Leerdil Yuujmen bana Yanangarr (Old and New Lardil)*

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In 1960 and 1967 Ken Hale compiled extensive field notes on Lardil, a Pama-Nyungan[1] language spoken on Mornington Island. At that point the language was still spoken by many adults on the island, although the younger generation consisted primarily of monolingual English-speakers.

In July and August of 1996, Hale, along with Anna Ash, David Nash, Jane Simpson, and the author, returned to Mornington Island to complete a dictionary of Lardil begun by Hale during his earlier visits (Ngakulmungan Kangka Leman 1997). The language is now spoken by considerably fewer people, the youngest of which are in their early fifties. Furthermore, there are certain systematic differences between Lardil as it is spoken today by its youngest speakers (hereinafter referred to as "New Lardil") and Lardil as it was spoken at the time of Hale's first work on the language (referred to here as "Old Lardil"). There has thus apparently been a rapid, and fairly radical, change in the grammar of the language in the course of the last thirty years or so. In this paper I will investigate the nature of this change and speculate briefly about its origins.

Two distinguishing characteristics of Old Lardil are illustrated in the sentences in (1)[2]:

Many thanks are due to my informants, especially Kenneth Jacobs (Kulthangarr), Cyril Moon (Birdibir), and Lindsay Roughsey (Burrurr), for their hard work and patience. *Waa, ngithun kubarda jika--ngada malthurii ngawijmariku kilmuun.* Thanks, too, to Anna Ash, Michel DeGraff, David Nash, Rob Pensalfini, Jane Simpson, the audience at the Australian Linguistics Circle in January of 1997, and especially Ken Hale, without whom this work would have been impossible. None of these people are to be held responsible for this paper's many faults, the responsibility for which is mine alone.

One particularly egregious flaw in this paper is the lack of any discussion of similar phenomena in other languages; see, in particular, Schmidt 1985 and Lee 1987 for discussion of recent language change in Dyirbal and Tiwi, respectively. I hope to remedy this flaw in future work.

[1] Lardil is standardly viewed as Pama-Nyungan; see Evans (1995), however, for an opposing viewpoint.

[2] The abbreviations used in this paper are (see Ngakulmungan Kangka Leman 1997 for detailed discussion of these terms):

ACT=actual	(roughly, indicates that a verb is actually occurring or has occurred)
DISH=disharmonic	(see footnote 8)
DU=dual	

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(1) a. Ngada latha diini libani
I spear this-OBJ pumpkinhead-OBJ
'I speared/am spearing this pumpkinhead'

b. Ngada lathu diinku libanku
I spear-FUT this-FUT pumpkinhead-FUT
'I will spear this pumpkinhead'

c. Diinku libanku lathu ngada.
this-FUT pumpkinhead-FUT spear-FUT I
'I will spear this pumpkinhead'

As the sentences in (1) show, Old Lardil has a nominative-accusative case system, with morphological inflection for case on the nominal head and its modifiers. Case and tense interact in interesting ways (which I will be unable to discuss here); essentially, morphologically marked tenses are spread to the entire verb phrase. Furthermore, the word order is fairly free; (1b) and (1c) are synonymous in Old Lardil.

Now let us turn to the properties of New Lardil. A typical New Lardil sentence is given in (2):

(2) Ngada lathathu diin liban
I spear-FUT this pumpkinhead
'I will spear this pumpkinhead'

(2) differs from its Old Lardil counterpart (1b) in a number of ways. One difference has to do with the morphological form of the verb; this will be discussed further in section 1.2.3. Another difference is that the case morphology on the object is frequently dropped. Finally, New and Old Lardil differ in that the word order in (2) is by far the most common in New Lardil; a comparison of the frequencies of the various possible word orders for transitive sentences in the New and Old Lardil corpora[3] is given in table 1:

Table 1:Old and New Lardil Transitive Word Order Frequencies

FUT=future
HARM=harmonic (see footnote 8)
IMP=imperative
INCL=inclusive
NEG=negative
OBJ=objective (marks case on objects)
PERF=perfective
PLUR=plural
RECIP=reciprocal

[3] The Old Lardil corpus in question is a series of texts gathered by Ken Hale in 1960 and 1967. The New Lardil corpus consists of texts and dictionary example sentences gathered by Anna Ash, Ken Hale, and the author during the summer of 1996.

