

**Sound Adoption in Mosuli Arabic via Lexical Borrowing from
Turkish and Persian Languages**

التبني الصوتي في الموصلية العربية من خلال الاستعارة اللغوية
من اللغتين التركية والفارسية

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**Keywords: loanwords, borrowed sounds, MA sound system,
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Abstract

This research aims to investigate how the Mosuli Arabic consonant sound system has been enhanced by loanwords from Turkish and Persian. The study proceeds to verify the hypotheses that: first, Turkish and Persian loanwords impact MA sound system by producing the foreign phonemes /p, g, tʃ/, and second, these borrowed sounds are phonemes not allophones of other phonemes in MA sound system. The data consist of 140 loanwords (70 Turkish loanwords and 70 Persian loanwords) which are collected from the literature and previous studies. The adoption of these foreign sounds as distinct phonemes was examined via utilizing a minimal pair test. The study concludes via proving that MA consonant system has increased due to borrowing words from Turkish and Persian for many reasons such as: contact, social reason, cultural, political, economic, etc.

الملخص

تهدف هذه الدراسة الى التحري عن كيفية تعزيز النظام الصوتي للاصوات الساكنة في اللهجة الموصلية العربية من خلال الكلمات المستعارة من اللغتين التركية والفارسية. تقوم الدراسة بالتحقق من الفرضيات التالية: اولاً، الكلمات المستعارة من اللغتين التركية والفارسية تؤثر على النظام الصوتي الموصلي من خلال تقديم الاصوات الاجنبية /p, g, t/، ثانياً، هذه الاصوات المستعارة (المستوردة) هي اصوات ساكنة اصلية في اللهجة الموصلية وليست متغيرات لاصوات اخرى في النظام الصوتي الموصلي. تتألف البيانات من ١٤٠ كلمة مستعارة (٧٠ كلمة مستعارة من اللغة التركية و ٧٠ كلمة مستعارة من اللغة الفارسية) تم جمع البيانات من الدراسات السابقة والادب. وقد تم فحص تبني (استيراد) هذه الاصوات الاجنبية كاصوات مميزة من خلال استخدام اختبار الزوج الادنى. تختتم الدراسة باتبات ان نظام الاصوات الساكنة في اللهجة الموصلية قد ازداد بسبب استعارة الكلمات من اللغتين التركية والفارسية لاسباب عديدة مثل: التواصل، الاسباب الاجتماعية، الثقافية، السياسية، والاقتصادية، الخ.

1. Introduction

Language communities often interact with each other, whether they speak the same language or different ones, due to various necessities like commerce, travel, and academic or economic exchanges. Occasionally, these language interactions are triggered by historical incidents, including invasions or wars. As Thomson (2001:30) highlights, the most frequent outcome of such language interactions is a transformation in one or more of the languages involved. At the very least, one language will have some impact on another.

Durkin (2020: 170), states that not only words but also other aspects and characteristics of a language can be taken from another language. For example, sometimes, when a language borrows a word, it also borrows a new sound that was not in the language before, creating a new contrast or opposition between sounds in the language. This is called (in phonology) making a new phonemic contrast because of borrowing. According to Eisen (2019: 2), a phonological segment is considered borrowed when a foreign sound is added to a language through lexical borrowing when a borrowed word retains sounds foreign to the recipient language's phonological system. For instance, the sound /tʃ/ was introduced into Modern Hebrew through loanwords. One such loanword is /'tʃuʔtʃik/, which means 'small tip of an object' and is borrowed from the Russian word 'чубчик' (Eisen, 2019: 2).

Like all languages, Mosuli Arabic has historically interacted with a variety of other languages, including Persian, Turkish, and so on. These interactions have caused this dialect to change and absorb vocabulary from these languages, resulting in the adoption of foreign sounds. This study attempts to investigate sound borrowing in MA via the influence of Turkish and Persian. The study proceeds to verify the hypotheses that: first, Turkish and Persian loanwords impact MA sound system by exporting the foreign phonemes /p, g, and tʃ/, and second, these borrowed sounds are phonemes not allophones in MA sound system.

