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Foreword

This monograph contains a number of the talks given at the 41st Annual Meeting of the Berkeley Linguistics Society, held in Berkeley, California, February 7-8, 2015. The conference included a General Session and the Special Session *Fieldwork Methodology*. The 41st Annual Meeting was planned and run by the second-year graduate students of the Department of Linguistics at the University of California, Berkeley: Kenny Baclawski, Anna Jurgensen, Spencer Lamoureux, Hannah Sande, and Alison Zerbe.

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The BLS 41 Executive Committee
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The Imperative Split and the Origin of Switch-Reference Markers in Nungon

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1 Introduction

The origins of switch-reference markers vary widely (Austin 1981, Haiman and Munro 1983, Haiman 1983, Jacobsen 1983, Li 1989, Roberts 1997, Fedden 2008).[2] This paper explores the origins of switch-reference markers and of the imperative inflections in the Papuan language Nungon. Nungon is among those Papuan languages in which the subject-indexing suffixes used in different-subject contexts on 'medial verbs' differ formally from the subject-indexing suffixes of 'final verbs'. While Haiman (1983:107) wrote that this distinction "is clearly an area which cries out for investigation", the historical origins of this type of switch-reference marking have not yet been surveyed in detail.

Nungon has two dedicated imperative inflections: Immediate and Delayed. Both imperatives inflect for all persons, including the 'non-canonical' (Aikhenvald 2010:3) first and third persons. The two paradigms are highly divergent morphologically. The Nungon Immediate Imperative paradigm is postulated to share an origin with the different-subject switch-reference markers, while the Delayed Imperative paradigm is shown to have originated through iconic vowel alteration of a Future Irrealis form, along the "intention, future, and prediction" imperative development pathway of Aikhenvald (2010:363). By describing these forms in Nungon, this paper is a first step toward Haiman's call for broader investigation of the divergent subject desinence forms phenomenon. Further, the shared origin of switch-reference and Immediate Imperative forms would seem to point to the archaism of switch-reference forms, contra general assumptions that switch-reference systems develop from non-switch-reference systems.

2 The Nungon Language

The Papuan language Nungon is spoken by about 1,000 people in the highest inhabited reaches of the Uruwa River valley on the Huon Peninsula, Papua New Guinea. Nungon is an umbrella

[1] Foremost thanks to my Nungon teachers: Irising Ögate, Rosarin Ögate, David Ögate, Fooyu, Hesienare, Gosing, Oreng, Reringgi, Nongi, Joshua Nimoniyöng, Jio, Manggirai, and their families. This paper stems from a total of nine months of monolingual fieldwork based in Towet village, supported by multiple grants from James Cook University and the Firebird Foundation. Thanks to Alexandra Aikhenvald, and to the audience at BLS41, for comments and questions. All analyses offered here are my own.

[2] Abbreviations used: 1sg, 2du, etc. - person and number A - transitive subject BEN - benefactive DEP - dependent verb DS - different subject FOC – focus GEN - genitive LOC – locative LONE - lone MV - medial verb NEG – negator NF - Near Future tense NP - Near Past tense nsg - non-singular O – object pl – plural PRES - Present tense PRO - personal pronoun POSS - possessive RF - Remote Future RP - Remote Past RSTR - restrictive S - intransitive subject SS - same subject sg - singular

designation encompassing five separate dialects (Sarvasy 2013b, 2014c); that of Towet village will be used throughout this paper, unless otherwise noted. The five Nungon dialects form the southern portion of a dialect continuum within the Uruwa River valley; the northern, lower-elevation, dialects are collectively referred to as Yau.[3]

Nungon belongs to the Uruwa language family (McElhanon 1967, 1973) within the Finisterre-Huon language group, the largest language group within the putative Trans-New Guinea Phylum. Historical-comparative work on Finisterre-Huon languages is in its infancy (McElhanon 1973, Suter 2012, Sarvasy 2013c, 2014a), but McElhanon (1967, 1973) and Claassen and McElhanon (1970) described two major language clusters: the Finisterre group, under which the Uruwa family is classed, and the Huon group, which includes the Finisterre-Huon language best-known to linguists, Kâte.

Like many Papuan languages (Roberts 1997) and all known Finisterre-Huon languages (McElhanon 1973), Nungon features clause-chaining, with switch-reference marked on medial verbs within clause chains. Clause-chaining occurs primarily in discourse describing consecutive series of actions or events; as in the Papuan language Korafe (Farr 1999), other types of Nungon discourse may feature simple sentence coordination instead of clause chains.

3 Clause Chaining in Nungon and Other Papuan Languages

Most Papuan languages combine clauses in multiple ways: subordination, coordination, and clause chaining. A prototypical Papuan clause chain comprises one or more 'medial' clauses with verbal predicates bearing less-than-maximal inflection, capped off by a single 'final' clause with maximally-inflected verbal predicate. This fully-inflected verbal predicate is generally marked for tense/aspect or mood and subject person/number. The verb forms used in medial clauses are traditionally called medial verbs, and those used in final clauses are called final verbs.

