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Title: Focus and Change in Polynesian Languages

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Abstract: This paper investigates an information structure category (focus) in the Polynesian languages, as it relates to language stability on the one hand and language change on the other. The study concentrates on *ko structures, which are striking because, in VSO languages, they allow a *ko-marked nominal to precede the verb under certain pragmatic conditions. We propose that *ko-marked nominals are focused, according to a precise semantic definition of focus as a syntactic feature that triggers a semantic object (discourse alternatives). First, we show that this semantic account of focus predicts a range of *ko structures found in verb-initial Polynesian systems, including clefts, equatives, topics, wh-questions and forms with focus-sensitive expressions like ‘only.’ We propose that *ko structures allow nominals to surface in the initial focus position in the VSO Polynesian languages: in other words, the initial position is both a strict predicate position as well as a focus position, and the maintenance of this information structure – syntax link is remarkably consistent across space and time; in addition, *ko-marked topics precede predicates, but also contain a focus marking. The rest of the paper turns to Polynesian languages that have shifted to SVO word order. We show that once the link between initial position and predicate/focus is lost, *ko-structures are eroded or lost. *ko-structures are thus a diagnostic for information structure-related language stability or change, as it is correlated with VSO or SVO word order.

Keywords: Focus, Topic, Information Structure, Language Change, Polynesian, Word Order

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appear in alphabetical order, and the usual disclaimers apply.

Focus and Change in Polynesian Languages

1. Introduction

A growing area of interest in the study of languages of the Pacific has been the dynamic between linguistic continuity on the one hand, and the pressures of diachronic change on the other. While change is ever-present, often-times rapid, and reaches beyond language families, continuity can often result in a surprising resistance to changes, leaving entire grammatical constructions relatively homogenous across entire language families.

One particular area in which both continuity and change can be meaningfully observed in Polynesian¹ is in the morphosyntactic expression of information structure. The particular information structure category that we investigate in this paper is FOCUS. More specifically, we investigate how FOCUS is expressed on nominals, and how a shift in word order from VSO to SVO has an effect on the morphosyntactic expression of this information structure category. In verb-initial Polynesian languages, initial *ko structures mark the nominal that follows *ko as focused. This is illustrated in the example below from Rarotongan:

- (1) ko ta-ku tamaiti tee kaa hano. *Rarotongan*
FOC DOM.POSS-1SG child DEF INCEPTIVE go²
'It is my child who will go.' (Yasuda 1968:84 – Penrhyn dialect)

Syntactically, *ko is used to mark nominal predicates and topics (Clark 1976). In the first use, *ko is widely regarded as a predicativizer (also termed a nominal phrase marker, a preposition, a presentative preposition; or a focus, emphatic, subject, or topic marker) that allows nominals to appear in the initial predicate position in canonical VSO languages (cf. Harlow 2007). Thus, the initial predicate position is also a focus position. This means that all initial predicates are focused, including the default case of initial verbs or verb phrases.³ It should be noted that topics can precede the initial predicate, but we take topics as appearing in the left periphery, preceding the main predicate of the clause (one diagnostic for this is that topics fail to trigger agreement, for instance, in Tuvaluan; cf. Besnier 1986). However, our semantic approach accounts for why topics also appear with *ko (section 2.2).

*Ko-clefts as in (1) are a common structure across the Polynesian languages, and are generally taken to mark the clefted nominal as focused (as are clefts in English and many other languages, e.g. Hedberg 2000). However, *ko surfaces in a syntactically diverse range of constructions, including a variety of clefts, equatives, topic constructions, wh-questions, and with focus-sensitive particles akin to *only/just* or *also*. (2) illustrates the use of *ko with a wh-question, and (3) illustrates its use (as *ò* in North Marquesan) in association with *anaiho* 'only.'

- (2) Ko ai kō toku tamana? *Tokelauan*
ko who INT 1SG.POSS father
'Who then is my father?' (Hooper 1993:108, ex. 307)

¹ See Pawley (1981) for an overview and explanation for the relative homogeneity found in Polynesian languages.

² Glosses throughout are based on those given in the original sources, with the exception that Rarotongan glosses from Yasuda (1969) have been modified for consistency. In some cases, *ko is simply glossed as such; in other cases, it is glossed with a dedicated morpheme label used in the source (such as FOCUS).

³ See section 1.3 for some remarks about the relationship between predication and focus.

(3) Ò ia anaiho à taù North Marquesan
 FOC he only INT.mine.PAST know
 ‘He is the only one indeed that I know.’ (Mutu & Teikitutoua 2002: 87 – Ûa Pou
 dialect)

It seems unlikely that the use of *ko in this range of constructions can be given a unified explanation in terms of synchronic syntax across the entire language family; therefore, we turn to an account grounded in diachronic semantics, specifically of the information structure category of FOCUS. The link of *ko to information structure has long been noted by many researchers, as summarized by Ross Clark:

Most grammarians ... have been content to apply *vague semantic terms* such as “focus” ... to sum up the total range of functions [of *ko]. (Clark 1976:45, emphasis ours)

Thus, our basic approach is not new. However, we respond to Clark’s challenge by employing a precisely defined semantic term FOCUS, based on much theoretical work that has been done over the past 30 years. FOCUS is a syntactic feature that triggers a semantic-pragmatic object: discourse alternatives (Jackendoff 1972; Rochemont 1986; Rooth 1985, 1992; Jacobs 1983, von Stechow 1990, Krifka 1992, 2006, 2007). This semantic object is relevant for the interpretation of a linguistic expression, and may be used in a variety of ways, thus leading to a range of structures using *ko. Our contribution here is to use a precisely defined FOCUS grounded in Alternative Semantics (Rooth 1985, 1992) and the Structured Meaning Approach (Jacobs 1983, von Stechow 1990, Krifka 1992, 2006, 2007). Based on predictions made by these semantic approaches to focus, we are able to offer an account as to why diverse syntactic structures like topics, clefts, equatives, wh-forms and constructions involving particles akin to *only* or *also* should all share the use of *ko.

After introducing this semantic approach, the paper tracks the patterns of development associated with *ko marking in verb-initial and subject-initial Polynesian languages. In particular, in Polynesian languages that have shifted to SVO word order, we expect that *ko will be (i) removed from the initial position, or (ii) lost altogether. We hypothesize that this is because in SVO systems, the link between the initial predicate position and focus is lost. A subject, typically non-focused and backgrounded, now occupies initial position. Thus, focused predicates will be non-initial, and we expect *ko forms to appear non-initially. Moreover, once focus can be expressed on in situ nominals (that are not *ko-marked), then the functional usefulness of *ko as a consistent marker of focus structures is considerably weakened, and we expect that it may disappear from *ko structures altogether.

We have structured our investigation into two steps. The first step is to show that a range of *ko structures in verb-initial Polynesian languages are predicted by the definition of FOCUS that we use. While the consistency of *ko structures across verb-initial Polynesian systems, and by extension their existence in Proto-Polynesian, is well-documented (e.g. Clark 1976), our contribution is to provide a unified explanation grounded in formal semantics. In particular, we show why *ko might be expected in a diverse range of morphosyntactic structures, including clefts, equatives, topics, and wh-questions. We also show how *ko-marked nominals are expected to interact with focus-sensitive expressions akin to *only*, *just* or *also*, a diagnostic that to our knowledge has not previously been applied to *ko in Polynesian languages.

Having laid out the Proto-Polynesian pattern of *ko marking and a set of diagnostics predicted by FOCUS, we then turn to our second step: we examine what effect the change in word order from verb-initial to subject-initial has on the expression of an information structure category, FOCUS. As a diagnostic, we use *ko, and look at its use in clefts, equatives, wh-questions, and with particles like *only* in four outlier languages with an SVO word order. We investigate to what extent *ko structures have been lost or removed from initial position in individual languages that have undergone a shift to SVO word order. We show that the patterns of *ko loss or change are consistent with our hypothesis that, with a shift to SVO, there is a severing of the link between the initial predicate position and focus. *ko thus disappears from focus structures, or marks nominals in non-initial positions. By investigating multiple languages, we can assess which *ko structures are more susceptible to erosion, and which are the most stable. The general historical pattern of *ko-loss or change becomes apparent only when looking at multiple languages, since the pattern of *ko structures in any one SVO language can appear quite obscured when viewed in isolation.

The paper is structured as follows: section 2 presents background assumptions about FOCUS, while section 3 introduces background information on *ko in Polynesian languages. Section 4 shows that the focus-related predictions in section 2 are largely borne out in the verb-initial systems (and, by extension, in Proto-Polynesian). In section 5, we turn to four case studies of SVO languages, and show that *ko has either disappeared or is eroding in these languages. Section 6 concludes.

Before we move on, we conclude the introduction with some considerations on the relationship between our semantic approach, and a particular syntactic approach to FOCUS; we give some thoughts about the link between predication and focus; and we make explicit some *ko structures which our approach does not at present cover (but which, following Clark 1976, may be amenable to a FOCUS analysis).

1.1 Avoiding a syntactic account

We deliberately avoid an analysis couched in a particular syntactic approach to focus, such as Rizzi's (1997) cartographic account where topic and focus are assigned fixed syntactic positions in the left periphery of the clause. At first glance, such an approach might appear promising for the Polynesian languages, especially since Polynesian *ko-nominals indeed may appear as both topic or focus, and moreover are in Rizzi's Topic > Focus order at the left edge of the clause (see Otsuka 2005 for such an approach to scrambling in Tongan, and Pearce 1999 for a similar approach to Maori).

However, there are several reasons why we refrain from saying much about the syntax of *ko in any one language, or across the Polynesian language family more generally. First, as already noted, given the diversity of syntactic structures which involve *ko, we think it unlikely that a unified syntactic account of *ko is possible across the language family (but see Massam et al. 2006 on a unified account for one language, Niuean). Secondly, in a Rizzian left-branching approach to syntax, verb-initial word order is typically accounted for by raising the verb or verb phrase into the left periphery (e.g. McCloskey 1991 on Irish, Massam 2000 on Niuean). However, once theory-independent diagnostics for verb movement are considered, it seems clear that verb-initial systems are derived via a variety of syntactic structures and mechanisms (e.g. see Chung 1990 on subject-lowering in Chamorro; Davis 2005 on verbs not raising into the left periphery in St'át'imcets Salish; Freeze & Georgopolous 2000 on base generation; Carnie &

Guilfoyle 2000, Carnie, Harley & Dooley 2005, Davis 2005 for overviews of verb-initial systems more generally). Without continued careful language by language research, which is well beyond the scope of the present paper, a unified syntactic approach to *ko-structures across the Polynesian language family would therefore be premature. Thirdly, as discussed in Buring (to appear), there are other syntactic approaches to focus (e.g. the Mapping approach as in Vallduví 1990, or the Prosody-driven approach, as in Zubizarreta 1998), and when considering a range of FOCUS-related phenomenon, these give a better account of the data than the cartographic approach to FOCUS (see Buring to appear for discussion). For these reasons, we stick to predictions made by the semantic approach to FOCUS used in this paper, and avoid formal syntactic analysis in a cartographic framework.

1.2 On the link between predication and focus

As noted above, and following much descriptive work for Polynesian languages, we take the initial predicate position as a syntactic focus position in verb-initial systems (including Proto-Polynesian). An anonymous reviewer wonders why the focus and predicate are so closely linked in the V-initial systems. We do not have a firm answer to this, except to note that it is cross-linguistically well-documented that predicates are the default location for focus in human language (subjects, on the other hand, are a marked focus position). The link between predicate and focus is something that Zimmermann (to appear) has ascribed to a general cognitive constraint on the management of the Common Ground in conversation – focus is typically expressed in the predicate, not the subject. This cognitive constraint appears to be grammaticalized in verb-initial Polynesian systems, as a PREDICATE = FOCUS constraint, which may be a property of verb-initial systems more generally (e.g. Quiaviní Zapotec – Lee 2000; Riau Indonesian – Gil 2005; Thompson River Salish – Koch 2008; Kisongo Maasai – Koopman 2005:291-293 on clefts and focus operators; Tagalog – Aldridge 2003:632, ft. 2; Chalcatongo Mixtec – Macaulay 2005; Wanyi – Laughren, Pensalfini & Mylne 2005). Why this cognitive constraint exists remains an open question as far as we can see, and why it (perhaps) tends to be grammaticalized in verb-initial systems is also unexplained as far as we know. See Zimmermann (to appear) on the relationship between predication and focus more generally, and Krifka (2007) on Common Ground management.

*1.3 *ko structures that we do not discuss*

Our investigation is restricted to *ko structures that involve topics, clefts, equatives, wh-structures, and uses with focus-sensitive expressions like *only*. There are other uses of *ko throughout the Polynesian language family, as noted by Clark (1976:44-46) and many others, which we do not address. These include some of the following constructions: appositive relative clauses (4), complements of certain verbs (Clark cites Samoan and Tongan examples, e.g. 5), and the second NP in a conjunction (6).

- (4) ma tamana hogi o dono bodu go Logo. *Nukuoro*
 and father also possessive 3.sg.possessive wife go Logo
 ‘and (among others) also the father of his wife, Logo.’ (Carroll 1965:44)

- (5) 'oku tau ui ia ko hotau taki. *Tongan*

T we call him ko our leader
 ‘We call him our leader.’ (Churchward 1953:102, as cited in Clark 1976:45)

- (6) na’a ke ngaau’e’aki ’a e tohi fo’ou, Tongan
 T you use nom article book new
 pe ko e tohi motu’a
 or ko article book old
 ‘Did you use the new book or the old one?’
 (Churchward 1953:101, as cited in Clark 1976:45)

For reasons of space, we do not discuss these other uses of *ko further in the present work. Still, we might speculate how they relate to our semantic notion of FOCUS. Clark (1976:46) proposes that the appositive and the verbal complement use of *ko-marked nominals can “be derived from the nominal predicate use” of *ko which we will see in clefts and equatives below. To the extent that predication is tied to FOCUS, then this use of *ko may be similarly tied to FOCUS. Furthermore, the use of a *ko-marked nominal after a conjunction seems to be transparently related to the marking of alternatives as we discuss in section 2. More detailed discussion of such additional *ko structures will need to await further research, however.

