

DAMIN AND LARDIL PHONOTACTICS

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1. INTRODUCTION¹

This paper presents the basics of the phonology of the Damin (Demiin) vocabulary known by the Lardil (Mornington Island, Gulf of Carpentaria). The study is prefaced by a sketch of other aspects of Damin, and of Lardil phonotactics.

The name Damin (/demiin/) is a word in the Lardil language. It can be translated as 'Being Silent', for reasons having to do with the special situations in which it was to be used. For some description of the cultural setting of Damin, see the previous literature on Damin, comprised by Hale (1973, 1982, 1992), Hale et al. (1981) and Woolford (1982). McKnight (in press) has analysed his large collection of Damin terminology, from fieldwork since 1966. The earliest known sound recording of Damin, by Norman Tindale (1963), is held at the SA Museum. Other recordings by Percy Trezise (July 1966), Barry Alpher (October 1966) and Sandra Keen (November 1969, February 1970) are held at AIATSIS.

'Lardil' is used in this paper in contrast with 'Damin', the auxiliary language or vocabulary. It may be that Damin should properly be considered as a subsidiary to, and part of, Lardil. The origin of Damin is unknown, but it may have been invented by people who knew Lardil, or it may have been invented by people who knew other languages. In any case, in the discussion below, we use the term 'Lardil' to refer exclusively to 'everyday' Lardil, as in saying, for instance, that 'Lardil has no word-initial apico-alveolars'.

Whether Damin was 'invented' or evolved in some less conscious fashion is also unknown, though there is powerful invitation to consider the degree of language-consciousness exhibited by aspects of Damin. Damin does have a number of properties in common with 'language games' which are known to be the result of invention:

¹ We are happy to dedicate this paper to Geoff O'Grady whose work on the reconstruction of the Pama-Nyungan lexicon has brought out many of the principles of antonymy and inversion which the creators of Damin have obviously drawn on in their intellectual tour de force.

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- it was learnt quickly by adults, and used by them in marked social settings;
- in a number of ways it is dependent on the ‘everyday language’: for Damin, in explicit ways such as the suffixal morphology, and possibly in other ways such as the semantic structures;
- it shows a degree of consciousness of linguistic elements for which evidence is quite poor or lacking in the everyday language;
- apart from the specific ways in which it is distinguished from the everyday language of its speakers, the special language shares its remaining regularities.

2. AN OVERVIEW OF DAMIN

A sentence of everyday Lardil is rendered in the special language Damin by expressing the concept referred to by each Lardil stem by means of the hundred or so Damin stems. The Damin stems are quite different in sound from Lardil stems, and since there are so few to express the complex range of concepts expressible in Lardil, the Damin stems exhibit highly abstract semantics. In contrast to the divergence between Lardil and Damin stems, the suffixes and basic grammar of Damin is taken from Lardil.

Here is an illustrative pair of Lardil and Damin sentences.²

(1) (a) Lardil

Ngithun dunji-kan ngawa waang-kur werneng-kiyath-ur.
 my WiYBro-GEN dog go-FUT food-GO-FUT
 My brother-in-law’s dog is going to go hunting.

(b) Damin

N!aa n!2a-kan nh!2u tiitith-ur m!ii-ngkiyath-ur.

Some of the major Damin vocabulary items are listed below, according to clusters of semantic oppositions. First the complementary Damin terms are given, and then in parentheses the English glosses:

- (i) *n!aa/n!uu* (ego/alter);
- (ii) *kaa/kaawi* (now/not now);
- (iii) *I*ii/thii* (bony fish/elasmobranch);
- (iv) *ngaajpu/wuujpu/wiijpu/kuujpu* (human/[unmarked] animal/wooded plant/stone);
- (v) *m!ii/wii* (vegetable/meat [and abstract, amorphous]); *n!2u* (liquid); *thuu* (sea mammal); *thuuwu* (land mammal);
- (vi) *titi* (affect harmfully), *tiiti* (act), *kuuti* (see), *kuuku* (hear, feel), *yiti* (be in location), *wiwi* (burn), *wiiti* (spear), *ngaa* (die, decay), *fyuu* (fall, the cardinal directions);
- (vii) *n!aa thuuku* (point on body), *wii* (surface on body); *nguu* (head), *k’uu* (eye); *nguuwii* (hand, foot);
- (viii) *thuuku* (one, another, place), *kurrijpi* (two, hither, close, short);

² The orthography used here employs a number of digraphs and indeed ‘multigraphs’, which are explained in the sources and also in the following sections.