2. Theoretical Background and Literature Review

Any spoken language has a sound system comprising a set of contrastive phonological segments (consonants and vowels), which distinguishes lexical or grammatical categories. New phonological segments can be added to any language in various ways, one well-known is lexical borrowing, which expands the phonological inventory of languages (Eisen, 2019: 6). Aitchison (1991:172) claims that the appearance of the allophone [ʒ] in English illustrates that languages tend to favor tidy, structured patterns, especially in the area of phonetics. The sound [ʒ] first developed into an allophone of the phoneme /z/ when it was followed by /j/ as in the word ‘measure’ /'meɪʒjʊ/. This allophone was eventually strengthened by lexical French borrowing when a word like ‘genre’, which contains the French word-initial phoneme “ʒ”, was incorporated into English and used as a loan phoneme.

Hashimoto (2019) investigates the production of loanwords borrowed from te reo Māori to New Zealand English (NZE). The loanwords may contain the non-native rhotic sound [ɾ] that is not permitted in the borrowing language, and the non-native sound is sometimes adapted as a native rhotic sound (e.g. ko[ɹ]u and ma[ɹ]ae), and sometimes imported as non-native rhotic sound [ɾ]. The researcher explores the effect of sociolinguistic factors, such as words used by the speakers associated with the source language and its culture. It is found that the adopted structure is more likely to be produced in a speech associated with Māori. The theoretical framework is based on the Exemplar Theory (Pierrehumbert, 2001; 2002), which accounts for the effects of these sociolinguistic factors on choosing the adapted or adopted structure. So, the adapted structure is more used by speakers

weakly associated with Māori, and the imported one is more used by speakers strongly associated with Māori.

Ferguson (1969), states that a gap in the phonemic pattern will be filled by borrowing phonemes through borrowing words from other dialects or foreign languages. He examined the status of the sound /g/ in Syrian Arabic. He states that every occurrence of /g/ in Syrian Arabic in lexical items is borrowed either from another Arabic dialect with /g/ or from a foreign language such as French. For example, the words 'garson' and 'gato' have become completely naturalized and are used by monolingual Arabs. Also, other important sources of /g/ have been loanwords from Turkish and Persian due to contact such as, *gümriik*, which means 'customs' and *zəngol*, which means 'kind of breakfast pastry'. So, by borrowing these words, the gap in the phonological inventory will be filled by a foreign sound /g/, giving a fully symmetrical inventory.

Ionete (2019), investigates phonetic transformations of Persian loanwords and their evaluation in Baghdadi Arabic. Furthermore, he examines whether the loanwords are borrowed directly from Persian or through the Turkish language. The data were collected from dictionaries, textbooks, and Baghdadi Arabic speakers. The analysis of data reveals the presence of the phonemes /p/, /tʃ/, and /g/ due to a large number of Persian and Turkish loanwords such as 'para', 'paça', 'çadır', 'çarek', 'gal', and 'guldan'.

3. Motivations and Factors for Lexical and Sound Borrowing

Motivations for borrowing can be defined as the factors that drive the speaker to use linguistic elements from one language that are generally associated with another language in interaction settings. So, here are the main factors:

3.1 Contact between Languages

Thomason (2001:11) emphasizes that, there is no evidence supporting the idea that languages have evolved in complete isolation from one another. Ongoing linguistic interactions have led to the continued adoption of everyday vocabulary and the retention of certain phonetic elements. The likelihood of borrowing structural features increases when there is significant and frequent contact

between the languages involved, as highlighted by Thomason (2001:70–71) and Thomason & Kaufman (1988). Numerous studies also underscore the positive impact of increased exposure and interaction in achieving a pronunciation closer to that of native speakers (Derwing, 2008: 350; Flege, 1992). As an illustration, the phonological aspects of Kiswahili have been impacted by loanwords from Modern Standard Arabic (MSA), introducing three new segments that were absent in the Kiswahili language. The inclusion of the voiceless inter-dental fricative /θ/, voiced inter-dental fricative /ð/, and voiced velar fricative /ɣ/ in Kiswahili's phonemic inventory resulted from the process of phonemic assimilation associated with these borrowed words (Mawaliwa, 2014: 280).

