

WHEN TWO VOWELS GO WALKING: VOWEL COALESCENCE IN SHONA

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Abstract

*Vowel coalescence is a phonological process in which adjacent vowels cause each other to change. Processes of vowel coalescence that are widespread in other Bantu languages occur in Shona at the boundaries between words and monosyllabic affixes. This article argues for two main coalescence triggers in Shona: 1) epenthetic *i*, used to eliminate monosyllabic words, and 2) a nominal initial vowel attested, in other Bantu languages, which is hypothesized to have once existed in Shona. Coalescence only takes place across a syntactic boundary that occurs within a phonological word.*

VOWEL COALESCENCE IN BANTU

Vowel coalescence is a phonological phenomenon in which two adjacent vowels cause each other to change (and sometimes shorten)¹. It is a common phenomenon crosslinguistically and in Bantu languages such as Shona. Earlier work on Shona linguistics, such as Fortune (1967; 1985) and Dale (1972), point out the existence of vowel coalescence in Shona, but rarely attempt to analyze it (cf. footnote 4). The present article has three goals: 1) to identify the sources of the vowels that trigger vowel coalescence in Shona, 2) to identify where vowel coalescence does and does not occur in Shona, and 3) to indicate how the different patterns of vowel coalescence found in Shona dialects are related to the basic pattern presented in connection with (1) and (2). This article is therefore intended as a contribution to the understanding of Shona phonology and morphology.

Vowels that coalesce may come to be adjacent to each other because the morphemes they belong to have been joined or because they occur at the end and the beginning of adjacent words. Examples from Shona appear in (1):

1. a. *séi?*
'how?' (like what?)
sa - i ⇒ *se - i*
like what

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- b. *néi?*
 'by/and/with what?'
na - i ⇒ *ne - i*
 by/and/with what
- c. *U- rí ku-chémére-i*
 2s be to cry for what
 'Why are you crying? (You are crying for what?)'

The examples in (1) belong to a pattern which is described as occurring frequently in Bantu languages (Doke, 1943; Meinhof, 1910; Wald, 1973) and which is summarised in (2):

2. a. $a + a \Rightarrow a$
 b. $a + i \Rightarrow e$
 c. $a + u \Rightarrow o$

The examples in (1) show the pattern in (2b). Most of the data dealt with in this article shows the (2b) type of coalescence, but there are (2a) and (2c) examples as well.

To begin with, consider the examples in (3) (the coalescing vowel is in bold):

3. a. *U- n**ó** - *bu* - *e* - pí*
 3 pres come from FV where
 'Where does it come from?'
- b. *ku- p**édz** - *é* - z**vó***
 inf finish FV those (8)
 'finishing those' (Zvarevashe, *Kurauone*, 35)
- c. *V- *á* - mir - *e* - p**ó***
 2 RP wait FV there
 'They waited there.' (Mutswairo, *Hamandishe*, 28).

The examples in (3) involve coalescence at the juncture between the final vowel of the verb and the morpheme which immediately follows it. This juncture is indicated by a hyphen in the examples. In addition to the post-final vowel morphemes in (3), other morphemes which are associated with coalescence include locatives *-ko* and *-mo*, and possibly *-zve*. Note also from the examples in (4) that coalescence in this context is not always obligatory:

4. a. *Nd-a- k**á**-p- a- wo*
 1s NP RP give FV also
 'I gave also.'

- b. *A-chí-bu- á-kó*
 I cont leave FV there
 'She leaving there'
 (Mungoshi, *Makunun'unu Maodzamwoyo*, 36).

I'm not sure exactly where and why coalescence is optional, but it may be optional only with certain morphemes, such as those in (4).