	SVO	**VSO**	**OSV**	**SOV**	**OVS**	**VOS**
Old Lardil	49 (**38**%)	25 (**20**%)	19 (**15**%)	19 (**15**%)	13 (**10**%)	3 (**2**%)
New Lardil	146 (**94**%)	3 (**2**%)	4 (**2**%)	1 (**1**%)	1 (**1**%)	0 (**0**%)

We have seen two major differences, then, between Old and New Lardil; New Lardil has comparatively impoverished nominal morphology and a more fixed word order than Old Lardil. It seems reasonable to assume that these changes are at least partly due to the decline in common everyday use of Lardil, and to its contact with English. These two factors are sociologically related, of course, in that Lardil has largely been replaced by English in everyday use. Still, they are linguistically distinct.

One might hold, for instance, that the changes in Lardil are entirely due to English influence; the internal grammars of New Lardil speakers, on this theory, largely or entirely reflect the structure of English, with the only differences between New Lardil and English being the lexical items used. On this theory, New Lardil word order is overwhelmingly SVO because this is the word order of English, and New Lardil, like English, has impoverished nominal morphology. I will refer to this approach as the "English influence theory".

Alternatively, one might believe that Lardil has changed in the way that it has purely because of the scarcity of the Lardil data available to children attempting to acquire Lardil. According to this theory, because Lardil is no longer used as often as it once was, Lardil learners do not hear crucial data which would lead them to posit and acquire the Old Lardil grammar, and arrive at the New Lardil grammar instead. A theory of this type would owe us an account, of course, of why we see the particular changes that we do. Let us refer to this approach as the "scarce data theory"[4].

These two positions are extremes, and a number of intermediate positions could be distinguished, but at our current level of understanding, ruling out one or another of these extremes may be the best we can do. In this paper I will try to argue that the English influence theory, though plausible, is in fact incorrect. I will suggest that the scarce data theory is closer to the truth, and will offer an account of why New Lardil differs from Old Lardil in the way that it does.

We saw that New and Old Lardil differ in two major regards, one having to do with morphology and the other with word order. Section 1 will discuss the morphological differences between New and Old Lardil at greater length, and section 2 will consider word order. Finally, in the appendices, I will consider briefly a couple of other distinctions between Old and New Lardil which may have arisen.

1. Morphology

[4] A number of authors have noted that language change appears to accelerate in situations in which children are learning the language on the basis of scarce data; see Dorian (1981), Schmidt (1985), Maandi (1989), Pensalfini (this volume) for discussion.

Section 1.1 will discuss the morphological properties of Old Lardil. In Section 1.2, I will focus on how New Lardil differs from New Lardil.

1.1 Old Lardil

In this section we will investigate the morphological properties of Old Lardil in more detail. Old Lardil distinguishes a number of morphological cases, as can be seen in Table 2:

Table 2: Old Lardil nominal morphology

	kirdikir 'moon'	**wangal** 'boomerang'
Nominative	kirdikir	wangal
Objective	kirdikirdi-n	wangalk-in
Future	kirdikirdi-wur	wangalk-ur
Marked Non-Future	kirdikirdi-ngarr	wangalk-arr
Locative	kirdikirdi-i	wangalk-e
Genitive	kirdikirdi-kan	wangal-kan
Intransitive Allative	kirdikirdi-ya	wangalk-iya
Transitive Allative	kirdikirdi-mari	wangal-mari
Intransitive Ablative	kirdikirdi-burrii	wangal-burrii
Transitive Ablative	kirdikirdi-burri	wangal-burri
Comitative	kirdikirdi-ngun	wangalk-ingun
Proprietive	kirdikirdi-wur	wangalk-ur
Privative	kirdikirdi-werr	wangal-werr
Instrumental	kirdikirdi-wur	wangalk-ur

Old Lardil nominal morphology is added to the base, which is often distinct from the nominative or citation form; for instance, the base for *kirdikir* 'moon' is /kirdikirdi/, and the base for *wangal* 'boomerang' is /wangalk/. The citation form is predictable from the base, roughly via the rules given in 3 (for further discussion, cf. Hale 1973, Klokeid 1976, Wilkinson 1988, Ngakulmungan Kangka Leman 1997):

