From subject marker to personal article: Hawaiian *'o* and its Polynesian cognates[1]

Matthew L. Maddox[2]

30th Annual Meeting of the Austronesian Formal Linguistics Association
Lund University; October 20-22, 2023

Introduction

<u>Main data</u>: The Hawaiian subject marker *'o*, precedes [+proper] sentential subjects (1) and, with some variation, [+pronominal] subjects (2). *'O* also marks a variety of discourse/information structural relations such as focus (3), topic, apposition, etc.[3]

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

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

(3) **'O ke ali'i** ka mea i 'oki i ke kaula.
    'o the chief the thing TAM cut OBJ the string
    'It was the chief who cut the string.' (Hawkins 1979:64)

-The cognate *ko* (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 et al 2006, *inter alios*), but Hawaiian *'o* has not. While etymologically related, the distribution and syntactic properties of *ko* and *'o* are not identical.

<u>Problem</u>: Some Polynesian languages use the "personal article" *a* to mark subjects while *ko* is restricted to topic/focus-type uses. Hawaiian lacks this personal article and uses *'o* for information structure relations. Thus, Hawaiian employs one form *'o* for the same functions that other Polynesian languages use two forms, *ko* and *a*. Why is this the case?

<u>Goals</u>:
a) Theoretical - Propose a derivation for *'o* constructions in Hawaiian.
b) Historical - Account for change -- topic/focus particle > subject marker/personal article.
c) Comparative - Identify cross-Polynesian distribution of *ko/'o* and the personal article *a*.

---

[2] Contact: mmaddox402@gmail.com; www.matthewmaddox.org
[3] 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, *inter alios*), I have collected data primarily from older grammars and texts.

Argument in brief

-In *'o* cleft constructions, the sentential subject moves into the left-periphery as focus in a position following *'o* particle, yielding coreference between subject copy and focus.
-The frequent string *'o* + focus (former subject) in the left-periphery results in associating *'o* with proper subjects elsewhere, aided by analogy with the structure of object nominals.
-Hawaiian lost the personal article *a*; *'o* now realizes two distinct elements: i) the original discourse-related particle, ii) a surface replacement personal article for [+proper] subjects.

Presentation format:

> Section 1 - Background--Hawaiian and Polynesian languages; previous studies.
> Section 2 - *Ko/'o*-constructions in Māori, Niuean, and Hawaiian.
> Section 3 - Personal article patterns in Māori, Niuean, and Hawaiian.
> Section 4 - <u>INTERIM SUMMARY</u>
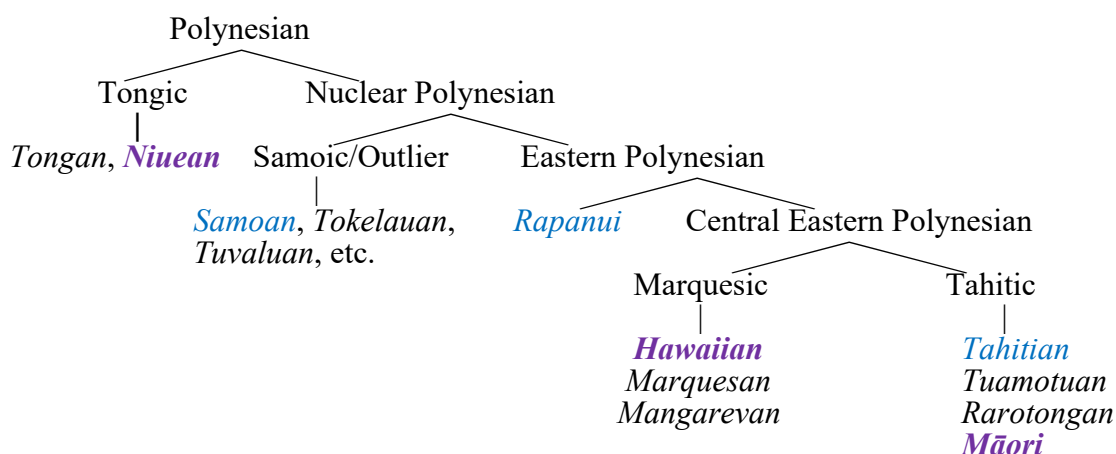> Section 5 - Derivation of *ko/'o*-clefts, diachronic changes, loss of personal article.
> Section 6 - Crosslinguistic consequences: A broader look at Polynesian.
> Section 7 - Conclusion.

1. Background

1.1 Typology and status

-Classification: Austronesian > Oceanic > Polynesian[4]

```
                    Polynesian
            ┌───────────┴───────────┐
        Tongic              Nuclear Polynesian
          │              ┌──────────┴──────────┐
  Tongan, Niuean    Samoic/Outlier      Eastern Polynesian
                         │            ┌─────────┴─────────┐
                  Samoan, Tokelauan,  Rapanui   Central Eastern Polynesian
                  Tuvaluan, etc.                ┌──────────┴──────────┐
                                            Marquesic            Tahitic
                                                │                    │
                                            Hawaiian             Tahitian
                                            Marquesan            Tuamotuan
                                            Mangarevan           Rarotongan
                                                                 Māori
```

-Status: *Ethnologue, 26th Edition* (2023)

	Population (L1)	**Language vitality**
Hawaiian / *'Ōlelo Hawai'i*	< 10k	Institutional
Niuean / *Vagahau Niuē*	< 10k	Institutional
Māori / *Te reo Māori*	10k - 1M	Endangered

---

[4] Based on Clemens & Massam (2021), following Lynch (1998).

Question: Why the focus on these three Polynesian languages?
  Niuean - well-documented; abundant research on morphosyntax.
  Māori - a conservative variety, substantial amount of modern linguistic work.
  Hawaiian - somewhere in between; not much formal work at all; personal connection.

1.2 Hawaiian morphosyntactic properties (in brief)

- Hawaiian is analytic (isolating) with Nominative/Accusative alignment.