Now, consider a second set of examples in (5)²:

5. a. *nó - mukádzi* 'with a woman'
né - mukádzi 'with a woman' (Fortune, 1985, iv)
 (Class 1)
- b. *na - babá* 'with father' (*Ibid.*, 9) (Class 1a)
- c. *na - vakádzi* 'with women' (Class 2)
- d. *na - vádzimái vángu* 'with my wife' (*Ibid.*, 18) (Class 2a)
- e. *na - amái* 'with mother' (Class 2b)
- f. *no - múkaka* 'with milk' (Fortune, 1967, 25) (Class 3)
ne - múkaka 'with milk'
- g. *ně - mii* 'with trees' (Class 4)
- h. *ne - sádza* 'with sadza' (Fortune, 1985, 9) (Class 5)
- i. *na - mápadzá* 'with hoes' (*Ibid.*, 11) (Class 6)
ne - mápadzá 'with hoes'
- j. *ne - chígaro* 'with a chair' (Fortune, 1967, 25) (Class 7)
- k. *ne - zúgaro* 'with chairs' (Class 8)
- l. *ne - nzíra iyi* 'by this path' (Fortune, 1985, iii) (Class 9)
- m. *ně - dzipwéré* 'with various children' (*Ibid.*, 66)
 (Class 10)
- n. *no - ruókó* 'with the hand' (Class 11)
ne - ruókó 'with the hand'
- o. *ně - kadúkudúku kése* 'even the smallest thing'
 (*Ibid.*, 114)
na - káshoma kóse (*Ibid.*, 115) (Class 12)
- p. *no - twaná* 'with small children' (Class 13)
ne - twaná 'with small children'
- q. *no - úpfu* 'with flour' (Class 14)
ne - úpfu 'with flour'
- r. *no - kúti* 'because' (*Ibid.*, ii) (Class 15)
ne - kúti 'because'

² Classes 19 and 20 are in limited distribution dialectally (Fortune, 1985, 82) and are not included in this list.

- s. *na - padúku pósé* 'even in the slightest degree' (Ibid, 114) (Class 16)
ne - padúku pósé 'even in the slightest degree'
 t. *no - kúmushá* 'and at home' (Class 17)
 u. *no - múmushá* 'and in the home' (Class 18)

In these examples, coalescence occurs at the juncture between the preposition *na-* and a following nominal. Other morphemes which are associated with coalescence in this context include the associative particle *-a³*, *sa-* 'like', *ha-* 'here', the copulative, the locative noun prefixes sometimes and possibly others. Note in particular the alternations found in certain contexts, such as *ne-mukadzi* vs. *no-mukadzi* in Class 1. I will return to these alternations later.

COALESCENCE TRIGGERS

Consider now the basis for dividing the data into the two sets represented in (3) and (5). These sets are defined according to coalescence triggers. By 'trigger', I mean the vowel whose presence causes coalescence. When we consider the patterns shown in (2), it might seem difficult to say that one vowel causes the coalescence but not the other. However, this is precisely what I am going to say about Shona. When we consider all the places where vowels come together in Shona, there are two cases where a particular vowel may be considered to be a trigger of coalescence. The first case is the epenthetic *i-* which appears in examples such as those in (6):

- | | | | |
|-------|--------------------|---------|------------------|
| 6. a. | <i>i - dyá</i> | 'Eat!' | |
| | EV eat | | |
| | b. <i>i - tsvá</i> | 'new' | |
| | <i>i - go</i> | 'wasp' | (not in Karanga) |
| | EV wasp | | |
| | d. <i>i - wé</i> | 'you' | |
| | EV you | | |
| | e. <i>i - zvo</i> | 'these' | (8) |
| | EV these | | |

The second case is a morpheme which does not currently exist in Shona but which was, I propose, once present in the language: the initial

³ I am grateful to Dr. Ann Jefferies for pointing out to me that possessives such as *wédú* 'our', *wényú* 'your', *védú*, *vényú* etc., consist of the associative marker followed by a pronoun (*wa - idu*, *wa - inyu*, for example). They conform to the prediction made later in this article that coalescence takes place only across a syntactic boundary.

vowel which is part of noun class prefixes currently extant in Bantu languages such as Ndebele and Luganda, as in the examples in (7)⁴:

7. a. *ú-mú-ntu* 'person'
 IV 1 person
 (Ndebele: Pelling and Pelling, 1974, 8)
- b. *o-mu-ntu* 'person'
 IV 1 person
 (Luganda: Ashton, *et al*, 1954, 20)

The basis for the division of data in (3) and (5) is, therefore, that the coalescences in (3) are triggered by epenthetic *i* and the coalescences in (5) are triggered by the extinct initial vowel. Each of these identifications is justified in turn.

