



Phonological Alternation in Numerals in Sungai Penuh Dialect of Kerinci

Rina Marnita^{*1}, Nadra Nadra¹, Laila Rahmi¹, Chong Shin²

^{*}Corresponding author

¹ Faculty of Humanities, Universitas Andalas, Padang, 25164, Indonesia

² Institut Alam Tamadun Melayu (ATMA), Universiti Kebangsaan Malaysia, Selangor, Malaysia

rinamarnita@hum.unand.ac.id, nadra@hum.unand.ac.id, lailulrahmi.9@gmail.com, chongshin@ukm.edu.my
Tel: +6285363023384

Abstract

Kerinci is a Malayic language spoken primarily in Sungai Penuh City and Kerinci Regency, Sumatra which is considered unique as most lexicons have two or more forms, differing in the phonological realisation of their final syllables. These word-final syllable rhymes are referred to as Absolute and Oblique forms since they bear syntactic functions. This paper describes phonological alternation in numerals and their morphosyntactic functions based on data from a synchronic descriptive study conducted in Koto Renah village, Sungai Penuh, Kerinci. The study reveals that most cardinal and ordinal numbers have two or more forms. The last unit of a compound numeral is the absolute form, while all preceding units are oblique forms. The phrasal alternations in numerals lends credence to the view that the Kerinci language is indeed unique.

Keywords: Phonological alternation, numerals, Absolute and Oblique forms, Kerinci language

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1.0 Introduction

Kerinci is a Malayic language belonging to the Malayo-Polynesian branch of the Austronesian language family (Adelaar, 1993). It is primarily spoken in Kerinci, a mountainous western part of Jambi Province, Sumatra, Indonesia. This region consists of North Kerinci, Central Kerinci, and South Kerinci, all located along the Barisan Mountains. Based on administrative regulation area No. 25 in 2008, Kerinci was divided into two parts: the Kerinci Regency and Sungai Penuh City. Since the enactment of this regulation, Sungai Penuh City has experienced regional expansion (Betingier, 2013). The total area now is 366.36 km², and the estimated population of mid-2021 was 97,770 (Badan Pusat Statistik Indonesia, 2022). The Kerinci Regency and Sungai Penuh City are shown on the following maps (Figure 1).

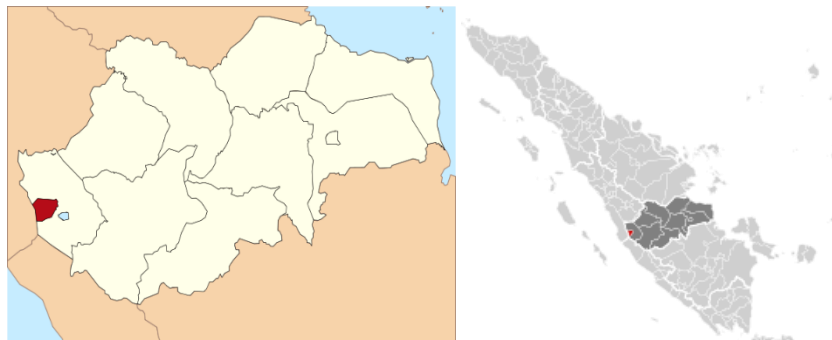


Figure 1. Map of Sungai Penuh City and Kerinci Regency (By Ewesewes at Indonesian Wikipedia, CC BY-SA 3.0)

Kerinci language has long been considered distinct from other Malayic languages as the roots from several lexical categories exhibit two (or more) morphological forms (Yanti et al., 2018). These morphological forms are distinguished by the phonological shape of the final time, referred to as Form I and Form I (Prentice & Usman, 1978) or Absolute and Oblique forms, respectively (Steinhauer 2018,2022). However, as stated by McKinnon et al. (2015), the relationship between Absolute and Oblique phonological forms can be predicted. From a syntactic perspective, the properties of phonological form changes in the nominal and verbal domains can be explained through the exact grammatical mechanisms. The following are phonological changes in using the words 'guava' and 'tree' in the Pondok Tinggi dialect (Ernanda, 2015, pp. 362-363).

