it can occur in *ko*-constructions as in (62) below.

(62) **Ko** Ponga$_i$, i noho hāngū tonu mai anō hoki **a** **ia**$_i$. (Māori)
ko Ponga TAM stay silent CONT DIR again also PERS 3S
'As for Ponga, he had also remained silent.'
(Bauer 1997:655, cited in Pearce 2021:243)

In (62), *ko* marks *Ponga* as focus, coreferential with the overt third-singular pronoun *ia*, which is preceded by the personal article *a*. Despite being a proper noun, *Ponga* is already marked with *ko* and not the personal article. Thus, in Māori there is no trigger in the primary linguistic data for a language learner to directly associate in situ subjects with *ko*, contrary to what was seen in Hawaiian.

6.2.4 Accounting for loss of the personal article *a*. In the preceding section, I abstracted away from the status of the personal article in Hawaiian. However, we might postulate an "Old" Hawaiian version of the monoclausal cleft, when personal *a* was still used to mark [+proper] subjects rather than its current usage restricted to objects. On the analysis whereby the sentential subject moves to FocP, then we can expect the personal article to be present in the structure prior to that movement and to move along with the subject assuming it is a D-head, as in (63) below.

(63) ʻO a Keoki ke kōkua nei [~~a Keoki~~] iā Pua. (reconstructed "Old" Hawaiian)

Naturally, I have found no evidence of a stage like this since the loss of the personal article appears to have taken place in Hawaiian prior to the development of a writing system for the language. Furthermore, we have assumed that contemporary Māori is analogous to "Old" Hawaiian, so we would expect the pattern in (63) to be available; i.e., *ko* + *a* + proper noun. Nevertheless, this does not appear to be the case. What occurs instead is reflected in (64) below, from Bauer (1993:109).

(64) a. Ka tae mai a Hata.
TAM arrive DIR PERS Hata
'Hata arrived.'

b. Ko (*a) Hata ka tae mai.
ko PERS Hata TAM arrive DIR
'It was Hata who arrived.'

In (64a), the subject *Hata* is in situ and preceded by the personal article while in (64b) *Hata* occurs after *ko* and is ungrammatical with the personal article. Thus, even in Māori where the personal article retains its original function, when a subject is moved out of TP, the personal article is absent. How do we account for this? Why is there no personal article where it should be synchronically (in Māori clefts) and why was the personal article lost with subjects across-the-board diachronically (in Hawaiian)?

The answer depends first on how we analyze the personal article. Is it a preposition/case marker or is it a determiner? If it is case, then synchronically deletion might happen at the morphological level. For example, we might attribute this to Bonet's (1991) post-syntactic operation "impoverishment" from Distributed Morphology whereby the personal article/case marker *a* might be deleted from the noun before being sent to PF. However, if the personal article is an independent determiner D-head, we might have structure removal (Müller 2017) or D-to-P incorporation. These ideas are speculative thus

for now, I leave an account of synchronic personal article deletion in Māori clefts for future work and focus here instead on the diachronic loss in Hawaiian.

I have already claimed that subject movement in monoclausal clefts resulted in association of subjects with *ʻo*, and subsequent extension of *ʻo* to in situ subjects. However, this is not the only trigger for reanalysis. I propose that diachronically in Hawaiian, replacement of the personal article *a* by *ʻo* was also motivated by two additional factors: 1) analogy with object nominals; 2) ambiguous structure of subject nominals. First, let us assume for now that *ko/ʻo* in its left-periphery uses is a preposition (following Elbert & Pukui 1979; Massam, Lee & Rolle 2006). Let us also assume that like other articles, the original personal article is a determiner. Now recall the postulated historical stages: stage I (contemporary Māori/Old Hawaian) mirrors the original PPN situation; stage II is contemporary Hawaiian in which the personal article is lost except for objects. This is summarized in Table 3 below.

Table 3. Diachronic patterns of *ko/ʻo* and the personal article *a*

	Stage I	**Stage II**
	Māori/Old Hawaiian	**Contemporary Hawaiian**
Left periphery	$ko_{[+focus]}$ + XP; *ko* = Prep	$ʻo_{[+focus]}$ + XP; *o ʻ* = Prep
Object nominals	$i_{Prep} + a_{Det} + NP_{[+proper]}$	$i_{Prep} + a_{Det} = i\bar{a} + NP_{[+proper]}$
Subject nominals	$Ø_{Prep} + a_{Det} + NP_{[+proper]}$	$ʻo_{Prep} + Ø_{Det} + NP_{[+proper]}$