- (ix) *j2iwu* (small), *kurrij2iwu* (large); *thuuku* (one), *kurrij2iwu* (many); *kurrijpi* (short), *kurrikurrijpi* (long); *kawukawu* (light), *kurrikawukawu* (heavy).

'Exact' Reference

It is common for a single Lardil word to require several Damin words for its expression:

- (2) (a) *ngaajpu wiiwi-n wuujpu*
 human burn-NOM animal
 'sandpiper' (lit. 'person-burning creature', a reference to Rainbow Serpent Story in which the hero's sister, Sandpiper, burns his house down)
- (b) *mliwu didi-i-n wiijpu*
 honey affect-PASS-NOM wood
 'wooden axe' ('that with which honey is chopped'; axe made of wood and used for chopping down 'sugarbag', i.e. native honey)

3. LARDIL PHONOLOGICAL SEGMENTS

The lexical data on Lardil (and Damin) was assembled by Hale et al. (1981), with the Lardil revised and expanded by Ngakulumungan Kangka Leman (1997). We do not repeat the phonological literature on Lardil, which has focussed on interesting truncation processes, separate from the concerns of this paper: Hale (1973, 1981), Klokeid (1976), Wilkinson (1988), Itô (1986, 1989), McCarthy and Prince (1986, 1990), Goldsmith (1993), Lakoff (1993), Prince and Smolensky (1993) and Kenstowicz (1994).

First we consider the range of consonant clusters in Lardil, and then take a look at Damin. As far as possible we use the practical orthography of Hale et al. (1981) and Ngakulumungan Kangka Leman (1997).

TABLE 1: LARDIL SEGMENTS

vowels						
	front	back				
high	<i>i, ii</i>	<i>u, uu</i>				
low	<i>e, ee</i>	<i>a, aa</i>				
consonants						
	bilabial	lamino-dental	apico-alveolar	apico-domal	lamino-alveolar	dorso-velar
stops	<i>b</i>	<i>th</i>	<i>d</i>	<i>rd</i>	<i>j</i>	<i>k</i>
nasals	<i>m</i>	<i>nh</i>	<i>n</i>	<i>rn</i>	<i>ny</i>	<i>ng</i>
laterals			<i>l</i>	<i>(rl)</i>	<i>(ly)</i>	
flap			<i>rr</i>			
glides	<i>w</i>			<i>r</i>	<i>y</i>	

The orthography departs from a phonemic analysis in the following respects:

- (a) word-initially, the apical stop, nasal or lateral is written *d*, *n*, or *l* respectively, and there is no alveolar/domal contrast in that position;
- (b) the segment which is variously pronounced as an apico-domal lateral or retroflex glide is taken to be *r/* (Hale 1981:5), although written as 'l' word-initially and 'rl' before */d/* in the practical orthography;

- (c) in a cluster, before *m*, *ng*, or *j*, /r/ is written 'd'.³ Word-finally the contrast between /d/ and /r/ is neutralised, and 'rr' not 'd' is written.

3.1 LARDIL CONSONANT OCCURRENCES

In terms of the segmental analysis which underlies the practical orthography, Lardil shows the array of consonant clusters in lexical items as shown in Table 2. Each position in the table represents an environment in which a consonant may occur. All Lardil consonants are listed down the left-hand side of the table, one labelling each row. Each column represents an environment in which a given consonant may occur, according to the column labels across the top of the table.

The first three columns of entries show the counts of occurrences word-initially, intervocally, and word-finally. The remaining columns are for the second consonant in an intervocalic cluster. (There are no word-initial or word-final clusters.)