3.2 Need and Lexical Gaps

In the course of their "lexical borrowing" debate, Appel and Muysken (2005) draw attention to the need of filling in linguistic gaps as a reason for adding new terms to a language. The incorporation of novel terms serves the purpose of naming recently emerged entities, inventions, techniques, and ideas. Languages borrow words because there is a necessity to describe newly encountered things, processes, actions, and so forth. For instance, the borrowing of the word "tomato" into English (originating from Nahuatl "tomatl" via Spanish "tomate") exemplifies the practice of borrowing to label a recently discovered object (Durkin, 2020:172-173). Speakers of a language often borrow terms from other languages to express concepts and objects introduced to their culture or community.

3.3 Prestige and Language Prominence (Power)

Prestige is another crucial reason for lexical and sound borrowing. Speakers may borrow words from other languages and use them in conversation to be more prestigious. Winford (2003:37), asserts that the dynamics of power and prestige differences between the recipient and source languages significantly contribute to the facilitation of lexical borrowing from the more prestigious or dominant language to the less prestigious or subordinate one. When the source language and its speakers have a dominant status, a status

that is higher than that of the recipient language (speakers), the degree of lexical borrowing is more likely to be high.

According to Holmes (2013:159-167), men and women generally speak differently for social and cultural reasons. Women tend to use standard forms more than men because they seek prestige reflecting their social background. These words may also indicate the speaker's being fashionable or old-fashioned. It was found that, women would use the foreign sounds [v] and [tʃ] more often than men since English has a high status and prestigious in Saudi Arabia for instance, Vanilla, and Cheesecake (Alenazi, 2023: 177).

3.4 Bilingualism

The other reason for lexical and segment borrowing is bilingualism. Myers-Scotton (2005:44) defines bilingualism as the capability to effectively engage in a basic informal conversation using two or more languages. Bilingualism plays a crucial role in both lexical and sound borrowing, as individuals proficient in two languages have a strong connection to their linguistic repertoire. This connection enables bilingual speakers to incorporate borrowed elements while retaining their original grammatical and phonological structures.

When bilingual speakers use a borrowed item while speaking the borrowed language, they pronounce it the same way as the source language would. As the borrowed item becomes more widely used within the speech community, who know little or nothing of the source language, the new words become conventionalized to the point that they become a borrowing or a loanword (Mondejar, 2007: 3).

3.5 Frequency of the Item

According to Winford (2003:54), the adoptability of a structure is significantly influenced by the type frequency, that is, the count of loanwords that maintain the original structure in question. Essentially, if the frequency of loanwords was high enough to be accurately borrowed or adopted, it is highly probable that it was also adequate for accurate usage or articulation.

The frequency of new phonological patterns can influence whether they are adapted or not. This means that when a pattern is present in a large number of words, there is a higher chance that listeners will come across it (Crawford, 2007). So, the frequency of a term in the recipient language appears to influence how well it integrates structurally when borrowed.

3.6 Level of Language Exposure

The degree of exposure to the donor language plays a crucial that influencing the borrower's adoption of donor language structures. It has been found that the earlier people start exposure to a source language, the more likely they are to sound like a native speaker when they talk (Munro & Mann 2005; Piske et al. 2001). For this reason, reducing the exposure to other languages led to a decreased rate of foreign phoneme incorporation. All the researchers on this topic agree that the sound system of a language is the most affected by how old someone is when they start exposure to a source language (Piske et al. 2001:195).

3.7 Social Factors

Social factors such as age, gender, education, and speakers' attitudes may affect lexical and sound borrowing from the source language to the recipient language. Haugen (1950), Thomason & Kaufman (1988), and Haspelmath (2009) cited in (Kasavaga, 2021:105), admit that factors such as the age, gender, and education of speakers can impact the process of lexical borrowing. This influence may manifest in both the phonological and semantic aspects of the recipient language.

Age plays a crucial role in adopting English loanwords in Kihehe. It is found that the young people in Kihehe adopt loanwords along with their foreign phonological features, while elder people assimilate these loanwords into native words (kasavaga, 2021: 103)

Education is also a reason for giving way to borrowing. In the Middle Ages, Latin and Greek were the languages of science. When the introduced forms are increased in the use of young and educated people's speech, it is a signal that they are being adopted,

and they will continue to use them as they grow older until these forms become the adult community norms over time (Holmes,2013:219-220).

