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A SKETCH GRAMMAR OF TINDAL DUSUN

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This article attempts to give a broad overview of the synchronic grammar of Tindal Dusun, a language spoken in Sabah, Borneo (Malaysia), with occasional reference to historical data where relevant. Phonologically, Tindal has a constraint on vowel combinations within a word, which has been discussed in other Dusunic languages as “vowel harmony” (Kroeger 1992, Hurlbut 1981, Harris and Chapple 1993, Boutin 1993), and this constraint is examined in some detail here. Moreover, the language is moving from a four-vowel system to a symmetrical five-vowel system, with the introduction of a mid-front vowel [ɛ:]. The phonological and sociological conditions for this switch are addressed. Syntactically, Tindal has the remnants of a Philippine-type focus system, and this system will be explored with numerous examples. Finally, the language is quite complex morphologically. This paper gives a brief description of every affix known to the author, with a more extensive discussion of the most common affixes.

1. INTRODUCTION. Tindal is a Dusunic (Austronesian) language spoken in Sabah, in northern Borneo. Politically, Sabah, together with Sarawak, Borneo, constitutes the eastern (non-peninsular) part of Malaysia. The data for this grammatical sketch were collected at the University of Hawai‘i from a speaker of Tindal who had been living in the United States for over a year. The consultant, Wendell Ginging, was born in 1974 and raised in Kota Belud, Kelawat district, Minonun sub-district. The data were elicited through the medium of English, which he speaks fluently. Speakers of Tindal are familiar with Malay because it is used in the schools. In addition to speaking Tindal, Malay, and English, he is familiar with Bajau, Mandarin, Hakka, Cantonese, and German.

Tindal is a coastal dialect of Central Dusunic, which is part of a group of interconnected languages and dialects spoken throughout central Sabah, all called “Dusun.” Tindal means ‘people who have come out from the earth’, and speakers of this language would call themselves Dusun Tindal, with the more general term coming first.

In section two of this sketch, I discuss Tindal phonology, including the phonemes, their distributions, and a few interesting issues relating to vowels. In section three, I discuss Tindal morphosyntax, especially pronouns and word order. I go on discuss the complex verbal morphology of Tindal, giving a brief summary of each affix, stating its distribution and function, with special reference to focus and aspect, and how they interact with aspects of the morphosyntax of Tindal.

2. PHONOLOGY

2.1 SYLLABLE STRUCTURE. Tindal syllables maximally have one initial and one final consonant. They may have a long vowel or diphthong. Thus, the syllable structure of Tindal is (C)V(V)(C).

- (1) V:¹ a.ka.no ‘eat!’
VC: on.som ‘sour’
VV: aɪ.gat ‘heavy’
CV: no (a particle with the meanings ‘never’, ‘already’, and ‘only’)
CVC: to.tud ‘knee’
CVV: yu: ‘shark’
CVVC: ta:ŋ ‘sky’

¹ In this paper, the IPA diacritic <ː> will be used to mark vowel length, while the true colon <:> will be used in its more traditional function as a punctuation marker.

2.2 CONSONANTS. Tindal has sixteen consonant phonemes.

TABLE 1. Tindal consonants.

	labial	alveolar	palatal	velar	glottal
stop	p b	t d		k g	ʔ
nasal	m	n		ŋ	
tap		r [ɾ]			
fricative		s			h
approximant	w		y		
lateral		l			

All consonants except /ʔ/ may occur in initial, intervocalic, and final position. Consonant clusters are discussed below.

- (2) /p/: piasaw ‘coconut’, nopo ‘if, always’, taŋkap ‘sheath’
 /b/: bulat ‘appear’, loboŋ ‘grave’, osuab ‘early morning, early’
 /t/: tolu ‘three’, watu ‘stone’, alanut ‘tough, chewy’
 /d/: duláʔ² ‘saliva’, odop ‘to sleep’, gakod ‘foot, leg’
 /k/: kusay ‘male, man’, ta:k ‘waist’, sumandak ‘female virgin’
 /g/: gobuk ‘monkey’, ororogo ‘hyperactive’, narág ‘broken, ruined’
 /m/: miŋguʔ ‘week’, ogumu ‘many’, kodom ‘blink’
 /n/: nipon ‘tooth’, onóm ‘six’, pu:n ‘tree’
 /ŋ/: ŋaran ‘name’, toŋus ‘wind’, todúŋ ‘nose’
 /s/: sinit ‘flea’, a:si ‘tasty’, bakas ‘wild pig’
 /h/: hulu ‘feathers’, ihad ‘to cry’, ipih ‘to dream’
 /r/: rosoʔ ‘taste, feel’, sorow ‘think, remember’, sigar ‘headdress’
 /l/: lane: ‘earwax’, palad ‘palm of hand’, akatol ‘itchy’
 /w/: wayaŋ ‘show’, bawajaŋ ‘onion’, ansaw ‘wander, walk’
 /y/: yu: ‘shark’, gagaya ‘mannerisms’, kaday ‘store’

2.2.1 ALLOPHONY. /l/ may be more sonorant in initial position than in other positions. /h/ occurs in all positions, but in word-final position it is articulated with very little airflow and may be completely unpronounced unless it is being intentionally emphasized. In rapid speech, word-final /h/ can disappear completely. In the following example, the final /h/ of *kamah* ‘or else’ is deleted, and the (now final) /a/ joins with a following vowel to form a single syllable.

- (3) po-koroʔ-on i kama i waláy nu
 CAUS³-small-PF NM or.else=⁴NMhouse 2SG.GEN
 ‘You’d better make your house smaller.’

When a suffix is added to a root with a final /h/, the /h/ is always dropped.

- (4) tutu-on no pare ‘pound the rice’ < tutuh ‘pound’
 po-duo-o ‘break something in two’ < duoh ‘two’

2.2.2 DISTRIBUTIONS. /ʔ/ only occurs morpheme-finally.

- (5) h-iloʔ ‘over there’
 rahaʔ-on ‘bloody’

A glottal stop is not permitted after a word-final diphthong, but it may be inserted to break up a sequence of like vowels. It is unclear what the conditions are for this insertion.

- (6) po-goyoʔ-ón kamah i waláy nu
 CAUS-large-PF or.else NM house 2SG.GEN
 ‘You’d better enlarge your house.’

² In this paper, stress has only been indicated if it is not penultimate.

³ See appendix for a list of abbreviations used in this paper.

⁴ The equal sign here represents the phonological fusion of two distinct elements.

The word *gayo* ‘large’ does not have a final glottal stop, but when the suffix *-on* is added, a glottal stop is inserted, keeping the vowels of the root and the suffix separate (and there is an additional vowel change in the root, addressed below).

Although /y/ occurs in syllable onsets as a consonant, in syllable codas, it is always part of a diphthong (see discussion below about diphthongs).

- (7) yu: ‘shark’
 pa.yaw ‘mountain deer’
- (8) diháy ‘just now’
 sakáy ‘to ride’

A phonetic glide /y/ is inserted after /i/ in the sequences /ia/ and /io/. This is a predictable process.

- (9) po-dosi[y]on tulun ‘feared by people’ < po+dosi+on
 oro[hi]y[an] ‘to like’
 pi[y]asaw ‘coconut’

Elsewhere in this paper, such predictable glides will not be written.

Much like /y/, /w/ occurs syllable-initially as a consonant (as in (10)) and word-finally as part of a diphthong (as in (11)).

- (10) wa.guh ‘new fresh’
 wo.gok ‘domesticated pig’
 ka.wos ‘to sulk’
 la.wat ‘to visit’
- (11) ho.ro.gow ‘price’
 ka.ra.baw ‘water buffalo’

Again like /y/, /w/ may be inserted intervocally as an automatic process between vowels in the sequences /ua/ and /uo/.

- (12) osu[w]ab ‘early morning, early’
 susu[w]ay ‘other, different’
 tu[w]oŋ ‘dark’

A word-final /w/ becomes /h/ when a vowel-initial suffix is added.

- (13) ko-sikah-an tulun ‘people are thankful’ < sikow ‘thank’
 poŋin-dikah-on ‘place to sit’ < dikaw ‘sit’

Nevertheless, /w/ and /h/ are separate phonemes, as the following near minimal pair demonstrates.

- (14) hatus ‘hundred’
 watu ‘stone’

2.2.3 FINAL SEGMENTS. All consonants, all diphthongs, and all simple vowels except /a/ may occur word-finally⁵ in Tindal. In cases where /a/ appeared to occur in final position, further questioning of the consultant showed that /a/ was actually always followed by /ʔ/ or /h/. Thus, in these data, there is no unambiguous case of final /a/.

- (15) Final /i/: abaraniʔ ‘brave’, ipih ‘to dream’, oku:ri ‘small quantity’
 Final /o/: rosoʔ ‘taste’, buayoh ‘crocodile’, milo ‘can’
 Final /u/: kutuʔ ‘lice’, ruh ‘spirit’, nunu ‘what’
 Final /a/: kamah ‘or else’, ŋaʔ ‘but’

Hearing the difference between final /ʔ/ and /h/ can often be quite difficult in Tindal, as has been reported elsewhere for Dusunic languages in general (e.g., Miller 1993:7). However, the data below demonstrate that a phonemic contrast exists.

⁵ This is separate from the allowable elements in syllable-final position, as /ʔ/ is not allowed morpheme-internally, as mentioned above.

- (16) Final glottal: toli? ‘penis’
 Final /h/: silih ‘walls’
 Final vowel: soli ‘come out’
 Final diphthong: waláy ‘house’
 Final consonant: tulid ‘straight’

2.2.4 CONSONANT COMBINATIONS. Morpheme-internal consonant combinations may only consist of a stop or /s/ preceded by a homorganic nasal.

- (17) mp: sampan ‘boat’, tompiós ‘hairy caterpillar’
 mb: tombolog ‘bird’, gombutan ‘orangutan’
 nt: intob ‘count’, bintoruŋ ‘eggplant’
 nd: t-ondu ‘woman, female’, mundok ‘uncooked taro’
 ns: ponsu? ‘to bathe’, solunsúg ‘bamboo pipe’
 ŋk: buhaŋkut ‘bullfrog’, kaŋkab ‘chest’
 ŋg: miŋgu? ‘week’, raŋgow ‘tall’

Combinations involving other consonants seem to occur only across morpheme boundaries.

- (18) pɛn-wagu po i kurita?
 CNT-new still NM car
 ‘The car still looks new.’
- (19) pɛn-yon oku hilod Makiki
 CNT-reside 1SG.NOM in Makiki
 ‘I live in Makiki.’
- (20) mi-min-loborŋ yolo? sada?
 RPT-RPT-bury 3PL.NOM fish
 ‘They buried all the fish.’
- (21) m<in>in-rakit oku i t-apuy
 <um><in>piŋ-rakit⁶
 <AF><CMP>RPT-light.fire 1SG.NOM NM NLZR-fire
 ‘I started the fire.’
- (22) m<in>iŋ-hondom i t-anak i t-ombolog
 <um><in>piŋ-hondom
 <AF><CMP>RPT-think NM NLZR-child NM NLZR-bird
 ‘The child thought about the bird.’