- (1) *umpau*
tree.abs
'tree'
- (2) *umpun* *dʒambeu*
tree.obl guava.abs
'Guava tree'
- (3) *umpun* *dʒambu* *itoh*
tree.obl guava.obl that. dem
'that guava tree'

In example (1), 'tree' is in Absolute form (*umpau*), while in examples (2) and (3), the tree is in Oblique form as other elements follow it in the same phrase. 'Guava' in example (2) is in Absolute form (*dʒambeu*) as it occurs in the final position. The tree in example (3) is in Oblique form (*dʒambu*) as another element follows. These examples conclude that the absolute form occurs in the final position of a phrase, while the Oblique form is in the nonphrase final position.

Steinhauer (2018, p.377-378) describes that the difference between the absolute and the oblique form lies in 'the degree of specificity of the referent of the phrase of which they are an immediate constituent'. The absolute state is the basic or standard, while the oblique is the specific one. In the following examples from Sungai Penuh Kerinci (*Sumah* is absolute, the general one or less specific one, while *umoh* is oblique, the specific one

SPK		Indonesia
umah	house	rumah
umoh kamay	'our (excl.) house'	Rumah kami
umoh dusewŋ	'village house'	Rumah dusun
umoh bahew	'new house'	rumah baru
umoh itoh	'that house'	Rumah baru itu
umoh dusun itoh	'that village house, house of that village.'	Rumah dusun itu
umoh di dusun itoh	'the house in that village.'	Rumah di dusun itu'

Mackinnon (2011), in his dissertation, claims that the secondary forms, or the oblique forms, have multiple functions, either as a noun, possessive, or verb (Table 1):

Table 1. Numerous Functions of Secondary Form in Kerinci Language

Basic form	Gloss	Secondary form	Gloss
gdi	'large'	gdΛŋ	'enlarge' or 'largeness of (sth.)'
anaʔ	'child'	aneʔ	'his/her/the child'
mandae	'bathe'	mandiy	'to bathe (someone)'

Previous studies of the Kerinci language have confirmed the occurrence of phonological alternation across all lexical categories of the language. It is characteristic of the three main dialects of the Kerinci language: Sungai Penuh dialect (Steinhauer, 2018, 2022), Tanjung Pauh Mudik dialect (McKinnon, 2011; Yanti et al., 2018), and Pondok Tinggi dialect (Ernanda, 2015, 2017, 2021). This paper describes phonological alternation in numerals, one of the lexical categories of the Kerinci language, which has been explored explicitly in previous studies.

2.0 Literature Review

Early studies examining phonological differences in the final syllable of a word in the Kerinci language can be found among others in Prentice and Usman (1978); Steinhauer and Usman (1978), Steinhauer (2018); Nikelas et al. (1981), McKinnon (2011), and McKinnon, Cole, and Hermon (2011). Steinhauer and Usman (1978) investigate the morphology and syntax of Kerinci. The first thorough morphological study of the Kerinci language that highlights phrasal alternation in Kerinci lexicons was carried out by Prentice and Usman (1978). They investigate sound changes and phonotactics of Kerinci language spoken in Sungai Penuh, Kerinci, and show how various lexical categories have two forms differing in the final syllable of the words. They named the original form or basic form as Form I and its variation as Form II. Steinhauer (2018), who conducted a diachronic study of sound changes and borrowed words in the Sungai Penuh dialect, named Form I as the Absolute form since they always exist at the end of a phrase and Form II as the Oblique form since they appear in the middle or followed by other parts. Another study of morphophonological and morphosyntactic functions of phrasal

alterations can be found in McKinnon's (2011) dissertation. Using data from the Pondok Tinggi dialect, McKinnon claims that the oblique forms have multiple functions, either as a noun, possessive, or verb, among other things.

