Analysis of Phonological Errors in Chinese Learning by South African Learners

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Abstract: This study focuses on adult learners of Chinese at the elementary level in South Africa. Drawing on local teaching practice, it first compares the phonological systems of Chinese with South Africa's core official languages (English, Afrikaans, Zulu). Building on this analysis, the study systematically identifies learners' phonological errors: initial consonant issues like devoicing of voiced consonants, confusion between lingual consonants, and between aspirated and unaspirated consonants; vowel problems including monophthong confusion and unduly prolonged diphthongs; and tone flaws such as excessively inaccurate values. It further explores core causes (e.g., L1 negative transfer, target language overgeneralization) to provide practical insights for optimizing local elementary Chinese phonetics teaching and enhancing quality.
***Keywords*:** South Africa; elementary level; phonological errors

1. Introduction

In recent years, deepened China-South Africa economic and trade cooperation has spurred urgent demand for talents proficient in Chinese and local languages, boosting Chinese learning popularity—with adult learners increasing yearly, as Chinese helps enhance their employ ability and expand development opportunities. South Africa, a multilingual nation with 11 official languages, has dominant ones from two families: Niger-Congo (e.g., Zulu) and Indo-European (e.g., English, Afrikaans). These differ sharply from Sino-Tibetan Chinese, especially in phonology—Chinese features like tones and aspirated/unaspirated consonant contrasts are absent in local dominant languages. Based on the author's local teaching experience, learners show unique phonological errors tied to their native language context. Using teaching practice phonetic corpora and Lu Jianji' s L2 acquisition error cause classification, this study compares Chinese and South Africa's core official languages' phonological differences, identifies elementary adult learners' phonological error types, explores their causes, and aims to provide practical references for optimizing local Chinese phonology teaching.

2. Analysis of Phonological Errors

2.1 Errors in Initial Consonants

Initial consonants, a fundamental part of Chinese phonology, require precise control of tongue position and for accurate production[1]. Due to large L1-Chinese phonological differences, South African learners often make errors in Chinese initial consonant production, detailed below:

2.1.1 Devoicing of Voiceless Consonants

South African adult learners commonly exhibit varying degrees of devoicing when producing unaspirated voiceless initial consonants in Chinese, such as b, d, g, j, z, and zh. For example, they may pronounce the character “爸” (bà) as [bɑ], “大” (dà) as [dɑ], and they often add a distinct guttural quality when producing the initial consonant g. English lacks aspirated-unaspirated consonant contrast; Afrikaans has voiced-voiceless contrast, while Chinese only distinguishes aspirated/unaspirated stops/affricates (no voiced ones). L1-negative transfer makes English/Afrikaans learners ignore this contrast or substitute Chinese unaspirated consonants with L1 voiced ones, causing devoicing errors.

2.1.2 Errors in Tongue-Articulated Consonants

Confusion among tongue-articulated consonants is a core type of initial consonant error among South African learners. This confusion primarily manifests in two groups of consonants, which are explained in detail below:

Learners often confuse Chinese anterior tongue consonants (j [tɕ], q [tɕʰ], x [ɕ]) with apical anterior ones (z [ts], c [tsʰ]), e.g., pronouncing “鸡” (jī) as [tsi] and “西” (xī) like English /ʃ/. English /ʃ/ is similar to x [ɕ] but needs more forward tongue and stronger friction; most learners correct x after teachers note this. Afrikaans has sounds close to z, c, q and j; teachers just need to remind learners not to voice j. However, English/Zulu lack j/q, only having z/c-like affricates. Thus, English/Zulu-speaking learners unconsciously substitute j/q with these, causing confusion. Also, Pinyin “ji, qi, xi”and “zi, ci, si” share

“i”. Due to L1 negative transfer and target language rule overgeneralization, learners uniformly pronounce “i” as [i] or [ɿ], worsening syllable errors.