The speaker's attitude towards the target language could be regarded as a motivation for lexical and phonological borrowing. As indicated by Aktürk (2015: 75), certain speakers may express a favorable disposition towards a specific language even if their proficiency is not significantly advanced. This positive attitude is then manifested in practical terms, leading to the pronunciation of borrowed words in a manner that closely resembles native pronunciation. The speakers' favorable view of the target language, influenced by its elevated prestige and social dominance, results in the incorporation of lexical and phonological elements from the target language through the process of borrowing.

4. Mosuli Arabic (MA): An Overview

Mosul, a major city in the north of Iraq, has a rich linguistic history shaped by its position as a crossroads of civilizations. The city's strategic location has historically made it a hub for international commerce and travel. Over the centuries, its unique North Mesopotamian dialect of Arabic, commonly known as Moslawi, has been influenced by Persian, English, Sumerian, and Turkish languages. The reasons behind this influence of the Turkish and Persian on MA dialect, because Mosul is a big city and with high rate of education. Despite these diverse influences, the Mosuli dialect remains distinct and is widely spoken in the region (Al-Siddiqi, 2012: 29-58)

The Mosuli dialect, reflects the influence of both Turkish and Persian languages. Not only have Turkish and Persian words been incorporated into the dialect, but foreign sounds like /p, g, tʃ/ have also found their way into the Mosuli consonant system. The Mosuli dialect has been significantly shaped by Turkish and Persian influences. While it is challenging to precisely quantify the number of borrowed terms, it's evident that Mosuli speakers have incorporated many foreign expressions into their language. However, as society evolves and time progresses, these foreign terms have gradually become more limited in usage (Al-Siddiqi, 2012: 75-86)

The Mosuli phonemic symbols

The consonants : (/ʔ/, /b/, /p/, /t/, /θ/, /tʃ/, /dʒ/, /h/, /t̪/, /d/, /k/, /g/, /q/, /f/, /ð/, /ð̌/, /s/, /š/, /z/, /ʃ/, /x/, /ɣ/, /ʕ/, /h/, /m/, /n/, /l/, /r/, /w/, and /y/)

The vowels: /i/, /a/, /u/, /i:/, /e:/, /a:/, /u:/, and /o:/

The Turkish phonemic symbols

The consonants: B [b] | C [dʒ] | Ç [tʃ] | D [d] | F [f] | G [g] | Ğ [ğ] | H [h] | J [ʒ] | K [k] | L [l] | M [m] | N [n] | P [p] | R [r] | S [s] | Ş [ʃ] | T [t] | V [v] | Y [j] | Z [z].

The vowels: /a/, /ɪ/, /i/, /e/, /u/, /o/, /ü/, and /ö/.

The Persian phonetic symbols

The consonants: /b/, /p/, /t/, /d/, /k/, /g/, /ʔ/, /f/, /v/, /s/, /z/, /ʃ/, /ʒ/, /χ/, /ɣ/, /h/, /tʃ̌/, /dǯ/, /r/, /l/, /m/, /n/, and /j/.

The vowels: /ɒ:/, /æ/, /e/, /i:/, /o/, and /u:/

5. Data Collection and Data Analysis

The data were collected from different sources: everyday communications, books, and previous studies over some time. The data consisted of 140 loanwords from Turkish and Persian, 70 Turkish loanwords and 70 Persian loanwords which belong to different semantic fields such as fashion, food, computer parts, and vehicle parts. These loanwords; included in particular, one of the segments /p, g, and tʃ/; the Appendix contains an alphabetical list of these loanwords.

Thirteen adults served as study informants. The informants speak Mosuli Iraqi dialect. There were seven females and six males among them. The informants are between the ages of thirty and seventy. The informants' educational backgrounds varied. Not every informant was familiar with every loanword found in the compiled data, because several of the Persian and Turkish loanwords were no longer used by the younger informants; age had an impact on how they used these words. Therefore, the elderly informants were requested to attest to the presence of these loanwords in the Mosuli dialect.