TABLE 2: LARDIL CONSONANT OCCURRENCES

	/#---	/V---V	/---#	<i>m</i>	<i>b</i>	<i>ng</i>	<i>k</i>	<i>th</i>	<i>d</i>	<i>rd</i>	<i>ny</i>	<i>j</i>	<i>w</i>	<i>y</i>	sum
<i>m</i>	164	101		39											304
<i>ng</i>	128	76		81											285
<i>nh</i>	1	6	1	17											25
<i>n</i>		59	234	13	18	23	48		48		1		3	2	449
<i>rn</i>	20	55	25	2	6		13			46		1			168
<i>ny</i>	32	14	9	9	2							40			106
<i>l</i>		159	105	30		12	42	22	67		10	18	15	2	576
<i>r</i>	95	184	75	12	20	10	17	1	29				4	1	354
<i>rr</i>		152	198 ⁴	37	43	7	53					5	27	2	523
<i>j</i>	124	67	1	4	24										220
<i>w</i>	177	150		1											327
<i>y</i>	77	84		1											162
<i>b</i>	250	104		1											354
<i>k</i>	300	158		1											458
<i>th</i>	66	66		1											132
<i>d^A</i>		38		1											38
<i>rd</i>	136	129		1											265
sum	1570	1602	648	106	152	52	255	40	144	46	11	64	49	7	4746

Source: Counts were made on the 1,575 headwords in Hale et al. (1981), which includes compounds and reduplications, and some derivational affixes. Certain stems are counted more than once in so far as they recur in different lexical items, such as compounds.⁵

In addition there are the following intervocalic triples:

3 Exceptions:
wurrngewurrnge 'to hum, drone, as bee' (possibly partially onomatopoeic)
buthurrmarr 'native companion'
bijurrjin 'stingray sp.'
derrjiderrji 'to lie on back with knees raised'

4 Word-finally, /d/ and /r/ are neutralised.

5 There is one orthographic 'nt' cluster in Hale et al. (1981): *kantungu* 'jabiru' (an error for *kandungu*).

- bulmba* grasshopper
- kalngkurr* seagull, Southern Cross
- kelngka* grass sp. used for string
- darr.ngka* barracuda [spelt *dadngka*]

Note that these triples involve the common codas /l/, /rr/ and the most common intervocalic clusters /ngk/, /mb/.

4. DAMIN PHONOLOGICAL SEGMENTS

Damin vocabulary uses all the Lardil vowels, and most of the Lardil consonants: those in the upper part of Table 4a.

TABLE 3: DAMIN VOWELS

	front	back
high	<i>i, ii</i>	<i>u, uu</i>
low		<i>a, aa</i>

Lardil consonants absent from Damin are marked by Δ in Table 4a. As can be seen by comparing this table with Table 1 of Lardil consonants, Damin lacks /m/, /nh/, /l/ and the apico-domals /rt/, /rn/ and /r/. The lower part of Table 4a, under the dividing line, presents the (at least) thirteen additional special consonantal sounds (the count depends on the extent to which some are segmentable, a topic to be treated below).

TABLE 4A: DAMIN CONSONANTS

	bilabial	lamino- dental	apico- alveolar	apico- domal	lamino- alveolar	dorso- velar
stops	<i>b</i>	<i>th</i>	<i>d</i>	Δ	<i>j</i>	<i>k</i>
nasals	Δ	Δ	<i>n</i>	Δ	<i>ny</i>	<i>ng</i>
laterals			Δ			
flap			<i>rr</i>			
glides	<i>w</i>			Δ	<i>y</i>	
fricative	<i>f</i>					
ejectives	<i>pf</i>				<i>j²</i>	<i>k'</i>
nasals	<i>m'</i>		<i>n'</i>	<i>(rn')</i>		
		<i>nh!2</i>	<i>n!2</i>			<i>ng*</i>
lateral trill	<i>pr</i> <i>pr²</i>		<i>l*</i>			

The IPA symbols for the sounds peculiar to Damin, repeating the lower half of Table 4a are set out in parallel fashion in Table 4b.