2. Background: Focus

Since Clark’s (1976) work, semanticists have developed more formal, precise notions of what “focus” is. We adopt work based on Alternative Semantics (Rooth 1985, 1992) and Structured Meaning (Jacobs 1983, von Stechow 1990, Krifka 1992, 2006). This section outlines the theory⁴ and the predictions we test in the case studies below.

2.1 What is FOCUS?

FOCUS is a syntactic feature that triggers a semantic object: a set of alternatives. This semantic object is relevant for the interpretation of a linguistic expression. For example, in (7), ‘Maya’ is contrasted with other alternative tree-climbers. Rooth (1985) distinguished the ordinary semantic meaning of an expression from its focus semantic meaning; in (7), we see that the ordinary meaning of the sentence is simply *Maya climbed the tree*, but its focus semantic meaning introduces a set of alternative propositions containing other tree climbers.

- (7) [MAYa]_{FOCUS} climbed the tree.
 ordinary semantic meaning: CLIMB(MAYA)(TREE)
 focus semantic meaning: { CLIMB(MAYA)(TREE), CLIMB(TIM)(TREE),
 CLIMB(SARA)(TREE) ... }

Example (7) shows that, in English, FOCUS is marked in the grammar via prosodic prominence (indicated by ALL CAPS). However, FOCUS, like other linguistic categories, may be marked morphologically and/or syntactically as well. In this paper, we concentrate on its

⁴ It should be noted that the term “focus” is used in many ways in different traditions, sometimes with meanings very different from what we adopt here. Similarly, other terms like “comment” may be applied in cases that appear similar to our FOCUS, but should not be regarded as replacement terms.

morphosyntactic expression on nominals in Polynesian languages.⁵

This **formal** definition of FOCUS, as triggering a set of alternatives, is used to account for a variety of uses that are typically **informally** described as marking things like “emphasis,” “contrast,” “(new) information focus.” Throughout, we use quotes to mark informal descriptions of focus structures, and since they are informal, we do not formally define terms like “emphasis.” Since the sources we are working with typically provide informal descriptions of information structure, our first expectation is that *ko-marked nominals should be informally described as marking concepts like “contrast,” “emphasis,” or “(new) information focus.”

- (8) Prediction 1: *ko structures are described as marking “contrast,” “emphasis,” “(new) information focus”⁶

This prediction should hold true for both cleft-like structures and equatives: the *ko-marked NP in an equative should be the emphasized NP, carrying a FOCUS feature. Since *ko-marked nominals also occur in equatives, it is worth looking at an English equative example to see how FOCUS triggers alternatives in the same general way:

- (9) a. That is [a COconut]_{FOCUS}.
ordinary semantic meaning: COCONUT(THAT)
focus semantic meaning: {COCONUT(THAT), BANANA(THAT), FISH(THAT) ...}
b. [THAT]_{FOCUS} is a coconut.
ordinary semantic meaning: COCONUT(THAT)
focus semantic meaning: {COCONUT(THAT), COCONUT(THIS), ...}

While (9a) and (9b) have the same ordinary meaning, we see that shifting the location of FOCUS (via prosody in English) results in a different set of alternatives for the focus semantic meaning. Since our hypothesis is that in Polynesian, it is the *ko-marked nominal which is focused, we would expect such alternations to involve a morphosyntactic change in which nominal is *ko-marked.

2.2 Contrastive Topics

Contrastive topics are often taken as FOCUS-marked (Roberts 1996, Büring 1997a, 1997b, 2003, Krifka 2007). In other words, the topic-marked constituent may also contain a FOCUS marking:

- (10) A: What do your siblings do?
B: [My [SISter]_{FOCUS}]_{TOPIC} [studies MEDicine]_{FOCUS},
and [my [BROther]_{FOCUS}]_{TOPIC} is [working on a FREIGHT ship]_{FOCUS}.
(Krifka 2007:44)

⁵ We refrain from discussing intonation and its relation to focus in Polynesian. This is simply because, while some sources describe the prosody of these languages, not all do, and we do not know enough to make generalizations across the family.

⁶ An anonymous reviewer wonders if this prediction can be made more precise, so as to exclude concepts not covered by FOCUS. However, since this prediction concerns only informal descriptions, this is not possible, nor do we intend it that way: prediction 1 is meant to give us an indication that we are on the right track with a particular *ko structure, and thus should identify a range of informal terms which have been used in the literature to describe FOCUS. From there, we can look for more formal diagnostics for FOCUS, such as the ability to associate with focus-sensitive particles (section 2.4).

These topics may be expressed in “frame-setting” comma phrases (Chafe 1976):

(11) [(As for) [JAMES]_{FOCUS}]_{TOPIC}, he is arriving [toMORrow]_{FOCUS}.

Krifka (2007) unifies both types as in (10) and (11) as “delimitation,” the generalization being that delimiters contain FOCUS marking. We might expect, then, that some uses of *ko are described as marking topics.

(12) Prediction 2: some uses of *ko may be described as “topic” structures

Since topics are not in predicate position, we might also expect them to co-occur with a focus-marked nominal predicate (a sentence with two initial *ko forms – as we will see in section 4.1 in Tokelauan).

It is worth noting that the coincidence of topic and focus may, at first glance, be surprising. As an anonymous reviewer points out, topics are often taken to be old information. However, nothing prevents FOCUS from occurring with old information: it simply triggers a semantic object, focus alternatives, and this can be with either new or old information. This is desirable, since it is clear that old material, including topics, can be focused in natural language.

We do expect that languages may make a distinction in topic types, if they have both *ko-marked topics and topics that surface without *ko (e.g. see Gardiner 1998 on inner and outer topics in Secwepemctsin). This may be in terms of focus marking, with only *ko-marked topics triggering the semantic object of discourse alternatives; or, it may be that both topic constructions are focus-marked, but have some other pragmatic distinction. Testing this prediction is beyond the scope of the present paper and will require further research, though we make a tentative suggestion as to how to test for the cognitive generation of alternatives in *ko (and other) topics. Sedivy et al. (1999) showed that sentences with inherently focused nominal modifiers were processed faster when listeners saw a picture that contained alternatives rather than a single NP referent. Extending to topics, we might expect that sentences containing topics like *ko mukomuko* ‘as for the coconut’ (Rarotongan, Yasuda 1968:48) will be processed faster when listeners see a picture containing a coconut and other alternative topical fruits, rather than just a coconut. Topics that are not FOCUS-marked, on the other hand, will not have a processing advantage when presented in the presence of discourse alternatives.

2.3 FOCUS and Wh-questions

Wh-words and questions are taken to be inherently focused (e.g. Rooth 1985, Beaver and Clark 2008, Krifka 2007). Under standard semantic accounts, the meaning of a question is a set of alternatives (e.g. Hamblin 1973) — that is, precisely what is triggered by the FOCUS feature (see Beaver and Clark 2008 for discussion). This is illustrated in (9), where a focus-marked wh-question yields a set of alternative propositions as its meaning.

(13) [Who]_{FOCUS} climbed the tree?
meaning: { CLIMB(MAYA)(TREE), CLIMB(TIM)(TREE), CLIMB(SARA)(TREE) ... }

If *ko marks FOCUSED nominals, we may then expect it to mark wh-nominals as well. While this would amount to redundancy in how focus is marked in wh-questions (once inherently, and once

via a *ko structure), this is likely not problematic for our account, as natural languages tolerate substantial amounts of redundancy.

- (14) Prediction 3: wh-questions may display parallels to declarative *ko structures (e.g. use of *ko)

2.4 Focus-sensitive expressions

Certain expressions are focus-sensitive, meaning that they depend on focus alternatives for their proper interpretation. Classic examples are *only*, a marker of exclusivity (other exclusives include *just* and *alone*), and *also* and *even*, focus-sensitive additive markers. Other expressions that interact with focus include *always*, negation, and conditionals (see Beaver and Clark 2008 for a thorough discussion). Examples (15) and (16) illustrate with *only*. The two sentences differ in FOCUS marking, and are also true in different contexts.

- (15) Sally only chased [the CAT]_{FOCUS}.

[true if there are no other alternatives that Sally chased, i.e. the dog, the kids, the plumber ...]

- (16) Sally only [CHASed]_{FOCUS} the cat.

[true if there is no other relevant relation between Sally and the cat, i.e. catching, kicking, feeding, ...]

Examples like this show that the meaning of *only* makes reference to the semantic object of focus alternatives (e.g. Rooth 1992, Krifka 2006). In other words, *only* must be interpreted as being associated with a FOCUS, and cannot be interpreted as associating with non-focused material. When we consider sentence (15), we find that (17a) is the only possible interpretation, where *only* associates with the focused nominal *the cat* for semantic interpretation (association is shown via subscript). On the other hand, (15) cannot possibly mean that the only thing Sally did to the cat was chase it: the association shown in (17b) is not possible. In order to convey the meaning of (17b), we must focus-mark the verb, as in (16), so that FOCUS and association of *only* are aligned.

- (17) a. *required interpretation*: Sally only₁ chased [the CAT]_{FOCUS,1}.

- b. *impossible interpretation*: *Sally only₁ chased₁ [the CAT]_{FOCUS}.

The facts illustrated in (17) can be captured by making reference to focus alternatives directly in the formal semantic denotation of expressions like *only*. (18a) shows an Alternative Semantic denotation for adverbial *only* based on Rooth (1992), while (18b) shows a meaning rule for adverbial *only* in the Structured Meaning approach (Krifka 2006), where F = Focus, A = Alternatives, and B = Background. The semantic object of focus alternatives is represented as $\llbracket p \rrbracket^f$ in Rooth's theory and as A in Krifka's, while $\llbracket p \rrbracket^0$ represents the ordinary semantic interpretation.

- (18) a. $\llbracket \text{only} \rrbracket^w = \lambda p. p(w) \wedge \forall q \in \llbracket p \rrbracket^f: [q(w) \rightarrow q = \llbracket p \rrbracket^0]$ (Rooth 1996)

- b. $\text{ONLY}(\langle F, A, B \rangle) = \lambda x \forall Y \in A [B(Y)(x) \rightarrow F = Y]$ (Krifka 2006)

This means that particles expressing exclusive meanings like ‘only/just’ or additive meanings like ‘also’ are excellent diagnostics for where FOCUS is marked in a linguistic expression. Turning back to Polynesian, in the verb-initial languages we may expect to find a similar behavior for focus-sensitive expressions equivalent to *only*. If fronted *ko-marked nominals are focused, we expect that the equivalent of *only* must be associated with *ko-marked nominals for proper interpretation. Nominals that have not been fronted, and occur *in situ* without *ko, are not expected to associate with *only* for semantic interpretation.

(19) Prediction 4: Polynesian equivalent of *only* must be interpreted semantically with *ko-marked nominals (and not nominals that are *in situ* in VSO structures)

As a further point, an anonymous reviewer asks what an *only* form would associate with if there was no *ko-marked nominal in a given sentence. Since we take the predicate position as the focus position, in the absence of *ko-marked nominals, we expect *only* particles to associate semantically with the initial predicate (the Verb or one of its extended projections, like the Verb Phrase).

In this section we have presented background on a theory of focus, and made several predictions about the behavior of *ko in the VSO Polynesian languages, under the hypothesis that *ko-marked nominals are FOCUS-marked. This leaves us with four diagnostics that we will use to measure stability or change: *ko NP structures used to mark “emphasis” (both clefts and equatives), topic structures, wh-questions, and the “only” examples (or other association with focus expressions like “just” or “also”).

3. Background: *ko in Polynesian

This section discusses the structure of the Polynesian language family, with an emphasis on the languages classified as verb-initial versus those that are subject-initial. This reflects a word order change that has taken place in a subset of languages; the most authoritative take on the shift in word order from verb-initial to subject-initial is Clark (1976, 1994).

While there is much disagreement on the structure of the Polynesian language family, there are certain groupings that most can agree on. This would be a primary division into the Tongic group (including Tongan and Niuean) and Nuclear Polynesian. Within Nuclear Polynesian is an Eastern Polynesian group (with Rapanui as an outlier of Eastern Polynesian) and a Central Eastern group, which is more closely related to Eastern Polynesian than Rapanui. The remaining languages have historically been grouped into what is known as the Samoic-Outlier group (Pawley 1967), though in more recent years many of the languages in this group (such as Samoan, Tuvalu, Tokelauan, and other northern Outliers) have been shown to be more closely related to Eastern Polynesian (cf. Pawley 1966, Clark 1976 as well as Marck 1999, 2000 for a recent overview). As noted by Clark (1994), the Outliers are perhaps the most divergent languages of the family, and unfortunately include some of the most under-documented.

There is some fair consistency with how the particle *ko shows up phonologically across the languages in the family. It can surface as ko, kō, (orthographic *go* in Nukuoro), and as ’o and ’ō (or orthographic *ò* in North Marquesan). As noted by Biggs (1978), the historical shift from /k/ to glottal stop happens in exactly the languages where we find the ’o versions. Biggs posits /k/ as the proto-consonant, and thus we can posit a Proto-Polynesian morpheme *ko.