Epenthetic *i*

The obvious question that arises with the claim that the coalescence trigger in (3) is epenthetic *i* is how we can assume that the two are the same, given that the environments in which the two appear are apparently so different. It is usually assumed that epenthetic *i* is used to prevent a monosyllabic morpheme from becoming a monosyllabic word, as seen in the examples in (6) above.⁵ However, all of the examples in (3) are polysyllabic, so the presence of epenthetic *i* would appear to be unmotivated.

The assumption that the function of epenthetic *i* is to eliminate monosyllables is certainly correct, but it is not the whole story. Epenthetic *i* turns up in all kinds of places where its presence is not required to eliminate a monosyllable, illustrated in the examples in (8):

8. a. *I-tyá-i-shé* (name)
 EV fear EV God
- b. *I-dá-i-shé* (name)
 EV love EV God
- c. *i-mbó-tarisa*⁶
 EV Aux look
 'Just have a look now.' (Dale, 1972, 92)

⁴ Fortune (1967, 25) discusses a 'latent' vowel as being responsible for vowel coalescence, but stops short of identifying it with the Bantu initial vowel.

⁵ Certain ideophones are monosyllabic, one of a number of ways in which this word class is phonologically exceptional (Fortune, 1962, 29). Many Bantu languages have a similar constraint against monosyllabic words. For a discussion of this constraint in Swahili, cf. Park (1995).

⁶ Compare: *Nyatsó - nditárisa* 'Have a good look at me' (*Ibid.*). Here the auxiliary verb is disyllabic and epenthetic *i* is not inserted. Also, Dale notes *-do-* as an exception to the generalisation that monosyllabic auxiliary verbs ('Infix verbs' in Dale's terminology) in imperatives take epenthetic ('prothetic' in Dale's terminology) vowels (p. 92).

- d. *vana-i dyá -ndígeré*
 2a EV eat I have stayed
 'rich people with income' (Fortune, 1985, 106)
- e. *va-tsuá-i tsua*
 2 new EV new
 'very new ones' (Fortune, 1985, 110)

Note now the elements that are adjacent to the coalescing final vowel in the examples in (3). They are all monosyllables and, therefore, cannot occur as separate words. We have already seen that the insertion of epenthetic *i* is a strategy for avoiding monosyllabic words. However, there is also a second strategy: cliticisation to a preceding or following word. (Cliticisation is a process where a syntactically independent element becomes phonologically dependent on a neighbouring word.) I propose that epenthetic *i* and cliticisation are used separately or together, depending on the morpheme involved, but also, probably, on factors such as dialect and idiolect. We see cliticisation to the preceding word in the case of particles like *ko*, and cliticisation to the following word in the case of the preposition *na*. (It is not clear to me why one strategy is used in certain cases but not others.) In the case of particles like *ko*, cliticisation is the required strategy, but the option of epenthetic *i* is also available⁷. This option gives rise to the variation we see in (3) and (4). It is possible to apply cliticisation alone, as in the examples in (4), or cliticisation and epenthesis, as in the examples in (3).

The interaction of these two strategies may be modelled appropriately by any phonological theory which employs rule ordering, such as the theory of Lexical Phonology (Kiparsky, 1982; Mohanan, 1986). The morphemes *pi*, *i*, *ko* and *wo* are phonologically independent prior to the application of the strategies which enforce the prosodic constraint against monosyllabic words. The variation we observe is produced by the two strategies applying in opposite orders, as illustrated in the examples in (9):

9. a. Epenthetic *i* insertion followed by cliticisation:
u-no-bv-a pi (example (3a))
 Epenthetic *i* insertion ⇒
u-no-bv-a ipi
 Cliticisation ⇒
*u-no-bv-a-**ipi*** (coalescing vowels are in bold)

⁷ The strategies for eliminating monosyllables are not sensitive to syntactic category. They are sensitive only to position (pre-noun phrase or post-final vowel). Note, however, that *wo* 'also' appears never to take epenthetic *i*.