In some cases, a nasal may fail to assimilate across morpheme boundaries.

- (23) ŋs: miŋ-surita? oku ‘I tell stories’
 ŋr: mi-miŋ-raha? ‘bleeding’
 ŋl: iŋ-limo ‘five times’

In one instance, a sequence of /nr/ became /nd/.

- (24) man-dasam ‘rainy’ < rasam ‘rain’

Since this is an isolated instance, and /r/ may cluster with /n/ in other forms, I consider this change to be lexical, rather than phonological.

Tindal does not permit geminate consonants. There are no initial or final consonant clusters because Tindal does not allow more than one consonant in syllable onsets and codas. When consonant combinations occur medially, the first consonant forms the coda of the previous syllable, and the second consonant forms the onset of the latter.

Based on the syllable structure of the language, some surface glides can be attributed as coming from underlying vowels. As mentioned above, the Tindal syllable structure is (C)V(V)(C), but never (C)VCC or CCV(C). However, a glide may combine with any consonant as part of a syllable onset or coda. Since combinations of consonants within a syllable are prohibited in Tindal, these glides must

⁶ An extra line is used in the interlinear translations of some sentences to show the underlying morphology.

come from underlying vowels or the syllable structure must be changed to allow just these types of consonant clusters. For this reason, in syllables of the structures (C)VGC or CGV(C), the glide is treated as coming from an underlying vowel. Consequently, I will represent them here as non-syllabic vowels, shown below.

- (25) buayoh ‘crocodile’
 tou̯n ‘year’
 lou̯son ‘hungry’
 gju̯k ‘worm’
 baraj̯t ‘basket’

While this creates an inconsistency whereby a single sound is represented in two ways (e.g., [w] as <w> and <u̯>), the adoption of this convention is consistent not only with Tindal syllable structure, but often with the historical facts of the language. For example, a comparison with other Dusunic languages shows that ‘crocodile’ can be reconstructed for proto-Dusunic as *buhayoh, with a medial /h/, and ‘year’ can be reconstructed as *toʔun, with a medial glottal stop (Robinson 2005).

2.2.5 ASSIMILATION OF FINAL NASALS. A final nasal may optionally assimilate to the first obstruent in the next word. In (26), the clitic *soŋ* ‘one, lone’ assimilates to the place of articulation of the following obstruent.

- (26) a:ʔ i kabagal som=put t-akano=ti
 NEG NM enough one=cup NLZR-rice=this
 ‘One cup of rice is not enough.’

But this process is not limited to clitics. In (27), the final nasal of *tou̯n* ‘year’ assimilates to the initial obstruent of the following word, *benoʔ* ‘current’.

- (27) m<in>oŋ-uaʔ i durian tou̯m benoʔ
 <CPL>AF-fruit NM durian year current
 ‘The durian (tree) fruited this year.’

Since most of the data for the present study were collected through slow, controlled elicitation, it is difficult to assess the true scope of rules such as this one, which may be much more common in rapid speech than in careful speech.

2.3 VOWELS. Tindal has five simple vowels.

TABLE 2. Tindal vowels.

	front	central	back
high	i		u
mid	(ɛ:)		o
low		a	

/i/ /u/ and /o/ may occur in all positions.

- (28) /i/: intoŋ ‘to look’, rikot ‘to look’, torigi ‘house post’
 /u/: ulun ‘to take everything for oneself’, kasut ‘shoes’ walu ‘eight’
 /o/: odop ‘to sleep’, turos ‘face’ kuo ‘whats-his-name’, whatchamacallit’

As mentioned above, /a/ may not occur finally.

- (29) /a/: aragan ‘red’, sukan ‘wild durian’

Tindal /i/ is tense, but not as high and front as the vowel in English *heed*, moving towards [ɪ]. /u/ is also slightly lower and less back than English /u/ as in *food*. /a/ is a low central vowel. /o/ ranges from [o] to [ɔ], without apparent conditioning.

2.3.1 MID FRONT VOWEL. [ɛ:] may be said to be an allophone of the diphthongs [ay] and [oy].⁷ For this reason, its distribution is similar to that of diphthongs. I have included it as a phoneme because its distribution is sociolinguistically, rather than phonologically, conditioned. It seems to be an in-

⁷ This has been reported as a completed change in Kimaragang Dusun (Kroeger 1993:37).

group marker. Nevertheless, Tindal speakers still retain [ay] and [oy]. My placement of [ɛ:] with the monophthongs is on purely phonetic grounds. It has the quality of a single vowel. It will be discussed further in the section below on diphthongs.

2.3.2 VOWEL LENGTH. Vowel length is phonemic in Tindal. /a/ /i/ /o/ /u/ may be phonemically long.

- (30) ba:n ‘river’ vs. t-abaŋ ‘older brother’
 o-si:n ‘salty’ vs. t-usin ‘money’
 ko:n sikow ‘thank you’ vs. kontiho? ‘sneeze’
 hu:n (standard measure) vs. tuhun ‘go down’

/u/ may become /o/ in fast speech, as in (31) below, but the two are clearly contrasted in careful speech, as we can see from the near minimal pair in (32). This lowering of /u/ only happens in unstressed syllables.

- (31) /oku/ → [oko] ‘1SG.NOM’
 /m<in>oŋ-umot/ → [minoŋomot] ‘harvesting’
- (32) sikow ‘thank’ vs. siku ‘elbow’

When a prefix with a final /o/ is added to a root that begins with /u/, the result is a single vowel /o/.

- (33) po + uli → p-oli-o ‘to send home’
- (34) po + umbal →
 pombal-o? oku kasut nu
 CAUS.try-IMP 1SG.NOM shoes 2SG.GEN
 ‘Let me try on your shoes.’
- (35) no + uhot →
 o-gumu nohot i t-ulun
 SV-many CMP.ask NM NLZR-people
 ‘The people asked a lot.’

Interestingly, when /u/ is lowered to /o/, it never surfaces as [ɔ], but only as [o]. Likewise, in the /u/ + /o/ combinations, the resulting vowel never surfaces as [ɔ].

2.3.3 DIPHTHONGS. Tindal has both rising and falling diphthongs. The use of the term “diphthong” is not meant to be indicative of these sounds’ status as unit phonemes, but rather of their phonetic quality. The question of whether or not they are unit phonemes remains to be resolved, although the majority of the evidence points to them as sequences of two vowels, one of which happens to be non-syllabic. There are six falling diphthongs, where the sonority decreases throughout the duration of the segment: [aw] [ay] [ow] [oy] [uy] and [aɔ]. [aw] and [uy] have only been found to occur word-finally.

- (36) [aw]: dikaw ‘to sit’
 [uy]: tapuy ‘fire’

[ow] and [aɔ] may occur both word-medially and word-finally:

- (37) [ow]: toŋ ‘year’ bobow ‘mute’
 [aɔ]: na:ɔk⁸ ‘drunk’ saɔ ‘spouse’

[ay] (also symbolized as <aj̥> for reasons mentioned above) can occur in all positions, as well as across morpheme boundaries, as in (38) below and (3) above.

- (38) åso? ‘NEG existence’, waj̥g ‘water’, waláy ‘house’

[oy] occurs medially and finally. In the present data, there are no examples of morpheme-initial [oy], but I expect to find such an example with more extensive data.

⁸ This is the only known form in Tindal to have three vowel slots within a single syllable. If Tindal syllables may contain only two vowel phonemes, then either the sequence [aɔ] or the long vowel [a:] must act as a unit phoneme in this form.

(39) oŋóy ‘to go’ poŋŋ- *continuative prefix*

Like [ay], [oy] may appear across morpheme boundaries. Sequences of o + i are usually reduced to [oy].

(40) o + ipos → oĩpos ‘wet’

Both [ay] and [oy] may optionally be reduced to [ɛ:] in most forms, even across morpheme boundaries.

(41) no + ihad ‘cry’ + an → ne:hadan

[ɛ:] seems to be a long vowel by default because it is replacing two segments (a diphthong). [ɛ:] may be shortened in rapid speech, but length does not appear to be contrastive for this vowel.

(42) waláy ~ walé: ‘house’
oŋóy ~ oŋé: ‘to go’
waĩg ~ we:g ‘water’

The change of [ay] and [oy] to [ɛ:] seems to be diffusing slowly across the language, as not all forms with [ay] or [oy] may be monophthongized.

(43) alaĩd ‘a long time’ *alɛ:d

On the other hand, certain forms with [ɛ:] were never found to occur with a diphthong (e.g., *bɛ:no?* ‘today’, and *paɾɛ:* ‘rice’), and in fact, the underlying synchronic form of these words may simply contain [ɛ:], although historically they contained diphthongs. There is one example of [ia] reducing to [ɛ:].

(44) miagal ~ me:gal ‘the same’

Vowels appear to be able to cluster in almost any sequence in Tindal, suggesting that at least some of these clusters do not form unit phonemes.

The rising diphthongs [i̯u] [i̯o] and [u̯a] were also observed, where the sonority increases throughout the diphthong.

(45) [i̯u]: giuk ‘worm’
[i̯o]: lios ‘lice egg’
[u̯a]: bua.yoh ‘crocodile’

2.3.4 VOWEL SEQUENCES. Because Tindal does not require syllable onsets, it is also possible to have sequences of two vowels that form separate syllables.

(46) [ua]: bo.ru.aŋ ‘bear’, o.ku.at ‘strong’, tu.a? ‘fruit’
[uo]: du.oh ‘two’, o.ru.ol ‘painful’
[oi]: o.po.it ‘bitter’

2.3.5 VOWEL LOWERING. Tindal exhibits a phenomenon that has been called vowel harmony by various authors working on Sabahan languages (Kroeger 1992, Hurlbut 1981, Harris and Chapple 1993, Boutin 1993). However, this phenomenon is different than what has typically been called vowel harmony in the linguistics literature, where an underspecified vowel becomes fully specified by harmonizing with other vowels in the phonological word. Tindal ‘vowel harmony’, on the other hand, entails a change of /o/ to /a/, where both vowels are fully specified at the outset. In Tindal, the vowel /a/ spreads from right to left changing /o/ to /a/. The spreading of /a/ is blocked by the high vowels /i/ and /u/ (i.e., any vowel but /o/), but intervening consonants do not affect the rule. This can be formalized as a rule whereby /o/ changes to /a/ if the following syllable contains /a/.

(47) o → a/ __ (C) a

This rule must be allowed to apply iteratively. I will call this phenomenon “vowel lowering” here, while recognizing that there are various ways to frame this issue.