Returning to the two factors, let us start with the analogy with object nominals. Notice that at both stages, a [+proper] object nominal follows the same pattern: prepositional object marker *i* plus personal article *a* plus the noun ($i_{Prep} + a_{Det} + NP_{[+proper]}$). Now compare this with subject nominals. At Stage I, if we assume subject nominals should be structurally like object nominals, since they are both arguments of the verb, we could assume a null prepositional subject marker preceding subject nouns to maintain the same pattern that occurs with object nominals. Similarly, at Stage II, when the personal article has already been lost but proper subject nouns are marked with *ʻo*, we most posit a null determiner to be present as well, on par with the overt determiner present with object nominals. After the loss of the personal article and extension of preposition *ʻo* is to subject position we have the following string: [$ʻo_{Prep} + Ø_{Det}$ + NP]. Since the determiner is null and *ʻo* is overt, both preceding the noun, *ʻo* looks like it is the determiner; i.e., the formerly overt personal article *a*.

6.2.5 On the categorial status of *ʻo*: Preposition or determiner? Thus far, I have followed Elbert & Pukui (1979:131ff) in assuming that *ʻo* is a preposition and not a determiner, despite its being labelled a personal "article." Let us now examine some distributional patterns that support this categorization. First, Hawaiian ʻ*o* does not to appear as a complement to prepositions, unlike determiner phrases. Consider the comparative data in (65) below.

(65) a. ✓ ki a Sione (Niuean)
P D N

b. ✓ i a Hōne (Māori)
P D N

c. * i ‘o Kekailoa (Hawaiian)
P ? N

In Niuean (65a) and Māori (65b), the [+proper] object of the preposition *ki/i* is preceded by the personal article *a*. Thus, it is the DP complement of a preposition. In Hawaiian, however, the sequence [preposition *i* + *‘o*] is not acceptable (65c). One might assert that this is just the case with *i* but not with other prepositions. Nevertheless, a search in *Ka Baibala Hemolele* online (https://baibala.org) for strings of prepositions *ma* (locative/instrumental), *me* (comitative), and *e* (agentive) plus *‘o* yielded no results. Instead, the preposition takes a bare noun or pronoun complement, as in (66) below.

(66) a ‘ike ihola ia, ua kō ‘o ia, ho‘owahāwahā ‘ia nō au **e ia.**
and see DIR 3S TAM conceive ‘o 3S despise PASS INT 1S by 3S
'and when she saw that she had conceived, I was despised by her.' (Gen. 16:5)

Furthermore, if *‘o* is a preposition then it should pattern with other prepositions in taking the same type of complements. For example, the comitative preposition *me* occurs frequently with determiners (67-69) but also with proper noun complements (70).

(67) a **me kona kānaka**, **me ka maka o pahi kaua**.
and COM his people COM the edge of knife war
'...and his people with the edge of the sword.' (Exodus 17:13)

(68) E hele aku ‘oe i waho o ka hale lana, ‘o ‘oe, **me kāu wahine**,
TAM go DIR you OBJ out of the building floating ‘o you COM your wife
me āu mau keiki kāne a **me nā wāhine** a kāu mau keiki kāne **me ‘oe**.
COM your PL child male and COM PL women of your PL male child with you
'Got out of the ark, you and your wife and your sons and your sons' wives with you.' (Genesis 8:16)

(69) a ma hope a nā lā he haneri a **me kanalima**, ua emi ka wai.
and LOC end of PL day a hundred and COM fifty TAM decrease the water
'And at the end of one hundred and fifty days, the water decreased.' (Genesis 8:3)

(70) a ua ho‘olauna pū lākou nei **me ‘Aberama.**
and TAM be-friendly completely 3pl DEM COM Abram
'...and these were allies with Abram.' (Genesis 14:13)

‘*O* does occur with determiners but only in A'-positions such as contrastive focus (71) and apposition (72).

(71) no ka mea, **‘o ‘oe, ‘o ‘oe** wale nō kai 'ike i nā na'au o nā keiki.
for the thing ‘o you ‘o you only INT who know OJB PL heart of PL child
a pau o kānaka.
POSS all of men
'because you and you alone know the hearts of all the sons of men.' (I Kings 8:39)

(72) no ka mea, ‘o wau nō Iēhova **‘o kou Akua**, he Akua lili.
for the thing ‘o I INT Jehova ‘o your God a God jealous
'...for I the Lord your God, am a jealous God...' (Exodus 20:5)

However, in argument position with animate nominals, *‘o* and *ka* (the definite article) do not cooccur, as seen in (73) below.