If we assume that FOCUS triggers a semantic object, a set of alternatives (as outlined in section 2 above), then we still expect that there will be variation in structures that express FOCUS,

since different structures may make different uses of this semantic object. For example, we do not claim that *ko structures are the only focus constructions in Polynesian (quite the contrary, since we hold that the predicate position is the focus position). Moreover, if a particular structure makes use of focus alternatives, this does not preclude it also serving additional pragmatic functions. This sort of variation is exactly what we find in the literature on *ko structures. For example, Hooper (1993: Ch. 3) discusses three distinct *ko* cleft structures in Tokelauan, used for three different discourse purposes: (i) pseudoclefts, (ii) “informative presupposition” it-clefts, and (iii) standard it-clefts. All are consistent with the proposal that *ko* signals a focus structure that triggers discourse alternatives. There are more detailed discussions about the various functions of *ko by Besnier 1986 (Tuvaluan), Hooper 1991, 1993 (Tokelauan), Massam 2000, 2005, 2012, Massam et al. 2006 (Niuean), Seiter 1979 (Niuean), Bauer 1991, Harlow 2007, Pearce 1999 (Maori), Elbert and Pukui 1979 (Hawaiian), Mosel & Hovdhaugen 1992 (Samoan), Næss 2000, Næss 2011, Næss and Hovdhaugen 2011 (Vaeakau-Taumako/Pileni), Cablitz 2006 (Marquesan), Custis 2004 (Tongan), Moyse-Faurie 2004 (Wallisian/Uvean and Futunan), Potsdam & Polinsky 2011 (wh-questions in Polynesian languages), among others.

It is worth clarifying at this point that our claim is that *ko-structures as a whole mark the following nominal as focused, and not that *ko itself is a focus marker. This is not a novel view, and has been clearly expressed, for example, by Elbert and Pukui (1979) for Hawaiian, where *ko surfaces as 'o.

Actually, ... 'o-phrases are “emphatic” because they come at the beginning of the sentences, not because they begin with 'o.
(Elbert and Pukui 1979:133 on Hawaiian)

Thus, *ko is a diagnostic for focus structures (i.e. it appears in focus structures); what its own syntax and semantics is in any individual language is a separate question, which we do not address here. As we made clear in the introduction, given the wide variety of *ko forms found across the languages (e.g. in topics, clefts, wh-questions, etc.), it is not clear that a unified synchronic syntactic account of *ko can be found (e.g. see Pearce 1999, Harlow 2007 on Maori and Massam et al. on Niuean). Rather than pursue a unified synchronic morphosyntactic approach, then, we are pursuing a unified diachronic semantic account. The spread of *ko among quite diverse structures is due to its appearance in a focus structure of one sort or another; its morphosyntax in, for example, topics as opposed to clefts, may be different, yet it seems to have been functionally useful to employ the same phonological exponent (*ko) in all of these structures to mark the shared semantic feature, FOCUS.

To explore the continuity of *ko structures and FOCUS in the language family, we will concentrate in the next section on the verb-initial Polynesian languages. In section 5, our investigation shifts, in contrast, to those languages that have historically changed to SVO order, and we investigate to what extent this word order change is correlated with a change in *ko structures.

4. VSO Languages and *ko

We will illustrate the properties of the VSO systems with data from two languages from different sub-branches of the Polynesian family. Tokelauan is an outlier within Nuclear Polynesian, while Rarotongan is in the Eastern Polynesian branch of the family. Both languages exhibit a canonical

verb-initial order, and have been well described in regards to most of the predictions made in section 2, including data for clefts, equatives, topics, wh-constructions, and reported uses of words translated roughly as “only,” “just,” or “also.” (For a description of how the order of nominals in equatives is related to focus, we briefly turn to Hawaiian.)

We take these languages as representative of the verb-initial systems, where the remarkable consistency of **ko* uses across languages has been well-documented. By hypothesis, this continuity reflects the existence of these **ko*-marked structures in Proto-Polynesian (Clark 1976). Having established the Proto-Polynesian pattern in this section, and a range of diagnostics for FOCUS, we will be able to systematically investigate how SVO languages have diverged from verb-initial systems in their use of **ko*-marking in the next section.

4.1. Tokelauan

In Tokelauan, **ko* surfaces as *ko*. Our first prediction was that we expected *ko*-marked nominals to be described as expressing “emphasis” or “contrast,” both in clefts and equative structures. There are a variety of cleft-like structures that utilize an initial *ko*-marked nominal for this purpose; this nominal is then followed by a clausal remnant. Hooper (1993) notes that the remnant takes various forms. For example⁷, it can be introduced by *te*, a determiner (DET) (20); by *tēnā*, a demonstrative (DEM) (21); by 3SG *ia* (the latter is used when focus is given, referring back to previous discourse; Hooper 1993:210-212), as well as by nothing at all when the intensifier *lava* is used after the focus (22).

- (20) ... *ko* *ia* *lava* *te* *fano* ...
 ... *ko* 3SG INT DET go ...
 ‘... it is he who goes ...’ (Hooper 1993:211, ex. 8)

- (21) *ko* *te* *taimi* *tēnā* *e* *fufuti* *ai* *tau* *manava* *oi* *tāofi*.
 PRD DET time DEM T/A draw APH 2SG.POSS breath SEQ hold
 ‘It is at this moment that you breathe in, and hold your breath.’ (Hooper 1993:212, ex. 11)

- (22) *Ko* *te* *tautai* *lava* *e* *ia* *tofiagia*.
 ko DET fisherman INT T/A 3SG choose.CIA
 ‘It is the master fisherman himself who appoints them.’ (Hooper 1993:210, ex. 5)

Turning to equatives, we find that the first nominal is *ko*-marked (23). This is consistent with a synchronic analysis, as proposed by Hooper (and many others across the Polynesian language family), in which *ko* is a predicativizer that turns initial nominals into predicates: in order to appear in the initial predicate/focus position, definite nominals like ‘his work’ in (23) must first be predicativized. Indefinite nominal predicates (‘a prized fish’ in (24)) do not have to be preceded by *ko* (but can be)⁸ (*Tokelau Dictionary* 1986:xlīi–xlīii).

⁷ The various glosses employed by Hooper for *ko* in different environments are retained here.

⁸ See Clark (1976: 36) for discussion, who states that **ko* is required with definite NP predicates, but optional or not used with indefinites. In other words, indefinites can function as initial predicates without **ko*, but definites make poor predicates, and so require an initial **ko* predicativizer to appear in the initial predicate position, consistent with general cross-linguistic patterns.

(23) ko tana gāluaega tēnā.
 PRED 3SG.POSS work DEM
 ‘That is his work.’ (Hooper 1993:102 ex. 289)

(24) (ko) he ika tāua te atu.
 (PRED) DET fish valuable DET skipjack
 ‘The bonito is a prized fish.’ (Hooper 1993:102 ex. 290)

Note that the equatives are consistent with our hypothesis that the initial *ko*-marked nominal is the focused one: the translation of (23) is ‘That is his work,’ and not ‘His work is that,’ while (24) is ‘The bonito is a prized fish,’ and not ‘A prized fish is the bonito.’ By way of example, we add FOCUS marking and the focus alternatives to the equative in (24), given as (25) here:

(25) ko [he ika tāua]_{FOCUS} te atu.
 PRED DET fish valuable DET skipjack
 ‘The bonito is [a prized fish]_{FOCUS}.’ (Hooper 1993:102 ex. 290)
 ordinary semantic meaning: PRIZED.FISH(THE.BONITO)
 focus semantic meaning: {PRIZED.FISH(THE.BONITO),
 UNKNOWN.MAMMAL(THE.BONITO), BIRD(THE.BONITO), ...}

Our prediction is that, if the order of the nominals in equatives is reversed, then the focus structure is reversed as well. While Hooper does not explicitly discuss this, in those Polynesian sources where it is investigated, the descriptions are consistent with our prediction. We turn briefly to some examples from Hawaiian, where Elbert and Pukui (1979:132) note that in verbless sentences, “emphasis” may be shown by the same transformation seen in clefts: fronted ‘o-nominals are FOCUSED. We have added FOCUS marking to the Hawaiian examples, and given the alternatives for each equative.

(26) ‘o-NP in Hawaiian equatives is “emphasized”

a. ‘O [ia]_{FOCUS} ke ali’i.
 ‘O 3SG DET chief
 ‘[HE]_{FOCUS} is the chief.’
 ordinary semantic meaning: HE(THE.CHIEF)
 focus semantic meaning: {HE(THE.CHIEF), LOU(THE.CHIEF), YOU(THE.CHIEF), ...}

b. ‘O [ke ali’i]_{FOCUS} nō ia.
 ‘O DET chief nō 3SG
 ‘He’s [the CHIEF]_{FOCUS}.’ (adapted from Elbert and Pukui 1979:132)
 ordinary semantic meaning: THE.CHIEF(HE)
 focus semantic meaning: {THE.CHIEF(HE), THE.DOCTOR(HE), THE.PRIEST(HE), ...}

Returning to Tokelauan, our second prediction about the distribution of **ko* concerned topics: we also expect that topic structures may use **ko*, and this is indeed what we find. Note that (28) has a topic *ko* followed by a cleft use of *ko* (expanded from (20)); this was expected (section 2.2), since topics are not a predicate position, so should be able to co-occur with a **ko*-

marked predicative nominal.⁹

(27) ko te uluga fonu, kua i a te koe lava te tonu.¹⁰
TOP DET mating.pair turtle T/A LOC DET 2SG INT DET decision
‘As for a pair of mating turtles, the decision rests entirely with you.’ (Hooper 1993:229, ex. 45)

(28) ko te tino matua lava, ko ia lava te fano,
TOP DET person senior INT ko 3SG INT DET go
e ia inoagia te taumanu.
T/A 3SG enter.CIA DET school
‘The most senior man, it is he who goes, he who enters the school of skipjack.’
(Hooper 1993:211, ex. 8)

In terms of *wh*-questions, Tokelauan exhibits some *wh*-fronting. ‘Who’-structures are marked with *ko*:

(29) Ko ai kō toku tamana?
ko who INT 1SG.POSS father
‘Who then is my father?’ (Hooper 1993:108, ex. 307)

This illustrates the point that in Tokelauan some *wh*-structures are marked in the same way as focus-marked structures are: fronted and introduced by *ko*, something which has been widely observed for these types of *wh*-structures (e.g. see Seiter 1980, Massam 2003, Massam et al. 2006 on Niuean). This is not the entire picture, however. Some *wh*-forms lack *ko* altogether:

(30) E a ai te uhuga Kai?
T/A of who DET woo-NOM Kai
‘Whose is the proposal, Kai?’ (Hooper 1993:107 ex. 306)

Other forms, such as those involving *hei* (the agent clitic pronoun) also lack *ko*:

(31) Na hei kaia taku meakai
T/A who eat.CIA 1SG.POSS thing.eat
‘Who has eaten my food?’ (Hooper 1993:108 ex. 308)

⁹ An anonymous reviewer suggests that, since topics are not predicates, yet appear with focus marking, this weakens our claim about the connection between focus, initial **ko*, and VSO word order. We would counter that this just means that one of the diagnostics we look at, namely **ko* and topics, does not tell us much about the relation between focus and the predicate – at least not directly. However, the use of **ko* in contrastive topic and frame-setting contexts, which contain focus, provides indirect evidence that nominal predicates are also focus-marked since these share the use of **ko*.

¹⁰ Note that the comma following the topic phrase indicates that the topic is marked by special intonation. While we expect this to be the case, since this section is meant to be representative of the Proto-Polynesian pattern and not just Tokelauan, we refrain from making specific remarks about intonation in topics or other constructions that we discuss. This is simply because, while some sources describe the prosody of these languages, not all do, and we do not know enough to make generalizations across the family. Thanks to an anonymous reviewer for raising this issue.

And finally, wh-forms may be found in situ, as well as in the fronted focus position. Wh-forms that are found in situ lack *ko*:

- (32) E momoe ki tātou ki te ā
 T/A sleep.PL 3.PL 1PL.INCL ‘to’ DET what
 ‘Where shall we sleep?’ / ‘On what shall we sleep?’ (Hooper 1993:108 ex. 311)

Thus, **ko*-marked and fronted wh-forms are not found throughout the wh-system in synchronic Polynesian systems. Historically, this suggests that, in Proto-Polynesian, the focus-related spread of **ko* to the wh-system was either partial; or, if it was more complete, then the use of **ko* with wh-forms has been subject to erosion in both verb-initial and subject-initial Polynesian languages to a greater degree than for other **ko* structures. In other words, as an anonymous reviewer points out, the variability that we see in the wh-system is not all related to changes in word order. Perhaps this is because wh-words are inherently focus-marked, unlike non-wh forms; therefore, additional focus marking, such as through the use of a **ko* structure, is functionally redundant in terms of indicating focus. Another factor, pointed out by an anonymous reviewer, is that, since many wh-forms in Polynesian languages are adverbials or verbs, and not nominals, they are simply morphosyntactically incompatible with **ko* (see Hagège 2008 for general discussion of interrogative verbs, including Futunan and Tahitian examples).¹¹ In any case, it means that the grammar of wh-structures is not a strong diagnostic for the more general grammar of focus marking in any given language (also true of English, where the wh-system has properties quite independent of the prosodic focus marking system). We will return to this point in section 5.6.

Turning to the use of focus-sensitive particles, there is evidence in Tokelauan that a focus-sensitive particle *nā*, described by Hooper as ‘just/only,’ associates with constituents in the initial focus/predicate position:

- (33) *Nā* *ko* *nā* *tamaiti* *te* *na* *olo*.
 just *ko* DET children DET T/A go.PL
 i. ‘It was only the children that went.’ (Hooper 1993: 211, ex. 7)
 ii. unattested interpretation: * ‘The only thing the children did was go / The children just went.’

Note that the translation given for this sentence is ‘it was only the children that went’, and not ‘The only thing the children did was go’. The former is expected if *nā* is focus-linked to the *ko*-marked nominal; the latter is expected if it is not obligatorily linked to *ko*. Adding association with focus subscripts, we get the following:

- (34) a. *Nā*₁ *ko* [*nā* *tamaiti*]_{FOCUS,1} *te* *na* *olo*.
 just *ko* DET children DET T/A go.PL

¹¹ However, at the same time, the (ad)verbial account cannot be the whole story since there may be considerable variation in the category of interrogative expressions within any given language. On the one hand, in Vaeakau-Taumako (Pileni), *ā* ‘be.what/do.what’ is a verb and does not cooccur with *ko*, consistent with the idea that it is the (ad)verbial status of interrogatives that prevented a more widespread use. In the same vein, *ai* ‘who’ is a pronoun and cooccurs with *ko*, consistent with the idea that *ko* occurs only on nominals. On the other hand, *hekai* ‘where’ patterns like a common noun, yet does not cooccur with *ko* (Næss and Hovdhaugen 2011:401-406).