As one might expect, there do not appear to be any roots that have /a/ in a syllable after /o/ (which would violate (47)). The issue of vowel lowering comes into play when affixes are added to the root. Below are some examples of the change

(48) togod ‘angry’ → tagad-ay

(49) oruol ‘painful’ → orual-an

In (48) above, we see that when the suffix *-ay* is added to the root *togod* ‘angry’, all occurrences of /o/ in the root become /a/. In (49), /a/ spreads leftward until it is blocked by the high vowel /u/. This process also applies to prefixes, where applicable. In the examples below, the prefix *momo-* has varying surface representations because of the effects of vowel lowering.

(50) momo-gidu ‘to shoo away’
mama-gayo ‘to enlarge’

With the root *gayo* ‘large’, *momo-* becomes *mama-* because the root contains /a/ in the first syllable. Vowel lowering also spreads to clitics, such as /soŋ/ ‘one’ (where ŋ → n in the following example). In this case, “clitic” refers to a semantically independent form that attaches phonologically to another word.

(51) somok no san=jam⁹ yolo? m<in>o-monow
near already one=hour 3PL <CPL>AF-walk
‘They walked for almost an hour.’

Interestingly, this process still applies when [ay] is realized as [ɛ:]. This is one reason for my claim that [ɛ:] does not (yet) deserve full phonemic status in Tindal, as it is diffusing slowly across the language. In (52) below, the root *boros* ‘speak’ combines with the imperative suffix *-ay*, which subsequently monophthongizes.

(52) baras-ɛ: ka:gu da:ʔ
speak-IMP again wish
‘Please say (that) again.’

Moreover, in Tindal, the use of vowel lowering seems to be optional or idiolectal. Although the consultant for this study generally employed this vowel lowering rule, he occasionally gave non-harmonious forms, as in (53) below.

(53) noko-sabak ‘got angry’

The consultant claimed that one of his parents had this vowel lowering rule, while the other did not, despite the fact that the two parents grew up in the same village (although on opposite sides).

A few verbs consistently cause problems for this vowel lowering rule, and /a/ roots may alternate with /o/ roots in these cases.

(54) n-ansak ‘undercooked rice; over ripened’¹⁰ < onsok ‘ripe’
n-onsok ‘ripened’ < onsok ‘ripe’
mo-monow < panaw ‘leave, walk’ (also exhibiting nasal substitution)
ma-manaw < panaw ‘leave, walk’ (also exhibiting nasal substitution)

2.3.6 PREPENULTIMATE NEUTRALIZATION. In Tindal, /a/ becomes /o/ in pre-penultimate syllables. It is likely that the conditioning factor is stress, as stress is nearly always penultimate (see section 2.3.7 below for further discussion of stress). Therefore, we can say that /a/ becomes /o/ in the syllable before the stressed syllable. This can be called neutralization, because /o/ seems to be the most neutral vowel in Tindal.¹¹

(55) tanud ‘follow’ → tonud-on
gayo ‘big’ → goyo-on
waguh ‘new’ → po-wogu-an

Vowel lowering seems to take precedence over neutralization. In (56), we see that neutralization does not seem to affect /o/ if the penultimate syllable is /a/. This can be explained by saying that the neutralization takes place, but the vowel-lowering rule changes the /o/ back to /a/, so the effects of neutralization are erased.

⁹ <j> is a loan phoneme [dʒ]. See section 2.4 below.

¹⁰ These glosses for this form were provided on different days.

¹¹ Historically, it derives from Proto-Austronesian [ə] in non-final position (Robert Blust, personal communication).

- (56) babak ‘break’ → babak-on
 akan ‘eat’ → akan-o?

The same logic can be applied to forms such as (57) below. The neutralization may take place, but vowel lowering erases its effects.

- (57) no + katol ‘itchy’ + -an → na-katal-an

In (58) below, *kandadu* ‘lock’ becomes *kondodu-on*. The second /a/ of the root is underlyingly /a/, but when that vowel changes by prepenultimate neutralization, the preceding /a/ is changed as well. Apparently, then, the neutralization rule changes all instances of /a/ preceding the penultimate vowel.

- (58) kondodu-on no kamah
 lock-PF already or.else
 ‘Make sure you padlock it!’

Unfortunately, because Tindal only has a few roots of the form CaCaC(not a), this is the only example of this phenomenon in my data.

The neutralization rule is not without exception, however. The following forms did not change as expected.

- (59) talib ‘to pass’ → talib-on ‘something you pass’
 malu? ‘shy’ → amalu-on isio ‘she tends to be shy’

In two instances, there were alternations between /o/ and /a/ not covered above, which seem to be associated with a change of /w/ to /h/. In (60) /o/ has changed to /a/, whereas in (61), /a/ has become /o/.

- (60) kilah-on i takanon nu ‘your food has ants’ < kilów ‘ant’
 (61) takoh-on ‘something that is habitually stolen’ < takaw

Without further examples of such shifts, I cannot speculate as to its conditioning.

2.3.7 STRESS. Tindal stress is almost always penultimate, but occurs word-finally in some words with final heavy syllables. Emphasis seems to cause stress to become word-final. This is problematic for my data, because many of the forms have been elicited in isolation, and words in isolation are often emphasized. Word-final stress appears to be permitted only on heavy syllables, but not all such syllables take final stress. Example (62) illustrates instances of penultimate stress, whereas (63) shows final stress.

- (62) hinómbo ‘where, which one’
 morobúat ‘to work’
 tánay ‘termite’
 (63) tanayón ‘termite infested’
 tompjós ‘hairy caterpillar’
 gipán ‘centipede, scorpion’
 waláy ‘house’
 dulá? ‘saliva’
 lapáp ‘sole of foot’

2.4 LOAN PHONOLOGY. Tindal contains a number of loanwords, some of which include phonemes not present in original Tindal words and not listed above. Tindal has borrowed extensively from Malay, which has the affricates /dʒ/ and /tʃ/, symbolized here as *j* and *č*, respectively.

- (64) jam ‘watch’ mija? ‘table’
 kačarj ‘peanut’

The realization of phonemes may also be different in loanwords. For example, in the Malay loans *ruh* ‘spirit, ghost’¹² and *sumbuh* ‘light’,¹³ the final /h/ is much more audibly pronounced than in original

¹² Malay *roh*

¹³ Although *sumbuh* was reported by the consultant as a Malay loan, and it contains exceptional phonology consistent with Malay loans, the word is not found in modern Malay dictionaries.

Tindal words. In addition, loanwords demonstrate the above posited phonotactic constraints. The English word ‘glass’, for instance, becomes *galás*. Since Tindal does not allow initial consonant clusters or [gl] clusters in any position, a vowel is inserted between [g] and [l]. The English word ‘cement’ becomes *simin*. [nt] is reduced to [n] because Tindal does not allow final consonant clusters. Moreover, the English mid vowel [ɛ] was borrowed here as [i]. This indicates that the word was probably borrowed before the innovation of /ɛ/ in Tindal, thus substantiating the hypothesis that [ay] to [ɛ:] is a recent development in the history of Tindal.

3. MORPHOSYNTAX

3.1 PRONOUNS. Tindal has a Philippine-type focus system of syntax that makes one particular noun phrase in a sentence the most prominent. This prominent, focused noun phrase need not be the subject or the agent of the clause. In clauses with pronouns, the verbal morphology and the pronoun both indicate focus. If the verb carries actor focus morphology, the actor of the clause will therefore be a nominative pronoun (or, rarely, an emphatic pronoun). Any other noun phrase in the clause will necessarily take pronouns from a different set, as only one noun phrase can be in focus in any given clause. Below is a chart of the Tindal pronouns.

TABLE 3. Tindal pronouns.

	NOMINATIVE	GENITIVE	OBLIQUE	EMPHATIC
1SG	oku	ku	doho	yoho
2SG	ko	nu	diaʔ	yaʔ
3SG	isio	disio~dow	isio	isio
1PL INCL	toko	toko	toko	yatiʔ
1PL EXCL	yahay~yahe:	dahe:	dahe:	yahe:
2PL	yokow	dokow	yokow	yokow
3PL	yoloʔ	dioloʔ	yoloʔ	yoloʔ

The most common forms of the pronouns are those listed in the first column as nominative. These nominative pronouns are the focused elements of the sentence, as indicated by verbal morphology. In the second column, the genitive pronouns are listed. They are used both as possessives and as the actors of sentences in which the patient is in focus. The third column lists the oblique pronouns. These occur most often as the object of a preposition. In the last column are pronouns I call emphatics. They are very rare, but they occur in sentences such as,

- (65) yoho nopo ŋaʔ i ponoŋ wanan i
 1SG.EMP always but NM towards right NM
 pikap om i Bernard nopo ŋaʔ i ponoŋ gibaŋ
 pickup and NM Bernard always but NM toward left
 ‘I am on the right of the pickup and Bernard is on the left.’
- (66) yaʔ nogi ri
 2SG.EMP COMPARATIVE CONTRASTIVE
 ‘Oh, you’re the one!’

These pronouns always seem to be the first element in the sentence, as compared with the typical verb-initial word order. They are probably also the focused element, as they do not co-occur with nominatives, but because they are so rare, it is difficult to speculate on their behavior. These pronouns will not appear elsewhere in this paper.

3.2 ARGUMENT ORDER. The general word order in Tindal is predicate, focused argument (nominative), non-focused argument (genitive or oblique). Regardless of whether the logical subject or the logical object is the nominative, the focused element (nominative) precedes the non-focused

one. In (67), the verbal morphology is actor focus, so the actor of the sentence is in focus, which is indicated by use of the nominative form. In (68), in contrast, the causative verbal morphology reverses the focus, so the patient is in focus (nominative). In both cases, the focused argument comes first, even though one is the actor and the other is the patient.

- (67) m<in>o-monsu? oku t-anak ku
 <in>moŋ-ponsu?
 CPL-AF-bathe 1SG.NOM NLZR-child 1SG.GEN
 ‘I bathed my child.’
- (68) p<in>o-ponsu? oku i t-ina? ku
 <CPL>CAUS- bathe 1SG.NOM NM NLZR-mother 1SG.GEN
 ‘My mother bathed me.’

In many transitive sentences, the only way to determine the focus is through the order of the arguments.

- (69) m<in>iŋ-hondom i t-ina? i t-anak
 <um><in>piŋ-hondom
 <AF><CPL>RPT-think NM NLZR-mother NM NLZR-child
 ‘The mother thought about the child.’
- (70) m<in>iŋ-hondom i t-anak i t-ina?
 <um><in>piŋ-hondom
 <AF><CPL>RPT-think NM NLZR-child NM NLZR-mother
 ‘The child thought about the mother.’

This fixed word order is a result of having only one noun marker in Tindal (the noun marker *i*, discussed below, marks all nouns, common or proper, regardless of whether they are nominative, genitive or oblique). In languages with separate noun markers for each, word order can be relatively free.