(3) a. final high vowels become non-high
/nguku/--> *nguka* 'water'
/kerndi/--> *kernde* 'wife'

b. trisyllabic (or longer) bases are shortened
/kirdikirdi/--> *kirdikir* 'moon'

c. monomoraic bases are lengthened
/ja/--> *jaa* 'foot'
/yak/--> *yaka* 'fish'
/jul/--> *julda* 'hair'
/kang/--> *kangka* 'speech'

d. final clusters are simplified
/wangalk/--> *wangal* 'boomerang'

e. certain final consonants (including all bilabials and velars) are deleted
/kurkang/--> *kurka* 'panja'

Note that although the citation form is predictable from the base, the reverse is not true; identical citation forms may arise from distinct bases, as in minimal pairs like that in (4):

(4) /wun/ --> *wunda* 'rain' (undergoes rule (3c))
/wunda/ --> *wunda* 'stingray sp.' (no change)

Thus, the relation between the citation form of a noun and the base to which nominal morphology is added is opaque.

A version of rule (3c) can also be seen in the domain of verbal morphology. Verbs with monosyllabic bases receive an augment /-tha/ when they are uninflected[5]. Compare the paradigm for the monosyllabic base /la/ 'spear' with that of the polysyllabic base /kebe/ 'get':

Table 3: Old Lardil verbal inflection

	kebe 'get'	**latha** 'spear'
Plain	kebe	latha
Future	kebe-thur	la-thur
Marked Non-Future	kebe-tharr	la-tharr
Negative	kebe-jarri	la-jarri
Negative Imperative	kebe-ne	la-ne
Negative Future	kebe-nengkur	la-nengkur
Negative Non-Future	kebe-nerr	la-nerr
Contemporaneous	kebe-jirr	la-jirr
Evitative	kebe-nymerr	la-nymerr

Thus, the citation form *latha* 'spear' reflects a monosyllabic base /la/. Of course, a polysyllabic base /latha/ would also surface as **latha*; the rules in (3) would make no alterations to such a base. Interestingly, however, there appear to be no verbal bases of this form in the Old Lardil lexicon; that is, there are no bisyllabic bases of which the second syllable is /tha/ (although this syllable certainly occurs in longer bases, as in *darrathala* 'sweat' or *jithale* 'put in coolamon').

[5] In fact, the augment does appear with certain types of inflection, in particular, the prefix *yuurr-* 'perfective' (the only inflectional prefix in the language), and the suffix *-kun* 'actual'. Both of these are arguably clitics; *-kun* appears to be a reduced form of the verb *kunaa* 'to be', and *yuurr-* can sometimes be found in isolation, unattached to the verb (see Klokeid 1976 for some discussion).

1.2 New Lardil

Now let us consider the changes made by the New Lardil speakers to the Old Lardil morphological system. As noted above, New Lardil speakers often do not inflect objects[6]:

Table 4: New Lardil nominal inflection frequencies

	unmarked	marked
objective	66 (**66**%)	34 (**34**%)
future	23 (**68**%)	11 (**32**%)

Thus, objects are inflected in New Lardil roughly a third of the time. Here the English influence theory would say that the morphological system of Lardil is becoming more like that of English. On the scarce data theory, on the other hand, the data in Table 4 reflect a conclusion drawn by the New Lardil speakers on the basis of a comparatively small amount of Lardil data, which they presumably would not have drawn had they been exposed to more Old Lardil as children.

To see what this conclusion might be, let us consider more carefully the allomorphs of the Old Lardil objective and future object markers:

(5) a. -(i)(n) 'objective'
wangalk-i(n) 'boomerang-OBJ'
bultha-(n) 'dust-OBJ'

b. -(k)(u)(r) 'future'
kurkang-ku(r) 'panja-FUT'
birdibirdi-wu(r) 'crescent moon-FUT'
wangalk-u(r) 'boomerang-FUT'
bultha-(r) 'dust-FUT'

In Old Lardil, the Objective and Future cases are marked with suffixes *-in* and *-ur* respectively. For many Old Lardil speakers, however, the final consonants of

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[6] I have not included a count for subjects here; in New Lardil, as in Old Lardil, subjects never receive inflectional morphology. For reasons which will later become clear, this count does not include objects of imperative verbs. For purposes of this count, I counted as "marked" nominals like those in i. and ii., in which only part of the object exhibits case morphology:

i. Dangka yuud- dene niwen**i** maarn jirrka
person PERF leave his-OBJ spear north
'Someone left his spear in the north'

ii. Ngada barrkithu diin**ku** daljirr
I cut-down-FUT this-FUT wild-cassava
'I'm going to cut down this wild cassava'