-Word order: VSO (4a) via verb/predicate fronting. Pseudo-noun incorporation yields
VOS (4b); v. Medeiros (2013). SVO possible with topicalization, focus, etc.

(4)   a.   Inu   ana 'o Noelani i   ke kope hu'ihu'i.
                drink DIR 'o Noelani OBJ the coffee cold
        b.   Inu   kope   hu'ihu'i 'o   Noelani.
                drink coffee cold   'o Noelani
                'Noelani is drinking the cold coffee.'

-Some verbs can also be nouns and vice versa ("noun-verbs"); no copular verb (5). TAM
is marked by pre- and post-verbal particles (6); objects marked by the preposition *i* (6).

(5)   Ma'ane'i ka hale.   (6)   Ua 'ai ke kanaka i   ka poi.
        here   the house   TAM eat the man   OBJ the poi
        'The house is here.'   'The man ate the poi.'
        (Elbert & Pukui 1979:42)   (Elbert & Pukui 1979:39)

-Nominal domain (simplified): D N Adj, as in (7, 8). I assume DP for Hawaiian following
Medeiros (2013, 2021); Massam (2020) analyzes Niuean nominals as KPs.

(7)   he 'īlio nui   (8)   kēia mau kānaka moloā.
        a   dog big   these PL   people lazy
        'A big dog'   'These lazy people' (Hopkins 1992:87)

1.3 Previous studies

1.3.1 On the Hawaiian subject marker

1.3.1.1 *'O* = Verb

-Carter (1996): *'O*, along with *he* (the presumed indefinite determiner) and *i* (the object
marker) are copula verbs. The *'o* topic marker is different from the copula verb *'o*.

1.3.1.2 *'O* = Preposition

- Elbert & Pukui (1979) - *'O* is a nominative preposition; it displays complementary distribution with other case-marking prepositions; optional, even in apposition.
- Hawkins (1979, 1982) - '*O* a caseless preposition; also marks topics. Subjects are preceded by a null P, excluding proper nouns and the 3S pronoun. HSM also marks predicates that would be preceded by the definite article. Used optionally in apposition.
- Cook (1999, 2002) - Argues contra Carter (1996); *'o* is a copular preposition (case-marker) for proper nouns, locative nouns, topics; precedes 3S pronoun when subject and animate; appositive use is copular.[5]

1.3.1.3 *'O* = Determiner

-Bardwell et al (2022): *'O* is a determiner preceding proper nouns that are sentential subjects and proper nouns not already preceded by a preposition; also used for apposition.

1.3.2 On Proto-Polynesian **ko*

1.3.2.1 Clark (1976)
- **Ko* is a preposition that precedes nominal predicates; originally required with definite NPs then extended to indefinite NPs; also marks topics.
- **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.

1.3.2.2 Brown & Koch (2016)
- Various **ko* structures in Polynesian can be reduced to focus. In SVO Polynesian, **ko* structures are being lost. Since subjects are sentence initial, the connection between that position and focus has been severed and thus *ko* lost its functional usefulness.

Question: What is Hawaiian *'o*? Nominative preposition, caseless preposition, copular preposition, determiner, topic marker, something else entirely?

2. *Ko/'o* constructions in Māori, Niuean, and Hawaiian

2.1 Distribution of *ko* constructions in Māori

-*Ko* occurs with clefts/focus (9), equatives/copular uses (10), coordination (11), topics (12), wh-questions (13). Data from Bauer (1993) and references therein.

---

[5] Kim (2018) argues against the determiner analysis of *'o* and considers it a "topic marker." They do not weigh in on whether it is a preposition or some other category.

(9) **Ko** Hone i kite i   te taahae.
     ko John T/A see OBJ the thief
     'It was John who saw the thief.'

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

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

(12) 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
      'The stole the TV with the silver, but as for the booze, it was all drunk.'

(13) **Ko** wai i   piirangi ki te kaakahu?
      ko who T/A want   to the garment
      'Who wanted the dress?'

2.2 Distribution of *ko* constructions in Niuean

-Distribution of *ko* per Massam et al (2006): focus (14), topic (15), predicate
nominals/specificational statements/equatives (16), apposition (17), isolation, aspectual,
wh-questions (18), "double ko." (Data from Massam et al 2006 and references therein.)

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

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

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

(17) he   ha laua a matua **ko** Tihamau.
      LOCC GENP they LIG father ko Tihamau
      'to their father, Tihamau.'

(18) **Ko** hai ne lalaga e   kato ē?
      ko who NFUT weave ABSC basket this
      'Who wove this basket?'

2.3 Distribution of *'o* constructions in Hawaiian

-*'O* occurs with focus (19-20), topic (21-22), predicate nominals/equatives (23-24), apposition (25-26), isolation/titles, wh-questions (27-28), and coordination (29-30).

2.3.1 Focus

(19)   'O ke ali'i   ka mea   i 'oki i   ke kaula.
        'o the chief the thing PERF cut OBJ the string
        'It was the chief who cut the string.' (Hawkins 1979:64)

(20)   'O ka ha'ina ka i   hewa.
        'o the answer the PERF wrong
        'It is the answer that is wrong.' (Hawkins 1979:71)

2.3.2 Topic

(21)   A   'o 'Isema'ela, ua ho'olohe ho'i   au iā   'oe nona.
        and 'o Ishmael   PERF   hear   INTENS   I OBJ you POSS
        'And as for Ishmael, I have heard you.' (Genesis 17:20)

(22)   'O ka pōpoki, lele 'o ia   ma luna o ka noho.
        'o the cat   jump 'o 3SG LOC high of the chair
        'As for the cat, it jumped up high on the chair.' (Bardwell el al 2022:149)

2.3.3 Equatives

(23)   He kahu   iwikuamo'o 'o Kūanu'uanu.
        a steward personal   'o Kūanu'uanu
        'Kūanu'uanu was a personal steward.' (Hawkins 1982:69)

(24)   'O nehinei   ka lā   'ino   loa.
        'o yesterday the day stormy very
        'Yesterday was the stormiest day.' (Hawkins 1982:70)

2.3.4 Apposition

(25)   i   ka nonoi 'ana   o kāu kauā nei, a <u>'o kou   po'e kānaka ho'i 'o Isera'ela</u>
        OBJ the ask-for NOMIN of your servant DIR and 'o your group person also 'o Israel
          '...the supplication of your servant and of your people, Israel, also...' (I Kings 8:30)

-The first *'o* in the apposition pair appears to be optional since (26) below lacks it.

