

Hawu and Dhao in eastern Indonesia: revisiting their relationship *

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Abstract

Hawu (Savu, Sawu, Sabu) and Dhao (Ndao) are spoken on three small islands in the Sabu Sea to the west of Timor Island in eastern Indonesia. Earlier observers have seen obvious similarities in their phonologies and lexicon, and some have confidently asserted that ‘Ndao’ was clearly a dialect of ‘Sawu’.

Walker (1982), on the other hand, after looking briefly at aspects of the phonology, lexicon, phrase structure and syntax, cautiously came to be “of the opinion” that “Ndao is a separate language.”

This paper revisits the issue with new data and new analyses, picking up on several features not yet described by others. It approaches the question by comparing entire subsystems of the two languages. In addition to looking at the complex phonologies and the lexicon, it explores a number of grammatical subsystems, including syntax and some interesting typological features. It also examines the issue of intelligibility more closely. While the topic is worthy of a monograph, an attempt is made here in this conference-length paper to use examples that clearly illustrate the points being made.

1. A note on language and island names¹

The HAWU language and its dialects have no /s/. Versions of the language name written with /s/ trace back to the Portuguese era, and commonly occur through the Dutch era. They continue to be preserved in the Indonesian era, apparently preserving names on maps from the Dutch without further investigation. There is an /s/ → /h/ correspondence in loans. The sound written /w/ in Hawu ranges across dialects and various speakers from a light labiodental fricative (upper teeth to inner lower lip), to a light bilabial fricative, to a semivowel. The light labiodental fricative seems most prevalent, but the older generation insists it be written as a /w/, with Dutch as their reference point, whereas many of the younger generation prefer the symbol /v/ with reference to Indonesian and English writing conventions. The name of the island continues to be written as SABU within the political system under which it currently functions. Outsiders in the region do not fricativize the intervocalic consonant and pronounce it as [sabu]. Hawu is most fully described in Walker (1982).

The DHAO language has no /nd/ sound or sequence. The spelling and pronunciation as NDAO come from the dominant Rote languages on near-by Rote Island (described in Fox and Grimes, 1995). The /dh/ digraph in the practical orthography represents a slightly retroflexed and slightly affricated voiced dental obstruent represented for convenience as [d]. The name of the tiny island continues to be NDAO within the political system under which it currently functions. A sketch of

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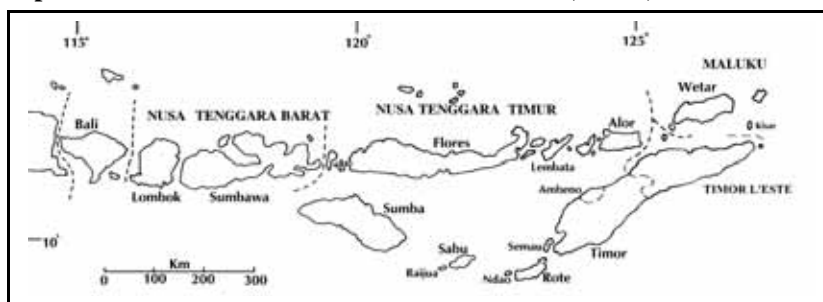
¹ My HAWU data are primarily from Bernadus Lado (Seba dialect), Rev. Simon Tari (Dimu dialect), and Rev. Thomas Ly (Dimu dialect). I have worked with approximately 15 other speakers, male and female, young and old, from the Seba, Dimu, and Raijua dialects. My exposure to the Liae and Mehara dialects has been limited to date. Menia is subsumed within the Seba dialect. My contact with Hawu has been limited to a few weeks.

My DHAO data are primarily from Lazarus Aplugi, Michael Sina, Rev. Dr. Ayub Ranoh, Paul Ledo, Helena Aplugi, and Lazarus Lusi. I have worked with approximately 25 other speakers male and female, young and old. My contact with Dhao is significantly greater than my contact with Hawu, ranging into a few months.

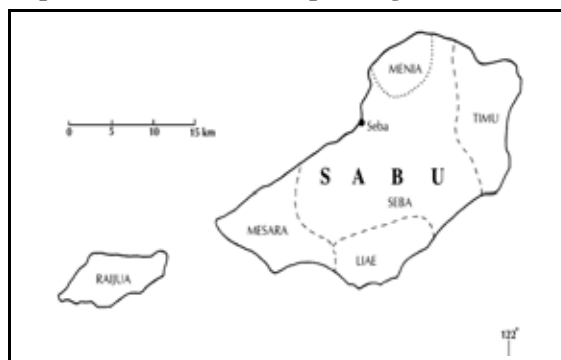
Dhao phonology is found in Grimes (1999). Notes on Dhao serial verb constructions are found in Jacob and Grimes (2005).

I write the name of the two languages in accord with discussions and requests from influential speakers of those languages who have examined the options, discussed the issues among themselves, and made informed decisions.² Speakers of both languages have expressed dismay that they are known to the outside world by names given to them by outsiders, rather than by the way they refer to themselves.

Map 1: The section of eastern Indonesia with Sabu, Ndao, and Rote islands



Map 2: The princedoms (and corresponding dialects) on Sabu Island



2. Lexical similarity gives the impression that Hawu and Dhao are dialects of the same language

When compared with languages spoken on the other islands around them, the obvious similarities between the vocabularies of Hawu and Dhao have led some writers (e.g. Jonker 1903:85-89; Fox 1977:268) to conclude that Dhao (with around 7,000 speakers) is a dialect of Hawu (with 60,000-80,000 speakers in 5 dialects).³

Figure 1: Sample of vocabulary that is identical in form and meaning

Dhao form	Dhao meaning	Hawu form	Hawu meaning
aʃa	teach (Malay loan)	aʃa	teach (Malay loan)
aʃu	tree, wood	aʃu	tree, wood
ama	father; classif. father	ama	father; classif. father
amo	root (of plant)	amo	root (of plant)
are	rice (on stalk)	are	rice (on stalk)

² Left to my own assessment, I would write the language name as Hawu.

³ A lexical database of Hawu (Grimes, Lado, Ly, and Tari, in process) currently has 1,250 entries. A small text corpus for concordance searches has over 1,000 sentences. A lexical database of Dhao (Aplugi, Grimes, Ranoh, and Sina, in process) currently has 1,586 entries. A growing text corpus for concordance searches has over 4,000 sentences.

aru	eight	aru	eight
ɗara	1) inside, 2) character ⁴	ɗara	1) inside, 2) character

Comparison of my data processed to date shows only 3% of vocabulary to be identical in form and meaning.