As summarized in Sarvasy (2015a), clause chains have been referred to with linear metaphors by linguists: medial clauses have been described as "beads on a necklace" (Foley 1986:177), and as train cars pulled by a final clause locomotive (Longacre 1985:264). Clause chains may contain as many as twenty or more medial clauses before the final clause (McCarthy 1965:66, Spaulding and Spaulding 1994:197). Non-canonical clause chains (Sarvasy 2015a) may lack a final clause altogether, or include a medial clause postposed after the final clause.

In most clause-chaining Papuan languages (Roberts 1997), medial verbs are marked for switch-reference (Jacobsen 1967, Haiman and Munro 1983).

[3] The Summer Institute of Linguistics teams posted in the Uruwa River valley in the 1980s-1990s (Carol and Doug Lauver, then Johanna and Urs Wegmann) worked on Yau. The Wegmanns (1994:13) wrote that they had selected Yau as the Uruwa River valley equivalent to High German in Switzerland—to be the written dialect. Thus, Yau (<yuw>) is the name that was eventually given to the Uruwa River valley dialect continuum by Ethnologue.

3.1 Switch-Reference

In Papuan switch-reference systems (surveyed in greatest detail in Roberts 1997), the 'marked' clause precedes the 'controller' clause (terms from Comrie 1983). 'Marked' clauses are formally marked—either with unchanging morphemes or with morphemes that index the marked clause subject—according to whether the referent of their subject argument is the same as that of the following, 'controller', clause.

Modes of marking same-subject (SS) and different-subject (DS) vary greatly among Papuan languages (Roberts 1997:136). In Roberts's survey of 122 Papuan languages that mark an SS/DS distinction, 20 use special non-final subject-indexing suffixes for DS and either no marking or an unchanging morpheme for SS.[4] This is the type of marking evident in Nungon, as seen in Table 1.

Among non-final verb forms, Nungon marks a difference between Dependent verbs, which function as non-ultimate members of tight multi-verb constructions (Sarvasy 2014c), and Medial verbs, which function as predicates in medial clauses. Nungon Medial verbs may be understood to comprise Dependent verb forms plus a suffix *-a* (exception: 2/3du DS). Medial and Dependent verbs in Nungon are unmarked for tense or mood, although they can convey progressive aspect via periphrasis.

Table 1: Same-subject and different-subject suffixes

marked clause subject person/number		Dependent verb in tight multi-verb construction		Medial verb in medial clause	
		V-final roots	C-final roots	V-final roots	C-final roots
same-subject		*-ng*[5]	—	*-ng-a*	*-a*
different-subject	1sg	*-wa*	*-e*	*-wa-ya*	*-e-ya*
	2sg	*-i*		*-i-ya*	
	3sg	*-un*		*-un-a*	
	1du	*-ra*		*-ra-ya*	
	2/3du	*-un*		*-un-ya*	
	1pl	*-na*		*-na-ya*	
	2/3pl	*-u*		*-u-ya*	

The Nungon clause chain in (1) comes from a narrative describing a hunting expedition to amass game for a bride price ceremony. Here, a sequence of events is described in a series of medial clauses, all marked for SS.

[4] Roberts (1997) included the Uruwa dialect Yau in this count.

[5] In Sarvasy (2014c), the suffix *-ng* (phonetically, [ŋ]) is not analyzed as a dedicated same-subject marker. Instead, *-ng* is analyzed as the default consonantal coda added to the Dependent forms of vowel-final verb roots in the absence of subject person/number indexation. Here, these Dependent forms, and their consonant-final counterparts that lack *-ng*, are glossed as same-subject for ease of comparison with other languages.

1) Doo-ng-a, e-ng-a, keembot-no dombisum
3PL.O.beat-SS-MV come-SS-MV tomorrow-3SG.POSS morning

ho-ng giyo-ng-a, omör-o eet-no,
cook-SS sear-SS-MV intestine-3SG.POSS leg-3SG.POSS

omör-o nungon der-a, ambarak yoo-ng,
intestine-3SG.POSS what pick.SS-MV all 3PL.O.take-SS

kambot-no ganang=gon eet=dup to-ng-a,
bamboo.sp-3SG.POSS inside=RESTR insert.SS=COMPL do-SS-MV

e-ng-a, Yomong duo-go-mong.
come-SS-MV Yomong sleep-RP-1PL

'Killing them, coming, the next day (in the) morning cooking and searing (them), picking out the intestines, the legs, the intestines and what-all, taking everything and just inserting it completely into its *kambot* flask, coming, we slept at Yomong.' (Yinyiwen oe min 2:48-3:03)

The Nungon clause chain in (2) is much shorter. Here, the Medial verb bears DS marking. Note also that this medial clause includes a speech report, framed as a final clause.

2) 'Nok ma=ng-i-t' y-un-a, urop,
1SG.PRO NEG=go-IRR.SG-1SG say-DS.3SG-MV enough

nori=nang=gon ongo-go-mok.
1DU.EMPH.PRO=LONE=RESTR go-RP-1DU

'She$_i$ having said "I$_i$ won't go," then just we$_{j,k}$ two alone went.' (Rosarin Yupna hain 3:41)

4 Nungon Final Verb Morphology

The verbal predicate of the final clause in a canonical Papuan clause chain is fully-inflected for tense or mood and subject person/number. As noted above, the subject-indexing suffixes used with DS medial verbs differ from those used with final verbs in a sizable minority of Papuan languages (Haiman 1983, Roberts 1997). A final verb is the typical predicate of a minimal Nungon sentence (excluding verbless clauses). Arguments are optionally explicit.