(26) ha'alele 'o Kama-pua'a   i   nā wāhine ā   me **kona makuahūnōai 'o Kāne-iki.**
      leave   'o Kama-pua'a OBJ the women and with his   father-in-law   'o Kāne-iki
      'And Kama-pua'a left the women and his father-in-law, Kāne-iki.'
      (FS 243, cited in Elbert & Pukui 1979:150)

2.3.5 Wh-questions

(27) a.   'O wai kou inoa?   b.   'O Pua ko'u inoa.
            'o what your name   'o Pua my name
            'What is your name?'   'My name is Pua.

(28) '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)

2.3.6 Coordination: ['o XP + pronoun + 'o XP]

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

(30) '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)

2.3.7 A pattern unique to Hawaiian (vs. Māori, Niuean)

-In (31-33), the *'o*-marked NP is in canonical subject position; the verbs are transitive.[6]

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

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

---

[6] There is at least one more use of *'o* that I do not consider here; i.e., the sequence *ā 'o*, used in complex sentences (Elbert & Pukui 1979:170). See Maddox (2023a, 2023b+appendix) for other uses.

(33) 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)

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

3.1 Māori personal article

(34) 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)

-Personal article: used before proper names, pronouns, and local nouns (Bauer 1993).
- Proper names require the personal article *a* in all registers (35).
- Personal pronouns take *a* when preceded by prepositions ending in -*i* and, in formal Māori (for some speakers), when they function as subject (36).

(35) Kāhore **a** **Hōne**   i   patu i   te poaka.
      NEG   PERS Hōne TAM kill   OBJ the pig
      'Hōne didn't kill the pig.' (Chung 1978:142, cited in Pearce 2021:218)

(36) 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)

- Māori personal article used for both subjects (34-36) and objects (37-38). The personal article can occur in *ko* sentences but not immediately following *ko* (39), per Bauer (1993).

(37) 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)

(38) 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)

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

- Analyses: Bauer (1993) - *a* is a personal article and thus a determiner (implied). Yamada (2014:49-50) - groups it with determiners but does not give a detailed analysis.

3.2 Niuean personal article

-The personal article *a* precedes [+human] proper complements (nominal or pronominal) of the goal or locative preposition *ki* (Massam 2020, 2021).

(40)   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)

(41)   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)

-NB: Absolutive case and the personal article are homophones, both realized as *a*.[7] Massam glosses it as PERS when preceded by a preposition, but never in subject position.

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

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

-Niuean personal article "merges in D", presumably heading a DP selected by the appropriate preposition (Massam 2020:217, 2021:300).

3.3 Hawaiian personal article

-The personal article **a* has been reconstructed for PPN. The subject use was lost in Hawaiian; Māori, Rarotongan, and Penrhyn "preserve the closest approximation to the PPN situation" (Clark 1976:58ff).[8]
-Hawaiian multifunctional preposition: *i > iā* before proper nouns, pronouns for object marking. The *ā* is a remnant of PPN **a* personal article. (Elbert & Pukui 1979:133).

---

[7] 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).
[8] Interestingly, the Ni'ihau variety of Hawaiian might retain the original PPN personal article (David Medeiros p.c.). While this would be consistent with this variety's more conservative nature, I leave the implications of this to be explored elsewhere.

(43) Nānā iā   Pua /   ia'u /   iā   Maui.
      look OBJ-PERS Pua OBJ-PERS-me OBJ-PERS Maui
      'Look at Pua / me / Maui.'

(44) Lawe a'ela 'o 'A'arona   iā   'Eliseba
      take DIR 'o Aaron OBJ-PERS Elisheba
      'Aaron married Elisheba.' (Exodus 6:23)

4. INTERIM SUMMARY

4.1 *Ko*/'o constructions in Māori/Niuean *ko*, Hawaiian *ʻo* summarized:

	Māori *ko*	**Niuean *ko***	**Hawaiian *ʻo***
Copular[9]	✓	✓	✓
Focus, topic, wh-questions	✓	✓	✓
Coordination	✓		✓
Apposition		✓	✓
Isolation/titles		✓	✓
Double *ko*		✓	
Aspectual		✓	
Subject adjacent transitive			✓

-Crucially, <u>Māori/Niuean *ko* does not occur in subject adjacent transitive contexts</u>, but rather the appropriate case marker (in Niuean) or the personal article (in Māori).

4.2 Personal article *a* patterns in Māori, Niuean, and Hawaiian summarized:

	Māori	**Hawaiian**	**Niuean**
Objects [+pronominal]	✓	✓	✓
Objects [+human]	✓	✓	✓
Objects [+proper]	✓	✓	
Subjects [+pronominal	✓		
Subjects [+proper]	✓		

<u>Question</u>: What explains the variation of *ko*/'o and the personal article in these languages?

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

<u>Proposal</u>: In Hawaiian, after the loss of the PPN personal article *a*, the polysemous information structure *ʻo* preposition was coopted as a replacement. This reanalysis was encouraged by frequent strings where *ʻo* preceded a topic/focus constituent coreferential with the sentential external argument (subject); i.e., cleft sentences introduced by *ʻo*.

---

[9] Predicate nominals, equatives, specificational statements (following Massam et al's 2006 terminology).