Figure 2: Sample of vocabulary that is similar in form and identical in meaning

Dhao form	Dhao meaning	Hawu form	Hawu meaning
ana talora	middle child	ana telora	middle child
bhəfi	sleep, lay down	bəfi	sleep, lay down
bhəlu	forget	bəlu	forget
bəsi	iron, steel	bəhi	iron, steel
dhasi	sea, body of salt water	dahi	sea, body of salt water
dhu	relativizer ‘which’	do	relativizer ‘which’
dedha	above	ɗida	above
dua	two	ɗue	two
əʃi	one	əhi	one
subha	swear an oath	hupa	swear an oath
jiʔi	we (exc)	fii	we (exc)
madhutu	1) follow, 2) obey	pedute	1) follow, 2) obey

Figure 3: Sample of vocabulary that is similar in form and slightly different in meaning or use

Dhao form	Dhao meaning	Hawu form	Hawu meaning
aado	no, not	ado	no, not ⁵
ae	many, much	ae	many, much ⁶
aʔa	elder sibling same sex	aʔa	elder sibling same sex ⁷
ana	1) offspring, 2) person ⁸	ana	1) offspring, 2) person, 3) small
ari	younger sibling s.s.	ari	younger sibling s.s. ⁹
bani	bold (vi) ¹⁰	bani	bold (vi), scold (vt)
bhədo	1) closed, 2) prison	bədo	enclosed
bəʃu	full, satiated	bəhu	1) satiated, 2) trailfood ¹¹
dhəu	person	dəu	person ¹²
kabodho	back of, behind s.o.	kebodo	anus (vulgar)
məu- məda	day and night	məda- nilodo	night and day
pa-məu	1) clean, flatten, 2) clarify, explain	pe-məu	clean s.t. (CAUS-clean)
tadəŋi	hear	rəŋe	hear

⁴ This is actually a complex entry as a noun (2 senses), preposition, and TAM marker. The structure and functions appears identical in both languages.

⁵ Different distribution, frequency, and variants.

⁶ Different order in NP. Different collocations. Different intensifiers.

⁷ Phrasal modifications for specifying gender and other relationships are quite different.

⁸ The Dhao entry for /ana/ also has several subentries for which there are no close parallels in Hawu.

⁹ Phrasal modifications for specifying gender and other relationships are quite different.

¹⁰ Dhao does not have the transitive use with the sense of ‘scold, rebuke’.

¹¹ Dhao does not use this form as a noun meaning ‘trailfood’. It uses a different lexeme altogether.

¹² The Hawu form becomes /do/ when modified. The Dhao form remains constant.

Comparison of my data processed to date shows I have marked only 10% of vocabulary to be similar in form or only slightly different meaning or use.¹³

Figure 4: Sample of vocabulary that is unrelated in form

Dhao form	Dhao meaning	Hawu form	Hawu meaning
si	collective plural ¹⁴	he	collective plural
məu	daytime, daylight	nilodo	daytime, daylight
leo, paleo, kabi	marry, wed	baŋa əmu	marry, wed
rəŋu	3p free pronoun	roo	3p free pronoun
cee	who	naduu	who
aaʔi-aaʔi	all, every	hari-əle	all, every
nidhu	1) spirit of dead person; 2) evil spirit	vaŋo	evil spirit
te ŋaa	but	tapulara	but

There are hundreds (probably thousands) of vocabulary items in which the Hawu and Dhao forms are unrelated or are used quite differently.

While the impression that Hawu and Dhao are both dialects of the same language is not at all unreasonable, I argue in this paper that a careful examination of various subsystems of the language indicates that they are so different they MUST be considered separate languages. Since language is a complex system comprised of many complex subsystems, looking at only one or two subsystems for comparison should be inadequate by definition for understanding the relationship between two related speech varieties that have both clear similarities and clear differences.

3. The sound systems (phonologies)

In comparing the sound inventories of the two languages it becomes quickly apparent that while there are clear similarities, there are also significant systemic differences.

3.1 Dhao phonology

Dhao has the following consonants.

Figure 5: Dhao consonants (with practical orthography symbols in parentheses)¹⁵

	Labial	Apical	Laminal	Dorsal	Glottal
Stop VOICELESS	p	t	tʃ (c)	k	ʔ (')
Stop VOICED	b	d	dʒ (j)	g	
Implosive	ɓ (b')	d' (d')	ʃ (j')	g' (g')	
Affricate/Retroflex	ɓβ (bh)	d, (dh)			ɣ (#VV)
Fricative	[f]	s			h
Nasal	m	n	ɲ (ny)	ŋ (ng)	
Lateral		l			
Trill		r			
Semivowel	[w]		[y]		

Dhao has three contrastive grades of voiced obstruents.¹⁶ The /bh/ is a lightly articulated voiced bilabial affricate. As mentioned above, the /dh/ a slightly retroflexed, lightly articulated alveolar

¹³ I am aware that this is not yet systematic or complete.

¹⁴ The Hawu form focuses on the unity of the group, being another function and distribution of /he/ 'one'. The Dhao form /si/ focuses on the individuation within the group, deriving from the historical 3p form *siDa.

¹⁵ Loan phonemes are indicated in square brackets []. These are found mostly in proper names, and a few high frequency loans that have come in via Malay.

¹⁶ Walker (1982:57ff) only identified two for Dhao. This skewed his comparison of Hawu and Dhao phonologies.

affricate. The voiced glottal sound marked /ʔ/ is articulated by some speakers as a pharyngeal constriction to a vowel onset, and by other speakers as a lack of a glottal stop onset (contrasting with a glottal stop onset) to a vowel-initial word in a phrase.¹⁷ The following examples illustrate some of the contrasts.

- (1) [ana bebo] **ana bebo** 'calf (of leg)'
 [babia] **babia** 'burden'
 [baʔa] **bab'a** 'short'
 [bβabβani] **bhabhani** 'female arrogance'
 [kabβisa] **kabhisa** 'bag woven from lontar leaves'
 [kabitʃu] **kabicu** 'corner'
- (2) [madəɖ:i] **madèdhi** 'sit'
 [maɖe] **madhe** 'die, dead'
 [musi maɖa] **musi madha** 'eyeball'
 [meda] **meda** 'yesterday'
 [məd:a] **mèda** 'night'
 [məɖ:a] **mèdha** 'thing'
 [məd:u] **mèd'u** '2-hold'
- (3) [dʒara] **jara** 'horse'
 [ʃara] **j'ara** 'path, way'
 [ʃala] **j'ala** 'castnet (loan)'
 [ʃə:r:a] **j'èra** 'difficulty'

Dhao has a six vowel system.

Figure 6: Dhao vowels

	Front	Central	Back
High	i		u
Mid	e	ə (è)	o
Low		a	

Phonetically long vowels are a sequence of two vowels. There are no single unit diphthongs.

WORD STRESS falls on the penultimate syllable of the word. Each vowel is a syllable nucleus, so stress falls on the penultimate vowel in VV sequences, regardless of whether the two vowels are same or different.