(73) a. A laila ‘ōlelo akula **ka po‘e luna‘ōlelo** i ka Haku [-proper, +human]
and then say DIR the people apostle OBJ the lord
'And then the Apostles said to the Lord...' (Luke 17:5)

b. A ʽī maila **‘o Iesū** iā ia [+proper, ?human]
and say DIR ‘o Jesus OBJ-PERS him
'And Jesus said to him...' (Luke 18:19)

c. A hele a‘e ia, hālāwai **ka liona** me ia... [-proper, +animate]
and go DIR 3SG meet the lion COM 3SG
'And when he had gone, the lion met with him' (1 Kings 13:24)

Rather, [+proper] subjects are marked with *‘o* and [-proper, +animate] subjects are preceded by the definite article *ka*. I assume in the contexts like (73b), *‘o* is a preposition with the proper noun as its DP complement. The D-head is null, and, following Longobardi (1994), the [+proper] N moves to D to be licensed as an argument, as in (74) below with the proper noun *Kekailoa*.

(74) a. $[_{PP}\ P_{‘o}\ [_{DP}\ D_{Ø}\ [_{NP}\ N]]]$ → $[_{PP}\ P_{‘o}\ [_{DP}\ D_{Ø}\text{-}N\ [_{NP}\ \sout{N}]]]$
b. $[_{PP}$ *‘o* $[_{DP}\ D_{Ø}\ [_{NP}$ *Kekailoa*$]]]$ → $[_{PP}$ *‘o* $[_{DP}\ D_{Ø}$-*Kekailoa* $[_{NP}$ ~~*Kekailoa*~~$]]]$

Given these patterns, *‘o* does appear to be a preposition. When *‘o* precedes a [+proper] external argument, its complement is headed by a null D. In the resulting surface string, *‘o* looks like a "personal article," since nominals are usually preceded by a determiner → *‘o* $Ø_D$ *Kekailoa*. In fact, *‘o* has not exactly replaced the personal article but instead is the overt realization of the posited null or caseless preposition that marks subjects, followed by a null determiner.

7. Crosslinguistic consequences: A broader look at Polynesian

We have seen in Section 3.3 that Hawaiian *‘o* shares some of the same patterns as its cognate *ko* in Māori and Niuean. It has also been shown that *‘o* has superficially

replaced the personal article *a* which was lost in Hawaiian but retained in Māori and Niuean, with some variation. In Section 6, I claimed that adjacency between *ʻo* and displaced subjects in clefts, loss of the personal article with subjects, and analogy with the structure of object nominals led to *ʻo* replacing the personal article *a* in Hawaiian before [+proper] subjects. This leads to the prediction given in (75) below.

(75) PREDICTION
Polynesian languages with a "subject marker" cognate with proto-Polynesian **ko* will have lost the original "personal article" *a* in external argument position.

In this section, I test this prediction and extend the empirical coverage of my analysis by examining the distributional patterns of *ko/ʻo* and the personal article *a* in three additional Polynesian languages: Tahitian, Rapa Nui, and Samoan.

*7.1 Grammaticalization of Proto-Polynesian *ko*

While it is still widely attested, PPN **ko* has lost some phonological features in some contemporary varieties, likely a result of grammaticalization. The extent to which phonological erosion has taken place throughout Polynesian is represented in (76) below, based on the discussion in Clark (1976) and Brown & Koch (2016).

(76) PPN **ko = ko* -- Niuean, Māori, East Uvean, Tongan, Tikopia, Tokelauan, Rarotongan, Vaeakau-Taumako Rapa Nui; <*go*> [ko] in Nukuoro
PPN **ko > ʻo* -- Hawaiian, Samoan, Tahitian
PPN **ko > o* -- Western varieties of Fijian, North Marquesan, Luangiua
PPN **ko > Ø* -- West Futunan

While most of the languages listed retain the full form *ko* identical with PPN, others have not. In Hawaiian, Samoan, and Tahitian, /k/ has undergone lenition into /ʔ/, represented orthographically in Hawaiian with the *okina* (ʻ). In other varieties like North Marquesan, the consonant has been lost altogether and in West Futunan there is no reflex of PPN **ko*. Given that **ko* has undergone grammaticalization at the phonological level, we can expect its syntactic distribution to be affected as well since grammaticalization also affects morphosyntactic features.