- i. ‘It was only the children that went.’ (Hooper 1993: 211, ex. 7)
- b. *Nā₁ ko [nā tamaiti]_{FOCUS} te na olo₁.
 - ii. unattested interpretation: * ‘The only thing the children did was go / The children just went.’

Formally, we might tentatively assign the denotation from Rooth (1996) to Tokelauan *nā*, as in (35).

$$(35) \llbracket nā \rrbracket^w = \lambda p. p(w) \wedge \forall q \in \llbracket p \rrbracket^f: [q(w) \rightarrow q = \llbracket p \rrbracket^0] \text{ (based on Rooth 1996)}$$

However, this will need to be tested with further investigation of *nā*. For example, the denotation makes the exclusivity contribution of *nā* ‘only’ part of its truth conditions, which means it should be targetable by negation to give a ‘not just’ interpretation. This needs to be tested however; in some languages, it appears that the exclusivity interpretation arises as a presupposition and can therefore not be targeted by negation (e.g. Bliss 2010 on Blackfoot).

We can also make a generalization about the syntactic behavior of association with focus particles in the verb-initial systems. Under the widespread assumption that *ko-marked nominals are initial nominal predicates, ‘just/only’ here is a predicative (e.g. adverbial) modifier, and not a nominal modifier. That is, the initial predicate position is the focus position, and in situ nominal arguments are not in a focus position. Therefore, there are only adverbial but not adnominal uses of particles like ‘only.’ This is reflected in their linear position at or near the left edge: *nā* is clause-initial in (36); another potentially focus-sensitive particle, the intensifier *lava* in (20), is not initial, but immediately after the *ko*-marked nominal. The purely adverbial nature of these particles stands in contrast to the English uses of *only*, which can be used for both predicative (36a) and nominal (36b) modification.¹²

- (36) a. Bill only₁ [VP SKIS]_{FOCUS,1} (he does not skate).
- b. Only₁ [NP BILL]_{FOCUS,1} skis (Hans does not ski).

Thus, Tokelauan exhibits the predicted cleft, equative, topic, wh- and association with focus patterns, based on *ko structures being an expression of FOCUS on the *ko-marked nominal in verb-initial systems.

4.2. Rarotongan

¹² Two anonymous reviewers note that there are emphatic particles in Polynesian languages which may be associated with nominals that have not been fronted (as examples, one reviewer suggests Tongan *pē* – Churchward 1953:39, 270; Samoan *na’o* – Mosel & Hovdhaugen 1992:272-273 and East Futunan *fa’i* – Moyse-Faurie 1997:56), even if it is true that they are usually associated with fronted nominals. Under the approach we adopt, this variation in association behaviour follows from the fact that focus sensitivity is not a uniform phenomenon (Beaver and Clark 2008). Particles like *only* associate with focus through having reference to focus alternatives as part of their lexical entry – Beaver and Clark term this “conventional” association. However, other focus-sensitive expressions associate pragmatically (“quasi” and “free” association, in Beaver and Clark’s 2008 terminology), and since their lexical entries do not restrict their association with focus, they are not expected to be restricted by the syntax (e.g. the fronting of nominals in Polynesian) for their interpretation. We have chosen primarily examples with *only* because it appears to be cross-linguistically likely to belong to the class of conventionally focus-sensitive expressions; particles that have a more flexible association behaviour (including with in situ nominals) we would expect to belong to the class of quasi or free association expressions.

Rarotongan (Eastern Polynesian) also serves to illustrate the Proto-Polynesian pattern found in the VSO systems. Proto-Polynesian **ko* surfaces as *ko* in Rarotongan. Our first prediction concerned the use of **ko*-marked nominals to mark “emphasis,” and Yasuda (1968:61) explicitly states about the Penrhyn dialect that “*ko* indicates that the subject or object is emphasized.” The cleft shown in (1), repeated here in (37), shows a clefted nominal ‘my child’ marked with *ko*, while the structure in (38) has a similarly emphatic use and clefts the 2nd person pronoun *koe* ‘you.’

(37) *Ko ta-ku tamaiti tee kaa hano.*
 FOC dominant.possession-1SG child DEF INCEPTIVE go
 ‘It is my child who will go.’ (Yasuda 1968:84)

(38) *Ko koe tee+raa i runga i te vaka.*
 FOC you DEM+CONTR TOP DEM LOC DET canoe
 ‘That [person over there] in the canoe is YOU!’ (Yasuda 1968:61)

We also find *ko* introducing the first nominal in equatives. (39) shows an initial *ko*-marked nominal equated with a demonstrative ‘these’:

(39) *Ko naa tangata hopenga raai tee+ia*
 FOC DEF man last quite these
 ‘These are absolutely the last men.’ (Yasuda 1968:124)

Turning to topic structures, Rarotongan also employs *ko* for this purpose:

(40) *Ko te muko+muko kaa kore e vare+vare i roto.*
 FOC of coconut INCEP not T/A slimy LOC in
 ‘As for the mukomuko, there is no slimy [substance] inside.’ (Yasuda 1968:48)

(41) *Ko te sakari kere+kere, ka vaa-vaasi taaua i*
 FOC of coconut black INCEP RED-split we DIR.COMM
rera, kaa hora ki te raa.
 that INCEP spread LOC DET sun
 ‘As for the mature coconut, we split it and spread [it] in the sun.’ (Yasuda 1968:48)

As in Tokelauan, *wh*-questions show variation in terms of the use of *ko* and in the position of the *wh*-element (in the initial focus position, or in situ after the predicate). ‘Who’ surfaces with *ko* and in initial position in (42-43), but in other constructions may surface without *ko* (44) and in situ (e.g. the passive in (45), and the indirect object in (46)).

(42) *Ko vai te-i haka-tupu i te peka-peka.*
 FOC who DET-PAST CAUSATIVE-grow DIR.COMM DET trouble
 ‘Who is the one that caused the trouble?’ (Yasuda 1968:83)

(43) *Ko vai to-o matua?*
 FOC who your parent

‘Who is your father?’ (Yasuda 1968:139)

- (44) naa vai tee ia apinga?
DOMINANT.POSS who CONT NEAR.SPEAKER thing
‘Who owns this thing?’ (Yasuda 1968:139)

- (45) Kua kata+hia te ariki e vai?
PERF laugh+PASS DET chief AG who
‘By whom was the chief laughed at?’ (Yasuda 1968:65)

- (46) Kua kave koe i te ika ki aa vai?
PERF bring you LOC DET fish INDIR.COMMENT PERS.ART who
‘To whom did you bring the fish?’ (Yasuda 1968:141)

Finally, we expect that focus-sensitive expressions will associate with initial *ko*-marked nominals for their interpretation. Consistent with our hypothesis, Yasuda (1968) lists several particles that appear to associate with initial *ko*-marked phrases, including *hua* ‘just’ (1968:109-110), *roa* ‘immediately, very’ (1968:110), *tikaai* ‘really’ (1968:111) and *raa* ‘contrastive’ (1968:123, 129). (47) shows *hua* ‘just’ associating with a *ko*-marked nominal *ia* ‘he,’ while (48) shows *raa* semantically associating with a *ko*-marked nominal *raatou* ‘they’ that is contrastively focused with *oro* ‘we’ of the previous clause. Both are positioned immediately after the *ko*-marked nominal, upon which they depend for their semantic interpretation.

- (47) Ko ia hua?
FOC 3SG just
‘Is he all by himself?’ (Yasuda 1968:110)

- (48) kua oro maatou i te tahua ko raatou raa
PERF scrub we COMM DET floor FOC they CONTR
 tei te peeni hare.
 DET-PAST DET paint house
‘We scrubbed the floor while they were painting the house.’ (Yasuda 1968:123)

4.3 Summary

In this section, we have employed a set of diagnostics, based on a formal definition of FOCUS, for a range of **ko* structures in verb-initial Polynesian languages. This set of structures is representative of the distribution of **ko* in Proto-Polynesian. We have seen that **ko* is consistently used in clefts, equatives, topics, some wh-questions (primarily ‘who’ forms), and for the semantic interpretation of focus-sensitive expressions like ‘only.’ Because **ko* is not used throughout the wh-system, it is likely that the spread of **ko* to wh-words was either incomplete in Proto-Polynesian, and/or is eroding more rapidly than in other **ko* structures, and for reasons that are not related to changes in word order (see Potsdam and Polinsky 2011 for a recent overview of wh-initial structures in Polynesian).

While we have not covered all of the structures involving **ko* (see Clark 1976 for discussion of further structures), we have a range of uses that we can now systematically examine in Polynesian languages that have undergone a shift to SVO word order. We have also

determined that the marking of *wh*-forms is a weaker diagnostic for FOCUS-related word order changes, since we have seen that VSO systems also do not employ **ko* and *wh*-fronting for all *wh*-forms. It is striking, however, that ‘who’ forms are most likely to be marked with **ko*, consistent with the cross-linguistic observation that focus marking on subjects is the marked case, while focus marking on the predicate is the unmarked case (e.g. Zimmermann to appear).

5. SVO languages and **ko*

In contrast to the languages that exhibit canonical verb-initial word order, some of the languages that have shifted to SVO order exhibit different properties associated with **ko* structures (and in fact, some, such as West Futunan, appear to lack **ko* altogether). Since the properties associated with **ko* can be wide-ranging, and since in any individual SVO language these properties may change piecemeal and not uniformly, it is perhaps most instructive to compare case studies of several SVO languages to determine the general pattern¹³ of the **ko* diagnostics laid out in sections 2 and 4. A problem inherent in this approach is the fact that SVO Polynesian languages are under-documented relative to the verb-initial (majority) languages (cf. Clark 1994).

Nevertheless, we present here comprehensive data on four Outlier languages with SVO order. In these particular cases, we hypothesize that there will be potential changes in the SVO languages, relating to focus and **ko*. In particular, we predict that (i) **ko*-marking and focus will be able to be expressed in non-initial positions in SVO systems, (ii) structures that use **ko* in the VSO systems may lose **ko*-marking in SVO systems, and (iii) focus-sensitive expressions will also have adnominal uses.

These predictions follow from the claim that, when a particular language shifts to SVO order, the relationship between the initial predicate position and focus will be lost. The reason for this is that subjects are generally recurring, backgrounded information, and are therefore typically unfocused; nor are subjects predicates. This is the hypothesis expressed by Clark (1976:40), who proposes that **ko*-topics were reinterpreted as initial subjects, leading to loss of **ko* and SVO order. Thus, we might expect **ko*-marked nominals to appear in non-initial positions, since the initial position is no longer a focus position.

Regarding the second prediction, once the link between focus, predication and the initial position is lost, we find focused, *in situ* nominals (e.g. without **ko*-marking). This weakens the functional usefulness of **ko* as a general marker of focus constructions, and may lead to loss of **ko* from focus-related constructions such as clefts, equatives, or *wh*-questions.

Finally, we also expect a change in the distribution of focus-sensitive particles like *only*: where in the VSO systems their semantic association is strictly initial and strictly adverbial, we anticipate adnominal uses of focus-sensitive expressions, and association with non-initial positions. This follows with a move of focus away from an initial predicate position, including to *in situ* nominal positions.

Table 1 shows the general pattern for the VSO systems, and by hypothesis, Proto-

¹³ We take as inspiration here the approach found in Davis (1999, 2000). Davis observes a change in Salishan subject-verb agreement marking patterns, from subject suffixes to subject clitics. In this context, the synchronic pattern in any single language is obscure, since subject agreement varies by person and by clause type. However, by looking across several languages, the historical shift from affix to clitic becomes readily apparent, and furthermore allows us to determine which structures are most likely to change in any given language. Similarly, synchronic **ko* patterns in any single language may be complex and obscure, but examining several languages as we are doing here will reveal some interesting diachronic shifts, and allow us to determine which **ko* structures are more likely to change/erode, or remain stable.

Polynesian, as presented in section 4. In this section, we will fill in the table by investigating the patterning of *ko in four SVO languages: West Futunan, Luangiua, Nukuoro, and Vaeakau-Taumako (Pileni).

[TABLE 1 GOES HERE]

5.1. West Futunan

Perhaps the clearest case of an SVO language severing the link between *ko and focus is West Futunan. West Futunan has a relatively flexible word order, with SVO dominating. The language exhibits clefts with fronted nominals and no *ko-marking, equational structures with no *ko or any other copula, wh-in situ without *ko, and adnominal uses of *only*.

In West Futunan, basic word order appears to be (S)V(O) (Dougherty 1983:115). Clefting strategies include NP fronting¹⁴, but lack *ko (or any other copula-like element):

(49) Cleft with no *ko

Jein ni hlika ta kuli.
 Jein TNS startle ART dog
 ‘It was Jein the dog startled.’ (Dougherty 1983:132, ex. 383)

(50) Cleft with no *ko

ta pukunea nei kirijia a pil.
 ART stump TNS.i hit.JIA ART Bill
 ‘It was the stump that Bill banged into (it).’ (Dougherty 1983:132, ex. 385)

In West Futunan, equational structures have the form NP NP (e.g. DP DP), with no copula or cleft predicate linking the structures (Dougherty 1983:132-133, ex. 388-392). Examples here include specificational equational structures with two overt definite nominals (51, 52), or one overt and one null (53).

(51) Equational structure with two NPs

a tiauu te ra.
 ART Tiauu ART that
 ‘That one is Tiauu.’ (Dougherty 1983:133, ex. 391)

(52) Equational structure with two NPs

ai ta ne i atakoe.
 it ART thing OBL.i you
 ‘It’s up to you.’ (Dougherty 1983:133, ex. 389)

(53) Equational structure with two NPs, one overt and one null

tata tiaku.
 father ART.mine
 ‘That’s my father.’ (Dougherty 1983:133)

¹⁴ Dougherty has these examples listed under “topicalization”; while other topics are marked as followed by a comma, e.g. her ex. 379-380, this one is not, so we take it that the translation accurately reflects a cleft structure that marks focus on *Jein*.