A stressed schwa /ə/ in a VCV# sequence results in phonetic lengthening of the following consonant. Because this is predictable it is not written in either the transcription or the practical orthography (as shown in the examples above).

These patterns result in a need to be able to distinguish between single (short) vowels, double (long) like vowels, and intervocalic glottal between like vowels.

- (4) [ne] **ne** '3s proximal object pronoun (short)'
 [neʔe] **ne'e** 'proximal deictic'
 [ŋaŋe:] **ngangee** 'thinking'
 [tʃe:] **cee** 'who'
- (5) [ra] **ra** '3p pronominal clitic'
 [ra:] **raa** 'blood'
 [raʔa] **ra'a** '3p-eat'

¹⁷ When presented with a systematic way of representing these three grades of voiced obstruents, native speakers are able to not only read them easily but also identify and write them consistently. The idea to write the contrastive onset in the practical orthography as a double vowel onset was suggested by Lazarus Aplugi and Michael Sina. It works quite brilliantly.

The double vowel onset in the practical orthography noted in the discussion of Figure 5 is contrastive. But it has extremely limited distribution. It seems to function at a lexical or phrasal level, and hence is not a phoneme of the same sort as the others.

(6)	[dʰə ʔæ]	dhèu ae	'many people'
	[dʰə ɛæ]	dhèu aae	'king'
	[ʔə:l:e]	èle	'complete, finished, done'
	[ʔele]	ele	'disappear'
	[tək:e ɛele]	tèke eele	'abandon s.t., leave s.t. behind' ¹⁸
	[ʔiki]	iki	'small'
	[ʔana ɪiki]	ana iiki	'small child'
	[ʔuru]	uru	'first, prior, preceding'
	[nət:i ʔuru ka mai]	nèti uru ka mai	'from long ago'
	[ʔana ɛuru]	ana uuru	'eldest child'
	[ɛa:]	aa	'and (conjunction)'
	[ɛo:]	oo	'also, as well, additionally (adverb)'

3.2 Hawu phonology

Hawu has the following consonants.

Figure 7: Hawu consonants (with practical orthography symbols in parentheses)

		Labial	Apical	Laminal	Dorsal	Glottal
Stop	VOICELESS	p	t		k	ʔ (')
Stop	VOICED	b	d	dʒ (j)	g	
Implosive		ɓ (b')	ɗ (d')	ʃ (j')	ɡ (g')	
Fricative		v (w)				h
Nasal		m	n	ɲ (ny)	ŋ (ng)	
Lateral			l			
Trill			r			
Semivowel				(y) ¹⁹		

The labiodental voiced fricative /v/ is most commonly articulated with upper teeth to inner lower lip. It is sometimes realised as a semivowel, but this seems to be linked more to speaker preference than to dialect or complementary distribution. I have heard it fricativised before all vowels, and in both stressed and unstressed syllables, although it is more likely to be articulated as a semivowel in the onset of an unstressed syllable. Examples of contrasts of Hawu consonants can be found in Walker (1982).

Hawu has a six vowel system.

Figure 8: Hawu vowels

	Front	Central	Back
High	i		u
Mid	e	ə (è)	o
Low		a	

Phonetically long vowels are a sequence of two vowels. There are no single unit diphthongs.

WORD STRESS falls on the penultimate syllable of the word. Each vowel is a syllable nucleus, so stress falls on the penultimate vowel in VV sequences, regardless of whether the two vowels are same or different.

¹⁸ The word *eele* here turns an activity verb into an accomplishment verb. See Jacob and Grimes (2005).

¹⁹ The Seba dialect has a [y] onset for some lexical items that have implosive [ɓ] in the Dimu and Raijua dialects.

A stressed schwa /ə/ in a VCV# sequence results in phonetic lengthening of the following consonant. Because this is predictable it is not written in the practical orthography (as illustrated in examples 2, 3 and 7).

These patterns result in a need to be able to distinguish between single (short) vowels, double (long) like vowels, and intervocalic glottal between like vowels.

(7)	[ŋa]	nga	'with (preposition)'
	[niŋa:]	ningaa	'what?'
	[ŋaʔa]	nga'a	'eat, consume (v), food (n)'
	[ŋali]	ngali	'senile'
	[ŋəl:u]	ngèlu	'wind'

3.3 Comparing the two systems

The similarities and differences between the two languages can be seen more easily when compared side by side.

Figure 9: Dhao consonant system compared with Hawu consonant system

	Dhao					Hawu				
	Labial	Apical	Laminal	Dorsal	Glottal	Labial	Apical	Laminal	Dorsal	Glottal
Stop VOICELESS	p	t	tʃ	k	ʔ	p	t		k	ʔ
Stop VOICED	b	d	dʒ	g		b	d	dʒ	g	
Implosive	ɓ	ɗ	f	ɠ		ɓ	ɗ	f	ɠ	
Affricate/Retroflex	bʃ	dʒ			ɣ (#VV)					
Fricative		s			h	v				h
Nasal	m	n	ɲ	ŋ		m	n	ɲ	ŋ	
Lateral		l					l			
Trill		r					r			
Semivowel								y ²⁰		

Dhao has a whole consonant grade that Hawu does not have. Dhao has /c/ and /s/ that Hawu does not have. Hawu has /v/ that Dhao does not have. The contrastive vowel onset found in Dhao has no parallel in Hawu.

The 6-vowel systems and word stress are virtually identical. This includes phonetically long vowels functioning phonemically as two syllables (widespread in Central Malayo-Polynesian languages), and the stressed schwa /ə/ triggering phonetic lengthening of the following consonant.²¹

There seems to be a template driven vowel in the antepenultimate slot for prefixes, even frozen ones, such that Dhao uses /a/, while Hawu uses /e/.

Figure 10: Antepenultimate vowel (Dhao /a/, Hawu /e/)

Dhao	Hawu	Gloss
ca-ŋasu	he-ŋahu	one hundred
ca-ŋuru	he-ŋuru	ten
ca-bəka	he-bəka	side, part
kacui aai	kehui ai	hand, finger // finger
kapai	kepai	big, important // big
madhaʔu	medaʔu	afraid

²⁰ The Seba dialect has a [y] onset for some lexical items that have implosive [ɓ] in the Dimu and Raijua dialects.

²¹ Similar but slightly different patterns with schwa /ə/ triggering lengthening of the following consonant are found in other languages in the region, such as Ngad'a on the island of Flores to the north of Sabu (Djawanai & Grimes, 1995).

madhera	medera	<i>long // tall, long</i>
pa-mari	pe-mari	<i>RECIP-laugh</i>
pa-bhəlu	pe-bəlu	<i>CAUS-forget (active, deliberate)</i>
sabafa	hebafa	<i>pray, worship (loan)</i>

The information laid out in Figure 9 above is actually misleading, giving the impression that because the two SYSTEMS are similar, there is a one-to-one correspondence between the two languages (e.g. an implosive /ɓ/ in Dhao is represented by an implosive /ɓ/ in the cognate word in Hawu). The data show such correspondence is not what one would assume. Figure 11 shows that there are actually significant differences in the phonologies of the two languages.