7.2 Conservative varieties: Māori, Niuean, Rapa Nui

As has already been shown in Section 3 above, Māori has left periphery *ko* and retains the personal article *a* before proper/pronominal subjects and objects. I consider this the conservative pattern because it mirrors what Clark (1976) shows for PPN. Niuean is also conservative since it has the full form of *ko* restricted to left periphery and A'-position constructions and the personal article *a* is used with [+human] objects preceded by the object marker preposition and as an absolutive case marker for proper nouns, which can be subjects or objects. Let us consider the case of Rapa Nui, which is an Eastern Polynesian

language like Māori. According to Kieviet (2017), Rapa Nui does have *ko* as a "prominence marker" (77) and *a* as a "proper article" (78).

(77) **Ko Artillero** i hoki i iri ki tō‘ona kona hare era.
ko Artillero PFV return PFV ascend to his place hous DIST
'As for Artillero, he returned to his house.' (R437.055; Kieviet 2017:408)

(78) a. He kī **a Kaiŋa** ki a Makita ki a Roke‘aua...
NTR say PERS Kainga to PERS Makita to PERS Roke'aua
'Kainga said to Makita and Roke'aua...' (R243.063; Kieviet 2017:277)

b. He u‘i i **a Vaha.**
NTR look ACC PERS Kainga
'He saw Vaha.' (Mtx-3-01.144; Kieviet 2017:102)

c. He turu **a ia** ki tai.
NTR go-down PERS 3S to sea
'He went down to the sea.' (Notes, Kieviet 2017:103)

In (66), the *ko*-phrase has a focus reading, which is also one of the uses seen for *ko/‘o* in Māori, Niuean, and Hawaiian. As for the personal article *a*, it is used before proper subjects (78a), proper objects (78b), and pronominal arguments (78c). In fact, (78c) is particularly striking as the parallel Hawaiian third-singular pronoun is frequently preceded by *‘o* when in situ where the Rapa Nui pronoun is preceded by the personal article: *‘o ia* (Hawaiian) vs. *a ia* (Rapa Nui).

7.3 Innovative varieties: Hawaiian, Tahitian, Samoan

In Hawaiian, *‘o* is used for a variety of discourse-related constructions but the personal article *a* has been lost and replaced by *‘o* before [+proper] subjects; it is retained with [+proper] objects. Tahitian, which like Hawaiian is a Central Eastern Polynesian language, also has *‘o* with focus (79) and in situ subject [+proper] nouns (80). It also has the coalesced form of the object marker plus remnant personal article with [+proper] DO (81).[3]

(79) **‘o** te taote tei haere mai.
(Tahitian)
‘o ART doctor ART-ASP go DEI
'It is the doctor who came.' (Lazard & Peltzer 1991:3)

[3] Tahitian also has the type of contracted clefts seen for Hawaiian and Māori in Section 6.2.2 (per N. Ha‘alilio Solomon p.c.):

(i) ‘O Tihoti tei tauturu nei ia Pua.
‘o Tihoti TAM help DIR OBJ-PERS Pua
'Tihoti is the one helping Pua.'

(80) ‘ua rave rima mai **‘o Teri‘i** i te i‘a. (Tahitian)
ASP take hand DIR ‘o Teri‘i OBJ the fish
'Teri'i took the fish with his hand.' (Lazard & Peltzer 1991:12)

(81) ‘ite atu ra vau **iā** **Moea.** (Tahitian)
see DIR DEI I OBJ-PERS Moea
'Then I saw Moea.' (Lazard & Peltzer 1991:11)

Thus, Tahitian patterns exactly like Hawaiian, which is not surprising given how closely related these two languages are.

Samoan is somewhat less related to Hawaiian since it is a member of the Samoic/Outlier group rather than Eastern Polynesian. However, it does have *‘o* for focus/topic functions, as in (82) below. According to Clark (1976:59), the personal article *a* has been lost and *‘o* is used as a personal article but only with pronouns (83).

(82) **‘O Sala ma Lata** ‘ailaga na momoe ana po. (Samoan)
‘o Sala and Lata doubtful PAST sleep last night
'It is doubtful that Sala and Lata slept last night.' (Collins 2017:29)

(83) sā tilotilo **‘o ia** i le teine. (Samoan)
PAST watch ‘o 3S OBJ the girl
'He was watching the girl.' (Chung 1978:186)

However, the *‘o* does appear to be optional given (84) below, where the subject is preceded by the ergative case marker alone.

(84) E iloa ‘uma e **ia** tali. (Samoan)
PRES knows all ERG 3S answer
'He knows all the answers.' (Chung 1978:185)

According to Hunkin (2009:48), *‘o* is only used with subjects, whether proper or not, when the subject is preverbal, though the third-person pronoun is an exception.[4]

As for objects, Samoan, like Niuean, does have an absolutive particle *ia* that can precede proper nouns as objects (85a) but also as subjects (85b).