Changed word order usually results in ungrammaticality in Tindal, even when the pronouns would make the meaning clear.

- (71) m<in>i-nandaŋ oku dia?
 <um><in>piŋ-tandaŋ
 <AF><CPL>RPT-kick 1SG.NOM 2SG.OBL
 ‘I kicked you.’
- (72) *m<in>i-nandaŋ dia? oku
 <AF><CPL>RPT-kick 2SG.OBL 1SG.NOM
 ‘I kicked you.’
- (73) *oku m<in>i-nandaŋ dia?
 1SG.NOM <AF><CPL>RPT-kick 2SG.OBL
 ‘I kicked you.’

Example (71) above is grammatical because it occurs in the order verb, focus, non-focus. Examples (72) and (73), in contrast, are ungrammatical because they do not have the correct order, despite the fact that the distinct pronouns distinguish the roles of the arguments in the sentence.

Sentences with pronominal arguments can violate this “fixed” word order because a pronoun will occur in the second position of the sentence, even where this would not otherwise be expected.

- (74) boli-on ku lo? kurita? t-a-ragaŋ suab
 buy-OF 1SG.GEN that car NLZR-SV-red tomorrow
 ‘I will buy the red car tomorrow.’

In (74) above, the pronoun *ku* immediately follows the verb even though this is a patient focus sentence and thus the noun phrase *lo? kurita? taragaŋ* ‘the red car’ is the focus of the sentence. The Tindal pronouns, then, appear to be clitics because clitics have been argued to occur in the second

position of a sentence.¹⁴ Pronouns that are not the head of their noun phrases, such as possessive pronouns (genitive pronouns modifying a head noun), however, do not occupy this position, and other factors seem to play a role, such as the focus of the sentence, and whether or not it contains other pronouns. More work remains to be done on word order and pronouns, and, for the time being, the Tindal pronouns have been represented orthographically as separate words.

Tindal also has an equational construction, in which there is no verb and two noun phrases are juxtaposed.

- (75) *i* Longkow *i* tataŋa? dahay
 NM Longkow NM middle 3PL.GEN
 ‘Longkow is between us.’ (Literally, ‘Longkow is our middle.’)

3.3 NOUN PHRASES. The noun marker *i* is used for definite proper or common nouns, regardless of focus.

- (76) mim-boros *i* Maria kumay *i* Wendell
 <um>piŋ-boros
 <AF>RPT-talk NM Maria to NM Wendell
 ‘Maria is talking to Wendell.’

The noun marker *i* may be omitted in colloquial or fast speech. As seen in the examples below, this omission can take place regardless of whether the affected noun phrase is nominative.

- (77) na-anu Laura *i* punti mantad doho
 CPL-get Laura NM banana from 1SG.OBL
 ‘Laura got the banana from me.’
- (78) a:? oku m<in>aŋ-kan piasaw
 NEG 1SG.NOM <CPL>AF-eat coconut
 ‘I didn’t eat the coconut’

In (77) above, the proper noun *Laura* is not marked with *i*, while the definite noun *punti* ‘banana’ is. In (78) above, *piasaw* ‘coconut’ is lacking the noun marker. When a noun phrase is indefinite, however, the noun marker *i* may not be used.

- (79) p<in>o-tubow *i* Bernard bonoŋ hiri dohuri *i* pikap
 <CPL>CAUS-throw NM Bernard frog here back NM pickup
 ‘Bernard threw a frog into the back of the pickup.’
- (80) *orohian oku ma-nahak *i* t-aŋ-anak t-usin
 like 1.SG.NOM AF-give NM NLZR-PL-child NLZR-money
 *‘I like to give money to children.’

In (79), *bonoŋ* ‘frog’ is indefinite, so it does not take the noun marker *i*. In (80), *tayanak* ‘children’ cannot take the noun marker *i* because it is indefinite, and thus the sentence is ungrammatical.

The prefix *t-* is obligatorily added to vowel-initial nouns. When a consonant-final prefix is added, the *t-* is dropped. This does not change the meaning of the word, but fulfills a morphophonological constraint of the language which requires nouns to be consonant-initial.

- (81) t-odow vs. ko-t-odow vs. mog-odow
 NLZR-day ABY-NLZR-day AF-day
 ‘day, sun’ ‘daytime’ ‘sunny’
- (82) t-odu vs. maŋ-aŋ-odu oku isio
 nlzr-grandmother AF-?¹⁵-grandmother 1SG.NOM 3SG.OBL
 ‘grandmother’ ‘I call her grandmother.’

¹⁴ Although this generalization is controversial (Anderson and Zwicky 2003), it provides some evidence, along with the pronouns’ violation of general Tindal word order, that these pronouns have a special syntactic status.

¹⁵ It is unclear what the function of this affix is, and it does not appear elsewhere in the data. Clearly, much work remains to be done on Tindal.

This prefix may derive from a proto-Dusunic definite article **ti* (Kroeger 1990), but it no longer serves such a function in the synchronic grammar.

Nouns may appear without the *t-* prefix, however, if they are kinship terms used in direct address. Thus, *t-ina* ‘mother’ is used for reference, whereas *ina* is used to address one’s mother. This pattern applies to all the basic kinship terms in Tindal. Surprisingly, this dichotomy is not restricted to Dusunic languages with the *t-* prefix. It is widespread in Austronesian languages as a means of distinguishing address versus reference, even though most of these languages do not have the *t-* prefix for other vowel-initial nouns (Blust 1979). The use of *t-* to distinguish reference and address in kinship terminology can be reconstructed for Proto-Austronesian (Blust 1979), and thus has a separate origin from the Dusunic *t-* prefix which is added to all other vowel-initial nouns in Tindal, despite the synchronic similarities.

The *t-* prefix may also be added to a stative verb to make it nominal, as with *aragay* ‘red’ below.

- (83) okon i t-a-ragaŋ=ti
 NEG NM NLZR-SV-red=this
 ‘This is not the red one.’

When a stative verb follows a noun, the stative verb must be nominalized, so it usually has the *t-* prefix.

- (84) m<in>og-ihum i Gonsudik bansu? om soluar t-o-lumis
 <CPL>AF-look.for NM Gonsudik shirt and pants NLZR-SV-pretty
 ‘Gonsudik looked for his good shirt and pants.’

In such cases, the nominalized stative verb may act as the head noun in the noun phrase. When a stative verb precedes a noun, it will not carry the *t-* prefix.

- (85) o-lumis t-aŋ-anak dow
 SV-pretty NLZR-PL-child 3SG.GEN
 ‘His children are beautiful.’

In such cases, the stative verb is the predicate of the sentence and therefore cannot be a noun.

In some instances, the stative verb following the noun does not take the prefix *t-* and loses the stative verb marker (the vowel *o-*). This is an alternative strategy for creating a noun from a stative verb, and both strategies fulfill the structural requirement that the post-nominal modifier be another noun.

- (86) miagal po t-asu louŋson i Bernard
 same still NLZR-dog hungry NM Bernard
 om i Edward m<in>oŋé pog-ihum i tambaŋ
 and NM Edward AF<CPL>go INF-look.for NM deer
 ‘Like hungry dogs, Bernard and Edward went to look for the deer.’

To make an eventive (not stative) verb into a noun, in contrast, the suffix *-on* is added (this is homophonous with the patient focus suffix). The prefix *t-* is added if the root is vowel-initial.

- (87) sakay-on ‘something to ride’ < sakáy ‘ride’
 pakay-on ‘clothes’ < pakay ‘to wear’
 t-ion-on ‘residence’ < ion ‘to reside’
 t-akan-on ‘food’ < akan ‘eat’

The suffix *-on* may also be used to create a stative verb with the meaning ‘full of’.

- (88) raha?-on ‘bloody’ < raha? ‘blood’
 papakon isio ‘He is full of tattoos.’ < papak ‘tattoo’
 gomut-on ‘rooty, dirty’ < gamut ‘root’
 tanay-ón ‘termite-infested’ < tanay ‘termite’

Interestingly, this affix primarily creates a negative meaning.

3.4 REDUPLICATION. Example (85) above exhibits the only case in our data of the plural infix <oŋ>, which is also reported to occur very rarely in Kadazan, another Dusunic language in Sabah (Hurlbut 1988:71). I posit the infix as *-oŋ-* rather than *-aŋ-* because that is the form it takes in Kadazan.

Moreover, [aŋ] from /oŋ/ would be predictable in Tindal, based on the rule of vowel lowering. A more common way to form plurals is through reduplication.

- (89) po-rotu-o? i t-ua?-ua?
 CAUS-fall-IMP NM NLZR-fruit-fruit
 ‘Drop the fruits!’

Notice that just the root is reduplicated, and the affixes (in this case the semantically empty nominalizer *t-*) are not reduplicated. This root reduplication is not only used for plurals, however. It can give a durative meaning as well.

- (90) mim-posik-posik i t-anak soŋ=t-o-tuoŋ
 <um>piŋ-posik-posik
 <AF>RPT-wake-wake NM NLZR-child one=NLZR-SV-dark
 ‘The child kept waking up all night.’

In other cases, root reduplication yields a meaning of inexactness.

- (91) o-silow-silow ‘yellowish’ (with the stative verb prefix) < silow ‘yellow’

Finally, in some cases, root reduplication yields unpredictable results, and these may be lexically determined.

- (92) gisom-gisom no i a:ʔ hino t-ina?
 until-until already NM NEG there NLZR-mother
 dow a:ʔ no sio¹⁶ ka-akan
 3SG.GEN NEG already 3SG.NOM ABL-eat
 ‘Since his mother died, he’s not able to eat.’

As we can see in (92) above, when *gisom* ‘until’ is reduplicated, the reduplicated form has the meaning ‘since’ (in combination with *no* ‘already’). The relationship between the root and the reduplicated form is unpredictable in this case.

A similar process involves reduplicating only the first consonant and vowel of the root. This CV reduplication yields only the meaning of inexactness. It overlaps in distribution with root reduplication.

- (93) o-si-silow ‘yellowish’ (with the stative verb prefix) < silow ‘yellow’
 (94) miŋ-kaw oku vs. miŋ-ka-kaw oku
 RPT.AF-swim 1SG.NOM RPT.AF-DUP-swim 1SG.NOM
 ‘I’m swimming’ ‘I’m (play) swimming’

Although both (93) and (91) above have the same gloss and involve the same root *silow* ‘yellow’, (91) demonstrates a reduplication process that entered the language more recently due to the influence of Malay. No instances of unique lexical meaning involving CV reduplication were found in the data.

3.5 STATIVE VERBS. Stative verbs have adjectival meanings but behave like verbs. In Tindal, there is no true distinction between adjectives and verbs, but when a verb is acting as a modifier, it is marked with the prefix *o-*. We can see in (95) below that the word *sogit* ‘cold’ can take verbal morphology. In this case, it has the patient focus suffix. In (96), we see the verb *sogit* acting as a modifier and carrying the stative verb prefix.