Figure 11: Sound correspondences between Dhao and Hawu

Differen t	Dhao	Hawu	Dhao	Hawu	Gloss	Tentative ²²
	p	p	peka	pika	<i>speak</i>	
	p	p	əpa	əpa	<i>four</i>	
	t	t	tadhe	tade	<i>know s.o.</i>	
	t	t	suti	huti	<i>drip // flow out</i>	
	k	k	kako	kako	<i>walk, move, go</i>	
**	k	g	j'əke	j'ege	<i>scold, rebuke</i>	??
	ʔ	ʔ	ngaʔa	ngaʔa	<i>1px-eat // eat</i>	
**	c	h	caʔe	haʔe	<i>ascend, climb</i>	
**	c	h	əci	əhi	<i>one</i>	
**	s	h	sab'a	hab'a	<i>work // business, effort²³</i>	
**	s	h	risi	rihi	<i>more, excess</i>	
	h	h	həba	həb'a	<i>mouth, orifice, door²⁴</i>	
**	h	v	hadhu	vovadu	<i>rock, stone</i>	
**	h	v	hahi	vavi	<i>pig, swine</i>	
**	b	ɓ	badha	b'ada	<i>animal</i>	
**	b	ɓ	həba	həb'a	<i>mouth, orifice, door</i>	
	ɓ	(?)	b'uʔi mari	??	<i>smile</i>	??
	ɓ	ɓ	sab'a	hab'a	<i>work // business, effort</i>	??
**	bh	b	bhəni	bəni	<i>female, woman</i>	
**	bh	b	sabha	haba	<i>lontar leaf bucket</i>	
**	bh	p	subha	hupa	<i>swear an oath</i>	??
**	d	ɗ	dai	d'ai	<i>arrive, until</i>	
**	d	ɗ	məda	məd'a	<i>night</i>	
	ɗ	ɗ	d'əlu	d'əlu	<i>abdomen, stomach</i>	
	ɗ	ɗ	lod'o	lod'o	<i>1) sun, 2) day²⁵</i>	
**	dh	d	dhari	dari	<i>rope, cord</i>	
**	dh	d	madhe	made	<i>die, dead</i>	
**	j	f/y	jaʔa	j'aa/yaa	<i>1s pronoun</i>	
	j	j	pajuu	pejuu	<i>order, command</i>	??
	f	f	j'amo	j'amu	<i>wash (hands)²⁶</i>	
	f	f	aj'u	aj'u	<i>wood, tree</i>	
	g	g	golo	golo	<i>loose (adj) // free (vt)</i>	??
	g	??	haga	??	<i>foot, leg</i>	??

²² Data are sparse. Only 0-2 cognates found to illustrate the correspondence, so confidence is not high.

²³ In Hawu the high frequency verb for 'work' in general is *j'əga*.

²⁴ In Hawu the form */vuɓa/* is more commonly used for a human mouth or a spokesperson.

²⁵ Dhao has a third sense of '3) when'.

²⁶ The Dhao word includes 'plates' as a common object, whereas the Hawu word does not.

g	g	g'ətu	g'ətu	<i>pick, pluck (fruit, grain)</i>	??
g	g	cahag'e	hag'e	<i>some, several</i>	??
m	m	madha əi	mada əi	<i>well // spring</i>	
m	m	ama	ama	<i>father, classif. father</i>	
n	n	naha	nava	<i>wave (of sea)</i>	
n	n	ina	ina	<i>mother, classif. mother</i>	
ɲ	ɲ	nyiu	runyiu	<i>coconut // coconut palm</i>	??
ɲ	ɲ	manyilu	menyilu	<i>sour</i>	
ŋ	ŋ	ŋara	ŋara	<i>name</i>	
ŋ	ŋ	manəŋi	menəŋi	<i>ask, request²⁷</i>	
l	l	lere	lere	<i>escort</i>	
l	l	ele	ele	<i>disappear</i>	
r	r	rai	rai	<i>land, region²⁸</i>	
r	r	ari	ari	<i>younger sibling same sex</i>	

In Figure 11 above, 17 out of 47 sound correspondences between Dhao and Hawu are different (36%)

3.4 Historical sound correspondences

Differences between Dhao and Hawu are also highlighted when comparing historical sound correspondences. Historical final consonants are lost in both languages.

Figure 12: Historical sound correspondences with PAN/PMP²⁹

Different	PAN/PMP	Dhao	Hawu	Comment	Tentative
	*p	∅	∅	<i>initial and medial</i>	
	*p	p	p	<i>prefixes and numbers</i>	
	*(m)p	p	p		
**	*b	h	v	<i>initial and medial</i>	
**	*b	b	b	<i>initial in antepenultimate syll.</i>	??
**	*b	bh	b	<i>reduced CC cluster?</i>	
**	*C	dh	d	<i>initial and medial</i>	
**	*t	dh	d	<i>initial and medial</i>	
**	*T	dh	d	<i>initial</i>	
**	*d	d	f	<i>initial</i>	
	*d	r	r	<i>initial and medial</i>	
	*D	ɖ	ɖ	<i>initial</i>	
	*D	r	r	<i>medial</i>	
	*j	r	r	<i>medial</i>	
	*z	f	f	<i>initial</i>	
	*k	∅ (?)	∅ (?)	<i>initial</i>	
	*k	?	?	<i>medial</i>	
	*(n)k	k	k		
**	*s	c	h	<i>initial and medial (high vowels?)</i>	
**	*s	s	h	<i>medial</i>	
	*S	∅	∅	<i>medial</i>	
	*m	m	m	<i>initial and medial</i>	
	*n	n	n	<i>initial and medial</i>	
	*ɲ	ɲ	ɲ	<i>initial</i>	
	*ɲ	n	n	<i>medial</i>	

²⁷ In Hawu, /huba/ and /ami/ are used with much greater frequency.

²⁸ Hawu has a third sense of '3) clay'.

²⁹ This is not exhaustive. It is limited by the patterns observable in my data to date.