Topics are also expressed without *ko, again unlike the VSO systems and Proto-Polynesian, and consistent with Clark's (1976) hypothesis that *ko-topics were reinterpreted as subjects, along with loss of *ko:

a rama no fosia e kiraua
ART torch TNS bind e kiraua [i.e. 3.dual]
'Its torches, the two of them are binding.' (Dougherty 1983: 44)

Akai tano eigoa?
 who his name
 ‘Who is he?, Who (What) is his name?’ (Dougherty 1983: 85)

'He filed just₁ [one (of) (the flounder's) sides]_{FOC,1} until it became flat.' (Dougherty 1983:146)

In the absence of *ko, there are still, however, structures available to mark focus. These include clefts (e.g. 49), and perhaps other innovated structures as well. In this regard, Dougherty (1983:118) notes that a “cliticized copy of the subject may also appear suffixed to the markers of tense and aspect”, as illustrated in (57), where *koman* includes a 3rd person pronominal enclitic:

- (57) koman tujiafo.
 TNS.ASP.3 get.ART.banana
 ‘He’ll come to get the bananas.’ (Dougherty 1983:37)

Dougherty (1983:119) explains that the “grammatical markings for the subject including the case marking *e*, clitic pronominal forms, and the possibility of double mention correlate with the emphasis on the potency of the subject.” Thus, these copy structures may be a different type of focus-marking structure (though again, without *ko).

5.2. Luangiua

While Clark (1994) describes Luangiua as a mixed SVO/VSO system, Salmond (1974) provides dominantly subject-initial forms. In Luangiua, *ko is still realized as *o*,¹⁵ but its use has been eroded in comparison with *ko-forms in the verb-initial languages.

We start with structures in which *o* is employed. First, there are *o*-cleft structures that appear to mark FOCUS on the clefted initial NP, just like in the verb-initial languages. This partially refutes our expectation that clefts will lose their initial *ko (and is unlike what we saw for West Futunan in the previous section). The use of *o* here has however become restricted to definite singular NPs, and is ungrammatical with clefted indefinite or plural NPs (Salmond 1974:136-137). Thus, our prediction (ii) is partially borne out for cleft structures, since the use of *o* is restricted to singular definite NPs.

- (58) Cleft with *o*
 o ke poi u make.
 o DEF.SG.ART dog IMMED die
 ‘It was the dog that died.’ (Salmond 1974:154)

- (59) Cleft with *o* requires an NP marked with the definite singular article *ke*
 a. *o* ke hiŋe ‘oi uaka.
 o DEF.SG.ART woman still works
 ‘The woman (specifically) is still working.’
 b. **o* ŋaa hiŋe ‘oi uaka
 o DEF.PL.ART woman still works
 c. **o* he poi u make
 o INDEF.SG.ART dog IMMED die (Salmond 1974:136-137,154)

The situation is different when we look at equative forms. Here we do find that equatives (both specificational, as in (60), and predicational, as in (61)) are possible without any marking of either NP.

¹⁵ Salmond (1974) glosses Luangiua *o* as ‘Spec(ific),’ while Clark (1976:40) uses ‘Prd’ (predicate marker). There is also a *ko*[^] which is restricted to use with the 3rd person singular pronoun (Salmond 1974:140,143,167). We are unclear as to its historical origin.

- (i) a. ko[^] ia e haele.
 ko[^] 3SG GENL.TA go
 ‘It is he that goes.’ (Salmond 1974:167)
 b. * ko[^] ‘a’oe e haele.
 ko[^] 2SG GEN.TA go

- (60) Specificational equative structure with two definite NPs and no *o*
 kee^ ηei ke poi.¹⁶
 DEF.SG this DEF.SG.ART dog
 ‘This is the dog.’ (Salmond 1974:129)

- (61) Predicational equative with a definite NP and an indefinite NP and no *o*
 ke hiηe he maakua.
 DEF.SG.ART woman INDEF.SG.ART chief
 ‘The woman is a chief.’ (Salmond 1974:139)

These data also suggest that our first prediction is on the right track, namely that we find focused NPs in non-initial positions. For example, the translation of the equative in (60) suggests that, if anything, the final NP *ke poi* ‘the dog’ is focused (compare a possible alternative translation ‘The dog is this (thing)’ which would suggest focus on the demonstrative *ηei*; tellingly, these sorts of translations are not provided for these forms). The same is true for (61), where the indefinite *he maakua* ‘a chief’ is acting as the predicate, and appears in final position.

Even more intriguing for our first prediction are equative forms where *o* is retained – but in these cases, *o* precedes the second NP. In other words, the FOCUS-marked constituent is the second NP, consistent with the hypothesis that FOCUS is no longer (necessarily) associated with the sentence-initial position. Here we have a sentence-final *o*-marked NP:

- (62) Equative structure with two definite NPs and *o* before second NP
 kee^ ηei o ke poi.
 DEF.SG this o ART dog
 ‘This is the dog.’ (Salmond 1974:137)¹⁷

Moving on to topic constructions, we find a complete loss of **ko*. In SVO forms, Luangiua typically has initial subjects without any *o* marking.

- (63) ke poi u ηau ke salau aηau.
 ART dog IMMED bit ART cat my
 ‘The dog bit my cat.’ (Salmond 1974:93)

As Clark (1976:40) notes, this means we find minimal pairs such as the following, where an SVO form without initial *o* contrasts with a clefted form that retains an initial *o*:

- (64) a. ke poi e kaηikaηi.
 ART dog T howl
 ‘The dog is howling.’
 b. o ke poi e kaηikaηi.
 o ART dog T howl
 ‘It’s the dog that’s howling.’ (Thorpe 1968:192, cited in Clark 1976:40)

¹⁶ ^ apparently indicates a bound form.

¹⁷ We are unclear what the synchronic pragmatic difference between (60) and (62) might be (if any); we may hypothesize that (62) formally marks FOCUS, while (60) is grammatically unmarked for a formal FOCUS feature (e.g. Selkirk 2008).

Clark therefore hypothesizes that the SV(O) forms are derived from topic *ko forms, while a cleft-like *o*-structure has been maintained to mark focus. This means that in Luangiua, *ko-topics have been lost (as per our prediction), but *ko-clefts have been partially retained (contrary to our prediction).

Turning to wh-questions, Salmond notes that an “interrogative normally occurs sentence-finally,” though sentence-initial interrogatives are also possible (1974:222). This is consistent with a general dissociation of FOCUS and the initial position. Of all the wh-forms, only ‘who’ co-occurs with *o*, again consistent with a general erosion of *ko in focus uses.¹⁸ Unlike what we observed in the VSO languages, *o* also marks *ai* in situ (65a).

- (65) a. kama la o ai?
 person that o who
 ‘Who is that?’
 b. o ai kama la?
 o who person that
 ‘Who is that?’ (Salmond 1974:222)

As we noted above, the marking of wh-forms is a weaker diagnostic for FOCUS-related word order changes, since, as was illustrated in section 4, VSO systems also do not employ *ko and wh-fronting for all wh-forms.

Finally, we predicted that focus-sensitive expressions like *only* would be able to associate with in situ nominals, and not just with fronted nominals in the focus position as we find in the verb-initial systems (and, by extension, Proto-Polynesian). More generally, we might expect focus-sensitive expressions to semantically associate with non-initial material. Salmond (1974:149) provides just one example with *oia* ‘only,’ which is consistent with this prediction. Here, *oia* ‘only’ associates with the verb ‘crying,’ and, crucially, not with the initial nominal *aŋau* ‘I’. This suggests that FOCUS has been dissociated from the initial position, and can surface in a greater variety of syntactic positions. We see this flexibility mirrored in the linear position of *oia* ‘only’ as well, which here shows up sentence-finally, unlike what we found for ‘only’ forms in the VSO languages.

- (66) Association of *oia* ‘only’ with a non-initial element
 aŋau e [kaŋi]_{FOC,I} oia.
 1SG GENL.TA cry only
 i. ‘I’m only₁ [crying]_{FOC,I}.’ (Salmond 1974:149)
 ii. unattested interpretation: * ‘Only₁ [I]_{FOC,I} am crying.’

Another possible focus-sensitive particle with an exclusive meaning is *so’o^* ‘alone.’ Salmond (1974:143) describes *so’o^* as prefixed to pronouns – in other words, it is a nominal modifier, and not a predicate modifier like ‘only’ exclusives observed in the VSO languages. The

¹⁸ Some other interrogatives are preceded by other elements, including a nominal *a* and a preposition *i*; for example, *a i* ‘whose’ and *i hee* ‘where’ (Salmond 1974:50,85,222). It is possible that *a* and *i* occur in focus structures in their own right, but we concentrate here on the role of *ko.

following example shows that it picks out a sentence-final nominal for semantic interpretation.¹⁹ Thus, its semantic association behaviour is reflected in its non-initial syntactic position (compare the (near-)initial positions of focus-sensitive expressions in the VSO languages in section 4).

(67) Association of *so'o^* 'alone' with a non-initial nominal

$\text{a}\eta\text{au}$ me haele so'o^1 [$\text{a}\eta\text{au}$]_{FOC,1}.
 1SG FUT.TA go alone 1SG
 'I shall go by myself.' (Salmond 1974:143)

A final expression that is widely considered to be focus-sensitive is additive 'too, also.' Salmond shows that *ho'i* 'also, too' can associate with material in both initial and non-initial positions, and describes its distribution as "extremely mobile" and having "no preferred position" (Salmond 1974:107). Again, this is consistent with the hypothesis that in SVO languages, the consistent link between FOCUS and initial position has been lost. As a result, *hoi* can be interpreted with and positioned next to elements throughout the sentence; when multiple *ho'i* are used, they indicate a multiple focus construction:

(68) Flexible position of focus-sensitive *ho'i* 'also, too'

$[\text{ke}$ poi $\eta\text{ei}]_{\text{FOC},1}$ ho'i_1 $[\text{e}$ $\text{ka}\eta\text{i}$ $\text{kahi}]_{\text{FOC},2}$ ho'i_2 .
 DEF.SG.ART dog this also GENL.TA howl continually also
 'This dog (as well as that dog) howls all the time (as well as some other quality).'

(Salmond 1974:108)

In sum, Luangiua displays some mixed properties as far as *ko erosion is concerned, but is generally consistent with the hypothesis that, after a shift to SVO, the link between FOCUS and initial position is lost. While a special cleft structure has retained initial *o*, this is not typologically surprising (given that many non-VSO languages, such as English, have special cleft structures that mark FOCUS). On the other hand, *o* has been lost from topic marking, and is optional in equatives (and when it does appear here, is no longer initial). Only 'who' questions appear with *o*, and 'who' is usually also not initial. Finally, a survey of some expected focus-sensitive expressions, including 'only' and 'also,' show that they are able to associate with non-initial material and nominals that are not *o*-marked.

5.3. Nukuoro

Nukuoro is described by Clark (1994) as a mixed SVO/VSO system. *ko in Nukuoro is realized as [ko], though written as orthographic *go* (Carroll 1965:6,28). Again, though there are structures that retain *ko, its use in Nukuoro has been eroded in comparison to the V-initial languages. This is consistent with our expectation that a shift to SVO order leads to a divorce of both the predicate and focus from the initial position.

Nukuoro, like Luangiua, retains *go* in cleft constructions, which is not consistent with our

¹⁹ Although it seems, superficially, to double the initial 1sg pronoun *aηau*, note that the association of the exclusive particle *so'o^* 'alone' with the final rather than the initial nominal is critical to the interpretation. (67) means that my going event has only one participant, namely me, but it does not exclude other people from having their own going events. If the exclusive meaning were associated with the *aηau* 'I' in subject position, we would expect a meaning in which the speaker was the only person going anywhere (that is, the speaker wishes to exclude other people from having their own going events).

hypothesis that it may be lost. Consistent, however, with our FOCUS hypothesis, Carroll (1965:28) describes its function as “serving to emphasize or set off the word it precedes. It is usually best translated by ‘it is ...’.” Clefts, then, have retained both *go* and a FOCUS-initial structure.

(69) Cleft structures with initial *go*

- a. Go Soan gu hada muna.
 go John DECISIVE.ASPECT hada muna²⁰
 ‘It was John who lied.’ (Carroll 1965:28)
- b. gai go ia ai lo tadeu dagi.
 and go he PREDICATE.COMPLEMENT about.it 1.TRIAL.INCL.POSS leader
 ‘So it is he (who will be) our leader.’ (Carroll 1965:38)

In equatives, however, we find some forms without *go* (or any other copula-like element):

(70) Equative structures with two definite NPs and no *go*

- de nei doo alahenua.
 SG.ART this 2SG.POSS land
 ‘This is your land.’ (Carroll 1965:41)

Textual examples of equatives in Carroll (1965) often appear with *go*. Once again, though, like in the Luangiua equatives with *o*, *go* is typically before the second rather than the first NP. This is consistent with our first prediction, namely that FOCUS is no longer (exclusively) associated with the initial position once the language has shifted to SVO word order. In the text provided by Carroll (1965), many of the equatives have the form ‘X’s name is Y’, with *go* preceding a proper name:

(71) Equative structures with two definite NPs and *go* before second NP

- a. dono ingo la go Tubuanage.
 3.SG.POSS name over.there go Tubuanage
 ‘His name was Tubuanage.’ (Carroll 1965:44)
- b. dono ingo la iainei go Nukuoro.
 3.SG.POSS name over.there now go Nukuoro
 ‘Its [the island’s] name now is Nukuoro.’ (Carroll 1965:41)

When the focus structure changes, the equatives are reversed: a proper name, for example, can be initial without *go*, while the focused NP is in second position, and occurs with *go*. This is what we expect if the second nominal in equatives is the one that is in focus, and no longer the nominal in initial position. Compare (72a), which answers a contextual question “Who was the oldest child?” (FOCUS on *Iaidemalo*) with (72b), which answers a contextual question “Which male child was Iaidemalo?” (FOCUS on *tama dane madua* ‘the oldest male child’).