- (95) sogit-on oku
 cold-PF 1SG.NOM
 ‘I feel cold.’
 (96) o-sogit i t-o-tuoŋ=ti
 SV-cold NM NLZR-SV-dark=this
 ‘This night was cold.’

¹⁶ *sio* is an alternate form of *isio*.

Interestingly, (96) above also has the stative verb *tuoy* ‘dark’, with the stative verb marker *o-* and the nominalizing *t-*. This could be literally translated into English as ‘the darkness’, and it means ‘night’ in Tindal.

3.6 PREPOSITIONS. Tindal has several words which function much as prepositions in English. The objects of prepositions are primarily obliques, although there is some variability. The objects of *kumay* ‘to’ and *mantad* ‘from’ are in the oblique.

(97) isay m<in>a-nahak i jam kumay dia?
 <in>moŋ-tahak
 who <CPL>AF-give NM watch to 2SG.OBL
 ‘Who gave the watch to you?’

(98) na-anu Laura i punti mantad doho
 PF.CPL-get Laura NM banana from 1SG.OBL
 ‘Laura got the banana from me.’

The object of *sumorili?* ‘around’ is also usually in the oblique, although one genitive form was given as a possibility.

(99) min-taŋkus i t-aŋ-anak sumorili? doho/dia?/nu
 <um>piŋ-taŋkus
 <AF>RPT-run NM NLZR-PL-child around 1SG.OBL/2SG.OBL/2SG.GEN
 ‘The children are running in circles around me/you/you.’

The prepositions *hilod* ‘in, at (far), to’ and *hitid* ‘in, at (near)’ probably take this oblique pronoun set as well. The word *hilod* can be analyzed as an initial prefix *h-* marking place, a root *ilo?* meaning ‘that’, and a suffix *-d*. *Hitid* is probably a combination of locative *h-*, *iti* ‘this’, and *-d*. Unfortunately, I do not have any examples of sentences with a pronoun as the objects of *hilod* or *hitid*. This may not be an accidental gap in my data, but may be due to the lexical properties of these words.

In contrast to the other prepositions,¹⁷ *siriba?* ‘under’ occurs with the genitive set of pronouns.

(100) m<in>o-waya? i kilow siriba? ku/nu
 <CPL>AF-crawl NM ant under 1SG.GEN/2SG.GEN
 ‘The ant crawled under me/you.’

Since *siriba?* does not pattern with the other prepositions in taking an oblique object, *siriba?* may not be a preposition at all. It probably means ‘underside’, which would explain why it takes the genitive pronoun set. In (101) below, it occurs with the existential *ki*, which is a position occupied by a noun. In (102) below, it occurs with the preposition *hilod* ‘in, at, to’, suggesting that *siriba?* itself is not a preposition.

(101) ki=siriba? i paraw nu
 EXT=under NM boat 2SG.GEN
 ‘Does your boat have a bottom?’

(102) po-siriba?-o i lanjam hilod siriba? sagan
 CAUS-under-IMP NM pot in under cooking.area
 ‘Put the pot down below the cooking area!’

3.7 GENITIVE *d*. Although all definite noun phrases, including genitives, may be marked with the noun marker *i*, genitive noun phrases are occasionally marked with *di* instead, with no change of interpretation, as can be seen in the contrast between (103) and (104) below.

(103) agayo i walé: i Trixie
 big NM house NM Trixie
 ‘Trixie’s house is big.’

¹⁷ Apart from the exceptional genitive pronoun with *sumorili?*, mentioned above.

- (104) agayo i nogi i walé: ku mantad i walé: di Jason
 big NM COMPARATIVE NM house 1SG.GEN from NM house GEN.NM Jason
 ‘My house is bigger than Jason’s.’

Although this marking seems to be optional in most cases, it is mandatory with the clitic pseudo-verb *ka* ‘to say’. *ka* does not take verbal inflection, but the agent of the saying must occur either with *di* or be a genitive pronoun. *ka* is considered a clitic here because phonologically, it is obligatorily attached to these following elements.

- (105) k-orŋé: oku intorŋ i boli-on ku ka=di Gonsudik
 ABY-go 1SG.NOM look NM buy-NLZR 1SG.GEN say=GEN.NM Gonsudik
 ‘“I can go look for what I want to buy,” says Gonsudik.’

- (106) sumakit¹⁸ isio ka=diolo?
 sick 3SG.NOM say=3PL.GEN
 ‘They say he’s sick.’

Literally, this could be translated into English as ‘statement, saying’, and (106) above could be ‘Their statement is that he’s sick.’ Many forms with a genitive meaning in Tindal seem to have a *d*- prefix. They may all derive from a single historical source, related to the noun marker *di*. This *d* occurs as a prefix on *isay* ‘who’.

- (107) d-isay manok=lo?
 GEN-who chicken=that
 ‘Whose chicken is that?’ (Literally, ‘That chicken is whose?’)

Interestingly, a number of the genitive pronouns also begin with *d* (see Table 3 above). In a few instances (always within a story), *di* occurred elsewhere, in some environment I have yet to determine. In (108) below, *di* occurs before the pronoun *yolo?*. It is tempting to say that this is an instance of the genitive pronoun *diolo?*, but this would be an unexpected instance of this pronoun, as the verb has actor focus morphology.

- (108) m<in>a-manaw di yolo? orŋé hilod t-omuh
 <in>moŋ-panaw
 <CPL>AF-walk ?? 3SG.NOM go to NLZR-market
 ‘They walked to the market.’

The prepositions *hilod* and *hitid* ‘in, at, to’ contain a suffix *d*, which may be related to this genitive. However, the *d* in this case is a suffix, rather than a prefix, and it does not function exactly as the prefix *d*- does. It does seem clear, however, that *hilod* and *hitid* are complex forms deriving (at least historically) from *ilo?* ‘that’ and *iti* ‘this’. The origin of the final *d* in these forms is still unknown.

- (109) tolu no t-ulun noko-rikot h-iti-d walé:
 three only NLZR-people AF.CPL-arrive LOC-this-GEN? house
 ‘Only three people came to the house’
- (110) nunu s<in>uarŋ nu h-ilo-d barajit
 what <CPL>enter 2SG.GEN LOC-that-GEN? basket
 ‘What did you put in the basket?’

3.8 EXISTENTIALS. The morpheme *haro* indicates a positive existence or possession.

- (111) haro i waláy ku
 EXT NM house 1SG.GEN
 ‘I have a house.’ (Literally, ‘My house exists.’)
- (112) haro walé: oku
 EXT house 1SG.NOM
 ‘I have a house.’

¹⁸ Although this form has what appears to be a regular actor focus infix *-um-*, this affix seems to be fossilized in this form, as *sakit* was not reported to be a possible form, and no other inflected forms of this word were found to occur.

- (113) haro t-abaj ku
 EXT NLZR-older.brother 1SG.GEN
 ‘I have a brother (older).’ (Literally, ‘My older brother exists.’)

In (111) above, *i waláy ku* ‘my house’ is a single noun phrase complement to *haro*. In (112) above the noun phrase complement is *walé*: ‘house’, and the pronoun *oku* forms a separate noun phrase indicates the possessor.

The clitic *ki* is an existential which can indicate possession, and it seems to favor the minimal noun phrase with the external pronominal possessor, similar to (112). This clitic attaches phonologically to whatever noun follows.

- (114) ki=t-abaj oku
 EXT=NLZR-older.brother 1SG.NOM
 ‘I have a brother (older).’
- (115) ki=t-ulan t-o-tuon be:no?
 EXT=NLZR-moon nlzr-sv-dark today
 ‘There will be moon tonight.’

3.9 NEGATION. Tindal has four different negative markers, each one with a slightly different function. *a:ʔ* is used to negate verbs, including stative verbs. In such constructions, the noun phrase that is the subject of the negated verb will be moved to the position immediately following the negative, as in (117) below (the pronoun in (116) would be expected to move anyway). This can be interpreted as a form of topicalization.

- (116) a:ʔ oku min-inum
 <um>pij-inum
 NEG 1SG.NOM <AF>RPT-drink
 ‘I didn’t drink.’
- (117) a:ʔ i Laura m<in>aŋ-anu i sada?
 NEG NM Laura <CPL>AF-take NM fish
 ‘Laura didn’t take the fish.’
- (118) a:ʔ i a-gayo t-asu=ti
 NEG NM SV-large NLZR-dog=this
 ‘This dog is not big.’

In (118) above, the noun marker *i* is moved to the focus position as a stand-in for the complex noun *tasu=ti*, presumably because the complex noun phrase cannot be fronted.

The negative *okon* is used to negate nouns and pronouns. Again, the negated element, which is in focus (nominative), moves to the position immediately following the negator.

- (119) okon i piasaw=ti
 NEG NM coconut=this
 ‘This is not a coconut.’
- (120) okon isio i noko-kito oku konihab
 NEG 1SG.NOM NM AF.CPL-see 1SG.NOM yesterday
 ‘He’s not the one I saw yesterday.’

In (120) above, the entire phrase *i nokokito oku konihab* is a relative clause modifying the head noun *isio*, and that is why the sentence has more than one nominative noun phrase.

The negative *kadaʔ* is combined with a verb to form a negative command.

- (121) kadaʔ momo-dulaʔ hilod ralan
 NEG CAUS-saliva onto street
 ‘Don’t spit on the street!’
- (122) kadaʔ sakay hodiad bas
 NEG ride that bus
 ‘Don’t ride that bus.’

aisoʔ, another negative, probably with the etymology *a:ʔ* ‘NEG’ + *isoʔ* ‘one’, is used to indicate negative existence. This functions in parallel with the existential marker *haro*.

- (123) *aṣoʔ doho*
 NEG 1SG.OBL
 ‘I have nothing.’
- (124) *aṣoʔ t-aŋ-anak ku*
 NEG NLZR-PL-child 1SG.GEN
 ‘I don’t have children.’

3.10 FOCUS. Tindal contains three types of focus morphology: actor focus, patient focus, and a third focus I tentatively call benefactive. In such sentences, the actor, the patient, and the benefactive noun phrases, respectively, are in focus. The focus is marked by the verbal morphology and, if present, pronouns. In contrast with many other focus languages, however, Tindal does not distinguish whether a non-pronominal noun phrase is nominative, genitive or oblique. Instead, Tindal has a single noun marker for both focused and non-focused noun phrases. All common and proper noun phrases take the same noun marker *i*, except for the limited cases of *di*, discussed above. In clauses without pronouns, therefore, focus interpretations are derived through a combination of verbal morphology (indicating the focus) and position in the sentence.

In a simple declarative sentence, only one noun phrase will be in focus. In the following sentence, since the verb has actor focus morphology, we know that the actor *Jason* is the focused element, even though it carries the ambiguous noun marker *i*.