*ŋ	ŋ	ŋ	initial and medial
*l	r	r	initial and medial
*R	∅	∅	initial and medial
*q	∅	∅	initial and medial
*w	∅	∅	initial and medial
<hr/>			
*i	i	i	
*e	e	e	
*e	ə	ə	
*e	a	a	last syllable in disyllabic root
*a	a	a	
*u	u	u	
*u	o	o	both syllables /u/
*-ay	i	i	
*-ay	e	e	harmony of V height with mid V
*-ey	e	e	
*-uy	i	i	
*-aw	o	o	
*-iw	fu	fu	*kaSiw 'wood'
*-iw	i	i	*laRiw 'run'
*i(C)a	ə(C)i	ə(C)i	any consonant // metathesis
*u(C)a	ə(C)u	ə(C)u	any consonant // metathesis
*a(C)i	əi	əi	where *Consonant is lost
*a(C)u	əu	əu	where *Consonant is lost
*au	əu	əu	
*a + *i	e	e	

4. Various grammatical subsystems

When one looks beyond the phonologies and lexicons at various grammatical subsystems, one is struck by the cumulative effect of the differences.

4.1 Personal deixis (pronominal systems)

Dhao has a more complex pronominal system than does Hawu. V-initial verb roots are inflected for person and number in Dhao, but not in Hawu. Dhao also has a set of pronominal clitics which can function as Actor proclitics, Undergoer enclitics, and Genitive enclitics. Hawu uses the free pronoun for all those functions.

Figure 13: Comparing Dhao and Hawu pronominal systems

	Dhao			Hawu		Diff.
	Vb pref	Clitic	Free Pron	Free Pron	Variant	
1s	k-	ku	jaʔa	yaa	ʃaa, joo ³⁰	**
2s	m-	mu	əu	əu	au, ou	
3s	n-	na ³¹	nəŋu	noo		**
1pi	t-	ti	ədhi	dii		**
1px	ŋ-	ŋa	jiʔi	ʃii		**
2p	m-	mi	miu	muu		**
3p	r-	ra ³²	rəŋu	raa	naa ³³	**

³⁰ The dominant Seba dialect uses /yaa/. Dimu and Raijua Wawa use /j'aa/. Raijua D'ida uses /joo/.

³¹ An alternate form for 3s object enclitic which adds proximal referential deixis is /ne/.

³² An alternate form for 3p object enclitic which adds proximal referential deixis is /si/. It also doubles as a collective plural.

³³ Raijua dialect.

Only the 2s free pronouns are identical in form. There is potential confusion between similar forms between Dhao 2s clitic /*mu*/ and Hawu 2p free pronoun /*muu*/. There is also potential for confusion between Dhao 3s clitic /*na*/ and Hawu (Raijua dialect) 3p free pronoun /*naa*/.

4.2 Spatial, temporal and referential deixis

Compared to Dhao, the Hawu system is quite complex.

4.2.1 Dhao deictics

Dhao deictics are based on a three-way system, also marked for number.

Figure 14: Dhao deictic system

	Singular	Plural
Proximal (<i>here, now, this</i>)	neʔe, ne	seʔe, se
Distal (<i>there, then, that</i>)	əna, əna	səra
Remote (<i>yonder</i>)	nəi	səi

4.2.2 Hawu deictics

The Hawu deictics are obviously complex, and my data are incomplete, so what is presented here is preliminary.³⁴ It is sufficient to note similarities and differences with Dhao. Overall, the systems are quite different, and a source of confusion for speakers of one language learning the other.

Figure 15: Hawu deictic system

	Simple	Locative	Compare ³⁵
Immediate (<i>right here, right now</i>)	dee		
Proximal (<i>here, now, this</i>)	nee	na nee	mi (na) hee
Neutral (<i>the, definite, specific</i>)	əne, ne	na əne, nəne	mi (na) həre
Distal (<i>there, then, that</i>)	nəi	na nəi	mi (na) hei
Remote (<i>yonder</i>)	nii	na nii	mi (na) hii

4.3 Negation

The negation systems show significant differences in form, function, and distribution.

Figure 16: Dhao and Hawu negatives

Function	Dhao form	Dhao gloss	Hawu form	Hawu gloss
General negation	aado	<i>no, not</i>	ado, dodo ³⁶	<i>no, not</i>
Verbal	boe, be	<i>not</i>	do	<i>not</i>
Prohibitive	baku	<i>don't, shouldn't</i>	bole	<i>don't</i>
Temporal	dhæ	<i>not yet</i>	ado dae	<i>not yet</i>
	məka	<i>not yet</i>	(daedo, dedo) ³⁷	<i>not yet</i>
	heka ³⁸	<i>no longer, not any more</i>	doke	<i>no longer</i>
	nəbhu boe	<i>not long from now (soon)</i>	tui do	<i>not long</i>
	ia ka	<i>so that...not, lest</i>		
Modal	parluu boe	<i>not necessary</i>	tenge doke	<i>not necessary</i>
	bisa boe	<i>not allowed, can't</i>	ie do	<i>not allowed</i>
Tag	do aado	<i>or not?</i>	ve ado	<i>or not?</i>

³⁴ Walker (1982:11-12) presents an even more complex system. I am not yet in a position to either confirm or dispute his analysis.

³⁵ E.g. like this, like that, etc.

³⁶ Walker (1982:47-48) observes that /*ad'o*/ is the form most commonly negating nominal arguments, whereas /*d'o*/ is most commonly found negating verbal constituents.

³⁷ Both of these forms are from the Raijua dialect.

³⁸ Also /*aad'o heka*/.

4.4 Inflection on verbs

What verbs are marked, and how they are marked are very different between Dhao and Hawu.

4.4.1 Inflection on Dhao verbs and prepositions

Dhao is a dominant head-marking language (Nichols 1976). It inflects vowel-initial verb and preposition roots for person and number. Hawu has no parallel inflection.

Figure 17: Subject/Actor inflection on Dhao verb roots

	Pref	-ad'o 'visit'	-a'a 'eat'	-are ³⁹ 'take'	-e'a 'know'	-ədhi 'see'	-əd'u 'hold'	-əti ⁴⁰ 'carry'	-inu 'drink'	-o'o 'want'
1s	kU-	kad'o	ko'a	kore	ke'a	kədhi	kəd'u	kəti	kinu	ko'o
2s	mU-	mad'o	mo'a	more	me'a	mədhi	məd'u	məti	minu	mo'o
3s	n-	nad'o	na'a	nare	ne'a	nədhi	nəd'u	nəti	ninu	no'o
1pi	t-	tad'o	ta'a	tare	te'a	tədhi	təd'u	təti	tinu	to'o
1px	ŋ-	ŋad'o	ŋa'a	ŋare	ŋe'a	ŋədhi	ŋəd'u	ŋəti	ŋinu	ŋo'o
2p	ml-	mad'o	mi'a	mere	me'a	mədhi	məd'u	məti	minu	mo'o
3p	r-	rad'o	ra'a	rare	re'a	rədhi	rəd'u	rəti	rinu	ro'o

Dhao also has one intradirective verb (Pawley 1973) inflected with a set of Undergoer suffixes.