3) Ep-pa-t.
come-PRES.SG-1SG
'I (have) come.'/'I am coming.'

4) Net-di-morok-ma.
1SG.OBJ.beat-IRR.DU-2/3DU-RF
'You/they two will beat me.'

Medial clauses are likewise frequently uttered in isolation, outside of clause chains (Sarvasy 2015a). In these instances, however, they serve as imperative strategies (Aikhenvald 2010:7) or as appended afterthoughts to clause chains, or are understood as elliptical. If spoken in isolation, example (5) could function as either an imperative strategy or as elliptical speech, implying some further action or event. Intonation and context would help the addressee(s) interpret its function:

5) Ne-un-ya.
1SG.OBJ.beat-DS.2/3DU-MV
'(You two,) beat me!' or 'You/they two having beaten me…'

4.1 Final verb inflectional suffixes

As noted above, Nungon final verbs are inflected for tense or mood and subject person/number.[6] Nungon has five distinct tenses: Remote Past (yesterday and before), Near Past (yesterday through earlier today), Present (in the past few hours, with current relevance; right now; and gnomic present), Near Future (between now and the end of the day), and Remote Future (tomorrow and beyond). The Near Future tense also functions to describe general time (see Sarvasy 2015b for parallels in the Bantu language Logoori). Two tense distinctions—between Near Past and Present, and between Near Future and Remote Future—are neutralized under negation.

Nungon final verbs may inflect for two categories of imperative mood: Immediate and Delayed. The Nungon Immediate Imperative is characterized by no tense marking and a distinct set of subject person/number suffixes, while the Delayed Imperative features tense marking similar to that of the Remote Future, and a distinct set of person/number suffixes only for second person.

The suffixes that index subject person/number on Nungon final verbs, and on DS Dependent/Medial verbs, may be divided into two morphological sets: those which occur after a tense suffix and those which occur in the absence of a tense suffix.

Set 1 follow the tense suffix on final verbs. These apply to verbs inflected for all five tenses, the Future Irrealis, and the Delayed Imperative.

Set 2 follow the verb root directly on verbs that lack tense suffixes. These apply to final verbs inflected for the Immediate Imperative and the Counterfactual, and to DS non-final verbs.

[6] As described in Sarvasy (2014b, c), a closed class of transitive verbs obligatorily bear prefixes indexing the person/number of the O argument. These are verbs that may be considered to prototypically take human, or at least animate, O arguments.

Table 2: Nungon subject person/number suffixes

	follow tense suffix			**follow verb root (no tense marker)**	
	set 1a	**set 1b**: RF, IRREALIS	**set 1c**: DEL IMP	**set 2a**: IMM IMP, CONTR[7]	**set 2b:** DS
1sg	*-t*	*-t*	*-t*	*-wa/-e*	*-wa/-e*
2sg	*-rok*	*-rok*	*-rök*	*-i*	*-i*
3sg	*-k*	*-k*	*-k*	*-un*	*-un*
1du	*-mok*	*-n*	*-n*	*-ra*	*-ra*
2/3du	*-morok*	*-morok*	*-morök*	*-run*	*-un*
1pl	*-mong*	*-n*	*-n*	*-na*	*-na*
2/3pl	*-ng*	*-ng*	*-ng*	*-rut*	*-u*

Table 2 shows that the Immediate and Delayed Imperatives employ different subject suffix sets, with the Immediate Imperative suffixes formally similar to the subject-indexing DS markers used on Dependent and Medial verbs. Why should the two apparent types of imperative mood marking be formally divided in this way, and what do Immediate Imperatives have in common with non-final verb forms, and with Counterfactuals?

Neither set of subject suffixes appears to be formally related to the free personal pronouns, listed in Table 3. Thus, historical cliticization of free contrastive pronouns, per Givón (1983:78) on anticipatory switch-reference marking, is unlikely to be the source of either set of subject suffixes. The historical source of either set of suffixes is unknown.

Table 3: Nungon free pronouns

	sg.	du.	pl.
1	*nok, naga*[8]	*non, nori*	*non, noni*
2	*gok, gaga*	*hon, hori*	*hon, honi*
3	*yu, ino*	*yu, yori*	*yu, yoni*

5 Historical Development of Set 2 Subject Person/Number Suffixes

The morphological similarities between Nungon Sets 2a and 2b in Table 2 are claimed to evince a historical connection between non-final verb forms and the Immediate Imperative and Counterfactual final verb forms. As yet, the detailed of this connection are murky. Original imperative forms could have come to be used in contexts of syntactic dependence or pragmatic

[7] The Counterfactual form comprises the Immediate Imperative form plus a final suffix *-m* after the vowel-final Immediate Imperative forms (1sg, 2sg, 1du, 1pl).