Vowel coalescence (and vowel shortening)

u-no-bv-e-pi

- b. Cliticisation followed by epenthetic
- i*
- insertion:

a-chi-bv-a ko (example (4b))Cliticisation \Rightarrow *a-chi-bv-a-ko*

(Epenthetic *i*-insertion does not apply, since *ko* is no longer a monosyllable. Likewise, vowel coalescence does not apply since there is no [i] to coalesce with the [a].)

Note that although cliticisation is a process which eliminates monosyllables, it is not constrained to apply only to monosyllables. Hence, it may cliticise a formerly monosyllabic morpheme to which epenthetic *i*-insertion has already applied, as in (9a). Epenthetic *i*-insertion, on the other hand, only applies to monosyllables, as shown by its failure to apply in (9b). Therefore, cliticisation may bleed epenthetic *i*-insertion, but not vice versa. This analysis shows how epenthetic *i*-insertion can produce the vowel coalescence seen in the examples in (3).

Initial vowel

Turning now to the initial vowel, there are two pieces of evidence for the idea that Shona once had a now-extinct initial vowel that is responsible for the vowel coalescence seen in the examples in (5).⁸ First, the vowels that would have to be present at some point to produce the coalescences in (5) according to the patterns in (2) are copies of the vowels which appear in the noun prefixes themselves, a pattern attested in other Bantu languages with extant initial vowels. Second, there are certain syntactic contexts where these coalescences don't take place which are the same contexts in which initial vowels are absent in languages which have them. Each of these arguments is discussed in turn.

Initial vowels as copies of noun prefix vowels

The goal in the following discussion is to develop a plausible scenario in which Shona had initial vowels at a previous stage, based on patterns in extant Bantu languages with initial vowels. This scenario, in order to be reasonable, does not have to conform in all its details to the particulars of any extant language and there are probably extant languages which do not conform to the pattern posited for Shona, given the large amount of variation that exists (Hyman and Katamba, 1993; de Blois, 1970).

⁸ The argument in this article is not an attempt to enter the debate about whether Proto-Bantu had initial vowels. I assume that initial vowels belong to a recent phase in the history of Shona.

Nevertheless, as long as there is a possible scenario which could have produced the patterns seen in present-day Shona, the argument for initial vowels at an earlier stage of the language is strengthened.

Shona noun class prefixes contain the following vowels:

10. a. [a]: Classes 2, 6, 13, 16
- b. [i]: Classes 4, 5, 7, 8, 9, 10
- c. [u]: Classes 1, 3, 11, 12, 14, 15, 17, 18

The class 5 noun prefix cannot be analysed as containing a vowel (Lafon, 1994), but other Class 5 agreement markers in Shona contain [i]. Also, Class 5 noun prefixes in other Bantu languages such as (again) Ndebele and Luganda contain [i]. So we will put Class 5 in Shona into category (10b). Pursuing the same reasoning, we will also put Class 9 into (10b), since its agreement markers contain [i].

If the now-extinct initial vowel in Shona was, for each noun class, a copy of the vowel in the extant noun prefix, the prefixation of the preposition *na-* would produce the following coalescences according to the pattern in (2) (coalescing vowels are in bold):

11. a. *na* + **a**-noun prefix ⇒ *na*-noun prefix (10a)
 IV
- b. *na* + **i**-noun prefix- ⇒ *ne*-noun prefix (10b)
 IV
- c. *na* + **u**-noun prefix- ⇒ *no*-noun prefix (10c)
 IV

Exceptions to this pattern in the data in (5), such as those in Classes 1, 11, 12, 13, 14 and 15, will be dealt with below.

The idea that Shona had a now-extinct initial vowel which was a copy of the noun prefix vowel becomes more plausible when we consider that the same pattern occurs in Bantu languages which currently have initial vowels, such as Ndebele. Initial vowels in Ndebele noun prefixes can be seen to be copies of the vowels of the noun prefixes which have vowels, as illustrated below:

12. a. *u-mu-* (Classes 1, 3)
- b. *a-ba-* (Class 2)
- c. *i-mi-* (Class 4)
- d. *i-li-* (Class 5)
- e. *a-ma-* (Class 6)
- f. *i-si-* (Class 7)
- g. *i-zi-* (Class 10)

- h. *u-lu-* (Class 11)
- i. *u-bu-* (Class 14)
- j. *u-ku-* (Class 15)

The same is true in Luganda, as reported in Hyman and Katamba (1993). Also de Blois (1970), as cited in Hyman and Katamba (1993), has reconstructed the Bantu initial vowels with copied vowels.