(72) Equatives with reversed focus structures

²⁰ Carroll does not provide glosses for lexical items, and those which were not independently listed in Carroll’s glossary we leave unglossed (e.g. we are uncertain which portion of *hada muna* is best glossed as ‘lie’).

- a. Tama madua go [Iaidemalo]_{FOCUS}.
 child old go Iaidemalo
 ‘The oldest child was [Iaidemalo]_{FOCUS}.’ (Carroll 1965:37)²¹
- b. Iaidemalo go [tama dane madua]_{FOCUS}.
 Iaidemalo go child male old
 ‘Iaidemalo was [the oldest male child]_{FOCUS}.’ (Carroll 1965:37)

As for topics, we found no clear examples of initial topics that use *go*. It seems that, like in Luangiua, topics have lost **ko*-marking and have been reinterpreted as SVO forms, as Clark (1976) proposes. Sentences that seem like plausible candidates for an initial topic are not marked with *go*, but simply use an unmarked SVO form. In (67), the prior sentence in the discourse context has a different subject, ‘the ghosts of Sogo,’ so we might reasonably expect a contrastive topic interpretation for ‘Gaeuli and his men’ here; there is no *go* marking, however:

- (73) Initial NP without *go*
 Gaeuli ma ono dangada e llodo e nnoho
 Gaeuli and his men GENL.ASP want GENL.ASP stay
 i de henua la.
 at SG.ART island over.there
 ‘Gaeuli and his men wanted to stay on that island.’ (Carroll 1965:40)

Turning to *wh*-questions, the data is somewhat limited as we were unable to find clear discussion of full *wh*-questions in Carroll (1965); thus we are unsure as to the full distribution of *wh*-words (e.g. whether all forms can be both fronted and non-fronted). However, as additional diagnostics, we can look at individual *wh*-expressions, as well as some interesting cases of *wh*-indefinites.

In the *wh*-expressions themselves, *goai* ‘who’ is the only one we found that appears with *go*. *Goai* surfaces in fronted forms (as noted, we are unclear as to whether non-fronted forms are possible with *go ai*).

- (74) a. Goai ai hu ne humai la?
 go.who PRED.COMPLEMENT occasion.when PERF came over.there
 ‘Who might it have been who came in that case?’ (Carroll 1965:35)
- b. Goai na e vaa-hano?
 go.who IRREALIS²² GENL.TA able.to-go
 ‘Who (among us) is able to go?’ (Carroll 1965:34)

Other *wh*-forms appear without *go*, consistent with our prediction, even though some *wh*-

²¹ It should be noted that Carroll generally translates *go* as ‘it is’ throughout, even in equative forms like this; thus, this Nukuoro utterance is translated as ‘The olde(est) child, it was Iaidemalo.’ However, there is no indication in the Nukuoro text itself that this is a topic structure followed by a comma phrase and an equative. Rather, Carroll’s translation is due, as he notes (1965:36), to his providing translations on a phrase by phrase basis, rather than a holistic translation of a complete proposition: thus, he chunks the Nukuoro text into *Tama madua* ‘the old(est)’ and *o Iaidemalo* ‘it is Iaidemalo.’ We simply treat these forms as equatives, since we are interested in their overall structure, and not word-by-word translations.

²² We use the gloss “irrealis” based on Carroll’s description of this particle, which, when “in sequence with verbal expressions” can indicate “indefinite time, hypothetical, future, or unknown” (1965:34).

indefinites appear to surface with *go*. Perhaps unsurprisingly, *begoai* ‘whoever’ (75a) includes a historical *go*, parallel to *go ai* ‘who’ (compare *bedehee* ‘whatever,’ which has no *go* component – Carroll 1965:10). However, we also find *go* as part of *begohe* ‘wherever’ (75b), even though ‘where’ wh-words themselves (e.g. *gi hee* in (75c)) do not surface with *go*. It seems that *go* has thus been retained in a wider range of wh-indefinites than in wh-words themselves; in other words, the data suggests that *go* was historically more widespread throughout the wh-system, but has since been lost, with traces still appearing in wh-indefinites. This is consistent with our predictions, and suggests that looking at wh-indefinites in other Polynesian languages may provide clues as to the historical spread of **ko* with wh-forms other than ‘who.’

- (75) a. *gidadeu* *ga* *daudau* *gai* *begoai*
 1.TRIAL.INCL ANTICIPATORY.ASPECT wrestle and whoever
 na *hu* *e* *kii*,
 IRREALIS occasion.when GENL.TA win
 ‘we will wrestle and whoever on this occasion wins,’ (Carroll 1965:38)
- b. *giladeu* *gu* *de* *iloo* *begohe* *la* *de* *henua*.
 3.TRIAL DECISIVE.ASP NEG know where over.there SG.ART island
 ‘They did not know where the island was.’ (Carroll 1965:47)
- c. *Ga* *hulo* *na* *golu* *gi* *hee?*
 ANTICIPATORY.ASPECT *go* IRREALIS 2.DUAL toward which
 ‘Where are you two going?’ (Carroll 1965:43)

While the ‘who’ form retains *go* and surfaces in initial position, other wh-words show some variation in position. Thus, *gu aha* ‘why’ (based on *aha* ‘what’) surfaces clause-initially in (76a), while *gi hee* ‘where’ is clause-final in (75c, 76b). It appears then, that question words generally appear without *go*, but typically still surface in initial position, though some non-initial forms are also found.

- (76) a. *Gu* *aha* *gu* *modu* *ai* *doo* *vae?*
 DECISIVE.ASP what DECISIVE.ASP cut PRED.COMPL 2SG.POSS foot
 ‘Why is your foot cut?’ (Carroll 1965:33)
- b. (Ga) *hano* *na* *goe* *gi* *hee?*
 (ANTICIPATORY.ASP) *go* IRREALIS 2SG toward which
 ‘Where are you going?’ (Carroll 1965:34)

Finally, we turn to particles that associate with focus. Our predictions here are that particles expressing meanings like ‘only, just’ or ‘also’ will (i) associate adnominally with non-*go*-marked nominals (in addition to adverbial use, as in the VSO languages), and (ii) associate with non-initial constituents. We start with a focus-sensitive expression with an exclusive meaning of ‘only, just’: *dono hu* (Carroll 1965:35).²³

As expected, if clefts FOCUS-mark the initial NP, we find focus particles associating with *go*-marked NPs in clefts. This is the behavior of ‘only’ particles observed in the verb-initial languages, and shows here that *dono hu* ‘only’ in Nukuoro also associates with a focused constituent (in other words: is focus-sensitive).

²³ *Dono hu* is an idiom composed of *dono* ‘really’ and a particle *hu* ‘occasion when’ – see Carroll (1965:34-35).

(77) *Dono hu* ‘only’ associates with clefted, focused initial nominal

- Gai [go Vave]_{FOC,1} sogosogo dono hu₁ e manuu-a mouli.
 and go Vave alone dono hu GENL.TA V-TRANSITIVE live
 i. ‘Then [Vave]_{FOC,1} alone only₁ could live.’ (Carroll 1965:47)
 ii. unattested interpretation: * ‘Then Vave alone could only₁ [live]_{FOC,1}.’

However, we also find these particles associating with nominals that are not *go*-marked, in non-cleft constructions. This is consistent with the hypothesis that, once the link between initial predicates and focus is lost, through a shift to SVO order, focus-sensitive particles will no longer be purely adverbial, but also be able to associate with nominals that appear without a predicativizer like *go*. This is shown in the next example, which has two instances of *dono hu* ‘only.’ The first associates with an initial subject ‘they,’ and is thus an adnominal modifier; the second associates with the verb phrase ‘wandering,’ and is thus an adverbial modifier. Since this utterance contains two instances of *dono hu*, it also contains two foci, so is an example of a multiple focus sentence.

(78) *Dono hu* ‘only’ as an adnominal and as an adverbial modifier

- gai de la dono hu₁ [giladeu]_{FOC,1} goi dahedahe-a
 then SG.ART over.there dono hu 3.TRIAL still drift-TRANSITIVE
 [saele]_{FOC,2} dono hu₂ i de moana.
 wander dono hu at SG.ART open.sea
 ‘Only₁ [they]_{FOC,1} still drifted only₂ [wandering]_{FOC,2} on the open sea.’ (Carroll 1965:49)

The second *dono hu* ‘only’ in (78) also illustrates our first prediction, namely that the focus position and the clause-initial position have been divorced with the shift to SVO. The next example also illustrates *dono hu* ‘only’ associating with non-initial material (the nominalization ‘the rising of the sun’). Again, note that the more flexible association behavior of *dono hu* ‘only’ in Nukuoro is reflected in its wider syntactic distribution, away from the clause-initial position.

(79) *Dono hu* ‘only’ associating with a non-initial focus

- agai giladeu gu daumada dono hu₁ [ssoobo-nga o de laa]_{FOC,1}.
 and.then 3.TRIAL ASP stare dono hu rising POSS SG.ART sun
 i. ‘They stared only₁ [at the rising of the sun]_{FOC,1}.’ (Carroll 1965:48)²⁴
 ii. unattested interpretation: * ‘Only₁ [they]_{FOC,1} stared at the rising of the sun.’

The point is also illustrated with the focus-sensitive additive particle *hogi* ‘also,’ which here appears in sentence-final position, where it associates with the nominal ‘one (more) island’ for its semantic interpretation:

(80) *hogi* ‘also’ associating with a sentence-final nominal

- gai giladeu gu gidee [dahi henua ange]_{FOC,1} hogi₁.

²⁴ Carroll’s translation as well as the position of *dono hu* suggests that *dono hu* ‘only’ associates with the nominalization ‘the rising of the sun,’ and that is how we have marked this example. In the context, it also seems plausible that *dono hu* ‘only’ associates with the entire verb phrase ‘stared at the rising of the sun.’ In either case, *dono hu* is associating with non-initial material for its semantic interpretation.

- then 3.TRIAL DECISIVE.ASPECT see one island DISTAL²⁵ also
- i. ‘They saw [one more island]_{FOC,1} also₁.’ (Carroll 1965:39)
 - ii. unattested interpretation: *‘[They]_{FOC,1} also₁ saw one more island.’
 - iii. unattested interpretation: *‘They also₁ [saw]_{FOC,1} one more island.’

The data for focus-sensitive particles like *dono hu* ‘only, just’ and *hogi* ‘also’ is thus consistent with a general dissociation of focus from the initial position, and a shift to adnominal uses of focus-sensitive particles in addition to adverbial uses.

Nukuoro, in summary, also displays mixed properties in terms of changes or loss of **ko* structures, but, like Luangiua, is generally consistent with the hypothesis that the link between FOCUS and initial predicate position is lost with a shift to SVO order. Clefts, like in Luangiua, have been retained as a special focus construction that marks the clefted nominal as focused, and have retained initial *go*. However, in equatives, *go* appears before the second nominal, or not at all; and *go* does not appear to be used in topic marking. The effects on wh-forms are less pervasive: although only ‘who’ questions appear with *go*, a range of wh-expressions are still sentence-initial. Nevertheless, the retention of *go* in some wh-indefinites suggests that wh-words themselves have undergone some *go* loss. Finally, focus-sensitive-expressions like ‘only’ and ‘also’ show that they are able to associate with non-initial material and with in situ nominals that are not marked with *go*; in other words, these particles have both adnominal and adverbial uses, like English *only*.

5.4 Vaeakau-Taumako

Vaeakau-Taumako (formerly known as Pileni) is described by Clark (1994) as an SVO system, and Næss (2000:57) states that “The unmarked and by far most common word order for a transitive clause is SVO; this requires no additional marking on any of the two arguments.” In Vaeakau-Taumako, **ko* is realized as [ko] and glossed as TOP ‘topicalizing preposition’ by Næss and Hovdhaugen (2011).²⁶ As in the previous two SVO systems that we looked at, some structures retain **ko*, while it is not used in others. Interesting features in Vaeakau-Taumako include a clear division between specificational equatives (which retain *ko*) and predicational equatives (which do not); sentence-internal topics (which retain *ko*) versus left-hanging topics (which, perhaps unexpectedly, do not use *ko*); and the sometime use of *ko* with in situ nominals associating with *na*, a particle with an exclusive ‘only’ interpretation.

To begin, general remarks by Næss and Hovdhaugen (2011) about the use of *ko* in Vaeakau-Taumako are broadly consistent with our general positions, namely that **ko*-structures mark focus (informally, “contrast” or “emphasis” for them) and that the change to SVO word order results in loss of *ko* use.

The use of *ko* is considerably less frequent in Vaeakau-Taumako than is the case for its cognates in many other Polynesian languages (e.g. Samoan ‘o, Tokelauan *ko*, Tuvaluan *ko*), possibly because Polynesian languages tend to have verb-initial word order and use the form in question to mark a clause-initial noun phrase (e.g. Mosel and Hovdhaugen 1992: 464–471, Besnier 2000: 235). In Vaeakau-

²⁵ *ange* is a ‘directional’ particle expressing the concept ‘away from both speaker and hearer’ (Carroll 1965:13).

²⁶ Note that some of the Vaeakau-Taumako examples also contain an aspectual marker *ko* ‘INCP’ and a form of the 2sg pronoun *ko*, which are not to be confused with the *ko* ‘TOP’ that is of interest to us here.