[8] The second entry in each cell is the 'emphatic' form, used reflexively or contrastively.

presupposition like clause chains. Alternatively, original non-final verb forms could have first been used occasionally as imperative strategies, then developed into dedicated Immediate Imperative forms, followed by Counterfactual forms. The development pathway from imperative strategy to dedicated imperative form is documented for other languages in Aikhenvald (2010:342-346). Alternatively, all three paradigms that use Set 2 suffixes could have evolved from a single tense-less form (as proposed for Indo-European by Kiparsky 1968).

5.1 Origins of Switch-Reference Markers Across Languages

Cross-linguistically, the sources for both switch-reference markers and imperative forms are highly heterogeneous. Switch-reference systems are largely assumed to be non-archaic, while imperative forms may preserve archaisms.

Switch-reference markers have been hypothesized to arise from a variety of sources across languages (Austin 1981, Haiman and Munro 1983, Haiman 1983, Jacobsen 1983, Li 1989, Aikhenvald 2008:Fedden 2008). Here, there is a necessary divide between switch-reference markers that are unchanging morphemes, as found in many North American languages (Jacobsen 1983) and some Papuan languages, and switch-reference markers that also index marked clause subject person/number, as in Nungon and many other Papuan languages. (A significant number of Papuan languages have been analyzed to combine these two types of markers: medial verbs may bear both special non-final subject-referencing suffixes and unchanging switch-reference morphemes.)

Switch-reference markers with unchanging form have been postulated to evolve from a diverse array of sources, including: case markers, especially the locative (Austin 1981 and other sources in Aikhenvald 2008:572-580), deictics, "subordinating particles" (Haiman and Munro 1983: xiii-xiv), or conjunctions (Haiman 1983:110). Li (1989) also describes the development of switch-reference marking in Green Hmong from contrastive coordinators. (As an isolating language with verb-medial constituent order, Green Hmong is unusual among switch-reference-marking languages.)

Languages in which switch-reference marking involves marked clause subject indexing show a further divide: the morphemes used to index medial clause subjects may be either formally identical to those used to index final clause subjects, as in Mian (Fedden 2008), or different from these—as in Nungon, and a sizable minority of Papuan languages in Roberts's survey (1997). Haiman (1983:107) summarizes this second possibility with the notation:

Final verb = Verb + person
Medial verb = Verb + PERSON

The origin of the PERSON desinences—the medial verb subject-indexing morphemes that differ from those used with final verbs—has not been well-explored for most Papuan languages which feature them.

Implicit in most discussions of switch-reference marker origins is the notion that switch-reference marking is not archaic; switch-reference markers are described as developing from other grammatical and lexical elements. Thus, final verb subject desinences are implicitly assumed to be more archaic than medial verb switch-reference marking in Papuan languages.

In contrast, imperative forms are known to often serve as windows into language history, showing high degrees of archaism (Aikhenvald 2010:362).

5.2 The Two Sets in Related Papuan Languages

Of Papuan languages related to Nungon, most have DS subject-indexing suffixes that closely resemble the Immediate Imperative suffixes and those used with the Counterfactual inflection. A sampling is in Table 4. In most of these languages, the Counterfactual comprises the Immediate Imperative form with an additional nasal suffix after vowel-final forms, as in Nungon.

Table 4: Subject person/number suffixes in selected Finisterre Papuan languages[9]

	Irumu	Awara	Nukna[10]	Yau	Nungon	Yopno	Nek
Remote Future		set 1a	set 1a	set 1a	set 1b	set 1a	set 1b
Future Irrealis			set 1a	set 1b	set 1b		set 1b
Immediate Imperative	set 2b	set 2b	set 1b	set 2a	set 2a	set 2b	set 2b
Counterfactual	set 2b	set 2b	set 2b	set 2a	set 2a	set 2b	set 2b
Delayed Imperative	unique	set 1b	set 1a	set 1c	set 1c		set 1b
Different-Subject	set 2b	set 2b	set 2b	set 2b	set 2b	set 2b	set 2b

These parallels show that the formal association between final Immediate Imperative and Counterfactual verb forms and non-final DS forms is not limited to Nungon. It is also evident in at least a few languages of the Huon branch of the Finisterre-Huon group, such as Kube (McElhanon 1973:27-28, 62).

5.3 The Connection Between Medial Verbs and Immediate Imperatives

Either Finisterre Papuan switch-reference markers evolved from imperatives, imperatives evolved from switch-reference markers, or they both evolved from a single archaic tense-less form. All of

[9] Sources: Ross Webb (p.c.) on Irumu; Quigley 2014 on Awara; Taylor 2013 on Nukna; Lauver and Wegmann 1991 on Yau, McElhanon 1973 on Yopno; Linnasalo 2014 on Nek.