	Suff	la'- 'go' ⁴¹
1s	-ku	laku
2s	-mu	lamu
3s	-a	la'a, la'e
1pi	-ti	lati
1px	??	(not found in corpus)
2p	-mi	lami
3p	-si	lasi

4.4.2 Object marking on Hawu verbs

Hawu has a large class of verbs that mark number agreement with the Object NP (absolutive argument). The Plural object is the unmarked form. The Singular object is marked by a suffix *-e*, which can trigger morphophonemic changes and harmony of vowel height. The examples below are only a sampling. Dhao has no parallel agreement system.

(8)	<u>Plural object</u>	<u>Singular object</u>	<u>Gloss</u>	a + e → e
	aj'a	aj'e	teach (loan)	
	bəka	bəke	split, divide	
	b'ata	b'ate	1) block, 2) herd	
	əba	əbe	escort	
	jaga	jage	watch, guard (loan)	
	j'əga	j'əge	work, job responsibilities	
	mata	mate	wait for	
	ŋaʔa	ŋaʔe	eat	
(9)	<u>Plural object</u>	<u>Singular object</u>	<u>Gloss</u>	i + e → e
	b'ui	b'ue	sprinkle, spray	
	b'uki	b'uke	write	

³⁹ In serial verb constructions, this can also mark aspect 'already, perfective'. See Jacob & Grimes (2005) for more examples and discussion. /nare/ can also function as a temporal preposition 'for (duration)'.
⁴⁰ /nəti/ also functions as a preposition 'from, about', and as a conjunction 'because'.
⁴¹ From PMP *lakaw 'go, walk'.

	d'ai	d'ae	arrive at	
	d'ahi	d'ahe	1) weigh, 2) evaluate	
	d'ui	d'ue	shoulder carry	
	həmi	həme	receive, get	
(10)	Plural object	Singular object	Gloss	u(C)u + e → u(C)e
	b'uju	b'uje	touch	
	pedutu	pedute	1) follow, 2) obey	
	pejuu	pejue	order, command	
	pepuru	pepure	lower s.t.	
(11)	Plural object	Singular object	Gloss	o(C)o + e → o(C)e
	hero?o	hero?e	carry while embracing	
	kelolo	kelole	confess	
	pemoko	pemoke	1) prepare s.t., 2) serve	
(12)	Plural object	Singular object	Gloss	i/ə(C)u + e → i/ə(C)o
	bəlu	bəlo	forget	
	g'ətu	g'əto	pick, pluck (fruit, grain)	
	həku	həko	try, attempt	
	pej'iu	pej'io	bathe s.o.	
(13)	Plural object	Singular object	Gloss	i(C)a + e → e(C)e (harmony of height)
	liba	lebe	broadcast (seed)	
	pepika	pepeke	tell, proclaim, report	

4.5 Tense-aspect-mood markers and other adverbials

Understanding the TAM marking and adverbials is critical for successful communication. It is here where nuances of meaning are finessed. Missing the subtle clues in the TAM systems can make one miss the point, even if one understands the content words. The 'noise' is too great.

Not only are these terms very different between Dhao and Hawu, but the way they are used in sentences is also very different. There is no attempt to be exhaustive in examples below.

Figure 18: Comparing Dhao and Hawu TAM markers

Dhao form	Dhao gloss	Hawu form	Hawu gloss	Clash ⁴²
ho	<i>Irrealis, purpose</i>	la	<i>IRR (away from Actor/speaker)</i>	Dh. LocDat prep /la/
		ma	<i>IRR (toward Actor/speaker)</i>	Dh. HumDat prep /ma/
nia, abhu, bisa	<i>able to</i>	i?a, nara	<i>can, be able to</i>	Dh. /i'a/ 'fish'
parluu	<i>need to (loan)</i>	teŋe	<i>need to</i>	Dh. /teŋe/ 'look for'
səku	<i>try to</i>	həku	<i>try to</i>	
hudí	<i>must, have to</i>			Hw. /hud'i/ 'chase'
tema, biasa	<i>normally</i>	tima, biasa	<i>normally</i>	
ore, iia d'ara	<i>pointlessly</i>			Hw. /ore/ 'along edge'
ku, laa	<i>first, now; imper.</i>			Hw. /la/ 'irrealis'
era	<i>still, yet</i>	dae, ko	<i>still, yet</i>	Dh. /dhae/ 'not yet' !!
dhu	<i>durative, -ing</i>	do	<i>stative (durative?)⁴³</i>	Dh. /do/ 'or'

⁴² Because the form is identical to a word with a different meaning or function in the other language, there is great potential for miscommunication.

⁴³ Walker (1982:28) describes the function of this /do/ as 'stative'. I'm still analysing it.

		ŋa	<i>durative, continuative</i>	Dh. /ŋa/ '1px clitic'
nare	<i>perfective in SVC</i>	məke	<i>already, PRF</i>	Dh. /məka/ 'not yet' !!
ele, le	<i>already, PRF</i>	əla	<i>already, PRF</i>	
pe	<i>later, in future</i>	pe	<i>completive</i>	***!!
		pee	<i>keep doing, continuous</i>	***

Figure 19: Comparing other Dhao and Hawu adverbials

Dhao form	Dhao gloss	Hawu form	Hawu gloss	Clash
oe	<i>almost, nearly</i>	higa ⁴⁴	<i>almost, nearly</i>	
dai	<i>very</i>	ɗai	<i>very</i>	
seli, kolane	<i>excessively</i>			
həi, kahəi	<i>also</i>	leko, lema, ma	<i>also</i>	
dhoka, dhodhoka	<i>only, exclusively</i>	tuu ta ma,	<i>only, exclus.</i>	
(dhoka)...dii	<i>just, merely</i>	heve, neke, ve	<i>just, merely</i>	Hw. /dii/ '1pi Pro'
hari	<i>again</i>	rike, rii, keɓali, vari	<i>again</i>	Hw /hari/ 'all'
taruu-taruu	<i>continually</i>	loro-loro, peloro	<i>continually</i>	
lai-lai, malai	<i>quickly</i>	məriai	<i>quickly</i>	
karohə-rohə	<i>quickly</i>			
nee-nee, mau-mau	<i>quietly</i>			
ako	<i>rather, a bit, -ish</i>			
asa	<i>increasingly</i>			
rupa-rupa	<i>various sorts of</i>			
kəna	<i>emphatic</i>			
		vəri	<i>anymore</i>	
tare?a-re?a	<i>really, truly</i>	petuu-petuu, tərə-tərə	<i>really, truly</i>	
mema	1) <i>really,</i> 2) <i>directly</i> 3) <i>beforehand</i>	ɗəŋe	1) <i>directly</i> 2) <i>beforehand</i>	Dh. /ɗəŋel/ 'with'