Of the 34 marked objects, 12 were of this type, and of the 11 future-marked objects, 3 were partially marked. 10 of the 12 partially marked objects were like the one in i. in that marking appeared on a modifier rather than on the head noun; all 3 of the partially future-marked objects had this property.

these suffixes often fail to appear[7]; for a certain set of Old Lardil speakers, then, the suffixes appear as *-i* and *-u*. Furthermore, for vowel-final bases, even these forms often fail to appear in Old Lardil: the objective ending *-i* vanishes after all vowel-final bases, and the Future ending *-u* is not found after bases ending in vowels other than /i/.

In other words, the Objective and Future markings are often absent even in Old Lardil, especially with vowel-final bases. The scarce data theory might therefore claim that New Lardil speakers have generalized this absence of inflection On this theory, New Lardil speakers failed to realize, from the small Lardil sample from which they were working, that the relevant factor determining whether inflection appears or not has to do with the presence or absence of a base-final vowel. In other words, New Lardil differs from Old Lardil in that the null alternate of certain inflectional suffixes may appear freely, rather than being phonologically conditioned.

The conclusion that inflectional markers could be freely dropped might have been aided by a collapse of the opaque relation between bases and citation forms which we saw in section 1.1. Recall that Old Lardil citation forms are predictable from nominal bases via the rules in (3), repeated as (6):

(6) a. final high vowels become non-high
/nguku/--> *nguka* 'water'
/kerndi/--> *kernde* 'wife'

b. trisyllabic (or longer) bases are shortened
/kirdikirdi/--> *kirdikir* 'moon'

c. monomoraic bases are lengthened
/ja/--> *jaa* 'foot'
/yak/--> *yaka* 'fish'
/jul/--> *julda* 'hair'
/kang/--> *kangka* 'speech'

d. final clusters are simplified
/wangalk/--> *wangal* 'boomerang'

e. certain final consonants (including all bilabials and velars) are deleted
/kurkang/--> *kurka* 'panja'

[7] Ken Hale (p.c.) informs me that the dropped final /-n/ was most common for roots of more than two syllables. Thus, zero marking of the objective may have been more uncommon than I have represented it as being here; it may have been marked on roots of more than two syllables by failure to to undergo the truncation rule in (3b), and on shorter roots by the addition of /-(i)n/.

Several of these rules ((6c) and (6e)) have the effect of creating vowel-final citation forms out of consonant-final bases[8]. Suppose that New Lardil speakers have reanalyzed these nominals, making the bases identical to the citation forms; thus, the New Lardil base for 'fish', for instance, would be /yaka/, rather than /yak/ as in Old Lardil. New Lardil would then have considerably more vowel-final bases than Old Lardil, and consequently more cases in which Objective and Future endings would have a null realization even in Old Lardil.

In the next three sections we will see some evidence suggesting that the scarce data approach is in fact the correct one; the relevant distinction between New Lardil and Old Lardil is a loss of regular but opaque morphosyntactic rules, such as those which relate bases and citation forms and the one which says that inflectional affixes are only dropped after vowel-final bases. We will see that New Lardil case morphology differs from English morphology in ways which are unexpected on the English influence account.

1.2.1 Imperative objects

In Old Lardil, objects of imperative verbs are in the nominative case:

(7) a. Nyingki latha kiini libani
you spear that-OBJ pumpkinhead-OBJ
'You spear(ed) that pumpkinhead'

b. (Nyingki) latha kiin liban!
you spear that pumpkinhead
'Spear that pumpkinhead!'

This is apparently also true of New Lardil. While objects of non-imperative verbs, as we saw, are marked for objective case roughly a third of the time, objects of imperatives are almost never marked:

Table 5: New Lardil Imperative Object Marking

unmarked	marked
34 (**92**%)	3 (**8**%)

The difference between imperative and non-imperative objects is statistically significant ($p<.001$).

This result is expected on the scarce data theory. On this theory, New Lardil speakers and Old Lardil speakers have essentially the same grammar, but New Lardil speakers differ in having generalized the null allomorph of the Objective and Future case endings. We therefore expect New Lardil speakers to always correctly mark objects of imperatives with nominative, which appears to be the case.