[10] What Taylor (2013:39-40) describes as the Nukna "Imperative" suffixes are cognate with the Future Irrealis markers in Nungon, except for the Nukna 2sg Imperative. Indeed, in Nukna, Nek, and another related language, Ma Manda (Pennington 2014), the 2sg Immediate Imperative form is identical to the SS dependent form. This likely represents a former imperative strategy—use of the SS dependent form to command—becoming the preferred dedicated imperative form.

these are real possibilities. In many languages, imperative forms can be used for purposes other than to command, in suppositions, concessions, greetings and farewells, attention-getters, questions, and statements, among others (Aikhenvald 2010:234-255). If the Finisterre Set 2 suffixes originated as dedicated imperative markers, these imperative forms could have gained secondary functions in clause chains and counterfactual statements. There is also language-internal and cross-linguistic support for the notion that the Set 2 suffixes originated as dependent, non-final, verb forms, which were sometimes employed as commands. Today, Nungon Dependent and Medial verbs may be used as imperative strategies, as in one possible translation of example (5); this is documented for other Papuan languages in Sarvasy (2015a). De-subordinated verb forms used as imperative strategies have been described for numerous other languages as well (Evans 2007, Aikhenvald 2010:274-280).

The use of an imperative form as the basis for a counterfactual form is less well-documented outside of Finisterre. Since the Finisterre Counterfactual also uses Set 2 suffixes, this could weight the analysis here toward the third option, evolution from a single tense-less form: there are three relatively-unrelated present-day reflexes with common morphology. The problem with this is evident in Tables 2 and 3. In both Nungon and Yau, the Immediate Imperative and Counterfactual are closer to each other in form (employing Set 2a suffixes) than to the non-final verb forms (which employ Set 2b suffixes). These languages make it appear that the Counterfactual developed directly from the Immediate Imperative. Since there is no evidence for this in the other languages (in fact, Nukna could indicate the opposite, with a tighter morphological link between the Counterfactual and DS markers than the Imperative), the possibility of an original tense-less form with multiple applications will be pursued further here.

The generalization can be made that non-final verbs in Nungon and most other Finisterre languages are unmarked for tense; all final verbs are marked for tense except Immediate Imperatives and Counterfactuals. It makes eminent sense for the same subject-indexing suffixes used with tense-less final verbs to occur with non-final verbs.

Kiparsky (1968, 2005) describes the original Indo-European Injunctive as a parallel case: a form both unmarked and unspecified for tense and mood functioned in discourse contexts, such as clause coordination, where tense and mood were recoverable from other verbs or from context.[11] Kiparsky hypothesizes that the loss of this under-specified form accompanied the historical process of enrichment of verbal inflectional categories, and that in an intermediate stage the tense-specified Present form took over the original functions of the Injunctive (1968:38).

For Nungon and its relatives, it is as yet impossible to show which of the two subject desinence sets—Set 1, which occurs after tense marking, and Set 2, which occurs in the absence of tense marking—is older. The presence of both sets in all Finisterre languages described to date shows that both are relatively archaic. It is likely that the proto-language had a reduced system of tense markers that preceded Set 1, and a single tense-less form that took Set 2 and functioned in commands, clause chains, and counterfactual contexts. In languages with minor formal differences between Set 2a and 2b, it appears that the longer of the Set 2 forms eventually became formally

[11] Thanks to Andrew Garrett for pointing out this connection.

reduced in its function in clause chains, maintaining the longer form for commands and counterfactuals. It is possible that the historical source of the final *-m* in Nungon Counterfactual forms is the subordinator *=ma* (Sarvasy 2013a, and see Reesink 2014 on functions of its counterpart *-eng* in Usan). These changes are summarized in Figure 1.

Figure 1: Hypothesized development of Finisterre Set 2 subject suffixes

Proto-language		Changes		Daughter languages
a single tense-less form used for commanding, as non-final member of multi-verb constructions, and in counterfactual contexts	→	▪ (differentiation of Immediate Imperative and DS paradigms) ▪ development of Counterfactual inflection through reduction of contrastive marker (in Nungon, *=*ma*) into suffixed nasal (in Nungon, *-m*)	→	Immediate Imperative, DS markers, and Counterfactual

Kiparsky (2005:219) calls the Indo-European Injunctive, as evident in Vedic, "chameleon-like" for its compatibility with various moods and tenses. The proto-Finisterre tense-less form with Set 2 subject suffixes would have been similar. This form would have functioned to command in the appropriate context, taken its tense from another verb in a clause chain, or indicated an unrealized situation when followed by the nasal-initial contrastive subordinating clitic (*=ma* in modern Nungon).

In Nungon and similar Papuan languages, non-final verbs bear subject indexation only when the subject of the marked clause differs from the anticipated subject of the following, controlling clause. When the subjects of the two clauses are anticipated to be co-referential, the medial verb of the marked clause bears no subject indexation. Haiman (1983) interpreted this as a process of gapping across coordinated clauses, and it may be more broadly understood as a matter of information structure. Since the focus here is on the historical development of the two different sets of subject indexers, the reasons for the presence or absence of subject indexation on non-final clauses will not be discussed further.

6 Origin of the Nungon Delayed Imperative

The Nungon Delayed Imperative formally resembles the Remote Future and Future Irrealis inflections, rather than the Immediate Imperative. It is postulated here to have developed relatively recently from the Future Irrealis form—itself the recent source for the Remote Future inflection—through iconic vowel alteration of the Set 1 subject desinence in the canonical imperative persons. Although little is known about the origins of delayed imperative forms across languages, Aikhenvald (2010:376) notes that the Tariana delayed imperative marker is cognate with future markers in two related languages. Similarly, some Finisterre Papuan languages lack a

formally-distinct delayed imperative form, employing a future tense form in the contexts in which Nungon speakers would use the Delayed Imperative. It is also unsurprising that a future irrealis form might develop into a delayed imperative; cross-linguistically, irrealis forms used as imperative strategies may be used in similar discourse contexts to delayed imperatives, such as situations requiring politeness (Aikhenvald 2010:143-144 mentions Jamul Tiipay, Tsakhur, and rGyalrong, while Roberts 1990:384 discusses non-Finisterre-Huon Papuan languages).