(Næss and Hovdhaugen 2011:263)

(81) Ko a hinē no-i pepeo-ina mai a-iau?
TOP ART who IPFV-3S lie-TRANS DIR ART-1S
‘Who is this who is lying to me?’ (Næss 2000: 65)

(82) A taku tama na e ngata.
a t-a-ku tama na e ngata.
PERS SG.SP-POSS-1SG.POSS child DEM.2 SG.NSP snake
‘My son is a snake.’ (Næss and Hovdhaugen 2011:325)

(83) Na ko te alo ne-i tātai-a e gh-oku ve-tugane.
DEM TOP ART canoe PFV-3S carve-TRANS AG PL-1sPOSS uncle
'That is the canoe which my brothers made.' (Næss 2000: 48)

(85) A huaraine ko Heli.
a hua-taine ko Heli
PERS CAUS-girl TOP Heli
‘Her daughter was Heli.’ (Næss and Hovdhaugen 2011:325)

In some cases, both nominals in the equative can be marked with *ko*. It may be that the first one is marked as a contrastive topic (see below), or perhaps the double-*ko* structure represents an intermediate stage of equative structures, between initial **ko*-marking (Proto-Polynesian) and final **ko*-marking (some SVO systems).

- (86) Ko Kola ko te papā ne.
 ko Kola ko te papā ne.
 TOP Kola TOP SG.SP village.area DEM.1
 ‘This area is Kola.’ (Næss and Hovdhaugen 2011:265)

Moving on to topics, Vaeakau-Taumako appears to have undergone the change noted by Clark (1976) by which initial **ko*-marked topics are reinterpreted as subjects and lose their **ko*-marking. Thus, subjects appear without *ko*:

- (87) Unmarked initial subjects:
 a. Jesus e amunoa huakoakina khimatou.
 Jesus e amunoa hua-ako-akina khimatou
 Jesus GENR promise CAUS-learn-APPL 1PL.EXCL
 ‘Jesus promised to teach us.’ (Næss and Hovdhaugen 2011:336)
 b. Te mahila ko vahi.
 te mahila ko vahi
 SG.SP knife INCP break
 ‘The knife is broken.’ (Næss and Hovdhaugen 2011:311)

Nevertheless, there is a topicalizing *ko* which is retained to mark initial topics, which “is frequently found in narratives when there is a change in subject or topic” (Næss and Hovdhaugen 2011:264). Vaeakau-Taumako thus presents an elegant contrast to the three prior SVO languages that we have discussed, in which *ko* topics appear to have been lost altogether. Here, a type of topic marking does retain *ko*. In the context for (88), *He* and *the man from Pileni* refer to different individuals.

- (88) (*He went and entered the house, and then*)
 ko te tai tau Pileni la koi tukuange po
 ko te tai tau Pileni la ko-i taku-a ange po
 TOP SG.SP person of Pileni DEM.3 INCP-3SG say-TR go.along COMP
 ‘the man from Pileni said,’

In some cases, *ko*-nominals functioning as subjects can appear after the verb:

- (89) Lhatuko noho na, no anga loa i mouku na ko te matuana loa.
 lhatu=ko noho na no anga loa i mouku
 3PL=INCP stay DEM.2 IPFV work EMPH LDA bush
 na ko te matua a-na loa
 DEM.2 TOP SG.SP old.man POSS-3SG.POSS EMPH
 ‘They stayed, and the husband worked in the bush (but not the wife, as would be

expected).’ Næss and Hovdhaugen 2011:263)

While Næss and Hovdhaugen (2011:331) state that *ko*-topics are clause-internal, it is unclear whether they are subjects, or in a clause-internal topic position. In favour of the latter hypothesis, Næss and Hovdhaugen (2011:322) cite some (rare) data where *ko*-topics co-occur with subject pronouns. In the following example, topicalized *ko koe* ‘you’ is followed by the subject clitic pronoun *ko=*. This suggests that *ko* topics, even if clause-internal, are in a dedicated topic rather than a subject position.

- (90) *Ko koe koko noho*
ko koe ko=ko noho
TOP 2SG 2SG=INCP stay
‘You stay (and count the days).’ (Næss and Hovdhaugen 2011:322)
[possible translation based on their prior discussion of “double” subjects, ‘you there, you stay ...’]

In most cases, however, *ko*-topics appear to function as the subject of the clause as well, and this is a marked difference from the verb-initial / Proto-Polynesian systems, where **ko*-topics seem to be most amenable to a left-dislocated, clause-external analysis, since they are followed by the (always clause-initial) predicate. Vaeakau-Taumako **does** have a left-dislocated topic structure, which is in “a position outside the clause itself” but, strikingly, these are not marked by *ko* (rather, they are typically followed by a demonstrative (*na* below), and an overt pronominal coreferent in the following clause) (Næss and Hovdhaugen 2011:331-332). Utterances may contain both a left-dislocated topic (*a ia na* below) and a clause-internal topic (*ko ia* below):

- (91) *Tenggina a ia na ko ia e kiko bokneve,*
dekina a ia na ko ia e kiko bokneve
because PERS 3SG DEM.2 TOP 3SG GENR small completely
‘Because he was the smallest,’ (Næss and Hovdhaugen 2011:331)

Though left-dislocated topics are not marked with *ko*, they seem to have focus semantics. The translation of (92) ‘as for me, ...’ is consistent with the account in section 2.2 of contrastive topics and “frame setting” comma phrases as containing focus marking (Krifka 2007, Chafe 1976).

- (92) *A iau te tangata nei toa a iau na nga tela no tele la.*
a iau te tangata ne-i to-a a iau
PERS 1SG SG.SP man PFV-3SG take-TR PERS 1SG
na nga te-la no tele la
DEM.2 PRON.3 SG.SP-DEM.3 IPFV run DEM.3
‘As for me, the man who took me is that one walking there.’ (Næss and Hovdhaugen 2011:333)

We take this as evidence that the left-dislocated topic position has lost **ko* as part of the shift to SVO order (as triggered by the reinterpretation of **ko*-topics as subjects), but still retained

FOCUS semantics. In other words, the link between *ko* and FOCUS has been weakened, leading to a loss of *ko* in left-dislocated topics.

Nevertheless, *ko* has been retained to mark a clause-internal topic (perhaps an innovation in Vaeakau-Taumako), which raises the intriguing question as to whether both topic positions have FOCUS semantics (e.g. trigger a semantic object, alternatives). Certainly Næss and Hovdhaugen's description of *ko* topics as "frequently found in narratives when there is a change in subject or topic" (2011:264) suggests an alternative semantics. However, some *ko* topics do not clearly occur in contrastive contexts where we would expect FOCUS marking. In the example below, *ko ia* 'she' is a continuing topic from the previous sentence and it is not clear that the woman is being contrasted with other turtle-seers in the story context here, despite being marked with topicalizing *ko*. This may be an indication that *ko*-topic structures here have lost / are losing their FOCUS marking function, and taking on other information structure functions, though further research is needed.

(93) (A woman came down to wash her hands)

Ko ia koi kutea thai fonu ko tū ake

ko ia ko-i kute-a thai fonu ko tū ake
TOP 3SG INCP-3SG see-TR one turtle INCP stand go.up

'and she saw a turtle which had come ashore.' (Næss and Hovdhaugen 2011:476)

Next, we turn to wh-questions. Vaeakau-Taumako follows a familiar pattern: *ai* 'who' "is nearly always preceded by the topicalizing preposition *ko*" (Næss and Hovdhaugen 2011:403), and usually is clause-initial (94). However, in (95), it follows the initial demonstrative *tela*, but retains *ko*, a pattern that was not observed in the VSO systems, but also seen in Luangiua (65a):

(94) ko ai ne-i ghain-atu te higa ne?

TOP who PFV-3S make-DIR ART thing DEM

'Who did this to you?' (Næss 2000:65, ex. 197, from Michael 2)

(95) Tela ko ai?

te-la ko ai

SG.SP-DEM.3 TOP who

'Who is this?' (Næss and Hovdhaugen 2011:404)

Interestingly, there is another 'who' form that can take both *ko* and *a* (at odds with the account of *ko* as a preposition or case marker that is used when other pronominal markers are not required, e.g. Clark 1976, Massam et al. 2006):

(96) Ko a hinē nei huaoaoina iau?

ko a hinē ne-i huaoao-ina iau

TOP PERS who PFV-3SG cruel-TR 1SG

'Who was cruel to me?' (Næss and Hovdhaugen 2011:405)

Other wh-expressions do not take *ko* (some for clear morphosyntactic reasons, since they are verbs and do not require a predicativizer, e.g. *ā* 'what', *pehea* 'how, why', *huahea* 'how,' or adverbs like *ahea* 'when (future)', *anahea* 'when (past)', – Næss and Hovdhaugen 2011:402-

409).

Finally, we turn to focus-sensitive expressions. We expected that, with a shift to SVO order and the loss of a dedicated clause-initial and predication focus marking position, focus-sensitive particles would be able to associate adnominally (as well as adverbally), and be able to associate with non-initial positions. This is the case with the particle *hua*, which has the exclusive meaning ‘just,’ and is “found with both nouns and verbs” (Næss and Hovdhaugen 2011:273). In (97), it associates with the predicative nominal *ni ngata* ... ‘some snakes that live in my village,’ which is non-initial, preceded by the demonstrative subject *ne*.²⁷

(97) *hua* ‘just’ associates with a non-initial predicative nominal

Ne ni ngata hua loa ne kutu i kaenga oku.

ne [ni ngata hua₁ loa ne kutu i kaenga o-ku]_{FOC,1}
DEM.1 PL.SP snake just EMPH PFV stay.PL LDA village POSS-1SG.POSS

‘These are just₁ [some snakes that live in my village]_{FOC,1}.’ (Næss and Hovdhaugen 2011:273)

In the next example *hua* ‘just’ associates with the verb phrase ‘go (and kill him),’²⁸ again non-initially.

(98) *hua* ‘just’ associates with a non-initial verb phrase

Thatuka ō hua ala thatuko taia ala ia

thatu=ka ō hua ala thatu=ko ta-ia ala ia
1PL.INCL=FUT go.PL just HYP 1PL.INCL=INCP hit-TR HYP 3SG

‘Let’s just go and kill him.’ (Næss and Hovdhaugen 2011:274)

For examples of association with a non-predicative nominal, we turn to another particle, *na*. *Na* is used to give ‘only’ interpretations, described as “only X as opposed to other possibilities” (Næss and Hovdhaugen 2011:443).²⁹ In (99), it follows the verb and precedes the object nominal with which it associates semantically. Interestingly, this nominal is also *ko*-marked. This suggests that *na* was historically used adverbially, with predicative, initial *ko*-nominals (the pattern we saw in the VSO systems in section 4, e.g. Tokelauan *nā* in (33-34)). With the switch to SVO, *na* and *ko* both migrated away from the clause-initial position, to the in situ object position, to give an ‘only’ interpretation, now an adnominal use.

(99) *na* ‘only’ associates with a non-initial predicative nominal

ko ia nokoi usia na ko a tai no kaia.

²⁷ Demonstrative particles are phrase final (Næss and Hovdhaugen 2011:350), so we take the translation as accurately reflecting the structure of this sentence as an equative with a demonstrative subject.

²⁸ Because both conjuncts contain 1PL.INCL subjects *thaku*, the translation does not quite appear to accurately reflect the structure of this example, and we are unsure whether *hua* ‘just’ associates semantically with the verb phrases of both conjuncts, or perhaps just the first, ‘Let’s just₁ [go]_{FOC,1} and we’ll kill him.’ We therefore leave the association subscripts unmarked for this example.

²⁹ The particle *na* is glossed as DEM.2, but we use ‘only’ in the glosses for clarity here. The exclusive meaning may arise through its use in a construction, described thus: “*na* follows the verb in this use; one might say that *na* here restricts the predication of the verb to the subset of possible referents specified by the following noun phrase” (Næss and Hovdhaugen 2011:443). However, there appear to be uses giving rise to ‘only’ interpretations where *na* appears with a subject preceding the verb (e.g. see (101)).

ko ia noko-i usi-a na ko a tai no kaia
 TOP 3SG IPFV-3SG bite-TR only TOP COLL person IPFV steal
 ‘It (the dog) only bit people who came to steal.’ (Næss and Hovdhaugen 2011:443)

In some uses, only *na*, and not *ko*, appears. In the next example, *na* again follows the verb (here, *tao* ‘bake’) and precedes the object with which it associates semantically, *ni tae* ‘some shit,’ but without *ko*. This suggests that *ko* is being lost in the *na ko* ... ‘only’ construction, or perhaps more precisely, that *ko* was once used to mark focused in situ nominals at an intermediate stage, but is now being jettisoned for this purpose altogether.

- (100) Association of *na* with non-initial nominal
 (‘When the giant came to open his oven, the pork was gone,’)
 e tao na ni tae.
 e tao na₁ [ni tae]_{FOC,1}
 GENR bake only PL.NSP waste
 ‘and only₁ [some shit]_{FOC,1} had been baked.’ (Næss and Hovdhaugen 2011:444)

Finally, while Næss and Hovdhaugen state that, when used for an ‘only’ interpretation, *na* follows the verb (2011:443), it appears that in some cases, it may be associated with a nominal in subject position, preceding the predicate. In the next example, *na* associates with the initial subject pronoun *a koe* ‘you,’ and not with the *ko*-marked predicate of this equative structure. This is additional evidence that *na* can associate with in situ nominals, that are not in predicate position.

- (101) Association of *na* ‘only’ with initial subject nominal
 A koe na ke ko nohine oku.
 [a koe]_{FOC,1} na₁ kē ko nohine o-ku.
 PERS 2SG only really TOP wife POSS-1SG.POSS
 ‘Only₁ [you]_{FOC,1} are my wife.’ (Næss and Hovdhaugen 2011:188,265)

To summarize, the patterns of **ko*-structures observed in Vaeakau-Taumako again offer a divergence from the verb-initial Proto-Polynesian patterns observed in section 4. The patterns are generally consistent with a move of FOCUS away from the initial position, and away from a purely predicative realization. Unlike the other SVO systems, there is no obvious cleft construction – it is possible that clefts were reinterpreted as clause-internal topics or became indistinguishable from them, thus eroding. Turning to equatives, while *ko* is retained (usually) in specificational equatives, it has shifted away from initial position, and is not used at all in predicational equatives. Unlike the other SVO systems we have thus far observed, *ko* has been retained to mark clause-internal topics, but is not used for clause-external topics. In wh-forms, only ‘who’ appears with *ko*. Finally, association with focus particles show semantic association both with non-initial material and with in situ nominals, both *ko*-marked and not *ko*-marked.