The informants were interviewed and contacted individually over the phone or using Telegram and Messenger applications for the purpose of gathering information and to verify the existence and use of these Turkish and Persian loanwords in their daily communication. The informants were asked to pronounce these English loanwords in Mosuli form, and their pronunciation was recorded while they were reading or pronouncing these words. Asking specialists or academics in Turkish, and Persian languages to pronounce these loanwords in their source form, i.e. the way native speakers pronounce these words. The informants' recorded pronunciation was transcribed using the IPA conventions to reveal the similarities and differences between the Mosuli form and the source form. This transcription also revealed how these loanwords were adopted and became a part of the MA system.

In a particular language or dialect, minimal sound properties have the ability to differentiate phonemes and provide a meaning difference between the minimal pair words. The process of analysis of these loanwords via utilizing minimal pair test will validate the borrowing or adoption of the foreign phonemes /p, g, and tʃ/ into MA sound system via borrowing words from Turkish and Persian.

According to Avery and Ehrlich (1995: 39), minimal pairs are defined as two words that had different meanings, which are determined by a variation in just one sound. Words that change by one sound only, like 'pet' and 'bet', are called minimal pairs. A Minimal Pair Test was a crucial method in phonemic analysis. The test helped to identify two words as having different meanings due to a single sound difference. If a sound difference led to a change in meaning in a minimal pair, those sounds were categorized as distinct phonemes (Katamba, 1989: 22).

According to Yavaş (2011, 32), when two sounds occur in the same context and changing one for the other alters the word's meaning, one can say that they are contrasting and represent distinct phonemes. This concept of overlapping sounds and contrasts is referred to as minimal pairs. In simple terms, minimal pairs are words that are identical in sound and sequence, barring a single sound difference, and this difference results in a change in meaning. He adds that a minimal pair is not required to manifest itself in multiple

positions; one environment will be enough to conclude the overlap and contrast. For instance, In English, the sounds [n] and [ŋ] can only be distinguished as a minimal pair when they are at the end of a syllable. For instance, the words 'kin' [kɪn] and 'king' [kɪŋ] demonstrate this. This is due to the fact that the sound [ŋ] only occurs in this specific environment in English. The principle of contrast states that in similar but not identical settings, sounds are identified as distinct phonemes. In other words, if two sounds occur in nearly the same context but can't be linked to the influence of nearby sounds, they're considered separate phonemes (Ktamba, 1989: 22-24)

In order to accomplish the objectives and validate the above-stated hypotheses (see section 1), the minimal pair technique was employed in this study. Based on the characteristic oppositions, the identity of each borrowed consonant phoneme (/p, g, tʃ/) in MA is determined. By using the minimal pair's procedure, these loan phonemes were identified as unique adopted phonemes in the MA phonemic system; they were not allophones of other phonemes that were previously present in the MA system. Overall, this phoneme is considered a phoneme rather than an allophone in MA and has characteristics that set it apart from other phonemes. If the imported phoneme in a loanword is substituted with another phoneme, the result will be a different word.

Minimal Pairs Test

To explain or prove that the adopted sounds become phonemes in the MA consonant system, the researcher needs to show that these phonemes have a counterpart relation with other phonemes in a consonant system in the same position. Furthermore, they can create minimal pairs or minimal sets in a language or dialect. A minimal pair is a pair of words that differ only by one phoneme. This means that those phonemes have distinctive features that can change the meaning of words. By finding minimal pairs, the identity of phonemes in MA dialect can be established, via showing which phonemes can create a contrast in meaning with other phonemes, and which phonemes cannot.