5.1 Assumptions regarding the derivation of VSO in Hawaiian

5.1.1 Some approaches to deriving VSO in Polynesian languages

A. Otsuka (2000, 2002, 2005) -- Tongan VSO
- subject moves to SpecTP for EPP
- V moves *v*-T-C
- object in situ

B. Massam (2000, 2001) -- Niuean VSO
- subject and object DP moves to case (Agr-like) projections
- VP remnant moves to SpecTP for EPP

C. Medeiros (2013, 2021) -- Cyclic linearization of VP-remnants in Hawaiian
- movement triggering features on mover, not movement target
- items with relevant unvalued features cannot be linearized until checked
- subject in situ in Spec*v*P
- [uT] on V, VP raises to T for EPP
- subject and object linearized prior to VP because VP still has [uT]
- VP visible when it moves to SpecTP

5.1.2 Towards an analysis of Hawaiian VSO: A mixed approach

-Following Otsuka (2002, 2002, 2005) for Tongan, the verb moves to a projection above TP, the subject moves to SpecTP for EPP. In lieu of CP, I adopt the Rizzi (1997) left-periphery with Force/Topic/Focus/Topic/Fin. I remain agnostic as to whether the object moves to a specifier of *v* (to allow the verb to move per Holmberg's Generalization).

Steps in the proposed derivation of VSO --
1. Arguments merge in *v*P per standard Minimalist assumptions (Chomsky 2000), Agree for Case/theta-roles; subject in Spec*v*P; direct object is a PP head by the object marker *i*.
2. Subject moves to SpecTP for EPP.
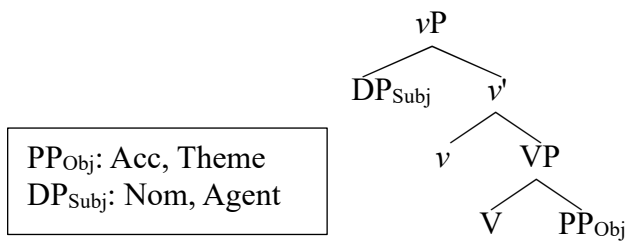3. Head movement of V to *v* to T to Fin.[10]

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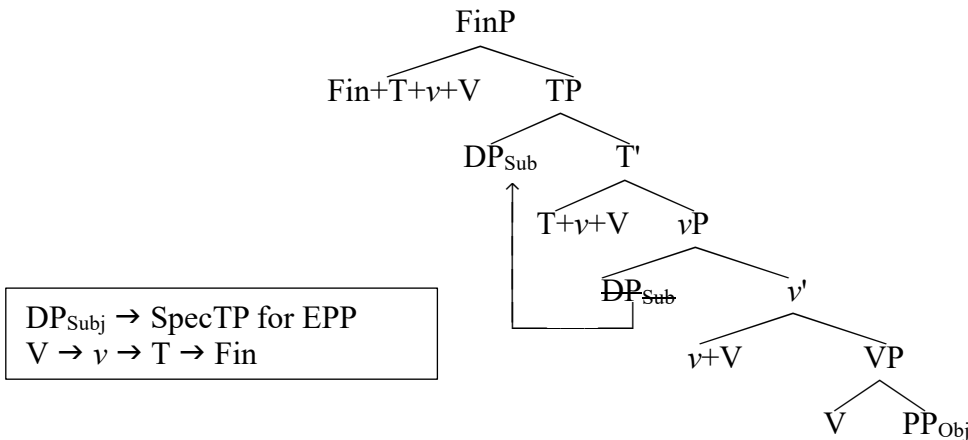   TAM eat the man   OBJ the poi
      'The man ate the poi.' (Elbert & Pukui 1979:39)

---

[10] For Niuean, Massam (2020:26ff) proposes Fin as the final landing spot for T(ense) with TAM in Force, Neg/Q in Int ("Polarity"), and the predicate moves to SpecFinP.

(46)

```
                          vP
                     ╱         ╲
                 DP_Subj        v'
                             ╱      ╲
                            v        VP
                                   ╱    ╲
                                  V      PP_Obj
```

PP_Obj: Acc, Theme
DP_Subj: Nom, Agent

(47)

```
                          FinP
                      ╱          ╲
              Fin+T+v+V            TP
                               ╱       ╲
                           DP_Sub       T'
                                     ╱      ╲
                                 T+v+V        vP
                                           ╱     ╲
                                       ~~DP_Sub~~   v'
                                                 ╱     ╲
                                              v+V       VP
                                                      ╱    ╲
                                                     V      PP_Obj
```

DP_Subj → SpecTP for EPP
V → v → T → Fin

Possible issues:
a) Subjects in situ?
-Medeiros (2013) provides evidence subjects <u>can</u> remain in situ -- specificity effects observed for Māori indicate the subject vacates vP. This does not hold in Hawaiian. We might be able to get around this by stipulating that just non-specifics stay in situ.
b) Why does T move to Fin?
-Otsuka (2000) links obligatory V-T-C movement in Tongan to absence of an overt complementizer. In *ko*-structures, we also need V-T-Fin to derive the correct order.
c) What evidence is there for V-T-C/Fin movement?
-Medeiros (2013:81) observes this complication and thus assumes VP raises to SpecTP with subsequent T-C movement.

- Given these issues, I leave a complete analysis of VSO and the structure of the Hawaiian nominals for future work. However, the assumptions in this section serve as a basis for an analysis of the derivation of *ko/'o* constructions in the next section.