Elementary-level learners often confuse Chinese apical anterior consonants (z [ts], c[ts^h], s[s]) with apical posterior ones (zh [ʈʂ], ch [$ʈʂ^h$], sh [ʂ]), commonly mispronouncing the latter as the former. The main reason is that South Africa's core official languages have no apical posterior consonants (retroflex sounds), so learners lack experience making such sounds and are used to their native languages' tongue positions. Additionally, after teachers guide tongue curling for retroflexes, some learners inappropriately apply Afrikaans/Zulu uvular [ʁ] articulation, leading to excessive retroflection.

2.1.3 Confusion between Aspirated and Unaspirated Consonants

The Zulu, English and Afrikaans lack Chinese aspirated-unaspirated consonant contrast, the main cause of South African learners' confusion. Though most grasp the difference via targeted teaching, some still err post-phonology learning, especially for unaspirated consonants + Tone 4. Tone 4's pitch drop misleads learners about airflow, and some boost airflow to emphasize its descent; together with L1 absence of the contrast, this causes mispronouncing unaspirated consonants as aspirated.

2.2 Errors in Vowels

South African learners' vowel errors in Chinese mainly involve monophthongs and diphthongs, and these errors are caused by differences between the vowel systems of their native languages and Chinese. The specific manifestations of these errors are as follows:

2.2.1 Confusion between Monophthongs

The phonological systems of South African learners' native languages lack phonemes that correspond to certain Chinese monophthongs. This absence causes learners to unconsciously substitute unfamiliar Chinese monophthongs with sounds they are familiar with from their native language, which in turn leads to two types of confusion errors:

Learners often pronounce the Chinese monophthong o [o] as the diphthong [əu]. For example, they may pronounce “波” (bō) as [pəu]. The main reason for this error is that the letter “o” in English is commonly pronounced as [əu]. Meanwhile, neither Afrikaans nor Zulu has an independent phoneme that corresponds to the Chinese o [o][2]. The long-established pronunciation habits from their native language naturally transfer to their Chinese learning process, leading learners to substitute the unfamiliar o [o] with the more familiar [əu].

The phonological systems of English, Afrikaans, and Zulu lack a phoneme matching Chinese monophthong e [ɤ]. Zulu's “e” is closer to [ɛ], differing much from [ɤ] in tongue height and quality[2]. But Zulu has a sound like Chinese [ə], which is articulately natural and easy to master. Influenced by L1, learners often substitute [ɤ] with familiar [ə][3].

2.2.2 Excessively Long Diphthong Production

The phonological rules of Afrikaans and Zulu require speakers to articulate each phoneme in a diphthong clearly and completely. In contrast, Chinese diphthongs are characterized by a clear core vowel and short, indistinct on-glides and off-glides. This creates a difference in articulatory logic between the diphthongs of these South African languages and those of Chinese. Influenced by their native language habits, learners often excessively lengthen the on-glides or off-glides when producing Chinese diphthongs.

2.3 Errors in Tones

Tones, a core Chinese feature critical for distinguishing word meanings, pose major challenges to non-tonal language background learners[1]. As South Africa's dominant native languages are non-tonal, local learners' tone errors mainly involve narrow tone ranges and inaccurate values. On the 5-point Chinese tone scale (5=highest, 1=lowest), standard values are: Tone 1 (55, High Level), Tone 2 (35, Mid-Rising), Tone 3 (214, Falling-Rising), Tone 4 (51, Full Falling). Yet South African learners' tones mostly fluctuate around 3, narrowing their pitch range. Specifically, they often pronounce Tone 1 (55) as 32 (low-level); Tone 4 (51) too hastily, reducing it to 31 (half-falling); and Tone 2 (35) starting too low, making it 13 or 24 (low-rising).

3. Conclusion

Drawing on corpus data from the teaching practice of elementary-level Chinese for adults in South Africa, this study identifies the phonetic error features of learners in initial consonants, vowels, and tones through a phonological comparison between Chinese and local official languages. It also attempts to summarize potential causes of these errors, including L1 negative transfer, overgeneralization of target language rules, and inappropriate learning strategies. The study aims to provide practical references for local Chinese phonetic teaching, and further offer more targeted theoretical and practical support for constructing a Chinese phonetic teaching model.

References

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