- (125) *m<in>i-nandaŋ i Jason dahe:*¹⁹
 <um><in>piŋ-tandaŋ
 <AF><CPL>RPT-kick NM Jason 1PL.EXCL.OBL
 ‘Jason kicked us.’

The second argument *dahe:* ‘us’ is oblique, so it cannot be the focused element in this sentence.

TABLE 4. Focus morphemes.

MORPHEME	FOCUS	MORPHOLOGY	SPECIAL SEMANTICS
-um-	AF		inchoative
moŋ-	AF	p<um>oŋ-	
mog-	AF	p<um>og-	derivational
-on	PF		future, commands
-an	BF		
no-	PF/BF		completive

In Table 4, each focus morpheme is given, along with its underlying composition and any special semantics. As can be seen, there are a number of actor-focus morphemes. The choice among these actor-focus morphemes is lexical. Each morpheme will be discussed in more depth below.

3.10.1 ACTOR FOCUS. Actor focus is used when the speaker wants to make the actor/agent the most prominent element in the sentence. The verbal prefix *moŋ-* and the infix *-um-* both indicate basic actor focus in Tindal. In the following example, the verb has the actor focus prefix *moŋ-*, so the agent pronoun is selected from the nominative set.

- (126) *moŋ-ipih oku kaśáy*
 AF-dream 1SG.NOM often
 ‘I dream often.’

¹⁹ In this case, the pronoun does not occur as the second element of the sentence. It may be the case that this position is reserved for nominative and genitive pronouns only.

When the root begins with a voiceless obstruent, the final /ŋ/ of the prefix and the initial consonant of the root coalesce to form a nasal at the point of articulation of the original obstruent, in a process called nasal substitution. This is probably best understood as a process of complete assimilation then deletion or degemination (Blust 2004:83). Nasal substitution does not apply to initial /h/, where the final nasal remains as a velar. In (127) and (128) below, the prefix *moŋ-* has triggered nasal substitution.

- (127) mo-nulu yahe: suaŋ goʊton ma-makay sumbuhi a-taraŋ tomod
 moŋ-sulu moŋ-pakay light NM SV-bright very
 AF-point 1PL.EXCL.NOM into forest AF-use
 ‘We point into the forest with (using) a very bright light.’
- (128) ma-nahak oku t-usin
 moŋ-tahak
 AF-give 1SG.NOM NLZR-money
 ‘I am giving money.’

In addition to applying to voiceless obstruents, nasal substitution also applies to some (but not all) bases with an initial *b*. In (129) below, the initial *b* does not change, whereas in (130) it does.

- (129) ise: m<in>o-bansu? t-anak nu
 <in>moŋ-bansu?
 who AF-CPL-shirt NLZR-child 2SG.GEN
 ‘Who dressed your child?’
- (130) mo-moli oku punti suab
 moŋ-boli
 AF-buy 1SG.NOM banana tomorrow
 ‘I want to buy bananas tomorrow.’

In Austronesian languages that display nasal substitution, voiceless obstruents most commonly undergo the process. Of the voiced obstruents, *b* most frequently exhibits the process (Blust 2004). Tagalog, in fact, displays a pattern very similar to Tindal in having nasal substitution in voiceless obstruents and in some *b*-initial bases.

In Tindal, the prefix *moŋ-* loses its final nasal before sonorant consonants and voiced obstruents.

- (131) ma-dagaŋ isio punti
 AF-sell 3SG.NOM banana
 ‘He’s selling bananas.’
- (132) m<in>o-waya? i kilow siriba? ku
 <CPL>AF-crawl NM ant under 1SG.GEN
 ‘The ant crawled under me’
- (133) m<in>o-lohow i Edward moki-t-uluŋ maŋ-aŋkat i t-ambaŋ
 <CPL>AF-call.out NM Edward REQ-NLZR-help AF-carry NM NLZR-deer
 ‘Edward called out asking for help to carry the deer.’

Again, this pattern of nasal deletion before sonorant consonants and voiced obstruents is not uncommon in Austronesian languages (Blust 2004).

In addition, the verb *akan* ‘to eat’ may lose its initial vowel but still take the vowel-initial allomorph of the prefix *moŋ-* where no nasal substitution takes place.

- (134) kano maŋ-kan
 come AF-eat
 ‘Let’s eat.’

This process occurs only with this lexical item, and is probably a result of the frequency of the form.

The infix *-um-* also indicates actor focus. It frequently has an inchoative meaning. The basic position for an infix in Tindal is immediately preceding the first vowel of the stem. Infixes, then, as can be seen in (132) and (133) above, can infix into a prefix. When there are two infixes, as in (135) below, they occur in a fixed order.

- (135) s<um><in>uaŋ oku i kaday
 <AF><CPL>enter 1SG.NOM NM store
 ‘I entered the store.’

In (136) below, we can see that *-um-* has the allomorph *m-* before a vowel-initial root.

- (136) m-andad oku i bas
 AF-wait 1SG.NOM NM bus
 ‘I’m waiting for the bus.’

Tindal also has a constraint against infixing *-um-* after /p/, because it results in an impermissible succession of labials. This can be seen in the examples below, where the sequence /pum/ is reduced to /m/.

- (137) mate oku
 <um>patay
 <AF>die 1SG.NOM
 ‘I’m dying; I want to die.’
- (138) kada? morobuat
 <um>porobuat
 NEG <AF>work
 ‘Don’t work!’

This constraint has major consequences for Tindal morphology. The prefix *moy-*, discussed above, actually has an underlying morphology *p<um>oy-*, but because of this phonological constraint, this sequence is realized as *moy-*. A similar situation exists with numerous affixes in Tindal that begin with *p* in their underlying forms, and these p-initial forms are discussed below. A phonological constraint against successive labials is reconstructed for Proto-Austronesian and remains intact in many modern Austronesian languages (Wolff 1973:84).

The prefix *mog-* is a third actor focus affix that sometimes has a derivational function, changing the meaning of the root idiosyncratically. Much as in the examples above, *mog-* is has the underlying form *p<um>og-* → *mog-*.

- (139) *mog-inum* ‘to drink alcohol’ < *inum* ‘to drink’
mag-anak ‘to have children’ < (t-) *anak* ‘child’
mag-asu ‘to hunt with a dog’ < (t-) *asu* ‘dog’
- (140) o-to:d oku m<in>og-onsok ko manok
 SV-happy 1SG.NOM <CPL>AF-ripe(cook) 2SG.NOM chicken
 ‘I’m happy that you cooked chicken.’
- (141) m<in>og-ihum i Gonsudik bansu? dow
 <CPL>AF-look.for NM Gonsudik shirt 3SG.GEN
 ‘Gonsudik looked for his shirt.’

Although *mog-* seems to occur with only vowel-initial roots, an intermediate prefix may be added to the root in order to allow it to take this *mog-/pog-* prefix.

- (142) *mog-on-tian* ‘pregnant’ < *tian* ‘belly’

This distribution of *mog-* with primarily vowel-initial roots makes me suspicious that it is in fact an allomorph of some other affix, but its derivational function seems to be unique, so without further data, I am forced to treat it as a separate affix.

A few forms which take *mog-* may be in the process of being re-analyzed as beginning with an initial *g-*, because *mog-* before a vowel-initial root superficially resembles a *moy-* with a *g-* initial root, where the final nasal of the latter prefix undergoes nasal deletion. This may explain why *mog-* is a relatively rare affix. In (143a), we see the verb *idu* ‘go away’ with the prefix *noko-*. In the (143b), it occurs with the prefix *mog-* (and the infix *-in-*). This is the point at which it becomes re-analyzed, and we see it with the causative prefix *momo-* in (143c), where it has become *gidu*.

- (143) a. *noko-idu tulun* ‘The people have gone.’
 b. *m<in>og-idu* ‘went away’
 c. *momo-gidu* ‘to shoo away’

This same process may have created the pair *uli* ‘to go home’ and *guli* ‘to return’, but since they have slightly different semantics, I consider them to be separate.

In general, each verb takes only one actor-focus affix and may not alternate among the three. The choice among *moy-*, *-um-*, and *mog-* seems to be lexical, rather than phonological, much as the difference among cognates *may-*, *-um-*, and *mag-* in Tagalog. In (127) above, the verb *sulu* ‘to point’ takes the prefix *moy-*, whereas the phonologically similar verb *susu* ‘breast’ takes the infix *-um-*. Of the three affixes, *-um-* is the most productive, and it is used to create verbs from nouns. Moreover, *-um-* is generally used to make active verbs from statives.

In a few cases, *moy-* alternates with *-um-*. Examples (144) and (145) below show the alternation with the verb *tapak* ‘to slap’, and (146) and (147) illustrate the alternation with the verb *simbar* ‘to answer’.

- (144) *kano ma-napak loŋon tu? noko-rikot i datu*
moŋ-tapak
 come AF-slap hand because CPL-arrive NM candidate
 ‘Let’s clap because the candidate is here.’
- (145) *t<um><in>apak oku i mija?*
 <AF><CPL>slap 1SG.NOM NM table
 ‘I slapped the table.’
- (146) *osiaw isio mo-nimbar i t-uhot-on ku*
moŋ-simbar
 fast 3SG.NOM AF-answer NM NLZR-question-NLZR 1SG.GEN
 ‘He answered my question quickly.’
- (147) *m-uhot da:? i Gonsudik t-ulun*
 AF-question wish NM Gonsudik NLZR-people
ŋa? a:? yolo? s<um>imbar
 but NEG 3SG.NOM <AF>answer
 ‘Gonsudik asked people, but they didn’t answer’

A few other verbs, such as *ponsu?* ‘to bathe’ and *panaw* ‘to walk’, also alternate between *moy-* and *-um-*. The verb *onsok* ‘ripe’ alternates between *m-ansak* (with *-um-*) and *mog-onsok*, also with an unexplained change of vowels.

The forms *pog-* and *poŋ-* occur in imperatives or with the pseudo-auxiliary *oŋóy* ‘go’. In other words, they occur when the verb is not inflected for focus, so the prefixes do not contain the infix *-um-*. Like *moy-*, *poŋ-* induces nasal substitution.

- (148) *kada? pa-nakaw t-usin*
poŋ-takaw
 NEG AF-steal NLZR-money
 ‘Don’t steal money!’
- (149) *oŋé: paŋ-anu punti mantad yolo?*
 go AF-get banana from 3PL.OBL
 ‘Get some bananas from them!’
- (150) *kada? pog-inum*
 NEG INF-drink
 ‘Don’t drink alcohol.’

In (151) below, *miné:* is a shortened form of the verb *oŋóy* ‘go’ with the infixes *-um-* and *-in-*.

- (151) *miné: isio pog-ihum sukaŋ*
 AF.CPL.go 3SG.NOM INF-look.for durian
 ‘He went to collect durian.’