5.2 *Ko/'o* clefts as ambiguous strings

5.2.1 Massam, Lee & Rolle (2006) - Analysis of Niuean *ko*

(48) a. Ko e kāmuta   a   au.
         ko C carpenter ABSP I
         'I am a carpenter.'

b. [PredP [*v*P *v*~BE~ PP-*ko e kāmatu*] Pred~EPP~ [AbsP *a au* Abs ~[*v*P *v*~BE~ PP-*ko e kāmatu*]~]]]

-Challenges for an extension to Hawaiian:
i) "...*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." (Massam et al 2006:24)
ii) The *ko*-phrase is selected by *v*. Why assume *v* in Niuean *ko* structures which are verbless, lack an external argument and agent theta role?
iii) Niuean is ERG/ABS and Hawaiian is NOM/ACC.

5.2.2 Setting the stage for replacement → Māori *ko* clefts

Goal: To derive *ko/'o*-structures such that the subject ends up in the left periphery where it is associated with *ko/'o*, leading to replacing the personal article in argument position.

5.2.2.1 Properties of *ko*-clefts: Māori ≈ Proto-Polynesian/Old Hawaiian

-Assume Māori *ko*-cleft (49) is an analogue for an older stage of Polynesian ("Old" Hawaiian) where the personal article *a* was still used for [+proper] subjects, objects, and pronouns, and *ko/'o* was used for a variety of information structure relations.

(49)   Ko Rewi kei-te aawhina i   a   Pani.   (Māori)
       ko Rewi TAM   help   OBJ PERS Pani
       'It is Rewi who is helping Pani.' (Bauer 1993:89)

- Relevant properties of (57) -- SVO; no overt complementizer; object marked by personal article; dislocated subject not marked by personal article; transitive (though these do not have to be).[11]

Claim: Clefts with *ko/'o* and perhaps similar constructions (*na*-focus, actor-emphatic) set the stage for reanalysis of *'o* in Hawaiian because the subject of the headless relative clause is coreferential with the *'o*-marked constituent. *'O*-marking then gets extended to a new environment; i.e., marking of [+proper] external arguments within TP.[12]

5.2.2.2 Analysis of *ko*-clefts -- Two stages

-Biclausal stage: *Ko*-phrase is base-generated in CP, an overt or null *pro* in relative clause.
-Monoclausal stage: Low copy of the subject in Spec,*v*; high, *ko*-marked copy on the left.

---

[11] Bauer's (1993:220) analysis -- (49) is a cleft, *ko* is an equative predication; the subject is a headless relative clause.
[12] Clark (1976:121-122) suggests a reanalysis of the structure of actor-emphatic constructions but he does not connect this to the personal article.

Derivation of monoclausal *ko*-cleft:
1. *Ko* = Force head, following Pearce (2021)
2. VSO derived as seen in (47) above, V-*v*-T-Fin.
3. Subject in Spec*v*P moves to SpecTP for EPP.
4. Subject moves to specifier of appropriate information structure projection, triggered by a discourse-related feature; e.g., [focus], [topic].

(50)   Ko Rewi kei-te aawhina i   a   Pani.   (Māori)
        ko Rewi TAM   help   OBJ PERS Pani
        'It is Rewi who is helping Pani.' (Bauer 1993:89)

(51)
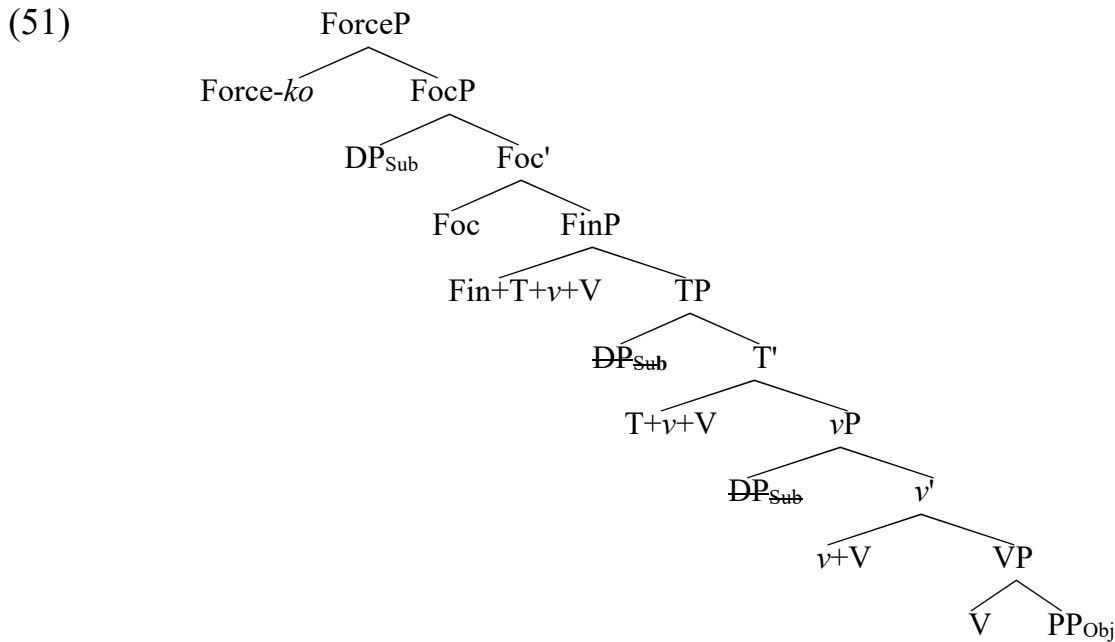
(52)   Fin-T-*v*-V [a Rewi]Subj [i a Pani]Obj   ⇒ (V-S-O)
        [a Rewi]Focus Fin-T-*v*-V [a̶ ̶R̶e̶w̶i̶]Subj [i a Pani]Obj   ⇒ (Focus-V-O)
        [Force-*ko* [a̶ Rewi]Focus Fin-T-*v*-V [a̶ ̶R̶e̶w̶i̶]Subj [i a Pani]Obj   ⇒ (*Ko*-Focus-V-O)

Question: Do we find structures in Hawaiian similar to the Māori *ko*-clefts?