MA adopted many words from Turkish, and Persian languages. These loanwords contain the consonants /p/, /g/, and /tʃ/, which are not native or missed from the MA dialect. However, /p, g, tʃ/ have become phonemes in the MA dialect, meaning that they can create lexical contrast with other phonemes. For example:

1- The Phoneme /p/

The identity of the phoneme /p/ is established based on the minimal pair test and distinctive oppositions: See Table: 1 below

Table 1: Minimal Pairs for the Phoneme /p/

The contrasted phonemes	Loanwords	Persian or Turkish	Meaning	Mosuli Words	Meaning
p/ b	/pi:ra/	Persian	cunning woman	/bi:ra/	beer
p/ k	/pi:s/	Turkish	Dirty	/ki:s/	sack
p/ s	/pa:ra/	Turkish	money	/sa:ra/	name of a girl
p/ m	/qapay/	Turkish	cover or lid	/qamay/	Moon
P / y	/pa:ja/	Persian	stair of the ladder	/ya:ja/	a goal
P / dʒ	/pak/	Persian	Clean	/dʒak/	came to you
P / f	/pijja:la/	Persian	tea cup	/fja:la/	Elephants

The Distribution or Position of the Contrasted Phonemes in Words

Initial	Medial	Final
/pi:ra/ - /bi:ra/	/qapay/ - /qamay/	-----

2- The Phoneme /tʃ/

The identity of the phoneme /tʃ/ is established based on the minimal pairs test and distinctive oppositions: see Table: 2 below

Table 2: Minimal Pairs for the Phoneme / tʃ/

The contrasted phonemes	Loanwords	Persian or Turkish	Meaning	Mosuli Words	Meaning
tʃ / dʒ	/tʃa:j/	Persian	Tea	/dʒa:j/	I am coming
tʃ / ʃ	/ʃu:tʃ/	Turkish	Guilt	/ʃu:f/	wool
tʃ / s	/tʃa:ra/	Persian	solution	/sa:ra/	name of a girl
tʃ / m	/tʃa:j/	Persian	Tea	/ma:j/	water
tʃ / h	/tʃo:l/	Turkish	desert	/ho:l/	living room
tʃ / s	/tʃahra/	Persian	face	/sahra/	soiree
tʃ / z	/tʃahra/	Persian	face	/zahra/	flower or rose
tʃ / k	/tʃu:x/	Persian	wool clothes	/ku:x/	cottage
tʃ/ z	/tʃaʔ/	Turkish	he jumped	/ʃaʔ /	river

The Distribution or Position of the Contrasted Phonemes in Words

Initial	Medial	Final
/ tʃa:ra/ - /sa:ra/	-----	/ ʃu:tʃ/ - / ʃu:f/

3- The Phoneme / g /

The identity of the phoneme / g / is established based on the minimal pairs test and distinctive oppositions: see Table: 3 below

Table 3: Minimal Pair for the Phoneme / g /

The contrasted phonemes	Loanwords	Persian or Turkish	Meaning	Mosuli Words	Meaning
g / k	/lagan/	Turkish	plastic bowl	/ lakan/	why or why not
g / ʕ	/ga wdʒa/	Persian	kind of fruit	/ ʕawdʒa/	Avenue
g/ s	/ ger/	Turkish	Malice	/ser/	Secret

The distribution or position of the contrasted phonemes in words

Initial	Medial	Final
/ ger/ - /ser/	/lagan/ - / lakan/	-----

6. Discussion

MA has changed, and new vocabulary has been gained from other languages by lexical borrowing. It is like every different language that has interacted with other languages throughout history, including Persian, and Turkish. The phonemes /g/, /p/, and /tʃ/ are adopted to the MA phonemic system as a result of borrowing words that include these consonant sounds.

Applying minimal pair analysis on these loanwords that contain the adopted phonemes, reveals that these phonemes can be regarded as phonemes not allophones in the MA consonant system. Since, the voiceless bilabial plosive /p/ becomes a counterpart (opposition) with the voiced bilabial plosive /b/ where a minimal pair is found, such as, /**pi**:ra/ - /**bi**:ra/. The voiceless palato-alveolar affricate /tʃ/ is made a counterpart (opposition) with the voiced palato-alveolar affricate /dʒ/ where a minimal pair is found, such as, /tʃa:j/ - /dʒa:j/ and the voiced velar plosive /g/ is made a counterpart (opposition) with the voiceless plosive /k/ where a minimal pair is found, such as, /**la**gan/ - /**la**kan. For this reason, these adopted phonemes are phonemes, not allophones in the MA system. It is crucial that the minimal pair is not required to manifest itself in multiple positions (initial, medial, and final); one environment (either initial, medial or final) will be enough to conclude the overlap and contrast between the phonemes as demonstrated above.