6.1 Functions of the Immediate and Delayed Imperatives

The Immediate and Delayed Imperative are both used in directive speech acts, with the Immediate Imperative used for commands needing immediate results and the Delayed Imperative used for commands to be actualized in the future and/or in another location.

The command in (6) was directed at me to play a recorded narrative back on my netbook immediately, for the speaker to hear right then. Here, the Immediate Imperative form is used:

6) Hi-wi-ya, orom hi-wa.
put-DS.2SG-MV know put-IMM.IMP.1SG
'Put it on, that I may hear.' [Literally: 'you putting it, let me hear.']

The command in (7), however, directs me to take a recording to Australia for people to listen to it there, one month later. Here, the Delayed Imperative form is used.

7) Hana, worok ku-i-ya orom hi-nung.
Hannah that SG.OBJ.take.away-DS.2SG-MV know put-DEL.IMP.2/3Pl
'Hannah, take that away that they may hear (later).' [Literally, 'you taking it away, let them (later) hear.']

The temporal cut-off between the Immediate and Delayed Imperatives seems to be roughly one hour; if the command is anticipated to be actualized about one hour or more from the time of issuance, the Delayed Imperative is used, and the Immediate Imperative cannot be used. Of course, this is up to the speaker's judgment. If the command directs the addressee to act in another location, even within the next half-hour, the Delayed Imperative form may be used instead of the Immediate Imperative.

The Immediate Imperative may be negated for peremptory effect with the general verbal negating proclitic *ma*=, as in (9) and (11), the negated versions of (8) and (10) below:

8) To-i!
do-IMM.IMP.2SG
'Do it!'

9) Ma=to-i!
NEG=do-IMM.IMP.2SG
'Don't do it!'

10) Ho-un!
cook-IMM.IMP.3SG
'Let him/her/it cook/be cooked!'

11) Ma=ho-un!
NEG=cook-IMM.IMP.3SG
'Let him/her/it not cook/be cooked!'

The politest, and socially preferred, way to issue negative imperatives is without *ma*=, however. In this politer prohibitive form, the positive Future Irrealis inflected form receives a suffix *-a*:

12) Ho-i-rog-a!
cook-IRR.SG-2SG-PROH
'Don't cook!'

Sarvasy (2014c) analyzes this *-a* as having evolved from the attention-commanding suffix *-a* found elsewhere in Nungon. Historically, the alerting function of *-a* here became a warning function, which in turn became prohibition. The Delayed Imperative form itself never occurs negated.

6.2 The Delayed Imperative Evolved from the Future Irrealis

The Remote Future and Future Irrealis differ only in the presence of a final suffix, *-ma*, on the Remote Future. Under negation, this *-ma* does not occur, so that negated Remote Future and Future Irrealis are formally identical. The Delayed Imperative differs from the Future Irrealis only in the vowel of the final syllable of the 2sg, 2/3du, and 2/3pl forms. In the 2sg and 2/3du Delayed Imperative forms, the Future Irrealis vowel /o/ ([ɔ]) is raised and backed slightly to /ö/ ([o]). In the 2/3pl form, the Future Irrealis vowel /i/ ([i]) is backed to /u/ ([u]).These Delayed Imperative forms never occur negated. Table 5 shows the Nungon Delayed Imperative, Remote Future, and Future Irrealis paradigms.

Table 5: Delayed Imperative, Remote Future, and Future Irrealis forms of *hai-* 'cut down'

		singular	dual	plural
1	Del. Imp.	*haiw-i-t*	*hai-ri-n*	*hai-ni-n*
	Rem. Fut.	*haiw-i-t-ma*	*hai-ri-n-ma*	*hai-ni-n-ma*
	Fut. Irrealis	*haiw-i-t*	*hai-ri-n*	*hai-ni-n*
2	Del. Imp.	*haiw-i-rök*	*hai-ri-morök*	*hai-nu-ng*
	Rem. Fut.	*haiw-i-rok-ma*	*hai-ri-morok-ma*	*hai-ni-ng-ma*
	Fut. Irrealis	*haiw-i-rok*	*hai-ri-morok*	*hai-ni-ng*
3	Del. Imp.	*haiw-i-k*	*hai-ri-morök*	*hai-nu-ng*
	Rem. Fut.	*haiw-i-k-ma*	*hai-ri-morok-ma*	*hai-ni-ng-ma*
	Fut. Irrealis	*haiw-i-k*	*hai-ri-morok*	*hai-ni-ng*

The backing and raising of the vowel of the last syllable of Future Irrealis forms to yield the Delayed Imperative may have originated as iconic indication of distance in space and time. This happens elsewhere in Nungon: final /a/ ([a]) is backed and raised to /o/ ([ɔ]) when any utterance is framed as a Call-At-Distance (Sarvasy 2014b, c), that is, is directed at an addressee who is relatively far away. The final /a/ of Medial verb forms can also raise/back to /o/ to indicate that the situation described by the verb continued for a long time.