TABLE 4b: DAMIN CONSONANTS (IPA)⁶

	bilabial	lamino-dental	apico-alveolar	apico-domal	lamino-alveolar	dorso-velar
fricative	ϕ				tʃ \tʃ / ʃ	
ejectives	pʰ					kʰ
nasals	ŋ̠	ŋ̠ŋ̠	ŋ̠!	ŋ̠±		
			ŋ̠!ŋ̠!			ŋ̠
lateral			t↓			
trill	B					
	B\B					

The orthographic conventions used in Table 4a to rendering the sounds of Table 4b are as follows:

1. ! signifies a standard click at the place of articulation signified by the preceding consonant symbol; note that all are nasalised.
2. The symbol '2' signifies a doubling of the preceding consonant by rearticulation, symbolised in extIPA by \. McKnight (in press) in adopting this orthography makes one minor change in this respect: to avoid '2', he writes out the doubling, for example 'n!n!' instead of 'n!2'.
3. /pʰ/ [pʰ] is possibly a pre-stopped alternate of /f/ [ϕ] (Hale et al. 1981:294).
4. j2 is reduplicated (rearticulated) lamino-alveolar stop [tʃ \tʃ] or voiced fricative [ʃ].
5. /t* [t↓] and ng* [ŋ̠] are voiceless.
6. /t* [t↓] is ingressive with egressive glottalic release.
7. p' is produced with increased velaric pressure.
8. pr [B] is a bilabial trill.

All the Damin consonants occur word- (morpheme-)initially. In word- (morpheme-) initial position there are in addition the following sequences, analysed as clusters, always a bilabial segment followed by a regular Lardil consonant: /f/ or /pʰ/ followed by /ny/ or /ng/; /f/ or /pr2/ followed by /y/; and the cluster /thrr/.

4.1 DAMIN CONSONANT OCCURRENCES

In terms of the segmental analysis which underlies the practical orthography, Damin lexical items have word-initial consonants as shown in Table 5. The first pair of columns parallel the first two columns of the Lardil table (see Table 2); the second pair of columns are for the remaining Damin onsets and have only a rough correspondence to the first pair of columns.

⁶ Andy Butcher kindly guided us to the symbols from the International Phonetic Alphabet (IPA) 1993 revision (corrected 1996), supplemented with extended symbols (extIPA) of the International Clinical Phonetics and Linguistics Association (ICPLA) in *Clinical Phonetics & Linguistics* 8/3:263 (July-Sept 1994). Note that the symbol ʄ of Evans (1995:731) should be t↓ and his ʄ̠ should be ŋ̠.

TABLE 5: DAMIN CONSONANT OCCURRENCES

	/#--V	/#--V
<i>m!</i>	5	
<i>ng</i>	9	<i>ng*</i> 1, <i>fng</i> 1, <i>p'ng</i> 1
<i>nh!2</i>	1	
<i>n!</i>	5	<i>n!2</i> 2
<i>m!</i>	4	
<i>ny</i>		<i>fny</i> 1
<i>l</i>	1	<i>l*</i> 4
<i>r</i>		
<i>rr</i>		<i>thrr</i> 1
<i>j</i>	5	<i>j2</i> 1
<i>w</i>	16	
<i>y</i>	2	
<i>b</i>	5	<i>f</i> 2, <i>pf</i> 1, <i>pr2y</i> 1, <i>fy</i> 2, <i>p'ny</i> 1, <i>p'by</i> 1
<i>k</i>	41	<i>k'</i> 1
<i>th</i>	11	
<i>d</i>	11	
<i>rd</i>		
sum	137	

Source: Counts were made on the 137 stems in Hale et al. (1981), a list derived from the 209 lexical items by eliminating compounds and the four items in /-men/.

There are some clear similarities between the Lardil and Damin counts: /k/ is clearly the most common initial segment; and /w/ is quite common initially, much more so than /y/.

5. DAMIN PHONOTACTICS

5.1 PRELIMINARY COMMENT

Some of the conclusions about Damin phonology are necessarily tentative in that they rest on the interim transcriptions of the vocabulary recorded in Hale et al. (1981). Retranscription of the available tape recordings of Damin may throw some extra light on what seem at this stage to be distributional peculiarities. Further, given the paucity of vocabulary, it is inevitable that only a fraction of, for instance, the contrasting environments for vowel length will be represented.