Now, the major objection to this hypothesis is that these are not always the patterns attested in the language. There is a certain amount of dialectal and idiolectal variation in the coalesced vowel away from the pattern predicted above. In particular, recall *ne-mukadzi* and *no-mukadzi* in Class 1. Only *no-mukadzi* is predicted by the analysis just given.

This sort of variation is due to the diachronic nature of the trigger. Originally, coalescence was phonologically motivated by the presence of the initial vowel. Later, the initial vowel disappeared, leaving the grin without the cat. Once the original motivation disappeared, the forms could be shifted into environments for which they were not originally motivated. A certain amount of shifting has taken place and probably continues to take place. One shift that has probably taken place is one in favour of the use of [e] to the exclusion of [a] and [o], at least in the preposition *na-*. What this means is that we can expect to see [e] where the pattern would predict [a] or [o], but not vice versa: we would not expect to see [a] or [o] where the pattern would predict [e]. Here lies the significance of the observation that variations like *no-mukadzi* are only used by a minority of speakers. Given the shifting that has taken place, the current status of such forms within the mosaic of dialects and idiolects doesn't matter; they still provide evidence about the original state of the system.

Syntactic contexts for initial vowels

So far, we have examined how coalescence works in examples in which a preposition is cliticised to a following noun. In particular, we have examined the preposition *na-*. Note now that *na-* also functions as a kind of quasi-verb, in which case it takes subject noun class markers, as in the following example:

13. *Ndi-né mari.* 'I have money.'
 1s have money

Note that the vowel of the preposition coalesces to [e] when followed by the Class 9 noun, as expected. This coalescence is obligatory:

14. **Ndi-na mari.*
 1s have money

Note now that when the form is negative, coalescence is forbidden:⁹

15. a. *Ha-ndí ná marí.* 'I don't have money.'
 neg 1s have money
 b. **Ha-ndi-ne mari.*
 neg 1s have money

What is the explanation for this pattern? Consider the following crosslinguistic evidence. In languages like Luganda, initial vowels never appear on the objects of negative verbs. The following examples are from Luganda:

16. a. *Tè - báàwà báànà bitábó.*
 (Luganda: Hyman and Katamba, 1993, 224)
 Neg they gave children books
 'They didn't give the children books.'
 b. **à - báànà è - bitábó*
 IV IV
 c. **à - báànà bitábó*
 IV
 d. **báànà è - bitábó*
 IV

Note that neither of the objects of the negated double-object verb in this example may take an initial vowel.

Suppose now that Shona at an earlier stage had an initial vowel which was subject to the same constraint. There would then have been no initial vowel to trigger coalescence in this syntactic environment. We would then expect to find that coalescence does not take place in this environment in the present stage of the language.

Another example comes from object relative clauses (in which the head noun is the object of the relative clause), exemplified as follows:

17. a. *nhivi idzi mbiri dza - wáréva*
 sides these two which you have mentioned
 (Fortune, 1967, 140).
 'these two sides which you have mentioned'
 b. *ne - chinhu cha - ndínodá*
 with thing which I want (*Ibid.*, 143)
 'the thing which I want'

⁹ I am informed by M. K. Manganwi that (15b) is grammatical in his dialect. This observation is in line with my earlier hypothesis that [e] forms are replacing [a] and [o] forms.

According to Fortune (*Ibid.*, 140), the object relative marker is the associative particle (which he refers to as the possessive concord) mentioned in connection with (5) above as one of the morphemes which coalesces when prefixed to a noun. Examples are as follows:

18. a. *chigaro* *ché - huni*
 chair of wood (*Ibid.*, 133)
 b. *mharadzi* *yo - múnhu*
 destroyer of a person (*Ibid.*, 133)

However, judging from Fortune's examples, among others, it appears that the associative particle never shows coalescence when it is used as an object relative marker. Why not?