Commands in Nungon—as in many other languages—feature a wider pitch range than declarative statements. The vowel change between Future Irrealis and Delayed Imperative forms could alternatively—or in addition to the iconic alteration above—have originally accompanied this intonational distinction, as well.

The continued identity of the Future Irrealis and Delayed Imperative forms in the first person and 3sg may have resulted because the iconic vowel alteration originally applied only to canonical—second person—directives. Because of 2/3 person neutralization in non-singular numbers, an iconic change in the non-singular second person would apply to non-singular third person forms as well. The presence of only second person (and non-singular third person) special forms could then point to the relatively-recent development of this form, in contrast to the Immediate Imperative.

The development of the Delayed Imperative from a future form is an example of Aikhenvald's pathway for forms relating to "intention, future and prediction" to evolve into imperatives (2010:363).

6.3 Delayed Imperatives in Other Papuan Languages

For many Finisterre-Huon Papuan languages that have been described to date, both immediate and delayed imperatives have been identified. In at least one of these languages, Irumu, the Delayed Imperative person/number suffixes apparently share little morphology with Future tense suffixes (Ross Webb, p.c.). Unlike many other Finisterre-Huon languages, Irumu has been analyzed to have

only a single general future tense inflection. It is thus possible that one original future tense inflection developed into the Delayed Imperative, and was then lost as a tense inflection.

In other Finisterre-Huon languages, such as Ma Manda, Nek, and Nukna, there are no delayed imperative forms distinct from future tense forms (Pennington 2014, Linnasalo 2014, Taylor 2013).

Outside the Finisterre-Huon group, the Delayed Imperative form has been shown to be acquired by children much later than the Immediate Imperative form in the Papuan language Kaluli (Schieffelin 1985). Schieffelin explained this through the relative low frequency of Kaluli Delayed Imperatives in input from caregivers to children. It is as yet unclear whether the two imperatives in Nungon (or any other Finisterre-Huon language) are acquired by children at different developmental stages.

6.4 A Corollary: Origins of the Nungon Remote Future Inflection

Table 5 shows that the Future Irrealis is the probable source of both the Delayed Imperative and the Remote Future tense, which still shares a form with the Future Irrealis under negation. The time depth of the development of the Nungon Remote Future tense form itself is still a puzzle. This section provides further evidence for a relatively-recent development.

Under negation, the formal distinction between Future Irrealis, Near Future, and Remote Future is neutralized. Examples (13), (14), and (15) show positive statements framed in these three forms, with a Delayed Imperative example in (16).

13) Duo-nangka-ng.
sleep-NF.PL-2/3PL
'You/they will sleep (later today).' [Near Future]

14) Duo-ni-ng.
sleep-IRR.PL-2/3PL
'You/they might sleep.' [Future Irrealis]

15) Duo-ni-ng-ma.
sleep-IRR.PL-2/3PL-RF
'You/they will sleep (tomorrow or beyond).' [Remote Future]

16) Duo-nu-ng.
sleep-DEL.IMP-2/3PL
'Sleep (later, or far away)!' [Delayed Imperative]

The forms in (13) and (15) cannot be directly negated. The negated equivalent of (13-15) is the negated Future Irrealis, as in (17).

17) Ma=duo-ni-ng.
NEG=sleep-IRR.PL-2/3PL
'They won't sleep.'

The Remote Future is the only tense inflection in Nungon that occurs with an unchanging suffix after the subject person/number suffix. There is some evidence from conditionals that the *-ma* of the Remote Future originally served to mark reality status (Sarvasy 2013a). The only inflectional paradigm that operates in a similar way is the Counterfactual, in which vowel-final Immediate Imperative forms receive a final suffix *-m*, while consonant-final Immediate Imperative forms receive no suffix.

Surprisingly, the Nungon Remote Future form differs dramatically from that of the Yau dialects spoken within a three-hour hike (Lauver and Wegmann 1990:21-23), and from Nungon's next-nearest relative, Nukna. These other languages form the Remote Future tense inflection with a dedicated suffixed tense marker, followed by the equivalent of the Set 1a person/number suffixes.

Table 6: Yau and Nungon Remote Future and Future Irrealis forms of *öö-* 'ascend'

	Yau Remote Future: Set 1a 'will ascend'	Yau Irrealis: Set 1b 'might ascend'	Nungon Remote Future/Future Irrealis: Set 1b 'might (will) ascend'
1sg	*ö-ango-t*	*ö-i-t*	*ö-i-t(-ma)*
2sg	*ö-ango-roc*	*ö-i-roc*	*ö-i-rok(-ma)*
3sg	*ö-ango-c*	*ö-i-c*	*ö-i-k(-ma)*
1du	*ö-taha-mot*	*ö-ri-n*	*ö-ri-n(-ma)*
2/3du	*ö-taha-moroc*	*ö-ri-moroc*	*ö-ri-morok(-ma)*
1pl	*ö-naha-mon*	*ö-ni-n*	*ö-ni-n(-ma)*
2/3pl	*ö-nah-ing*	*ö-ni-ng*	*ö-ni-ng(-ma)*

In a few other Finisterre-Huon languages, one of the future tenses comprises another inflected verb form plus an unchanging final suffix. These are shown in Table 7; Nungon, Yopno, and Uri are Finisterre, while Kâte is Huon.