5.2.3 Post-reanalysis: *'O*-clefts in Hawaiian[13]

-Hawaiian patterns -- from VSO to full relative to contracted *'o*-cleft

(53)   a.   Ke kōkua nei 'o Keoki iā   Pua.   (Hawaiian VSO)
             TAM help   DIR 'o Keoki OBJ-PERS Pua
             'Keoki is helping Pua.'

---

b.   'O Keoki ka mea e kōkua nei   iā   Pua.   (Hawaiian relative)
        'o Keoki the thing TAM help   DIR OBJ-PERS Pua
        'It is Keoki who is helping Pua.'

c.   'O Keoki ke kōkua nei   iā   Pua.   (Hawaiian *'o*-cleft)
        'o Keoki TAM help   DIR OBJ-PERS Pua
        'Keoki is the one helping Pua.'

(54)   Fin-T-*v*-V [a Keoki]$_{Subj}$ [iā Pua]$_{Obj}$ ⇒ (V-S-O)
       [a Keoki]$_{Focus}$ Fin-T-*v*-V [a̶ K̶e̶o̶k̶i̶]$_{Subj}$ [iā Pua]$_{Obj}$ ⇒ (Focus-V-O)
       [Force-*'o* [a̶ Keoki]$_{Focus}$ Fin-T-*v*-V [a̶ K̶e̶o̶k̶i̶]$_{Subj}$ [iā Pua]$_{Obj}$ ⇒ (*'O*-Focus-V-O)

- *Ke* in (53c) -- a contraction of the relative head [*ka mea*] + TAM marker *e*, which contributes to reanalysis since it results in *'o*-clefts looking like a single clause.
- *Nei* -- traditionally labelled a "directional;" frequently cooccurs with TAM particles *ke/e*; seems to be related to aspect per Medeiros' (2013:80); a candidate for Asp head?

Question: What happens to the personal article *a* on the [+proper] displaced subject in the cleft constructions (for both Māori and Hawaiian)?

5.2.4 Accounting for loss of the personal article *a*

5.2.4.1 Loss and reanalysis

-Synchronically -- in Māori clefts, the personal article is deleted, but how?
- If the personal article is more like case, then deletion might happen at the morphological level -- Distributed Morphology post-syntactic operation "impoverishment;" the personal article *a* is deleted before being sent to PF.
- If the personal article is an independent determiner D-head, we might have structure reduction or D-to-P incorporation.

-Diachronically -- in Hawaiian, *'o* superficially replaces the personal article due to ambiguous strings and analogy with object nominals.

	Stage I	Stage II
	Proto-Polynesian/Māori/Old Hawaiian	**Contemporary Hawaiian**
Left periphery	$ko_{[+focus]}$ + XP; *ko* = Prep	$'o_{[+focus]}$ + XP; *o'* = Prep
Object nominals	i_{Prep} + a_{Det} + NP$_{[+proper]}$	i_{Prep} + a_{Det} = *iā* + NP$_{[+proper]}$
Subject nominals	$Ø_{Prep}$ + a_{Det} + NP$_{[+proper]}$	$'o_{Prep}$ + $Ø_{Det}$ + NP$_{[+proper]}$

-The preposition *'o* is extended to argument positions; loss of the personal article results in the string: $'o_{Prep}$ + $Ø_{Det}$ + NP. Since the determiner is null, *'o* looks like it is the determiner.

(55)   Inaina akula 'o 'Esau iā   Iakoba
      anger   DIR   'o Esau OBJ-PERS Jacob
      'So Esau bore a grudge against Jacob' (Genesis 27:41)

5.2.4.2 *'O* = P not D

<u>Claim</u>: Distributional patterns suggest *'o* is a preposition in all contexts.

-Hawaiian '*o* does not to appear as a complement to prepositions.

(56)   a.   ✓   ki a Sione   (Niuean)
                P   D   N

      b.   ✓   i a Hōne   (Māori)

      c.   *   i 'o Kekailoa   (Hawaiian)

      d.   ✓   iā Kekailoa   (Hawaiian)

-A search in the *Baibala Hemolele* online (https://baibala.org) for strings of prepositions *ma* (locative/instrumental), *me* (comitative), and *e* (agentive) plus *'o* yielded no results.

<u>Question</u>: Does *'o* pattern with other prepositions in taking the same type of complements?

-The comitative preposition *me* occurs frequently with determiners.[14]

(57)   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)

(58)   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)

---

[14] Notice that *me* also can take a proper noun complement:
    (i)   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)

(59)   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)

-*'O* occurs with determiners articles in A'-positions: copular/apposition in (60), contrastive focus (61), apposition (62).

(60)   A   ua hewa **'o 'Era**, **'o ka hiapo**   a Iuda   i   mua o Iēhova.
    and TAM evil 'o Er   'o the firstborn of Judah LOC sight of Jehovah
    'But Er, Judah's firstborn, was evil in the sight of the Lord...' (Genesis 38:7)

(61)   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)

(62)   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)

-In argument position with animate nominals, *'o* and *ka* (a determiner) do not cooccur.

(63)   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 'ī   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)

-I assume in the contexts like (64b), *'o* = P, D is null, and the [+proper] N moves to D to be licensed as an argument following Longobardi (1994).

(64)   a.   [PP P'o [DP Dø [NP N]]]   →   [PP P'o [DP Dø-N [NP ~~N~~]]]
      b.   [PP o' [DP Dø [NP *Kekailoa*]]]   →   [PP 'o [DP Dø-*Kekailoa* [NP ~~*Kekailoa*~~]]]

Conclusion: *'O* is 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*.

(65)   PREDICTION
        Polynesian languages with a "subject marker" derived from proto-Polynesian **ko*
        will have lost the original "personal article" *a* in internal argument position.

6. Crosslinguistic consequences: A broader look at Polynesian

Claim: Adjacency between *'o* and displaced subjects in clefts, loss of the personal article with subjects, and analogy with the structure of object nominals led to *'o* replacing the personal article *a* in Hawaiian before [+proper] subjects.