We can again draw on a comparison with Luganda to explain this pattern. According to Hyman and Katamba (1993, 212), subject relative clauses in Luganda may take initial vowels:

19. a. *ò - lwáágwà*
 IV one that fell
 'the one that fell' (*Ibid.*)
 b. *lwáágwà*
 one that fell
 'the one that fell' (*Ibid.*)

Object relative clauses, on the other hand, do not (*Ibid.*, 213). Note that in example (20b), the object relative marker may not take an initial vowel:

20. a. *è - bikópò* *byè* *báálàbá*
 IV cups that they saw
 'the cups that they saw'
 b. * *è - bikópò e-byè* *báálàbá*
 IV cups IV that they saw

We can follow the same line of reasoning used above for the negative forms of *na-*. If Shona once had an initial vowel which patterned the same way in relatives as the initial vowel currently does in Luganda, then we would not expect to find coalescence in this environment.

Why epenthetic *i-* and the initial vowel?

If we accept the preceding arguments, we see that epenthetic *i-* and the initial vowel are almost entirely responsible for vowel coalescence in Shona. However, there are also cases where [a] does not coalesce with an adjacent [i] or [u]. These are listed in (21)–(29) (relevant vowels are in bold):

21. Tense/aspect/modality morphemes:
- Nd-ai-gara* (habitual *-ai-*)
1s hab stay
'I stayed'
 - Nd-a-ibá* (near past *-a-* + verb stem)
1s NP steal
'I stole'
 - Nd-a-ká-ibá* (remote past *-ka-* + verb stem)
1s NP RP steal
'I stole'
 - Ndi-chá-ibá* (future *-cha-* + verb stem)
1s fut steal
'I will steal'
 - Nd-a-i-téngá* (near past *-a-* + object marker)
1s NP OM buy
'I bought it'
22. Negative morphemes:
- Mu-sá-ib-é*
2p neg steal FV
'Don't steal'
23. Subject marker + verb stem:
- Á-ib-é*
SM steal FV
'(that) s/he steal'
24. Plural *-i*¹⁰:
- Pind-á-i!*
enter FV PL
'Enter!'
25. Deideophonic morphemes:
- tsváír-a*
sweep FV
26. Noun class prefixes + stems:
- ma-uchí*
6 honey
'inferior honey, lots of honey' (Fortune, 1985, 55)

¹⁰ Note that the form *pindáiwó* indicates that *-i* does not occupy the slot following the final vowel.

- b. *ma-usikú*
6 night
'long tedious nights' (*Ibid.*, 55)
- c. *ma-utá*
6 bow
'bows' (*Ibid.*, 75)

27. Phonotactically:

- a. *á - iwa* 'no'

Note also that final vowel *-a* does not coalesce when immediately preceding a noun:

28. Final vowel *-a* + NP¹¹:

- a. *T-a-fír - á nyika*.
1p NP die for FV country
'We died for the country.'

The same is true of the ownership phrases described in Fortune (1985, 157–158):

29. Ownership phrases

- a. *sá-chígáro*
OP chair
'chairman' (Fortune, 1985, 157)
- b. *nya-ku-bá zvavámwe*
OP to steal others' things
'one who steals others' things (*Ibid.*)
- c. *mú-zvina-guhwa*
1 OP talebearing
'talebearer' (*Ibid.*, 158)

How can we account for the differences here? When we look at all the places in Shona where vowels come together, it turns out that coalescence only takes place across a syntactic boundary that occurs within a phonological word. The examples in (3) and (5) are all examples of this type: in (3), coalescence takes place across the boundary separating the final vowel of the verb from the morpheme that occupies the immediately following slot. In (5), coalescence takes place across the boundary separating prepositions from the following nouns. In contrast, none of the

¹¹ Compare the name *Tafiré - nyika*, where the verb + noun form a single word and coalescence takes place.

relevant vowel junctures in (21)–(29) involves the same kind of syntactic boundary within a word. It is this factor which isolates epenthetic *i* and the initial vowel as coalescence triggers.