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[8] Of course, (6b) has the opposite effect. I have no data to support this, but my impression is that the nouns affected by (6c) are far more common than those affected by (6b).

On the English influence theory, on the other hand, these results are unexpected. If New Lardil objects often drop their case because English objects have no case marking, then New Lardil, like English, should make no distinction between objects of imperatives and objects of non-imperatives.

1.2.2 Regular and irregular opaque relations

Further evidence for the scarce data theory comes from the different morphological behavior of different nominals in New Lardil. Table 6 gives frequency counts for unmarked and marked objective forms of various common New Lardil nominal elements. Recall from Table 4 that nominals in general are typically marked for objective case 34% of the time:

Table 6: New Lardil objective marking on particular nominals

	unmarked	marked
yaka 'fish'	10 (**63**%)	6 (**37**%)
werne 'food, animal'	15 (**65**%)	8 (**35**%)
dangka 'man, person'	12 (**75**%)	4 (**25**%)
bidngen 'woman'	10 (**100**%)	0 (**0**%)
diin 'this'	27 (**93**%)	2 (**7**%)
jika 'many'	8 (**53**%)	7 (**47**%)
ngada 'I'	0 (**0**%)	15 (**100**%)
nyalmu 'we (pl.ex.dish.)'	7 (**100**%)	0 (**0**%)

By far the most statistically significant result[9] in Table 6 is the behavior of *ngada* 'I', which appears in the objective form in all fifteen of its appearances in the corpus as an object ($p<.000001$). This might in principle be taken as support for the English influence theory, given that pronouns are also among the few nominals English declines. Such a theory would have no account, however, for the behavior of *nyalmu* 'we (plural exclusive disharmonic[10])'; New Lardil consistently fails to decline this, although its English equivalent is declined.

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[9] Another statistically significant result, which I will not try to account for here, is that *diin* is unusually infrequently marked for objective case ($p<.001$). One possibility is that this is a dissimilation phenomenon, given that the Old Lardil objective form for *diin* is *diinin*. Note the infrequency of objective marking on *bidngen* 'woman' as well ($p\approx.02$), which might be explained in a similar way. *Diin* is marked for future case 27% of the time (3 out of 11 occurrences), which is comparable to other nominals and would not be expected to trigger the same kind of dissimilation (the Old Lardil form is *diinkur*).

[10] Like a number of other Pama-Nyungan languages, Lardil has two sets of non-singular pronouns, conventionally referred to as harmonic and disharmonic. The distinction has to do with how the members of the group referred to are related to one another; roughly, if every pair in the group is separated by an even number (including zero) of generations, harmonic pronouns are used, and disharmonic pronouns are used in other cases. Thus, harmonic pronouns might be used to refer to groups of siblings, or grandparents and their grandchildren; disharmonic pronouns would be for groups containing, for instance, a parent-child pair.

In fact, it seems that the most reliable indicator of whether a New Lardil nominal will be declined has to do with Old Lardil, rather than English. What distinguishes *ngada* 'I' from *nyalmu* 'we (pl.excl.dish.)' and other nominals is that its declension is entirely irregular:

Table 7: three Old Lardil nominal declensions

	ngada 'I'	**nyalmu** 'we (pl.excl.dish.)'	**kurka** 'panja'
Nominative	ngada	nyalmu	kurka
Objective	ngithaan	nyalmuun	kurkang-in
Future	ngithantha	nyalmung-ku	kurkang-ku
M. Non-Future	ngithunarr	nyalmung-arr	kurkang-arr
Genitive	ngithun	nyalmung-an	kurkang-an

Learning the declension of *ngada* 'I', in other words, is a matter of learning several completely irregular forms. *nyalmu* 'we (pl.excl.dish.)', on the other hand, has an irregular Objective form but is otherwise completely regular; its base is /nyalmung/, and all of its forms other than the Objective one (including the Nominative form) are predictable from this. Morphologically, then, *nyalmu* is more like *kurka* 'panja' than it is like *ngada* 'I'. Its declension is handled primarily by regular morphophonological rules, and these are precisely the morphophonological rules which, on this analysis, are being lost in New Lardil. New Lardil speakers thus appear to have had enough evidence to acquire irregular forms in certain cases, but not enough to make the generalizations across different forms which are needed to posit a regular morphophonological rule.