Question: Has this process taken place in other Polynesian languages?

6.1 Phonological erosion of Polynesian **ko*

-Items undergoing grammaticalization frequently lose phonological features. For Polynesian **ko*, this process is represented in (68) below, based on the discussion in Clark (1976) and Brown & Koch (2016). This is a classic example of lenition: /k/ > /ʔ/ > Ø.

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

6.2 Conservative varieties: Māori and Niuean plus Rapa Nui

-Māori has *ko* and retains the personal article before subjects and objects.[15]
-Niuean has *ko*; personal article only used with [+human] objects.

-Rapa Nui
•   *Ko* is a "prominence marker" (66); *a* is a "proper article" (67) per Kieviet (2017).

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

---

[15] See Sections 2 and 3 for details.

(67) He kī a Kaiŋa ki a Makita ki a Roke'aua...
      NTR say PROP Kainga to PROP Makita to PROP Roke'aua
      'Kainga said to Makita and Roke'aua...' (R243.063, cited in Kieviet 2017:277)

6.3 Innovative varieties: Hawaiian plus Tahitian and Samoan

-Hawaiian has *'o*; personal article *a* > Ø, replaced by *'o* before [+proper] subjects; retained
with [+proper] objects.
-Tahitian patterns like Hawaiian; *'o* with focus (66) and subject [+proper] DPs (69);
example (70) shows the object marker plus remnant personal article with [+proper] DO.[16]

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

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

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

-Samoan
- *'O* for focus/topic functions (71); *a* as personal article has been lost (Clark 1976:59); *'o*
  is used as a personal article but only with pronouns, (72) vs. (73) (see Hunkin 2009:48).

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

(72) a.   sā   tuli   e a'u 'o ia
            PAST chase ERG 1SG 'o 3SG
      b.   sā   'ou tuli 'o ia
            PAST 1SG chase 'o 3SG
            'I chased him.' (Collins 2017:7)

---

[16] Tahitian also also the type of contracted clefts seen for Hawaiian and Māori in Section 5.2 (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.'

(73) sā   tā talo ma tipi fa'alaititi   e Simi   le la'au.
      PAST fell DIR and cut CAUS.small ERG Simi SPEC tree
      'Simi cut down and chopped the tree into small pieces.' (Collins 2017:22)

6.4 Summary[17]

(74)   GENERALIZATION
       Polynesian languages lose the original proto-Polynesian "personal article" *a* in
       internal argument position and replace it with the proto-Polynesian *ko* preposition.

		Information structure *ko*	Personal article
Conservative	Māori	✓	*a* [+proper] subjects, objects
	Rapa Nui	✓	*a* [+proper] subjects, objects
	Niuean	✓	*a* [+human] objects
Innovative	Hawaiian	✓	*'o* [+proper] subjects
	Tahitian	✓	*'o* [+proper] subjects
	Samoan	✓	*'o* [+pronominal] subjects, objects

7. Conclusion

-The original information structure-related preposition *'o* replaced the personal article *a* in Hawaiian before [+proper] subjects due to a conspiracy of several factors:

1. Proper subjects in clefts → *ko/'o* clefts can be divided into two stages: biclausal and monoclausal. In the monoclausal stage, the subject moves into the left-periphery, where it is preceded by *ko/'o* as a Force head. Since the focus and subject are coreferential, this encouraged reanalysis of *'o*, originally a focus-type preposition, as an element that precedes [+proper] subjects in argument position.
2. The original Proto-Polynesian personal article *a* was lost in Hawaiian, being replaced by the *'o* preposition. The resulting ambiguous string [$'o_{Prep}$ + $\emptyset_D$ + NP] makes it look like *'o* is the personal article, a determiner. However, distributional patterns support the analysis of *'o* as a preposition in all environments.
3. Analogy between [+proper] subject nominals and [+proper] object nominals also encouraged historical replacement. [+proper] object nominals are preceded by the prepositional object marker *i*, the personal article *a* (which was retained for objects), followed by NP: [(*i* + *a*) > *iā* + NP]. The same pattern was applied to [+proper] subject nominals after loss of the personal article *a*.

---

[17] Brown & Koch (2013, 2016) tie the loss of PPN *ko* in some varieties of Polynesian to the change from VSO to SVO basic word order. The raises the question as to whether these varieties maintained the personal article as a or was the cognate of ko reanalyzed here as well? Due to time constraints, I leave this to future investigation.

4. Synchronic cross-Polynesian patterns of the distribution of *ko/ʹo* and the personal article appear to support the prediction that languages that lose the personal article *a* coopt the information-structure related *ko/ʹo* to replace it.

E ola ka 'Ōlelo Hawai'i!

References

Bardwell, Anita, Joe Bardwell, Lopaka Weltman, Hoaloah Westcott. 2022. *Reference grammar of the Hawaiian language*. Available online: https://hawaiian-grammar.org/current/

Bauer, Winifred (with William Parker and Te Kareongawai Evans). 1993. *Maori*. London: Routledge.

Brown, Jason and Karsten Koch. 2013. Focus, Polynesian ʹko, and language change (How morphosyntax is, and is not, like rats). *Actes du congrès de l'Association canadienne de linguistique*.

Brown, Jason and Karsten Koch. 2016. Focus and change in Polynesian languages. *Australian Journal of Linguistics* 36:304-349.

Carter, Gregory L. 1996. The Hawaiian copula verbs he, 'o, and i as used in the publications of native writers of Hawaiian: A study in Hawaiian language and literature. PhD dissertation, University of Hawai'i at Mānoa.

Chomsky, N. 2000. Minimalist inquiries: The framework. In Roger Martin, David Michaels, and Juan Uriagereka (eds.), *Step by step: Essays on Minimalist syntax in honor of Howard Lasnik*, 89-155. Cambridge, MA: MIT Press.