In the following sentence, we see both the uninflected *pog-* and the inflected *mog-*.

- (152) hilo²⁰ no i saq dow m<in>oŋé
 there already NM wife 3SG.GEN AF<CPL>go
 pog-ihum t-ambalut mog-iŋgat
 INF-look.for NLZR-friend AF-chew.betel.nut
 ‘His wife was nowhere in sight because she had gone to find her friends to chew betel nut.’

Because *moy-* and *mog-* both presumably derive their initial nasal from the infix *-um-*, they may be considered secondary actor focus markers, whereas *-um-* is the primary actor focus marker.

3.10.2 PATIENT FOCUS. Patient focus refers to sentences in which the patient or theme of the action is the most salient argument. It is marked by the suffix *-on*.

- (153) isio ligod-on dokow
 3SG.EMP throw-PF 2PL.GEN
 ‘You are throwing stones at him.’ (Literally, ‘He is the one you are throwing stones at.’)
- (154) tow lajad-on matuh computer dow
 don’t.know miss-PF maybe computer 3SG.GEN
 ‘I don’t know, maybe he misses his computer.’

In (153) above, the object of the action is represented by the emphatic pronoun *isio*, whereas the subject of the action is expressed by the genitive pronoun, *dokow*. In (154), the focus of the sentence is *computer dow* ‘his computer’ and the agent is omitted. Patient focus also seems to be frequently accompanied by a future meaning.

- (155) boli-on ku i t-anak ku bosikol
 buy-PF 1SG.GEN NM child 1SG.GEN bicycle
 ‘I will buy my child a bicycle.’
- (156) nunu pa-kan-on nu hodiad manok
 what CAUS-eat-PF 2SG.GEN that chicken
 ‘What will you feed to the chickens?’

In (156), the focus of the sentence is the sentence-initial question word *nunu*. Patient focus is also used in commands.

- (157) putul-on i porij
 cut-PF NM bamboo
 ‘Cut the bamboo!’
- (158) patay-on i sada?
 die-PF NM fish
 ‘Kill the fish!’

This imperative meaning may be a homophonous affix, but I include it here because it seems to occur only in transitive contexts, thus associating it with patient focus.

3.10.3 BENEFACTIVE FOCUS. The suffix *-an*, while relatively infrequent compared to actor or patient focus affixes, seems to be a third focus marker, indicating benefactive or goal focus. In Proto-Austronesian, this suffix indicated locative focus (Wolff 1973:76-79), and some of the instances of this focus could still be interpreted as locative in Tindal. However, benefactive uses of the suffix seem to be more prototypical.

- (159) na-sabak-an yolo? i t-ulun mantad Guar
 CPL-angry-BF 3PL.NOM NM NLZR-people from Guar
 ‘The people from Gaur got angry at them.’

²⁰ The underline here represents a rising intonation and associated lengthening of the vowel, which is frequently used for emphasis.

focus is the default interpretation. In either case *noko-* takes nominative pronouns for the actor of the sentence.

- (168) *noko-inton* *oku* *i* *wayan*
 CPL-watch 1SG.NOM NM show
 ‘I watched a show.’
- (169) *noko-rikot* *i* *Trixie* *diháy*
 CPL-arrive NM *Trixie* just.now
 ‘Trixie came here earlier.’

The infix *-in-* indicates completive aspect, with an intentional meaning. It co-occurs with actor focus verbal morphology.

- (170) *m<in>o-moli* *oku* *punti* *konihab*
m<in>on-boli
 <CPL>AF-buy 1SG.NOM banana yesterday
 ‘I bought bananas yesterday.’

The completive prefix *no-* occurs only with patient or benefactive focus. It does not co-occur with the patient focus suffix *-on*, but sentences such as (171) below nevertheless seem to be in patient focus because the patient is in the focus position, and the pronouns for actors are in non-focus forms.

- (171) *no-boli* *punti* *ku*
 CPL-buy banana 1SG.GEN
 ‘My banana was bought.’
- (172) *na-sabak-an* *yolo?* *i* *t-ulun* *mantad* *Guar*
 CPL-angry-BF 3PL.NOM NM NLZR-people from Guar
 ‘The people from Gaur got angry at them.’

However, the following example with *no-* was elicited on two separate occasions, once with an patient-focus interpretation ((171) above), and once with an actor-focus interpretation ((173) below).

- (173) *no-boli* *oku* *i* *punti*
 CPL-buy 1SG.NOM NM banana
 ‘I (finally) bought the bananas.’

On a separate occasion, the consultant stated that (173) above could be grammatical only with the meaning ‘The banana bought me.’ This may be evidence that the Tindal focus system is in transition, and speakers rely on pragmatics for interpretation.

It is tempting to say that *no-* is an allomorph of *-in-* which occurs only before vowel-initial roots, and that there is a separate prefix *-o* which prevents the root from co-occurring with actor-focus morphology. But verbs that take the prefix *no-* are not always able to take a prefix *o-*, suggesting that the completive prefix is *no-*, with a vowel. For example, the verb *boli* ‘to buy’ occurs with *no-*, as in (173), but the form **o-boli* is ungrammatical.

3.12.2 RECENT COMPLETIVE. The prefix *koko-* is used to indicate a recently completed action. The only examples of this prefix in the current data set had actor focus interpretations, and it remains to be investigated whether this form can occur with patient focus interpretations.

- (174) *koko-irak* *i* *t-anak* *i* *Maria*
 RECPL-laugh NM NLZR-child NM Maria
 ‘Maria’s child just laughed.’
- (175) *kaka-panaw* *yolo?*
 RECPL-walk 3SG.NOM
 ‘They just left.’

3.12.3 CONTINUATIVE. The prefix *poiŋ-* indicates that an action is continuing, and can make a stative verb from an eventive one. In (176), the action described by the verb may be completed, but it was continuative while it took place. The nasal of the prefix *poiŋ-* assimilates to the place of the following segment. Before a vowel, it remains velar.

- (176) alajd sio poj̃m-pasih
 long.time 3SG.NOM CNT-live
 ‘He lived a long time.’
- (177) poj̃n-dikaw i t-anak siriba? i pu:n
 CNT-sit NM NLZR-child under NM tree
 ‘The child is sitting under the tree.’

This prefix could be a combination of two prefixes *po-* and *ij-*, but there were no cases of this prefix *po-* occurring on its own (the only other *po-* in the data is a causative, which does not fit the meanings seen here). Possible instances of *ij-* without *po-* are ambiguous, and could always be explained as some affix other than the one that potentially forms the continuative. As mentioned above, the diphthong [oy] may become [ɛ:], so this prefix also surfaces as *pej-*.

- (178) peŋ-odop nopo isio
 CNT-sleep always 3SG.NOM
 ‘He is always sleeping.’
- (179) pen-yon oku hilod Makiki
 CNT-reside 1SG.NOM at Makiki
 ‘I live in Makiki.’

This final example was apparently a shortening of *peŋion*, as the speaker gave the longer form when he pronounced the word syllable by syllable. In this instance, the final nasal becomes alveolar /n/ after the palatal glide, because Tindal does not have a palatal nasal, and the alveolar is the only [+coronal] nasal.

3.13 OTHER AFFIXES. Tindal has a number of verbal affixes which indicate neither focus nor aspect.

3.13.1 CAUSATIVES. The prefix *po-* marks causative. This morpheme loses the final vowel before a vowel-initial root. Interestingly, in (180) the causative morpheme forces a patient-focus interpretation. The theme of the sentence, which is the first person pronoun, is in nominative form.

- (180) p<in>ihad oku i Laura
 CAUS<CPL>cry 1SG.NOM NM Laura
 ‘Laura made me cry.’

In (181), in contrast, the first person pronoun is the agent of the sentence, and it is in nominative form.

- (181) p<in>a-babak oku i galás
 <CPL>CAUS-break 1SG.NOM NM glass
 ‘I broke the glass.’

Therefore, the causative prefix *po-* does not specify actor or patient focus, but the focus is determined by the particular verb if no focus affixes are present. There may be a preference for the focused element to be animate, but in the following sentence, the agent of the sentence, the third person plural pronoun *diolo?*, is not nominative.

- (182) p<in>a-ta:p diolo? i walé: i t-odu konihab
 <CPL>CAUS-roof 3PL.GEN NM house NM NLZR-grandmother yesterday
 ‘They roofed grandmother’s house yesterday.’

Tindal also contains the causative prefixes *popo-* and *momo-*, the latter of which may be analyzed as a combination of *popo-* and *-um-*. Examples (183), (184), and (185) below illustrate the three different causatives with the stative verb *gayo* ‘large’.

- (183) po-goyo?-ón kamah i waláy nu
 CAUS-large-PF or.else NM house 2SG.GEN
 ‘You’d better enlarge your house.’

- (184) p<in>opo-goyo²² oku i walé: ku
 <CPL>CAUS-large 1SG.NOM NM house 1SG.GEN
 ‘I enlarged my house.’
- (185) mama-gayo oku i waláy ku
 CAUS-large 1SG.NOM NM house 1SG.GEN
 ‘I’m enlarging my house.’

The basic causative *po-* generally occurs with the patient-focus suffix *-on*, whereas the other two prefixes never do. In general, *momo-* occurs with intransitives (although (185) above is clearly an exception), and *popo-* occurs with transitives.

- (186) kada? momo-dula? hilod ralan
 NEG CAUS-saliva onto street
 ‘Don’t spit on the street!’
- (187) po-dula?-on lo? t-ulaŋ sada?
 CAUS-saliva-PF that NLZR-bone fish
 ‘Spit out the fishbone!’

In (186) above, we see the typical intransitive use of *momo-*, and in (187) above, we see the typical *po-* + *-on* combination.

3.13.2 MIŋ- AND PIŋ- The prefixes *piŋ-* and *miŋ-* seem to have many functions, among which are repetitive actions, dual reciprocals, and divisives. As with other affixes mentioned here, *miŋ-* is probably a combination of *piŋ-* and *-um-*, and thus has an actor focus interpretation. The following seem to be repetitives.

- (188) miŋ-ipih nopo i Wendell m-uli
 RPT.AF-dream always NM Wendell AF-go.home
 ‘Wendell is always dreaming of going home.’
- (189) miŋ-ukab-ukab i t-ina? dow i bəg mog-ihum sigup
 RPT.AF-open-open NM NLZR-mother 3SG.GEN NM bag AF-INF-look.for cigarettes
 ‘His mother kept opening his bag looking for cigarettes.’

In both of the above cases, however, the repetitive meaning can also be derived from other elements in the sentence (*nopo* ‘always’ in (188) and reduplication in (189)). The prefix *piŋ-* and its counterpart *miŋ-* exhibit sporadic nasal substitution and nasal deletion, which differ in conditioning from the nasal substitution with the prefixes *poŋ-* and *moŋ-*. In some cases, the final nasal assimilates to the root, in some, nasal substitution takes place, and in still other cases, the final nasal is deleted altogether. The conditioning for these alternatives is not yet clear.