1.2.3 Further evidence for reanalysis: verbs

Further evidence for this particular account of the morphological differences between New and Old Lardil comes from the behavior of verbs in New Lardil. Recall that Old Lardil verbs are subject to a minimal word requirement; monosyllabic stems, when uninflected, receive an augment *-tha* in order to make them sufficiently metrically heavy:

Table 8: Old Lardil verb inflection

	kebe 'get'	**latha** 'spear'
Plain	kebe	latha
Future	kebe-thur	la-thur
Marked Non-Future	kebe-tharr	la-tharr
Negative	kebe-jarri	la-jarri
Negative Imperative	kebe-ne	la-ne
Negative Future	kebe-nengkur	la-nengkur
Negative Non-Future	kebe-nerr	la-nerr
Contemporaneous	kebe-jirr	la-jirr
Evitative	kebe-nymerr	la-nymerr

In New Lardil, on the other hand, this augment *tha* is often reanalyzed as part of the verb base; thus, the Old Lardil base /la/ 'spear', for instance, has been changed to /latha/ in New Lardil. Table 9 gives an exhaustive list of all inflected verbs ending in *-tha* in the New Lardil corpus; underlined forms are those reflecting reanalysis of *-tha* as part of the base:

Table 9: New Lardil augment reanalysis

	Future	Negative	Negative Imperative
betha 'bite'		**bethajarri**(1)	**bethane** (1)
wutha 'give'		**wuthajarri** (1)	
latha 'spear'		**lathajarri** (1)	
jitha 'eat'	**jithathu** (3)	**jithajarri** (1)	**jithane** (3)
		jijarri (6)	
netha 'bite'	**nethu** (1)		
ditha 'sit'	**dithu** (1)		

Again, New Lardil appears to be in the process of doing away with the opaque (but regular) relation between the base and the overt form[11]. On the other hand, completely irregular relations appear to be retained, as was the case with nominal inflection. The irregular verb *waa* still appears in its irregular Old Lardil forms:

[11] In fact, this may be a case in which morphophonological irregularity has actually been created where none existed before, although (as with many of the conclusions drawn in this paper) more work would be needed to establish this for certain. If the various forms in Table 9 reflect inconsistency on the part of individual speakers as to the treatment of these forms (for instance, if there are New Lardil speakers who use *jijarri* for the Negative form of *jitha* 'eat' but the reanalyzed form*jithathu* for the Future), then they have become irregular forms (whereas in Old Lardil they were regular forms, with a regular morphophonological rule forcing the addition of *-tha* in the unaffixed form).

Table 10: New Lardil *waa* 'go'

	Actual	Future
Regularized	***waa-kun** (0)	***waa-thur** (0)
Irregular	**waangun** (31)	**waangku** (7)

Waa is never changed to a regular verb. Here, again, it looks as though the New Lardil speakers had enough data on Lardil to learn completely irregular forms, but not enough to posit regular morphophonological relations between forms; the latter alternations are therefore being lost, while the former are retained.

2. Word Order

The second major distinction between Old and New Lardil had to do with word order. New Lardil word order is in practice[12] considerably less flexible than Old Lardil word order:

Table 11: Old and New Lardil word order frequencies

	SVO	**VSO**	**OSV**	**SOV**	**OVS**	**VOS**
Old Lardil	49 (**38**%)	25 (**20**%)	19 (**15**%)	19 (**15**%)	13 (**10**%)	3 (**2**%)
New Lardil	146 (**94**%)	3 (**2**%)	4 (**2**%)	1 (**1**%)	1 (**1**%)	0 (**0**%)

	SV	**VS**	**VO**	**OV**
Old Lardil	147 (**55**%)	119 (**45**%)	179 (**77**%)	52 (**23**%)
New Lardil	158 (**92**%)	13 (**8**%)	67 (**87**%)	10 (**13**%)

These facts are clearly consistent with an English influence theory; New Lardil word order, like English word order, is apparently essentially SVO.

On the other hand, a scarce data theory might be able to handle these facts as well. It is interesting to note that the word orders which have become dominant in New Lardil are also the most common word orders in Old Lardil. We might theorize, then, that some syntactic processes which disrupt the basic word order in Old Lardil have become less available, or less frequently used, in New Lardil. One can easily imagine a connection between this phenomenon and the loss of nominal case endings in New Lardil.