Figure 20: Comparing selected Dhao and Hawu time words and phrases

Dhao form	Dhao gloss	Hawu form	Hawu gloss	Clash
deo na, deo ne?e	<i>recent, just now</i>	ngine	<i>just now, earlier</i>	
pe	<i>later, in future</i>	hine, leto	<i>later, in future</i>	Hw. /pe/ 'complet'
bəli	<i>next day</i>	ɓəli rai	<i>next day</i>	
madae	<i>morning</i>	madae	<i>soon, near future</i>	***!!
madae aae	<i>early morning</i>	məu rai	<i>morning, day</i>	
meda	<i>yesterday</i>	miɗa	<i>yesterday</i>	
məda	<i>night</i>	məɗa	<i>night</i>	
məu	<i>daytime</i>	niɓoɗo, məu rai	<i>daytime</i>	Hw. /məu/ 'clean'
loɗo nətu	<i>noon, midday</i>	nətu loɗo	<i>noon, midday</i>	
nihia	<i>afternoon</i>	horo loɗo, məɗa loɗo	<i>late afternoon</i>	
ropa loɗo cəna	<i>at sunset</i>	ta jəna ne loɗo	<i>at sunset</i>	
caməda	<i>day after</i>	nəli (S), heməda (D)	<i>day aft</i>	***45

⁴⁴ The Dimu form is /ege/ 'almost, nearly'.

	<i>tomorrow</i>		<i>tomorrow</i>	
məu-məda	<i>day and night</i>	məda-nilodo	<i>night and day</i>	
nəbhu	<i>long time</i>	tui	<i>long span of time</i>	
nəbhu-nəbhu	<i>eventually</i>	pedəka rai	<i>eventually</i>	
nəbhu boe	<i>soon, not long</i>	tui do	<i>soon, not long</i>	
lodo-lodo	<i>daily, often</i>	helodo-helodo	<i>daily, normal</i>	
təu	<i>year</i>	təu	<i>year</i>	
uru	<i>first, prior</i>	uru	<i>first, prior</i>	
nəti uru ka mai	<i>from long ago</i>	rai uru (rai telora)	<i>from long ago</i>	
taa, tebho, lodo	<i>time</i>	ave	<i>time</i>	Hw. /taa/ 'bag'
lodo babeʔa	<i>holiday</i>	lodo mone ae	<i>holiday</i>	
toke dai mia-mia	<i>forever and ever</i>	hape la lodo namii-mii	<i>forever and ever</i>	

4.6 Prepositions

Figure 21: Comparing Dhao and Hawu prepositions

Dhao form	Dhao gloss	Hawu form	Hawu gloss
aku	<i>according to</i>		
asa, sa	<i>to (toward place)</i>	pa	<i>at, to, towards</i>
la	<i>to (Dative → person sg)</i>	la	<i>away from source</i>
mi, ma	<i>to (Dative → person pl)</i>	ma	<i>toward source</i>
dara	<i>in, inside</i>	dara	<i>in, inside</i>
dedha	<i>on, above</i>	dida	<i>above, on top</i>
haha	<i>below, under</i>	daʔi, vava	<i>below, under</i>
dəŋe	<i>with</i>	ŋa	<i>with, and</i>
ətu, tu	<i>at (location)</i>		
hia	<i>for (benefactive)</i>	natuu, tuu	<i>to, for (benefactive)</i>
nare	<i>for (duration)</i>		
nəti, ti	<i>from, about, because</i>	ŋati, ti	<i>from, about</i>
toke (dai)	<i>until</i>	hape, dai	<i>until</i>
		fara (lua)	<i>about</i>
		rai	<i>since, from (time)</i>

5. Typology and syntax

The way one strings words together in sentences to convey and track role information is quite different between the two languages. Briefly, Hawu tends to be verb-initial and have ergative marking with /ri/,⁴⁶ whereas Dhao is verb medial and has no ergative marking. The order of head and modifier is also different in some types of phrases.

5.1 Active intransitive clauses

(Subject = macrorole of Actor; Subject NP highlighted, main verb underlined)

⁴⁵ In the Seba dialect /nəli/ is 'day after tomorrow', and /heməda/ is 'two days after tomorrow'. In the Dimu dialect, the meanings are the opposite! So in the Dimu dialect /nəli/ is 'two days after tomorrow', and /heməda/ is 'day after tomorrow'.

⁴⁶ The Seba Ergative marker is /ri/ as in /ri rool/ 'by them'. The Dimu Ergative marker is /ro/ and long form /rovil/, as in /ro rool/ 'by them'. The Raijua Ergative marker is /la/, as in /la naal/ 'by them'. The differences in this critical functor are a source of continuing miscommunication among speakers of the different dialects.

- (14) Dhao
Lazarus kako madhutu nebhe dhasi.
 (name) walk follow/along shore sea
 Lazarus walked/was walking along the edge of the sea.
- (15) Hawu
 ta neru ke Simo oro ngidi dahi.
 nonPST? walk Decl.⁴⁷ (name) along edge edge sea
 Simo was walking along the edge of the sea.
- (16) Dhao
 hēia ra kako taruu asa Baʔa.
 then 3p walk CONT PATH Baʔa (on Rote)
 Then they continued walking/traveling towards Baʔa.
- (17) Hawu
 ta neru ke roo teruu la Həba.
 nonPST? walk Decl 3p CONT DAT Seba
 They kept walking to Seba.

5.2 Active transitive clauses

(Subject = Actor; Subject NP highlighted, main verb of clause in question underlined)

- (18) Dhao
 Ropa ra poro rare kətu na,...
 when 3p cut 3p-PRF head 3s
 When they had cut off his head...
- (19) Hawu
 Ta la ote ke ri roo ne kətu noo.
 nonPST? go cut off Decl ERG 3p PROX head 3s
 They went and cut off his head.
- (20) Dhao
 Te ŋaa ra pamadhe ne.
 but 3p CAUS-die 3sO.prox
 But they killed him.
- (21) Hawu
 Tapulara pemade noo ri roo.
 but CAUS-die 3s ERG 3p
 But they killed him.

5.3 Non-Active clauses

(Subject = Undergoer; Subject NP highlighted, main verb underlined)

- (22) Dhao
 ladhe ama na madhe,...
 if/when father 3s die
 When his father dies,...
- (23) Hawu
 ki made ama noo,...
 if/when die father 3s
 When his father dies,...

⁴⁷ The function of /ke/ remains unclear. It does not appear to be part of the Ergative-Absolutive marking, since it often co-occurs with the Ergative marker /ri/ (152 co-occurrences in my current corpus), as in /ke ri roo/. Walker (1982:32) was also unable to pin down the function of /ke/, although he observed it did not occur in imperative sentences.