More recent studies on phrasal alternation in the Kerinci language are done, among others, by Yanti et al.(2018), Steinhauer (2018), and Ernanda (2015; 2021). Yanti et al. (2018) examine the distinct morphosyntactic features in the Kerinci Tanjung Pau language compared to other Sumatran Malay varieties. They claim other Malay varieties also exhibited the features, but they do not develop as they do in the Kerinci language. Ernanda (2015) extensively researches the Kerinci language's sound change in Pondok Tinggi. Ernanda's (2020) study of demonstrative in the Kerinci language adds more information about phrasal alternation in the Kerinci language. Her comparative study of phonemes in the Sumerep dialect and some other Malay languages in Indonesia (Ernanda, 2021) enriches our knowledge of phrasal alternation in the Kerinci language.

The studies of phrasal alternation in other sub-dialects of the Kerinci language can be found, among others, in Rina and Rahman's (2016) and Solvera's (2018) works. Rina and Rahman study Kerinci isolect at Pulau Tengah to describe the alternation of absolute and oblique forms and the syllable phonotactic rules. According to this study, there are 19 rhyme changes in G-words, 20 rhyme in K-words, 16 vowel series, 28 consonant clusters, 12 consonant series, and six patterns of syllable phonotactic rules (V, VK, CV, CVK, KKV, and KKVK). Solvera et al. look at how the final syllabic phoneme of noun category words in the Hamparan Rawang Subdistrict of Sungai Penuh City can change while still retaining the same meaning. They claim that the Kerinci language spoken in this area exhibits three distinct phoneme variations of noun word classes. Harmedianti et al. (2023) conducted a quantitative study in the villages in the Depati Tujuh sub-district, Kerinci district, aiming to examine the form of linguistic variations using a Swadesh word list and calculate the distance between linguistic elements using dialectometric formulas. The result shows that 39 glosses have lexical variations, and the difference between the lexicons is 19.5% (meaning 'no difference')

However, phonological alternations in numerals have not been thoroughly explored in the studies mentioned above. Numerals are words referring to numbers and are usually distinguished into cardinal and ordinal numbers (Dalmolin, 2009). This article describes numerals in the Kerinci spoken in Koto Renah village and examines phonological alternation in the lexicons denoting number and the morphosyntactic function of each lexical form in numeral compounds and numeral phrases.

3.0 Methodology

This descriptive synchronic study was conducted in the Koto Renah village located in Sungai Banyak City. Data for this research were obtained from six informants, selected based on NORM (Nonmobile Older Rural Males), whose ages ranged from 55 to 70. Data collection was done following methods and techniques applied in linguistic field research (Mahsun, 2007). The data collection was carried out during several visits to the research sites in three months in 2022. The data was obtained from the informants by asking them to count from 1 to 30, 100 to 1000, and mention combinations of several numbers and their uses in phrases and sentences. All the recorded data were phonetically transcribed and then analyzed to determine phonological alternations in numerals and examine whether the phrasal alternations serve absolute and oblique syntactical purposes. Phonetic transcriptions are used to show all the data used in the investigation.

4.0 Result and Discussion

4.1. Phonological alternation in numerals.

4.1.1. Cardinal numbers

All cardinal numbers, except the number 'one,' in the Kerinci language spoken in Koto Renah village, have two or more forms. Table 3 shows the first thirty cardinals in this sub-dialect.