Clark, Ross. 1976. *Aspects of Proto-Polynesian syntax*. Auckland: Linguistic Society of New Zealand.

Clemens, Lauren and Diane Massam (eds). 2021. *Polynesian syntax and its interfaces*. Oxford: UP.

Collins, James. N. Samoan predicate initial word order and object positions. *Natural Language and Linguistic Theory* 35:1-59.

Cook, Kenneth William. 1999. Hawaiian he, 'o, and i: Copular verbs, prepositions, or determiners? *Oceanic linguistics* 38:43-65.

Cook, Kenneth William. 2002. The case markings of Hawaiian locative nouns and placenames. In Giovanni Bennardo (ed.), *Representing space in Oceania: Culture in language and mind*, 91-104. Canberra: Pacific Linguistics.

Elbert, Samuel H. & Mary Kawena Pukui. 1979. *Hawaiian Grammar.* Honolulu: University of Hawai'i Press.

Hawkins, Emily A. 1979. Hawaiian sentence structures. *Pacific Linguistics* B(61). Canberra: Department of Linguistics, Research School of the Pacific, Australian National University.

Hawkins, Emily A. 1982. *A pedagogical grammar of Hawaiian: Recurrent problems*. Honolulu: University of Hawai'i Press.

Hopkins, Alberta Pualani. 1992. *Ka le ha'aheo: Beginning Hawaiian*. Honolulu: University of Hawai'i Press.

Hunkin, Galumalemana Afeleti. 2009. *Gagana Sāmoa: A Samoan language coursebook*. Honolulu:

University of Hawai'i Press.

Ka Baibala Hemolele/The Holy Bible. 2018. Honolulu: Mutual Publishing, LLC.

Kamanā, Kauanoe and William H. Wilson. 2012. *Nā Kai 'Ewalu: Beginning Hawaiian lessons*. Hilo: Hale Kuamo'o.

Kieviet, Paulus. 2017. *A grammar of Rapa Nui*. Berlin: Language Science Press.

Lazard, Gilbert and Louise Peltzer. 1991. Predicates in Tahitian. *Oceanic Linguistics* 30:1-31.

Lynch, John. 1998. *Pacific languages: An introduction*. Honolulu: University of Hawai'i Press.

Maddox, Matthew L. 2023a. A comparative approach to diagnosing the Hawaiian subject marker *'o*. Presentation given at the 15th International Austronesian and Papuan Languages and Linguistics Conference, Palaćky University, Czech Republic, August 23-25. Handout available online: https://matthewmaddox.org/

Maddox, Matthew L. 2023b. On the distribution of the Hawaiian subject marker *'o*: A diachronic and comparative account. Presentation given at the International Conference Topic, Focus, and Subject: Between grammatical necessity and information-structural load, Osnabrück University, Germany, September 19-23. Handout available online: https://matthewmaddox.org/

Massam, Diane. 2000. VSO and VOS: Aspects of Niuean word order. In Andrew Carnie and Eithne Guilfoyle (eds.), *The syntax of verb initial languages*, 97-116. New York: Oxford University Press.

Massam, Diane. 2001. Pseudo noun incorporation in Niuean. *Natural Language and Linguistic Theory* 19:153-197.

Massam, Diane. 2020. *Niuean: Predicates and arguments in an isolating language*. Oxford: UP.

Massam, Diane. 2021. The lingering DP in Niuean. In Lauren Clemens and Diane Massam (eds.), *Polynesian syntax and its interfaces*, 282-302. Oxford: UP.

Massam, Diane, Josephine Lee, and Nicholas Rolle. 2006. Still a preposition: The category of ko. *Te Reo* 49:3-38.

Medeiros, David J. 2013. Hawaiian VP-remnant movement: A cyclic linearization approach. *Lingua* 127:72-97.

Medeiros, David J. 2021. Hawaiian ai at the syntax-phonology interface. In Lauren Clemens and Diane Massam (eds.), *Polynesian syntax and its interfaces*, 168-191. Oxford: UP.

NeSmith, R. Keao. 2005. Tūtū's Hawaiian and the emergence of a neo Hawaiian language. *'Ōiwi Journal--A Native Hawaiian Journal*. Honolulu: Kuleana 'Ōiwi Press.

Otsuka, Yuko. 2000. Ergativity in Tongan. Doctoral dissertation, University of Oxford.

Otsuka, Yuko. 2002. VOS in Tongan: Passive or scrambling? In Anastasia Riehl and Thess Savella (eds.), *Proceedings of the Ninth Annual Meeting of the Austronesian Formal Linguistics Association: Cornell Working Papers in Linguistics*, vol. 19, 122-136. Ithaca, NY: Cornell University Press.

Otsuka, Yuko. 2005. Two derivations of VSO: A comparative study of Niuean and Tongan. In Andrew Carnie, Heidi Harley and Sheila Ann Dooley (eds.), *Verb first: On the syntax of verb-initial languages*, 65-90. Amsterdam: John Benjamins.

Pearce, Elizabeth. 2021. Preverbal subjects and preverbal particles: Components of the left periphery in Māori. In In Lauren Clemens and Diane Massam (eds.), *Polynesian syntax and its interfaces*, 216-252. Oxford: UP.

Potsdam, Eric and Maria Polinksy. 2012. The syntax of the Tahitian actor emphatic construction. *Oceanic Linguistics* 51: 58-85.

Rizzi, Luigi. 1997. On the fine structure of the left-periphery. In Liliane Haegeman (ed.), *Elements of grammar*, 281-337. Dordrecht: Kluwer.

Seiter, William. 1980. *Studies in Niuean syntax*. New York: Garland Press.

Wong, Laiana. 1999. Authenticity and the revitalization of Hawaiian. *Anthropology & Education Quarterly* 30:94-115.

Yamada, Fumiko S. 2014. Māori as a phrase-based language. PhD dissertation, University of Hawai'i at Mānoa.