Also, we do not pursue here the possibility that there is Damin word-formation by compounding, which bears on the range of word-internal morpheme boundaries. For instance, there may be a relationship between the two Damin terms *m!iwu* (Lardil *wankabel*, 'native beehive, native honey, sugarbag') and *wum!i* (Lardil *bengkurn* 'mud crab sp. '), and another two Damin terms *m!ii* ('food, etc.', see overview above) and *wuu* (Lardil *mala* 'mud shell clam').

In some respects Damin phonology is simpler than Lardil, and in other respects more complex, which we consider in turn. As Damin was learnt (only, as far as we know) by adult speakers of Lardil, their point of view is most relevant. The source of the differences in pattern presumably include the conscious design of Damin by its creators, unconscious phonological consequences of Damin's design, and possibly historical changes that may have applied in Lardil (but not Damin) since the time of Damin's creation.

5.2 SIMPLIFICATIONS

Damin phonology is simpler than Lardil in two respects. Firstly, suffixes are all drawn from Lardil, and do not show the Lardil range of (phonologically conditioned) alternations (Hale 1973, the subject of discussion in the subsequent phonological literature). Secondly, and the focus here, the combinatory possibilities of segments are significantly fewer.

5.2.1 VOWELS

The four-vowel system of Lardil is replaced by the (common Australian) three-vowel system, so that /e/ is not used in Damin transcription, except in writing those Lardil suffixes with /e/ which are used in Damin, such as *-men* 'originating from' (Hale 1981:39). One possibility is that the creation of Damin took place when pre-Lardil was a three-vowel language.

5.2.2 NO RETROFLEX SERIES

There is no domal/alveolar contrast in apical consonants. This contrast is neutralised word-initially in Lardil (and most Australian languages), and in Damin in all positions. However, word-initially in Lardil this series surfaces as the apico-domal, whereas in Damin the series has apico-alveolar articulation. The one possible exception to this is Damin apico-domal nasal click /m!/, used in the roots *m!aa* and *m!ii*, contrasting with apico-alveolar nasal click /n!/ in the roots *n!aa* and *n!uu*. However as Hale et al. (1981:294) remarks, /m!/ is "not securely documented as a separate click".

Note that a generally north-south line can be drawn across the Australian continent, to the west of which languages contrast domal and alveolar articulation of apical consonants, and to the east of which languages lack this contrast (Dixon 1980:140–141). Interestingly, Lardil is close on the west of this division; that is, languages to the east of Lardil (on the mainland) lack the domal/alveolar contrast just as Damin does. As for the vowel system just discussed, a possibility is that the creation of Damin took place when pre-Lardil lacked the apical contrast.

5.2.3 SYLLABLE SHAPES

Damin syllables do not exhibit the range of shapes of Lardil syllables, though in other ways, to be considered below, Damin syllables can be considered to be more complicated than Lardil.

- (a) Damin syllables are usually open. Closed syllables in Damin allow only two possibilities for the coda: /n/ and /r/. Notice that these two consonants are by far the most common word- and syllable-final consonants in Lardil (leaving out of consideration homorganic nasal-stop clusters). Lardil also allows word- and syllable-final /l/, /d/, /r/, /m/ (and some /ny/, /j/, /nh/).
- (b) Intervocalic clusters in Damin are quite limited:
 - (i) Damin lacks nasal-stop clusters, which are very common in Lardil, particularly homorganic clusters. Note, however, that some of the common Lardil suffixes used in

Damin, including what might be considered Damin word formation, do have such clusters.

(ii) The only Damin (intra-stem) intervocalic clusters are /rrd/, /rrth/, /rrk/, /rrb/ and /jb/. The first two of these do not occur in Lardil, whereas the last three are reasonably common, as can be seen from Table 2.

5.3 COMPLEXITIES

The peculiarities of Damin are most striking in syllable onsets—indeed, the onset may be the sole locus of the specialities of Damin phonology in comparison to Lardil phonology. Further, the complexities are plausibly a conscious creation to make the sound of Damin speech contrast with that of Lardil.