Table 3. Basic Cardinal Numbers

Numbers (1)	Gloss	Numbers (2)	Gloss	Numbers (3)	Gloss	Numbers (4)	Gloss
[sataw]	'one'	[səbəlɔh]	'Eleven'	[duo sataw]	'twenty-one'	[seratauh]	'a hundred'
[duwea]	'two'	[duo bəlɔh]	'Twelve'	[duo duwea]	'twenty-two'	[duo ratih]	'two hundred'
[tigea]	'three'	[tigo bəlɔh]	'Thirteen'	[duo tigea]	'twenty-twenty'	[tigo ratih]	'three hundred'
[mpɔʔ]	'four'	[mpək bəlɔh]	'fourteen'	[duo mpɔʔ]	'twenty-four'	[mpək ratauh]	'four hundred'
[lima]	'five'	[limo bəlɔh]	'Fifteen'	[duo lima]	'twenty-five'	[limo ratauh]	'five hundred'
[nɔa]	'six'	[nam bəlɔh]	'Sixteen'	[duo nɔa]	'twenty-six'	[nam ratauh]	'six hundreds'
[tujeθh]	'seven'	[tujuh bəlɔh]	'seventeen'	[duo tujeθh]	'twenty-seven'	[tujuh ratauh]	'seven hundred'
[sələpɔa]	'eight'	[lapan bəlɔh]	'eighteen'	[duo sələpɔa]	'twenty-eight'	[(se)lapan ratauh]	'eight hundred'
[səmbilea]	'nine'	[sambilan bəlɔh]	'nineteen'	[duo [səmbilea]	'twenty-nine'	[sembilan ratauh]	'nine hundreds'
[səpulauh]	'ten'	[duo pulauh]	'Twenty'	[tigo pulauh]	'Thirteen'	[saribɣy]	'ten hundred'

All cardinal numbers in Table 3, except number one, 'sataw', in colour (1), undergo sound changes when they occur in numeral compounds as in colour (2), (3), and (4). These two phonologically different morphological forms in their final syllable rhyme ensure that numerals in this dialect have Absolute/Oblique forms.

4.2.2. Ordinal numbers

Ordinal numbers are made using the prefix *ka-* before the cardinal number, except for the ordinal number *sataw* 'the first'. Table 4. shows ordinal numbers for numbers one to ten.

Ordinals	Gloss
[patamo]	'the first'
[ka-duwea]	'the second'
[ka-tigea]	'the third'
[ka-mpɔʔ]	'the fourth'
[ka-lima]	'the fifth'
[ka-nɔa]	'the sixth'
[ka-tujeih]	'the seventh'
[ka-lapɔa]	'the eighth'
[ka-səmbilea]	'the ninth'
[ka-səpulauh]	'the tenth'

All ordinals have the second forms, but the context of speech determines their occurrence. This is in line with what Ernanda (2015) mentioned concerning ordinal in the Pondok Tinggi dialect. In example (4), the ordinal number [ka-tigea] is in Absolute form. In contrast, example (5) is in the Oblique position since it is an answer to a question about Ria's position in her family.

- | | | | | | | |
|-----|----------------------------|-----------------------|-----|----------------------------------|-------------------|------------------------|
| (4) | <i>ana?</i> | <i>ka-tigea</i> | (5) | <i>Ria ana?</i> | <i>nen</i> | <i>ka-tigo</i> |
| | <i>Child. Obl</i> | <i>the third. Abs</i> | | <i>Ria Child. Abs</i> | <i>Rel. Pron.</i> | <i>The third. Obl.</i> |
| | <i>'the/a third child'</i> | | | <i>'Ria is the third child.'</i> | | |

All numerals cardinals, except number one, [sataw], have their secondary form. Number 'one' *sataw* has no morphological variation and always appears with the clitic form *sə-* or *sa-* attached to the numeral words [bəɬɔh, pulauh, ratauh, ribiy, and juta], which are comparable to English 'teen', '-ty', 'hundred', 'thousand,' and 'million' respectively.

The numeral word 'teen' has two forms: the basic form [bəɬɔh] and the second form [bəɬeh]. When the context is clear, the oblique is used as in example (7)

- | | | | |
|--------------------------------|--|--------------------------------|--|
| How many chickens do you have? | | How many are the chickens all? | |
| (6) | <i>duo</i> <i>bəɬɔh</i> | (7) | <i>duwo</i> <i>bəɬeh</i> |
| | <i>Four. (Obl.)</i> <i>Fruit Cl (Abs.)</i> | | <i>Four. (Obl.)</i> <i>Fruit Cl (Obl.)</i> |
| | <i>'Four glasses'</i> | | |