Table 7: Future paradigms in Finisterre-Huon languages with unchanging final morpheme[12]

	Nungon	Yopno	Uri	Kâte[13]
inflection *sans* suffix	Irrealis	Near Future	Imm. Imp.	Imm. Imp.
postulated suffix source	subordinator *=ma*	? conjunction *bo*	?	verb *mu* 'say'
1sg	*ong-i-t-ma*	*kʌ-kweŋ-bo*	*ka-wak-ga*	*lo-pe-mu*
2sg	*ong-i-rok-ma*	*kʌ-kwim-bo*	*ka-yat-ga*	*lo-c-mu*
3sg	*ong-i-k-ma*	*kʌ-zeak-bo*	*ka-wat-ga*	*lo-oc-mu*
1du	*ongo-ri-n-ma*	*kʌ-ndeŋ-bo*	*ka-dam-ga*	*lo-nac-mu*
2/3du	*ongo-ri-morok-ma*	*kʌ-nzil-bo*	*ka-demut-ga*	*lo-nic-mu*
1pl	*ongo-ni-n-ma*	*kʌ-neŋ-bo*	*ka-nam-ga*	*lo-naŋ-mu*
2/3pl	*ongo-ni-ng-ma*	*kʌ-nim-bo*	*ka-nit-ga*	*lo-niŋ-mu*

Especially because of the dissimilarity between the Nungon Remote Future tense form and that of the closely-related Yau dialects, it seems likely that the Nungon Remote Future is a recent innovation, involving the addition of an unchanging suffix *-ma* to the Future Irrealis form. What remains to be explored is why the way in which the Nungon Remote Future evolved—addition of an unchanging suffix to an existing inflection—has counterparts in a few far-flung relatives.

7 Conclusion

Switch-reference systems are not usually assumed to be archaic; various grammatical and lexical elements have been discussed as evolving into markers of switch-reference in languages around the world. In contrast, imperative forms are recognized as being highly archaic in many languages. In Nungon and related Papuan languages, the subject-indexing suffixes used in the switch-reference system appear to be archaic and related to the suffixes used in the Immediate Imperative paradigm, while the Delayed Imperative form likely developed much more recently than the switch-reference markers and is formally dissimilar to the Immediate Imperative in most languages.

The switch-reference DS suffixes in modern Finisterre languages could plausibly have originated in one of three ways: as original imperative markers that came to serve with dependent verbs in tight multi-verb constructions and clause chains; as original subject-indexers on dependent verbs that came to serve in commands and thence as dedicated imperative markers; or as

[12] Sources: For Yopno and Uri, McElhanon 1973:63-64; for Kâte, Pilhofer 1933. Note that Reed (2000) does not mention such forms for the Kewieng dialect of Yopno.

[13] According to Pilhofer, the future form with the final unchanging morpheme, his "Futur I," describes the nearer, not more remote, of the two Kâte future tenses. He writes: "Futur I besteht aus Hortativ I und dem Suffix *mu.* Dieses Suffix dürfte identisch sein mit dem glaichlautenden Verbum *mu* sagen, wollen. Die Bildung wäre dann folgende: Hortativ: *loc* nimm, *loc-mu* du nehmen sagen = du nehmen wollen = du nehmen werden" (1933:26).

subject-indexers on original multifunctional tense-less forms used in a range of different contexts, including imperatives, dependent verbs, and counterfactuals. In fact, in some Finisterre languages today there is little to no formal differentiation between the DS subject suffixes and those of the Immediate Imperative and Counterfactual. Because the morphological semblance between Immediate Imperative and DS switch-reference suffixes holds for most related languages, both inflections must be assumed to be relatively archaic.

In contrast to the Immediate Imperative, Counterfactual, and DS subject suffixes, the Finisterre Delayed Imperative—in those languages that have it at all—is likely of relatively recent provenance. The morphological split between Nungon's tense-less Immediate Imperative and tense-marked Delayed Imperative is one symptom of the Delayed Imperative's newness; both the Nungon Delayed Imperative and Remote Future inflections appear to have developed recently from the Future Irrealis form. The Remote Future form in Nungon even differs greatly from its counterpart in the nearby Yau dialects—another clue to its recent development.

Preliminary analysis shows that future tense forms, as well as delayed imperative forms, vary more among related languages than do the verbal inflections that occur with Set 2 suffixes—DS switch-reference markers, Counterfactuals, and Immediate Imperatives. If the Set 2 suffixes may indeed be traced back to an original tense-less form in proto-Finisterre, then the proposition of Kiparsky (1968) for Indo-European may be applicable to Finisterre: loss of a multi-purpose tense-less form may have occurred early in the development of more-complex tense systems in the Finisterre languages. This would have been followed much later by development of various future tense forms, and of the Delayed Imperative.

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