5.3.1 SYLLABLE ONSETS

It is only in onsets that the segments peculiar to Damin occur. (See segments in Table 4.) This is partly attributable to the nature of their articulation. For instance, in any known language with clicks, clicks are confined to prevocalic position. Clicks are known otherwise only in one part of the world, but in at least three different language families: Khoisan (e.g. !Xo), Bantu (e.g. Zulu, Xhosa) and Cushitic (Dahalo, spoken in Kenya), as well as in Sandawe and Hadza (spoken in East Africa) which may be Khoisan (Ladefoged 1991).

In Damin the nasal clicks /m!/, /nh!2/, /n!/, /n!2/ (and /rn!/ if it exists) do not contrast with the regular nasals: Damin lacks /m/, /nh/, /rn/, /n/ occurs only word-finally, and /ny/ occurs, if at all, only in the complex /fny/. The remaining nasal, velar /ng/, has no corresponding click (indeed, none is articulatorily possible).

Phonologically, then, we can posit the Damin correspondences shown in Table 6, with realisation rule ‘Click nasal where possible’.

TABLE 6: DAMIN PHONOLOGICAL CORRESPONDENCES

surface		underlying	
IPA	orthography	IPA	orthography
ŋ̥	<i>m!</i>	m	<i>m</i>
ŋ̥ʰ	<i>nh!2</i>	n	<i>nh2</i>
ŋ̥	<i>n!</i>	n	<i>n</i>
ŋ̥ʰ	<i>n!2</i>	nʌn	<i>n2</i>
ŋ̥±	<i>(rn!)</i>	ŋʌn	<i>(rn)</i>
ŋ	<i>ng</i>	ŋ	<i>ng</i>

Only in onsets do consonants receive rearticulation (rendered by the orthographic ‘2’).

There appear to be onset-nucleus co-occurrence restrictions. Of course the small number of root forms surely makes for many more ‘accidental gaps’ than we are used to contemplating in everyday languages.

No Damin consonant is found to precede all three vowels. A good number precede only one vowel, as follows:

(i) only precede /u/:

p'ng *p'ny* *pr2y* *thrr* *j2* *k'*
fng *fy* *nh!2*

(ii) only precede /i/:

pf *d*
f *fny* *rr* *y*
m! *ɽ** *ng**

The remaining Damin consonants occur preceding two of the three vowels, as follows:

(iii) precede /a/, /u/:

n! *n!2* *ng* *k*

(iv) precede /i/, /u/:

b *th* *j*
w

(v) precede /a/, /i/:

*m!*⁷

It is not clear how many generalisations are inherent in the co-occurrences (i)–(v). It does appear that only velars and non-distributed coronals may precede /a/. Note that /a/ is less common than each of /i/, /u/ in Damin (and similarly for the corresponding long vowels), which is the reverse of the situation in Lardil, in other Australian languages, and indeed the usual situation in a language with a similar vowel inventory. Among the headwords, the vowels occur with the frequencies shown in the following table.

TABLE 7: LARDIL AND DAMIN VOWEL OCCURRENCES

	LARDIL		DAMIN words			DAMIN stems	
	short	long	short	long	short	long	
<i>a</i>	1530	111	<i>a</i>	40	25	9	16
<i>e</i>	470	41					
<i>i</i>	885	64	<i>i</i>	190	65	59	31
<i>u</i>	901	45	<i>u</i>	240	94	66	36

Note however that the preponderance of short vowels over long vowels is generally maintained in Damin, with the exception that in Damin stems /aa/ is more common than /a/.

It is not clear to what extent the onset complexes may be segmented, but it does seem justified to assign two consonantal positions to at least some onsets. This is in contrast to Lardil, in which all onsets consist of precisely one consonant (leaving aside the possibility that homorganic nasal-stop clusters may also be represented this way).