(24) **Dhao**
 na ɛra titu kəna.
 3s strong very much
 He was incredibly strong.

(25) **Hawu**
 ɗai tɛra noo ne rui.
 very much 3s PROX strong
 He was incredibly strong.

5.4 Order of head and modifier in phrases

While most NPs in both languages follow the order of Head + Modifier, there are some differences. In Hawu, the different order may indicate a degree of lexicalization.

Figure 22: Different order in phrases

Dhao form	Dhao gloss	Hawu form	Hawu gloss
dhəu ae	many people	ae dəu	many people
loɔo nətu	noon, midday	nətu loɔo	noon, midday

6. Interclausal relations

There are many differences in interclausal relations. Here I highlight only a few.

6.1 Complementizers

Figure 23: Comparing Dhao and Hawu complementizers

Dhao form	Dhao gloss	Hawu form	Hawu gloss	Clash ⁴⁸
ho	Irrealis, purpose	la	IRR (away from Actor/speaker)	Dh. LocDat prep /la/
		ma	IRR (toward Actor/speaker)	Dh. HumDat prep /ma/
peka na	Realis, speech act	mihe ane	Realis, speech acts	
aku nəŋu na	Real., speech act (3s)			
aku rəŋu na	Real., speech act (3p)			

6.2 Connectors/conjunctions

Figure 24: Comparing a sampling of Dhao and Hawu connectors

Dhao form	Dhao gloss	Hawu form	Hawu gloss	Clash
loɔo	sun, day, when, while	mudɪ həkʊ	at the time, while	
ropa, rapa	when, while	ɗai	when, while	Dh. /dai/ 'until'
həia	then	ʃe	then	
ka	then, and			
ladhe	if, when	ki	if, when	
te ŋaa	but	tapulara	but	
əle əna ka	after that, then	əla pe na əne	after that	
loɔo əna, taa əna	at that time	pa awe na əne	at that time	
loɔo əci	one time	(pa ɗara) he vari	one time	
nəti, taga	because	pelai, taga	because	
nəti əna ka	because of that, that is why	ri mi na hərə	because of that, that is why	

⁴⁸ Because the form is identical to a word with a different meaning or function in the other language, there is great potential for miscommunication.

sama səmi	<i>like X</i>	helaʔu ŋa	<i>like X</i>	
ele boe	<i>perhaps</i>			
malo-malo	<i>fortunately</i>			
kərəi, krəi	<i>since</i>			
		helama	<i>as long as (loan)</i>	
		mudl həku	<i>actually, in fact</i>	
		ngee-ngee	<i>lest</i>	

6.3 Question words

Figure 25: Comparing a sampling of Dhao and Hawu question words

Dhao form	Dhao gloss	Hawu form	Hawu gloss	Clash
cee	<i>who</i>	naduu, mi	<i>who</i>	Dh. /mi/ '2p'
ətu mia, ka mia	<i>where</i>	pə mii	<i>where</i>	
ŋa tao ka	<i>why</i>	ta ŋaa ⁴⁹		Dh. /te ŋaa/ 'but'
ŋaa	<i>what</i>	neŋaa, ⁵⁰ ŋaa	<i>what</i>	
pəri	1) <i>how many, how much,</i> 2) <i>several, a few</i>	pəri	1) <i>how many, how much,</i> 2) <i>several, a few</i>	
tasa mia, tasa mera mia	<i>how</i>	mi na mii	<i>how</i>	

7. Notes on intelligibility

Existence of a cognate does not tell about frequency of use or how widely it is known in society. I have encountered many linguistic cognates between Dhao and Hawu, but a significant number of these have one form widely used in one language, but the cognate form in the other language is not the normal form to be used for that meaning, and often it is not widely known either. This presents a mismatch between the picture from historical linguistics and the sociolinguistic facts of synchronic intelligibility.

In several communities on Sabu Island, and in several dialects, I have asked people about interaction and comprehension with speakers of Dhao. Few Hawu speakers have interacted with Dhao speakers. Of the ones who have, not a single one claims to understand Dhao beyond recognising a few words.

Of the many Dhao speakers I have queried over several years, I have met only two who claim to understand Hawu. One's mother was Hawu, so he grew up interacting with Hawu speakers. The other was posted as a teacher on Sabu for several years and had to learn it for survival.

At a workshop to train speakers of local languages to keyboard their own material on computer, I encouraged the Dhao speakers and Hawu speakers to compare notes on language and orthography. It was immediately obvious to them that their languages had more similarities with each other than with other languages around. But they all found it impossible to understand each other in both oral communication and in written form. How information is strung together in sentences is simply too different.

8. Conclusion

Agard (1984, vol. 2) presents a detailed overview of the phonological development of eight of the major Romance varieties. In looking at structural differences that do and do not differentiate

⁴⁹ Rajjua dialect uses /ta nyaal/.

⁵⁰ Dimu dialect uses /ningaal/. Rajjua uses /nenyaal/.

languages, he notes that simple and systematic phonological differences do not split languages. More distant (on the phone chart), or more complex differences such as change of environmental conditioning factors do. Milliken (1988) found that where structural differences become complex resulting in two sets of varieties that are no longer congruent in their phonological structure, intelligibility breaks down.

J. Grimes (1988), looking at eleven studies from around the world, also observes that an apparently high degree of vocabulary similarity in content words can give the false impression that two speech varieties ought to be intelligible, because the evidence shows that intelligibility is likely to be blocked if the functors or grammatical subsystems have significant differences.

When comparing Hawu and Dhao, which show superficial similarities, not only do we find significant differences in the vocabulary and phonologies, but they have whole subsystems of the grammar that are different, and they are TYPOLOGICALLY different—Hawu tends to be verb-initial and marked for the ergative argument, while Dhao is verb-medial and has no ergative marking. How one indicates who is doing what to whom is significantly different. The order of modifiers in relation to the head in NPs is often different as well.

Thus it should be no surprise that I can find no speakers of Hawu who claim to understand Dhao, and the only Dhao speakers who claim to understand Hawu are those few who have learned it through years of significant contact.

The cumulative effect of the differences require the conclusion that Hawu and Dhao MUST be considered separate languages.

Comparing Hawu and Dhao highlights potential limitations with various methodologies. In some cases, comparing vocabulary similarity may give an adequate picture of whether two speech varieties are similar or different. In the case of Hawu and Dhao it is not sufficient. Comparing phonological systems may give a reasonable picture of similarities in some cases, but in the case of Hawu and Dhao it does not show the mismatch between similar phonemes. For Hawu and Dhao it is necessary to compare functors and grammatical subsystems in their entirety to get a realistic picture of how great the differences are between the two languages.

Now the question remains: given that there are obvious similarities in parts of their vocabularies, how did the two languages become so different in their grammatical subsystems?

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