7. Conclusions

In the light of data analysis and the discussion given above it can be concluded that borrowing is influenced by factors beyond language, which also need to be considered. These include the length and depth of cultural interaction, the roles and status of the languages involved, attitudes towards languages, the age and educational background of the borrowers, their gender, and the level of institutional backing the languages receive. So, the aims, and hypotheses are supported or proved in this research. The consonant system of the MA is affected by the loanwords imported from the foreign languages Turkish, and Persian. Since MA imported or borrowed words that consisted of foreign consonant sounds /g/, /p/, and /tʃ/ which are missed or absent in the MA consonant system, these foreign phonemes were adopted and added to the MA phonemic system. So, this phoneme adoption proves the impact of foreign languages' consonant systems on the MA consonant system via lexical borrowing.

References

- ❖ Acar, Ö.O., & Muhklif, A. (2021). **The Impact of Turkish on Contemporary Iraqi Dialect.** *Bozok University Journal of Faculty of Theology [BOZIFDER]*, 20, 43-57.
- ❖ Aitchison, J. (1991). *Language Change: Progress or Decay?* (2nd ed.). Cambridge University Press.
- ❖ Akkarish, H. (2018). **The Turkish Presence in the Iraqi dialect.** *Folk Heritage Magazine*. Retrieved from <https://www.darculture.com>. الحضور التركي في اللهجة العراقية
- ❖ Aktürk-Drake, M. (2015). *Phonological Adoption through Bilingual Borrowing: Comparing Elite Bilinguals and Heritage Bilinguals*. Doctoral dissertation, Stockholm University.
- ❖ Al-Chalabi, D. (1960). **Persian Words Used in the Vernacular of Mosul and in Various Parts of Iraq.** Retrieved from <https://www.noor-book.com/en/ebook-Kalimāt-Fārisīyah-musta‘malah-fī-‘ammīyat-alMawṣil-wafī-anḥā’-al‘Irāq-pdf>
- ❖ Alenazi, A. (2023). *Variation in Loanword Phonology: the Case of /v / and /tʃ/ in English Loanwords into Saudi Arabic*. Doctoral dissertation, University of York.
- ❖ Al-Siddiqi, H. A. (2012). **Studies in the Words and Traditions of Mosul.** *Mosuliyaat Journal*, 39. Retrieved from <http://search.mandumah.com/Record/457459>
- ❖ Appel, R., & Muysken, P. (2005). **Lexical Borrowing.** In R. Hickey (Ed.), *The Handbook of Language Contact* (2nd ed.). 169-192. Wiley-Blackwell.
- ❖ Avery, P., & Ehrlich, S. (1995). *Teaching American English Pronunciation*. Oxford University Press.
- ❖ Crawford, C. (2007). **The Role of Loanword Diffusion in Changing Adaptation Patterns: A Study of Coronal Stops in Japanese Borrowings.** *Working Papers of the Cornell Phonetics Laboratory*.
- ❖ Derwing, T. M. (2008). Curriculum issues in teaching pronunciation to second language learners. *Phonology and second language acquisition*.
- ❖ Durkin, P. (2020). **Contact and Lexical Borrowing.** In *The Handbook of Language Contact*. Wiley-Blackwell. <https://doi.org/10.1002/9781119485094.ch8>