5.5 Summary

Table 2 summarizes our findings in this section. While the patterns of **ko* marking in any individual language vary, by looking at several SVO systems we can see some consistent patterns that allow us to determine which FOCUS marking structures are most susceptible to **ko*

change or loss. Clefts are most resilient, while equatives shift their focus position to the second nominal (sometimes additionally losing *ko in the process). Despite the observed variability in wh-*ko-marking in VSO as well as SVO systems, ‘who’ wh-forms are perhaps surprisingly likely to retain *ko, even in SVO systems where *ko use erodes more generally. Finally, the behaviour of focus-sensitive expressions provides a strong diagnostic for the removal of focus from the initial predicate position in the shift from VSO to SVO.

[TABLE 2 GOES HERE]

5.6 Language Change

Language change from VSO to SVO systems has generally been taken as a combination of language-internal factors combined with the influence of language contact in the Outlier languages (e.g. Clark 1976, Clark 1994). As a language-internal factor, Clark (1976) proposes the reinterpretation of initial *ko-topics as subjects, which we suggested can lead to a more general loss of *ko in initial position and in focus structures altogether. The data throughout this section generally support this account. West Futunan represents the most extreme case, with *ko jettisoned altogether. The other SVO systems we examined present intermediate cases, in which *ko may be initially maintained to mark focused constituents and topics in SVO systems; we see evidence of this intermediate step in Luangiua, Nukuoro and Vaeakau-Taumako. For example, in Vaeakau-Taumako, *ko* is retained for a clause-internal topic structure, as well as for some non-initial, in situ nominals in a *na ko ...* ‘only’ construction. In addition, specificational equatives sometimes retain *ko* to mark the predicate nominal, though no longer in initial position. Finally, even an in situ wh-form *ai* ‘who’ can retain *ko*-marking.

We might speculate as to why *ko is then lost at all, and not simply retained as a marker of focus constructions in SVO systems.³⁰ To do this, let us link its spread in Proto-Polynesian, with its loss in SVO systems. Under our semantic account of *ko as marking focused nominals, its spread throughout various constructions in Proto-Polynesian was not due to a shared morphosyntax, but rather due to a shared function in marking a semantic feature of a construction: FOCUS. It seems that it was functionally useful to have the same phonological exponent, [ko], marking a range of nominals in constructions that all share a semantic feature, FOCUS, even though the morphosyntax of these constructions varies considerably.

By the same token, the eventual loss of *ko in focus constructions in SVO systems can be seen as due to a reduction in its functional usefulness as a marker of nominal focus. As initial *ko-topics are reinterpreted as subjects, with a resulting loss of *ko with topic marking (the general pattern noted by Clark 1976), then topics which contain FOCUS marking no longer appear with *ko. This reduces the usefulness of *ko as a general indicator of nominal focus constructions.

Next, with a shift to SVO, the link between the initial predicate position and focus is lost. Nominals appearing in situ (e.g. as objects of verbs) do not generally appear with *ko, likely because its morphosyntax as a predativizer in initial systems is incompatible with argument positions (e.g. objects of verbs). Nevertheless, with the severing of the focus and initial predicate position, focus can be marked on in situ nominals. The question is then, do these in situ focus-

³⁰ Thanks to an anonymous reviewer, as well as Michael Rochemont and Rose-Marie Dechaine, for raising this question.

marked nominals appear with *ko? Vaeakau-Taumako *na ko ...* ‘only’ constructions suggest that there may be a stage where focused in situ nominals are still marked by *ko (though it may just be in a special *na ko ...* construction). On the other hand, evidence in the remaining Outliers, as well as in Vaeakau-Taumako itself, suggests that eventually *ko-marking of in situ nominals is lost, probably due to morphosyntactic incompatibility. As focus is marked on in situ nominals that are not *ko-marked, the usefulness of *ko as a general indicator of focus on nominals is further reduced. Eventually, this may lead to a complete loss of *ko in focus structures, including clefts, as in West Futunan.

We have followed Clark (1976) in seeing initial *ko-topics as the internal factor driving a shift to SVO order. However, we might briefly speculate on another language-internal factor that led to the dissociation of focus and predicates from the initial position, and thus the VSO to SVO shift. This has to do with a use of *ko in VSO systems which we did not address in sections 2 or 4, namely to mark an in situ nominative NP. Clark (1976:45-46) notes several VSO systems where this is possible; he cites Churchward (1951) as remarking that this happens especially for nominatives late in the sentence (Samoan), while Chung reports that *ko on post-verbal nominatives in Maori serves to mark “emphasis” (Clark 1976:46), suggesting that focus-marking is possible in non-initial position. These structures may also have contributed pressure leading to the loss of focus and *ko in initial position in the SVO systems, and thus would represent another language-internal structure (in addition to *ko-topics) that contributed to the change to SVO word order. (102) presents an example from Tikopia, another Outlier that has shifted to SVO order.

- (102) *ko marks an in situ nominative NP *Tikopia*
 kau kaina fakaangafuru ko ou tae.
 I eat ten.times ko your excrement
 ‘I eat ten times your excrement.’ (Firth 1968:242, cited in Clark 1976:45)

A similar pressure in equatives may have led to the shift in *ko-marking from the first to the second NP in equative structures. Interestingly, some VSO languages have equative structures where *ko marks both nominals, possibly representing an intermediary step between *ko-initial equatives and *ko-final equatives. The following Tokelauan example has an equative ‘its star is Melemele,’ with both nominals marked with *ko* (the equative itself follows a *ko*-marked topic phrase ‘that month’; the relevant *ko* are shown in **bold**):

- (103) *ko* marks both nominals in an equative *Tokelauan*
 ko te māhina tēnā, **ko** tona fetū **ko** Melemele.
 TOP DET month DEM ko 3SG.POSS star PRED Melemele
 ‘That month (we were talking about), its star is Melemele.’ (Hooper 1993:229)

On the other hand, (103) may be explained as a sequence of two external topics, followed by an equative *ko Melemele* with a null subject. More research of these structures is needed to determine the nature of each *ko* constituent.

Finally, we saw that wh-forms show quite variable behaviour in regards to both appearance with *ko and appearance in initial position, with in situ forms quite common. This is true in both SVO as well as VSO systems. We suggested that this is evidence that *ko perhaps never fully transferred to wh-forms in Proto-Polynesian, or perhaps that wh-forms are the first

place where *ko marking gets eroded.

Because of this variation in the use of *ko in wh-questions in both V-initial and S-initial Polynesian languages, two anonymous reviewers wonder whether this weakens our claim about the relationship between *ko, focus and word order. We feel that looking at the wh-system as a whole is indeed a weak indicator of word-order related changes in the focus system. While this obviously means that we have one less reliable diagnostic to rely on, we rather see it as evidence that the relationship between a language's focus marking strategy and its wh-system is a weak one – in other words, the grammar of wh-structures is not necessarily a strong diagnostic for the more general grammar of focus marking in any given language.

However, it is worth taking a more detailed look at *ko with wh-forms. Looking at the system as a whole, since similar wh-patterns are observed in both V-initial and S-initial languages, general loss of *ko in the wh-system does not appear to be clearly tied to word order. Rather, because *ko appears with nominals, trivial factors such as many wh-forms being verbs or adverbs precludes their appearance with *ko. On the other hand, the fact that *ko appears with 'who' forms does suggest that the focus account is on the right track: subjects are, cross-linguistically, a marked focus position, as opposed to predicates, which are the unmarked position for focus (e.g. see Zimmermann to appear on a cognitive constraint on how language updates the Common Ground). This is stated in the following proposed universal:

(104) All languages can mark focus on subject terms. (Skopeteas and Fanselow 2010)

The universal follows from the observation that subjects are typically unfocused, and therefore, when focused, require formal grammatical marking to identify them as such. Thus, we expect focused subjects to have some overt marking; to the extent that 'who' forms are usually tied to subject position, this is precisely where we consistently find *ko-marking in Polynesian wh-systems. If we restrict our investigation to 'who' forms in the SVO systems which we investigated, we find that *ko is not used with West Futunan 'who,' and though "nearly always" used with 'who' in Vaeakau-Taumako (Næss and Hovdhaugen 2011:403), it evidently is sometimes absent with 'who' in Vaeakau-Taumako as well. Thus, loss of *ko with 'who' forms may still be a good diagnostic for focus-related changes that arise due to a switch to SVO order.

6. Conclusion

The data presented above illustrates the point that morphosyntax directly reflects an important information structure category, namely FOCUS. In Proto-Polynesian and the synchronic verb-initial systems, this is achieved through making the initial predicate position also the focus position (initial *ko topics may precede the initial predicate position, but also include a focus-marking under our account). Since *ko structures mark an information structure category, and are remarkably consistent in the VSO languages, we suggest that there is a cognitive motivation for language stability in terms of maintaining a consistent information structure marking (in the Polynesian case, that focus and initial predicate position coincide) (e.g. Custis 2004 on Tongan). It is functionally useful to maintain this isomorphic link between initial position and focus position: the subject/predicate structure is widely used for topic/comment in human language, so predicates appear to have a natural alignment with focus (Krifka 2007, Zimmermann to appear); this alignment may be grounded in asymmetric bimanual coordination (which Krifka 2008 argues shows similarities to asymmetric topic/comment structuring). From this perspective, in

the verb-initial Polynesian systems, we may think of these general cognitive considerations as manifested through grammaticalization of a PREDICATE = FOCUS constraint; *ko nominals in clefts and equatives are indicative of this constraint. *ko marking is also extended to focused topics (since these coexist with predicates, they do not override the PREDICATE = FOCUS constraint).

At the same time, there is also a cognitive motivation for language change: once a language has shifted to SVO, the initial position is no longer primarily linked to FOCUS: subjects are typically backgrounded, non-focused information. Therefore, the information structure motivation for language stability no longer applies: the natural alignment of predicates and focus is no longer grammaticalized. It happens to be in these cases that we find widespread changes in *ko structures, as *ko moves away from initial position and may disappear altogether as its usefulness as a general marker of nominal focus is reduced.

This state of affairs leads to remarkable consistency across space and time in the verb-initial Polynesian languages, and change in SVO systems. If we observe *ko structures across the Polynesian family, we find that in the verb-initial languages *ko is fairly consistent in its use in marking focus. However, as illustrated in section 5, once initial NPs are reinterpreted as subjects (resulting in the shift to SVO word order in many of the Outliers), the link to FOCUS is lost. This leads to a series of consequences: focus-related structures may lose *ko, focus may be expressed in non-initial positions, and focus-sensitive expressions take on adnominal as well as adverbial syntax. However, it seems that not all areas of the grammar are equally affected.

Our modest survey suggests that cleft structures and fronted ‘who’ questions are more likely to retain *ko. On the other hand, equatives see a shift of *ko to the second nominal, and eventual loss altogether, while topics (as first noted by Clark 1976) are also subject to loss of *ko. Finally, focus-sensitive expressions like ‘only/just’ undergo an expansion of behaviour, and are able to semantically associate with non-initial constituents and in situ nominals for their semantic interpretation – in other words, they shift from purely initial, purely adverbial use, to adnominal use as well. This is strong evidence that FOCUS is no longer expressed just in the initial or predicate position in the SVO systems.

This paper has addressed some of the aspects surrounding the morpheme *ko in Polynesian languages. We have argued that *ko is related to a formal syntactic-semantic feature tied to information structure: FOCUS, which triggers the semantic object of discourse alternatives. Adopting this idea allows for a set of predictions to be made about the word order possibilities in both verb-initial and subject-initial Polynesian languages, which in turn has implications for the diachronic changes that have led to these word order differences. We hope that these diagnostics will in the future contribute to a more systematic investigation of further Polynesian languages, and more broadly, other verb-initial systems, including the documentation of new data based on the unified set of predictions made in section 2.

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Table 1: What happens to *ko in SVO languages?

Language:	VSO / Proto-Polynesian	West Futunan	Luangiua	Nukuoro	Vaeakau-Taumako
*ko retained?					
clefts	✓	?	?	?	?
equatives	✓	?	?	?	?
topics	✓	?	?	?	?
wh-words					
*ko retained?	variable (mainly ‘who’)	?	?	?	?
initial position	variable	?	?	?	?
assoc. w. focus					
strictly adverbial	✓	?	?	?	?
strictly initial	✓	?	?	?	?

Table 2: *ko erosion in four SVO languages

Language:	VSO / Proto-Polynesian	West Futunan	Luangiua	Nukuoro	Vaeakau-Taumako
*ko retained?					
clefts	✓	*	✓	✓	?
equatives	✓	*	*/2nd nominal	*/2nd nominal	*/2nd nominal ³¹
topics	✓	*	*	*	✓ (internal)
wh-words					
*ko retained?	variable (mainly 'who')	*	'who'	'who, whoever, wherever'	'who'
initial position	variable	variable	mainly non-initial	variable	variable
assoc. w. focus					
strictly	✓	*	*	*	*
adverbial					
strictly initial	✓	*	*	*	*

³¹ The Vaeakau-Taumako pattern is one where *ko* is used for specificational equatives only (though not always), while predicational equatives do not use *ko*. Although we would need more data to confirm, the Luangiua and Nukuoro patterns are generally consistent with this, except that specificational equatives can appear both with or without *ko, while in Vaeakau-Taumako specificational equatives appear to dominantly use *ko*. (Næss and Hovdhaugen (2011:325) describe them as “generally marked with the topicalizing preposition *ko*”). The Proto-Polynesian pattern, in contrast, seems to be optional use of *ko* with predicational equatives, and obligatory use with specificational equatives (Clark 1976).