There is an apparent exception to the generalisation that vowel coalescence takes place only across a syntactic boundary. In the plurals of the nouns *zísó* 'eye' and *zínó* 'tooth', vowel coalescence takes place at the boundary between a noun prefix and a noun stem, which is not a syntactic boundary¹² (the coalescing vowels are in bold):

30. a. *zísó* 'eye'
 mesó 'eyes' (*ma - iso*; there is also the regular *mazísó*)
 zínó 'tooth'
 menó 'teeth' (*ma - ino*, there is also the regular *mazínó*)

Note that this boundary is the same as for the examples in (26a–c), where vowel coalescence is correctly predicted not to occur. Do these plurals negate the generalisation that coalescence takes place only at syntactic boundaries?

If we say that these plurals mean that vowel coalescence operates across syntactic and non-syntactic boundaries alike, then we are left with no generalisation concerning the domain of vowel coalescence. We have no way of distinguishing the environments in which vowel coalescence does occur from those in which it doesn't. However, it is counterintuitive to say that no such regularity exists in the data presented in this article.

On the other hand, if we classify *mesó* and *menó* as genuine exceptions, we can account for their presence in the current Shona lexicon. I propose that these nouns are holdovers from an earlier stage in the history of Shona at which vowel coalescence could take place across the boundary between noun prefix and noun stem. It is an attested phenomenon in language change for relics of an earlier system to persist into a later stage in which the rules that created them no longer operate. In this respect, *mesó* and *menó* are like modern English irregular plurals like *mice* and *oxen*, whose regularities are apparent only when we consider the history of the language and whose presence in the modern lexicon does not obscure the existence of the regular *-s* plural.

In support of this proposal, note that vowel coalescence appears in cognates of the same pair of plurals in other Bantu languages. In Zambian Tonga, both plurals are irregular, as in Shona (example 31a). In Swahili, 'teeth' is irregular (example 31b), as is 'eyes' in Isizulu (example 31c) (the coalesced vowel is in bold):

¹² Myers (1987) proposes that the boundary between noun prefix and noun stem in Shona is, in fact, a syntactic boundary. I accept the arguments made in Bresnan and Mchombo (1995) against this analysis and similar analyses of other Bantu languages in Baker (1988a; b); Carstens (1991) and Kinyalolo (1991).

31. a. *meso* 'eyes' (*ma - iso*)
 menyo 'teeth' (*ma - inyo*)
 (Tonga: Collins, 1962, 14)
- b. *meno* 'teeth' (*ma - ino*)
 (Swahili: Ashton, 1944, 64)
- c. *amehlo* 'eyes' (*ama - ihlo*)
 (Isizulu: Taljaard and Bosch, 1988, 18)

It is reasonable to suppose that the examples in (31), as well as the Shona plurals, derive from a common historical source, rather than resembling each other accidentally. If so, then the rule permitting coalescence in this environment was productive in this historical source, prior to the development of the separate daughter languages. This inference lends credence to the idea that the Shona plurals are not the product of the synchronic grammar but are inherited from an earlier stage in the development of Bantu languages.

CONCLUSION

In conclusion, this article has argued for two main sources for Shona vowel coalescence. The first is epenthetic *i*-, a strategy to eliminate monosyllabic words which also triggers coalescence. The second is a hypothesised initial vowel which is no longer extant in Shona but whose presence is still attested in the form of coalescence.

ABBREVIATIONS USED IN THIS ARTICLE

Aux:	auxiliary verb	OM:	object marker
cont:	continuous	OP:	ownership phrase
EV:	epenthetic vowel	PL:	plural
fut:	future	prep:	preposition
FV:	final vowel	QP:	question particle
inf:	infinitive	RP:	remote past
IV:	initial vowel	SM:	subject marker
neg:	negative	TAM:	tense/aspect/modality
NP:	near past	1s:	1st person singular
1p:	1st person plural		
2s:	2nd person singular		
2p:	2nd person plural		

Otherwise, numbers in the glosses represent the Bleek-Meinhof numbers of noun prefixes and agreement morphemes.

Acute accent indicates high tone; no accent indicates low tone. The Luganda examples from Hyman and Katamba (1993) contain grave accents

indicating low tones. Examples from Fortune (1985) are marked with Fortune's tone marks. The remaining tones were kindly provided by Francis Matambirofa. The only unmarked examples are the Luganda example in (7b) and the Tonga and Isizulu examples in (31). Swahili is not a tone language.

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