Evidence against the English influence theory comes from the behavior of a certain class of adverbs. These adverbs are typically preverbal in both New and Old Lardil:

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[12] It is probably worth noting that New Lardil speakers still judge sentences as grammatical which appear quite infrequently in texts. Kenneth Jacobs (Kulthangarr), a fluent New Lardil speaker, volunteered early in our work together his observation that Lardil word order was freer than English word order, using as his example the pair of grammatical and synonymous sentences in (i):

i. a. Ngada waangku
I go-FUT
'I will go'

b. Waangku ngada
go-FUT I
'I will go'

Table 12: Lardil preverbal adverbs

	Old Lardil		New Lardil	
	preverbal	postverbal	preverbal	postverbal
buda(a) 'behind'	1	1	2	0
budameen 'behind'	0	0	3	0
jarma 'quickly'	1	0	8	0
maa 'only, just'	9	1	17	0
merri 'again'	4	1	1	0
nguthungu 'slowly'	22	1	5	1
walmaan 'up'	2	1	4	0

In English, on the other hand, these adverbs are frequently unable to be preverbal. Examples from the New Lardil corpus which would be ungrammatical in English are given in (8-10):

(8) Bana Kirdikir, niya waa, **walmaan** waa
and moon he go up go
'And Moon, he goes, goes up.'

(9) ...ngada **budaa** waa kangarakun
I behind go ask-for-food-ACT
'I'll go behind, asking people for food'

(10) Nyingki **jarma** kangkakun
you quickly talk-ACT
'You're talking fast'

Here, then, is a case in which Old and New Lardil word order behave alike. On the English influence theory this is rather surprising; why should adverbs be unique in escaping the influence of English? There is one clear morphological difference, however, between the adverbs and nominal arguments; in Old Lardil, the latter but not the former carried case morphology roughly indicating their semantic role. In New Lardil, as we have seen, this morphology has partly been lost; it is therefore not surprising that the word order of just those elements which bore this morphology has changed in a certain way.

3. Conclusion

In general, it appears that the role of English per se in the transition between Old and New Lardil is minimal. The differences between New and Old Lardil are not a matter of influence by a particular language, but rather of ordinary language change, probably accelerated by the scarcity of Lardil data available to the New Lardil speakers as they were acquiring Lardil. I have theorized that this language change consists largely of the loss of certain regular morphophonological rules of Old Lardil; various regular alternations have been regularized in favor of a particular form. Completely irregular alternations, on the other hand, have apparently been retained. This seems consistent with a theory in which children acquiring Lardil were exposed to less Lardil data than is

typically available to learners of a first language. On this theory, the New Lardil speakers heard enough Lardil as children to learn the Lardil lexicon, including various irregular forms, and a number of arguably syntactic facts about Lardil grammar (for instance, the fact that objects of imperatives take nominative case, or that certain adverbs are obligatorily preverbal), but not enough to acquire various regular but language-specific morphophonological rules governing the concatenation of morphemes. The resulting impoverishment of nominal morphology has had effects on the possible orders of nominal elements in New Lardil.

In the following appendices I will discuss two more apparent differences between New and Old Lardil.

Appendix 1: Negative imperatives

In Old Lardil, negative imperatives are formed by addition of a negative imperative suffix *-ne* to the verb:

(11) Kunaa, kebe**ne** baya
be get-NEG.IMP. anger
'No, don't get angry'

(12) Kilmu ngawithura**ne** niya, banda niya thaathur...
you-PL.DISH. miss-NEG.IMP. he eventually he return-FUT
'Don't be sad about him; eventually he'll come back...'

In New Lardil, by contrast, this suffix does not appear with this meaning in the corpus. It may be that it can still have a negative imperative meaning; the suffix is seldom enough used in the New Lardil corpus that this possibility cannot be ruled out. The attested instances of *-ne*, however, seem to involve a more general negative modal force[13]:

(13) Diin wurdal birdi; ngada jitha**ne**
this meat bad I eat-NEG.IMP.
'This meat is bad; I can't eat it'

(14) Diin thungal burndiny, murndamen thungal,
this tree mangrove-cedar mangrove-with tree
bana niwen werne, nyalmu jitha**ne**
and its fruit we eat-NEG.IMP.
'This tree, mangrove cedar, it grows with the mangroves, and we don't eat its fruit'

This meaning of *-ne* does not appear to be available in Old Lardil.