- (190) m<in>in-tapay yolo? ŋaŋay
 <CPL>RPT.AF-make.wine 3PL.NOM all
 ‘They all made wine.’
- (191) m<in>i-nanom oku pare: turuhe:
 <in><um>piŋ-tanom
 <CPL><AF>RPT-plant 1SG.NOM rice little.while
 I planted rice for a while.

In (190) above, the final nasal assimilates, whereas in (191), it undergoes nasal substitution.

The following instances of *piŋ-* are dual reciprocals. In (192) below, the final /ŋ/ neither assimilates nor coalesces with the /s/.

- (192) m<in>iŋ-sodu oku mantad walé: ku
 <CPL>RPT.AF-far 1SG.NOM from house 1SG.GEN
 ‘I distanced myself from my house’

²² Given the root *gayo*, the expected form is *pinapagayo*.

- (193) p<in>i-odop oku i t-ina? ku
 <CPL>RPT-sleep 1SG.NOM NM NLZR-mother 1SG.GEN
 ‘My mom put me to sleep.’
- (194) mi-ruba? toko sumonu
 RPT.AF-meet 1PL.INCL next.time
 ‘We meet again next time.’ (a common leave-taking expression)

In (193) and (194) above, we see instances of the final nasal being deleted. This is unexpected with the initial vowel, and may represent another affix *pi-*.

The following forms have a divisive meaning.

- (195) pi-duo-on
 RPT-two-PF
 ‘divide into two’
- (196) pi-dua-ay toko lo? sada?
 RPT-two-IMP 1PL.INCL that fish
 ‘We divide the fish (and give two to each).’

The differences between the various meanings and forms of the affix(es) warrant further investigation.

3.13.3 REQUESTS. The verbal prefix *poki-* indicates request or demand. Its counterpart *moki-* can be analyzed as a combination of *-um-* + *poki-*, and thus has an actor-focus interpretation. These request forms are not imperatives, and the requestor does not need to be in the first or second person, as shown in (198).

- (197) moki-sinsib oku dia?
 AF.REQ-cut 1SG.NOM 2SG.OBL
 ‘I want you to cut my hair.’
- (198) moki-panaw i t-odu
 AF.REQ-walk NM NLZR-grandmother
 ‘The grandmother wants/needs help to walk.’

Much as other *p-*initial prefixes, the form *poki-* surfaces when there is either an auxiliary or the sentence is an imperative. Example (199) is both.

- (199) oŋé poki-sinsib i Michael
 go REQ-cut NM Michael
 ‘Go ask Michael for a haircut.’

3.13.4 RECIPROCAL. The prefix *mogi-* is used with a plural agent to indicate reciprocity. The default interpretation with this prefix is actor focus, which is expected of an *m-*initial prefix (assuming an underlying *-um-*, although the back formation ***pogi-* is unattested).

- (200) mogi-lisih yolo?
 RECP-love 3PL.NOM
 ‘They love each other.’
- (201) mogi-andad toko m-uli
 RECP.wait 1SG.INCL.NOM AF-go.home
 ‘Let’s go home together.’

3.13.5 IMPERATIVE. The suffix *-o?* is used for commands.

- (202) kogos-o? lo? siduon
 tie-IMP that firewood
 ‘Tie up the firewood!’
- (203) kada? irak-o? t-ulun
 NEG laugh-IMP NLZR-people
 ‘Don’t laugh at people!’

The suffix *-ay* is also an imperative, used primarily for transitive commands. It is unclear if there are any situations in which *-ay* is mandatory as opposed to *-oʔ*. Given the similarity between examples such as (202) above and (204) below, I will assume that the alternation between *-oʔ* and *-ay* is optional for transitive sentences. As mentioned above, the diphthong [ay] may be reduced to [ɛ:].

(204) tagad-ay hodiad pu:n
cut-IMP that tree
'Cut down that tree!'

(205) kadaʔ kodut-ɛ: loʔ t-adi nu
NEG pinch-IMP that NLZR-younger.sibling 2.g.GEN
'Don't pinch your younger sibling!'

In a few cases, *-ay* is used without an object, however. This may be limited to cases where the object is implied.

(206) kadaʔ uruŋ-ɛ:
NEG push-IMP
'Don't push!'

3.13.6 ABILITATIVE. The prefix *ko-* is used indicate a person's ability or inability to do something. The only examples of this prefix in the current data set have actor-focus interpretations, and it remains to be investigated whether this form can co-occur with other focus interpretations.

(207) a:ʔ isio ko-odop
NEG 3SG.NOM ABY-sleep
'He couldn't sleep.'

(208) ka-dagaŋ iti diaʔ di
ABY-sell this 2SG.OBL Q
'Can you sell this?' (Literally, 'Is this salable by you?')

In (208) above, the pronoun is not the second element in the sentence, but is preceded by *iti* 'this', which may also be a clitic, and thus can proceed the pronoun. It is precisely in cases such as these where more extensive investigations of Tindal word order are needed.

A prefix *ko-* is also used for ordinal numbers and, in one instance, to create the meaning 'daytime' from the word 'day' (with the nominalizing *t-*).

(209) ko-isoʔ 'first'
ko-duoh 'second'
ko-tolu 'third'
ko-t-odu 'daytime'

3.13.7 DESIDERATIVE. The prefix *si-* indicates desire to do something. Again, the only examples of this prefix in the current data set have actor focus interpretations, and it remains to be investigated whether this form can co-occur with other focus interpretations.

(210) si-akan oku manok
DS-eat 1SG.NOM chicken
'I feel like eating chicken.'

(211) in-san t-odow si-orŋóy i Gonsudik hilod t-omuh
CNT-one NLZR-day DS-go NM Gonsudik to NLZR-market
'One day, Gonsudik really wanted to go to the market'

3.13.8 SERIAL DISTRIBUTION. The prefix *soro-* indicates serial distribution. This affix, too, seems to have a default actor focus interpretation, but its inherent focus could be the subject of further investigation.

(212) soro-isoʔ yokow mo-monow s<um>oboroŋ loʔ jambatan
DISTR-one 2PL.NOM AF-walk <AF>cross that bridge
'You (plural) cross that bridge one-by-one.'

(213) soro-du-duoh 'two-by-two'

4. CONCLUSION. While it is tempting to reduce the polysyllabic affixes to combinations of monosyllabic affixes, at this point there is not sufficient evidence to do so in most cases. So *noko-* could be a combination of a completive *no-* and an affix *ko-*, where *ko-* is also seen in the recent completive *koko-* and in the abilitative *ko-*. However, there do not seem to be any underlying semantic similarities between these affixes in the synchronic grammar of Tindal. This same logic applies to complex forms such as *momo-* and *popo-*, which resemble other affixes, as well as *poiŋ*, which may be a combination of *iŋ-* and some unknown affix *po-*. Nevertheless, the similar shapes of the various affixes are surely not coincidences, and with further investigation, it may be possible to sort out the commonalities. Much work remains to be done on Tindal, including sorting out the various affixes, determining the exact rules for pronoun fronting, investigating the default focus interpretations for the non-focus affixes, and placing the language in a historical context.

ABBREVIATIONS:

1: first person	INF: infinitival
2: second person	LOC: locative
3: third person	NEG: negative
ABY: ability	NLZR: nominal prefix
AF: actor focus	NM: noun marker
BF: benefactive focus	NOM: nominative/focused argument
CAUS: causative	OBL: oblique argument
CNT: continuative	PF: patient focus
CPL: completive aspect	PL: plural
DISTR: serial distribution	Q: question particle
DS: desiderative	RECP: reciprocal
DUP: reduplicant	RECPL: recent completive
EMP: emphatic pronoun	REQ: request
EXCL: exclusive	RPT: repetitive
EXT: existential	SG: singular
GEN: genitive	SV: stative verb
IMP: imperative	
INCL: inclusive	

REFERENCES

- ANDERSON, STEPHEN R., and ARNOLD M. ZWICKY. 2003. Clitics. In *International Encyclopedia of Linguistics*, ed. by William J. Frawley, 325–328. Oxford: Oxford University Press.
- BLUST, ROBERT. 1979. Proto-Western Malayo Polynesian vocatives. *Bijdragen: Tot de taal-, land- en volkenkunde* 135(2–3):206-51.
- BLUST, ROBERT. 2004. Austronesian nasal substitution: A survey. *Oceanic Linguistics* 43(1):73-148.
- BOUTIN, MICHAEL E. 1993. Bonggi phonemics. In *Phonological descriptions of ten Sabah languages*, ed. by Michael E. Boutin and Inka Pekkanen, 107-30. Kota Kinabalu: Sabah Museum.
- HARRIS, A. SUE and KRISTY CHAPPLE. 1993. Tagal phonemics. In *Phonological descriptions of Sabah languages*, ed. by Michael E. Boutin and Inka Pekkanen, 71-80. Kota Kinabalu: Sabah Museum.
- HURLBUT, HOPE M. 1981. Morphophonemics of Labuk Kadazan. In *Linguistics across continents: Studies in honor of Richard S. Pittman*, ed. by Andrew Gonzalez and David Thomas, 46-53. Manila: Summer Institute of Linguistics.
- HURLBUT, HOPE M. 1988. *Verbal morphology in Eastern Kadazan*. Series B-97. Canberra: Pacific Linguistics.
- KROEGER, PAUL R. 1990. *Asu vs. tasu*: On the origins of Dusunic moveable *t-*. In *Language and oral traditions in Borneo: Selected papers from the first extraordinary conference of the Borneo research council*, ed. by James T. Collins, 93-114. Kota Kinabalu: Borneo Research Council.
- KROEGER, PAUL R. 1992. Vowel harmony in three Sabahan languages. In *Shifting patterns of language use in Borneo*, ed. by Peter W. Martin, 279-96. Kota Kinabalu: Borneo Research Council.
- KROEGER, PAUL R. 1993. Kimaragang phonemics. In *Phonological descriptions of ten Sabah languages*, ed. by Michael E. Boutin and Inka Pekkanen, 31-45. Kota Kinabalu: Sabah Museum.
- MILLER, CAROLYN. 1993. Kadazan/Dusun phonology revisited. In *A trilingual phrase book: Dusun Bundu'-Bahasa Malaysia-English*, ed. by John and Carolyn Miller, 1-14. Kota Kinabalu: Sabah Museum.
- ROBINSON, LAURA. 2005. *Proto-Dusunic phonology and reconstructions*. University of Hawai'i at Mānoa.
- WOLFF, JOHN U. 1973. Verbal inflection in Proto-Austronesian. In *Parangal kay Cecilio Lopez: Essays in honor of Cecilio Lopez on his seventy-fifth birthday*, ed. by Andrew B. Gonzalez, 71-91. Quezon City: Linguistics Society of the Philippines.