(85) a. Ua maua e Toma **ia** **Jerry**. (Samoan)
PAST caught ERG Tom ABS Jerry
'Tom caught Jerry.' (Tollan 2018:6)

b. Sā siva **ia** **Anna**. (Samoan)
PAST dance ABS Anna
'Anna danced.' (Tollan 2018:6)

[4] Vera Hohaus has informed me via personal communication that none of her Samoan informants use *‘o* with subjects in argument position.

This particle is likely etymologically related to PPN personal article *a*, assuming it is the result of the same reanalysis that took place in Proto-Tongic (v. Clemens & Tollan 2021:90 and references therein). However, various authors (Mosel & Hovdhaugen 1992, Yu & Özyildiz 2016, Tollan 2018), have observed that this particle is optional with proper nouns which differs from Hawaiian/Tahitian *iā* which is obligatory with proper noun objects.

7.4 Summary

The patterns discussed in this section are summarized in Table 4 below.

Table 4.

		Left-periphery **ko*	**Personal article**
Conservative	Māori	✓	*a* [+proper] subjects, objects
	Rapa Nui	✓	*a* [+proper] subjects, objects
	Niuean	✓	*a* [+human] objects; *a* with absolutive subjects/objects
Innovative	Hawaiian	✓	*ʻo* [+proper] subjects; *a* [+proper] objects
	Tahitian	✓	*ʻo* [+proper] subjects; *a* [+proper] objects
	Samoan	✓	Optional *ʻo* with [+pronominal] subjects; optional *ia* with [+proper] absolutive subjects/objects

All six languages maintain some left periphery use of *ko/ʻo*, but only three use it as a replacement for the personal article *a*. Hawaiian and Tahitian pattern together while Samoan appears to be losing *ʻo* as personal article given its optionality. The conservative varieties never use *ko/ʻo* in this capacity, instead using the personal article/absolutive case marker. The lack of *ʻo* as personal article in Niuean may be due to the continued existence, albeit via reanalysis, of the original PPN *a* personal article with subjects. Since this form persisted, there was no need to replace it. Samoan is perhaps the most interesting in this regard, as it does allow *ʻo* with pronominal subjects in situ, but it seems to be rarely used in the spoken language. It may be that the same replacement process that took place in Hawaiian and Tahitian began at some point, but was blocked while in progress, again due to the presence of a related absolutive case marker.

Thus, based on these patterns we can assert that the prediction in (75) does hold for Hawaiian and Tahitian. It also holds for Māori, Rapa Nui, and Niuean which never lost the personal article *a* and consequently never needed to replace it with *ko/ʻo*. Samoan is a more complicated case which I plan to return to in future work. In conclusion, based on the admittedly limited set of Polynesian languages considered in this section, we can rephrase the prediction in (75) as a tentative generalization in (86) below.

(86) GENERALIZATION
Polynesian languages that lose the original PPN "personal article" *a* with in situ subjects replace it with a reflex of the PPN multi-functional preposition **ko*.

8. Conclusion

The discourse information-related preposition *ʻo* replaced the personal article *a* in Hawaiian before [+proper] subjects due to several factors. First, proper subjects became associated with *ʻo* (as Force head) in clefts where the subject undergoes movement to Spec,Foc. The structural proximity of ForceP and FocusP and the coreferentiality between the focused item and the displaced subject encouraged reanalysis of *ʻo* as an element that precedes [+proper] subjects in situ, a position which it did not previously occupy. When the original Proto-Polynesian personal article *a* was lost in Hawaiian before subjects it was replaced by the *ʻo* preposition. In the resulting ambiguous string [ʻo$_{Prep}$ + Ø$_{D}$ + NP], *ʻo* looks superficially like the personal article, a determiner, since the latter is null. However, distributional patterns support the analysis of *ʻo* as a preposition in all environments. Analogy between [+proper] subject nominals and [+proper] object nominals also encouraged historical replacement. In [+proper] object nominals preceded by the prepositional object marker *i*, the personal article *a* was retained: [(*i* + *a*) > *iā* + NP]. The same pattern was applied via analogy to [+proper] subject nominals after loss of the personal article *a*. Instead of an overt preposition followed by an overt determiner, subject nominals are preceded by an overt preposition *ʻo* and a null determiner (previously realized as the personal article *a*). Finally, synchronic patterns of the distribution of *ko/ʻo* and the personal article *a* in six Polynesian languages (Māori, Niuean, Rapa Nui, Hawaiian, Tahitian, Samoan) support the prediction that those languages which have lost the personal article *a* before subjects coopt the discourse-information related cognate of *ko/ʻo* to replace it.

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