Damin /p'ng/, /p'ny/, /fng/, /fny/ may be confidently analysed as clusters of /p'/ and /f/ with /ng/ and /ny/ respectively, especially since /f/ occurs alone in onsets. Similarly /fy/ and /pr2y/ segmentable as /f/ or /pr2/ followed by /y/ (/y/ also occurs alone as an onset, and Hale

⁷ If in fact /n!/ and /rn!/ do not contrast, then /n!/ is the sole Damin consonant which can be followed by any Damin vowel.

et al. (1981:294) records that the bilabial trill /pr/ “occurs both simple and reduplicated, /pr2/”). Thus far, then, we have the following onset possibilities in Damin:

- (i) the regular Lardil consonants which also occur in Damin onsets: /b/, /th/, /d/, /j/, /k/, /ng/, /rr/, /w/, /y/;
- (ii) the Damin nasal clicks, attributable to /m/, /n/, /r̥m/;
- (iii) certain of (i), (ii), in rearticulated double form: /j2/, /n!2/; and /nh!2/ (though /nh!/ does not otherwise occur);
- (iv) other segments peculiar to Damin: /f/, /p/, /pr2/, /l*/, /k'/ and /ng*/; /pf/ (possibly a pre-stopped alternate of /f/—Hale et al. 1981:294);
- (v) certain clusters, involving a bilabial segment of (iv) followed by a regular Lardil consonant: /f/ or /p'/ followed by /ny/ or /ng/; /f/ or /pr2/ followed by /y/; and the cluster /thrr/.

6. THE MINIMAL WORD IN DAMIN

Continuing the analysis of the complex onsets, we continue in a highly speculative vein to consider the possibility that all complex onsets in Damin (i.e. (iv) and (v) above), and not just the rearticulated ones (i.e. (iii) above), are to be analysed as the double association to onset of a single segment.⁸ Various possibilities come to mind for the correspondence between observed onsets and purportable underlying doubles. (In fact, that there are several possibilities is probably a sign that the analysis is fatally under-determined.) Here is one possibility:

surface	underlying
<i>thrr</i>	<i>d d</i>
<i>l*</i>	<i>l l</i>
<i>k'</i>	<i>k k</i>
<i>ng*</i>	<i>ng ng</i>

The possibility that all complex onsets are ‘double’ gains some credence from the distribution of vowel length in monosyllabic Damin words as recorded in Hale et al. (1981). Given the forms listed in Hale et al. (1981), the minimal Damin word is either CVV (which is also the minimal word of Lardil), CCV (where CC includes the clusters listed in (iii) and (v) above), or CV.⁹ However, the instances of CV words are only where C is /k'/, /ng*/ or /l*/ (and not, for instance, any regular Lardil consonant). Each of these three consonants is articulatorily double in some sense, as revealed by the descriptions of Hale et al. (1981:294):

- (1) /l*/ has two airstream mechanisms sequentially operating (“ingressive voiceless lateral, with egressive glottalic release”)

⁸ Pursuit of this suggestion would not have been possible had it not been made to us by Morris Halle.

⁹ In some transcriptions, there are no CV words. For instance, the only word with /l*/, namely /l*i/ ‘bony fish’, has also been transcribed as /l*ii/. With so few forms it can be difficult to judge whether a vowel is to be considered short or long.

- (2) /k'/ and /ng*/ have “double effort” in the airstream: /k'/ is ejective, and /ng*/ has “extra pulmonic pressure”.¹⁰

If these three consonants are to be properly considered as filling two consonant ‘slots’ in the onsets in which they occur, then the minimal Damin word can be simply stated to be of the form CVV or CCV (but not CV). It would seem that Damin continues to satisfy the Lardil bimoraic minimal word requirement only if CCV words are considered to be bimoraic, including those words with onsets of /k'/, /ng*/ or /l*/. That onset quality can contribute to syllable weight is uncommon, but is reported for instance for Pirahã stress placement by Everett and Everett (1984).

7. CONCLUSION

The conscious consonantal complexities of Damin are introduced only into syllable onsets, and the aberrance from Lardil is greater phonetically than phonologically (for instance, the click sounds), and Damin words can still be seen to conform to the Lardil bimoraic minimal word constraint. Also, speakers’ language-consciousness appears to include appreciation of the relative frequency of vowels.

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¹⁰ /p'/ is ejective too, “produced with velaric (rather than laryngeal) pressure”, but cannot be regarded as double since it occurs (only, in fact) followed by another consonant.

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