The numeral *pulauh* '-ty' has two forms: [pulauh] (Abs) and [puluh] (Obl.) as in [duo pulauh] and [duo puluh duwea]. The numeral word 'hundred' has two basic forms: [ratauh] (Abs.) and [ratih] (Abs.) and a variation [ratuh] (Obl.) [Ratih] only occurs with numbers two and three while [ratauh] with other numbers. The Oblique form [ratuh] is used when it is in the middle or precedes another word in a numeral compound, as in [limo ratuh lima]. The lexicon for 'thousand' has two forms: [ribiy] (Abs.) and [ribuw] (Obl.). The Absolute form [ribiy] occurs in the final position as in [dua ratus duo puluh ribiy], while the Oblique form [ribuw] in the medial position or before another number in a numeral compound as in [duo ribuw mpɔʔ] 'two thousand and four'. The lexicon for the 'million', however, only has one form [juta] 'million' as in [sajuta] 'a million' and [duwo juta] 'two million.'

4.3. Phonological alternations in numeral phrases

Phonological alternation exists in numeral phrases with or without a classifier. In example (8), number four [mpɔʔ] is in absolute form, but in example (9), it is oblique as a classifier follows it.

- | | | | |
|------|--------------------------------|------------------------|---------------------|
| (8) | <i>Bawerj</i> | <i>miroh</i> | <i>mpɔʔ</i> |
| | <i>onion (Obl.)</i> | <i>red (Obl.)</i> | <i>four (Abs.)</i> |
| | <i>'four onions'</i> | | |
| (9) | <i>Mpek</i> | <i>buweh</i> | <i>gelɔh</i> |
| | <i>Four. (Obl.)</i> | <i>Fruit Cl.(Obl.)</i> | <i>glass (Abs.)</i> |
| | <i>'Four glasses'</i> | | |
| (10) | How many chickens do you have? | <i>Duo belɔh</i> | <i>*duo beleh</i> |

The phonological alternations of the numeral, both cardinal and ordinal numbers, are summarised in Table 5.

Table 5. Phonological alternation in numerals

Phonological alternation	Basic form	Secondary form
ea ~ o	[duwea] 'two' [tigea] 'three'	[duwo duea] 'twenty-two' [tigo tigea] 'thirty-three'
ɔʔ ~ ek	[mpɔʔ] 'four'	[mpek bəʔɔh] 'thirty-four' [mpek pulɔh mpɔʔ] 'forty-four'
ɔh ~ eh auh ~ ɔh	Duo bəʔɔh [sapulauh] 'ten'	[duo bəʔɔh ayɔa] 'Eleven chicken' [duwo pulɔh duwea] 'twenty-two' [tigo pulɔh tigea] 'thirty-three'
eih ~ uh	[tujeih]	[tujuh bəʔɔh] [tujuh ratauh]
auh/ih ~ uh	[saratauh] 'a hundred' [duo ratih], [tigo ratih]	[səratuh duwea] 'a hundred and two' [duwo ratuh duwea] 'two hundreds'
iy ~ uw	'a thousand.'	[duwo ribuw limo ratauh] 'two thousands and five hundreds'

5.0 Conclusion & Recommendations

The general rule of phonological alternations in numerals in the Koto Renah dialect of the Kerinci language leads to the conclusion that most cardinal and ordinal numbers have both Absolute and Oblique forms. The difference between the Absolute form and the Oblique one is in the position of a number in a compound numeral. The Absolute form is used when a number is in the final part in numeral compounds or numeral with a classifier. At the same time, the Oblique form always comes in a medial or non-phrase final position. Judging from its shape, the lexicons for cardinal numbers with sound variations will be evident when the principal numbers are in different positions in the numeral phrases. The phrasal alternation indicated by this lexical category adds evidence that the Kerinci language is unique compared to other Malay language/dialects in the same language family. This study, however, needs more investigation of its uses in various numeral expressions or phrases. Their occurrences in different numeral phrases, especially in numeral classifier phrases, must be interesting to explore as most classifiers are nouns with Abs//Obl. Forms as well.

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Paper Contribution to Related Field of Study

This paper contributes to the study of phrasal alternation in the Kerinci language. The phonological change of the lexicon which indicates numbers or numerals in the Koto Renah subdialect/isolect adds to the lexical categories of the Kerinci language which have morpho-syntactic functions as Absolute and Oblique.

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