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[13] It is potentially relevant that the cases of *-ne* in the New Lardil corpus all involve verbs like *jitha* 'eat' which have monosyllabic bases in Old Lardil and have been reanalyzed with their augment *-tha* as bisyllables in New Lardil.

Negative imperatives in New Lardil are now typically formed using the word *ngawun*. *Ngawun* in Old Lardil seems to be an adverb meaning something like "only a little bit, with restraint", but can also apparently have a negative imperative meaning:

(15) **Ngawun** kuubarnga
ngawun open-eyes
'Open your eyes just a little (not too much)'

(16) Kernde-kambin thaldii. **Ngawun** merri waa kurrithu burdalu.
wife child stand-up **ngawun** again go see-FUT corroboree-FUT
'Wife, child, get up. Don't go see the corroboree again.'

In New Lardil, by contrast, *ngawun* only appears with a negative imperative meaning:

(17) **Ngawun** dukurme ngithaan
ngawun deceive me
'Don't lie to me'

(18) **Ngawun** duranji
ngawun poke-RECIP
'Don't poke each other'

In New Lardil, then, the Old Lardil negative imperative suffix *-ne* has apparently been reanalyzed as having a more general negative modal force, and the adverb *ngawun* is used exclusively to form negative imperatives. As Michel DeGraff (p.c.) has pointed out to me, these developments are somewhat reminiscent of the evolution of negation in French, where the older negative head *ne* has largely been lost, to be replaced as the primary overt exponent of negative meaning by a phrasal element *pas*, formerly a noun phrase which was frequently associated with negation.

Appendix 2: third person pronouns

It is interesting to note that the Old Lardil non-singular third person pronouns (*birri* 'they (du. harm.)', *niinki* 'they (du.dish.)', *bili* 'they (pl.harm.)', *bilmu* 'they (pl.dish.)') do not appear in the New Lardil corpus. Moreover, there are some examples in the corpus in which the pronoun *niya* 'he/she' appears where we might expect to see plural forms[14]:

(19) Nyingki yukarr, karan ngakurrwen mangarda jika?

[14] The referent of *niya* in (20) is not entirely clear, but it seems mostly likely that it is the subject of its clause; it appears in the nominative form, and *niya*, like *ngada* 'I', regularly appears in its objective form when it is an object in New Lardil (also like *ngada*, its objective form is irregular). It is perhaps worth noting that these examples all come from a single informant, our main New Lardil informant, Kenneth Jacobs (Kulthangarr).

you husband where our-DU.INCL.HARM. child many
Niya denkawakun wajbelkan laka.
niya dance-ACT white-person-GEN way
'Hey, husband, where are all our children? They're doing disco.'

(20) Dangka, bidngen warnawu yaka, thurarra, barun, kendabal,
man woman cook fish shark/stingray sea-turtle sea-turtle/dugong
dilmirru--warnawu. Bana wutha **niya** Kirdikir, Birdibir
dugong cook and give **niya** moon crescent-moon
'The men and women cook fish, shark, sea turtles, dugongs--they cook them. And they give them to Moon, Crescent Moon.'

(21) Diin kiyanda, **niya** wayithu burdal marndar.
this two-person **niya** sing-FUT corroboree *marndar*
Bana diin kiyanda, diin kiyan dangka, **niya** kubarithu,
and this two-person this two person **niya** make-FUT
luulithu diin jika mangarda.
dance-FUT this many child
'These two, they're going to sing the *marndar* song. And these two, these two people, they're going to fix him, they're going to initiate (lit. 'dance') these boys'

In these cases *niya* appears to have a plural antecedent. It may be the case, then, that in New Lardil *niya* has become a general third person pronoun with no specified number; again, this is a language change which cannot be ascribed to English influence. Note that New Lardil, like Old Lardil, has an inclusive-exclusive distinction in the first person plural pronouns, a singular-plural distinction in the second person pronouns, and possibly also a dual-plural distinction[15]; these distinctions are absent in English, of course.

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[15] Dual pronouns are fairly infrequent even in the Old Lardil corpus, but there are a few examples of their use in the New Lardil corpus ((19) above is one such example).

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