- ❖ Eisen, E. (2019). **The Typology of Phonological Segment Borrowing**. *Unpublished MA-thesis. The Hebrew University of Jerusalem: Department of Linguistics.*
- ❖ Ferguson, C. A. (1969). **The /g/ in Syrian Arabic: Filling a Gap in a Phonological Pattern**. *Word*, 25(1-3).
- ❖ Flege, J. E. (1992). **The Intelligibility of English Vowels Spoken by British and Dutch talkers**. *Intelligibility in speech disorders: Theory, measurement, and management*, 1.
- ❖ Hashimoto, D. (2019). **Loanword Phonology in New Zealand English: Exemplar Activation and Message Predictability**. Doctoral dissertation. Canterbury University.
- ❖ Haspelmath, M. (2009). **Lexical borrowing: Concepts and Issues**. *Loanwords in the world's languages: A comparative handbook*, 35, 54
- ❖ Haugen, E. (1950). **The Analysis of Linguistic Borrowing**. *Language*, 26(2).
- ❖ Holmes, J. (2013). *An Introduction to Sociolinguistics* (4th ed.). Routledge.
- ❖ Ionete, Ş. (2019). **Persian Loanwords in Baghdadi Arabic**. In C. Miller, A. Barontini, M. Germanos, J. Guerrero, & C. Pereira (Eds.), *Studies on Arabic dialectology and sociolinguistics: Proceedings of the 12th International Conference of AIDA held in Marseille from May 30th to June 2nd 2017*. Institut de recherches et d'études sur les mondes arabes et musulmans. <https://doi.org/10.4000/books.iremam.3994>
- ❖ Jassim, T. H. (2011). **Persian Vocabularies in Colloquial Mousli Arabic**. *Adab Al-Rafidayn*, 41(59), 668-699. <https://doi.org/10.33899/radab.2011.7177>
- ❖ Kasavaga, F. (2021). **Phonological Borrowing: The influence of English Loanwords in Kihehe**. *Ruaha Journal of Arts and Social Sciences (RUJASS)*, 7(1).
- ❖ Katamba, F. (1989). *An introduction to phonology* (Vol. 48). London: Longman.
- ❖ Mwaliwa, H. C. (2014). *An analysis of the Syllable Structure of Standard Kiswahili Loanwords from Modern Standard Arabic*. University of Nairobi.
- ❖ Mondejar, M. (2007). **The Phonological Adaptation of English Loanwords in Spanish**. MA thesis, University of Ottawa.

- ❖ Munro, M., & Mann, V. (2005). **Age of Immersion as a Predictor of Foreign Accent.** *Applied Psycholinguistics*, 26(3).
- ❖ Myers-Scotton, C. (2005). **Multiple Voices: An Introduction to Bilingualism.** Wiley-Blackwell.
- ❖ Piske, T., MacKay, I. & Flege, J. (2001). **Factors Affecting Degree of Foreign Accent in an L2: A Review.** *Journal of phonetics*, 29(2).
- ❖ Shalawee, D. & Hamzah, H. (2018). **The Influence of the Turkish Language on the Baghdadi Dialect.** *International Journal of Humanities and Social Science Invention (IJHSSI)*, 7(03).
- ❖ Thomason, S. & Kaufman, T. (1988). **Language Contact, Creolization and Genetic Linguistics.** University of California Press.
- ❖ Thomason, S. (2001). **Language Contact: An Introduction.** Edinburgh University Press.
- ❖ Winford, D. (2003). **An Introduction to Contact Linguistics.** Blackwell.
- ❖ Yavaş, M. (2011). **Applied Phonology** (2nd Ed). Chichester: Blackwell Publishing Ltd.

Appendix 1 : List of Persian Loanwords in Mosuli Arabic

	Persian Words	Persian Form	Mosuli Form	Meaning
1.	اسپندار	/ʔispendɔ:r/	/ʔispenda:r/	White wood
2.	اسپیناغ	/ʔispi' nɔ:g/	/ʔispi:na:y/	Kind of a plant
3.	انگر	/æ'n' gær/	/ængar/	Ship anchor
4.	بادگیر	/bɔ:d' gi:r/	/badgi:r/	Household chimney
5.	بقچه	/ /boqtʃe/	/buqtʃa/	Piece of clothing for clothes
6.	پاچه	/pɔ' tʃe/	/patʃa/	Kind of food
7.	پاک	/pɔ' k/	/pak/	Pure- clean
8.	پاکیزه	/pɔ:kize/	Paki:za	Kind- nice (name of a girl)
9.	پاندان	/pa:n.da:n/	/panda:n/	Pen
10.	پایه	/pɔ:.jæ/	/pa:ja/	Grade
11.	پچاوره	/pætʃɔ:'være/	/patʃawra/	Ribaldry
12.	پرچم	/pær' tʃæm/	/partʃam/	Cowlick
13.	پرچه	/pær.tʃe/	/partʃa/	Part
14.	پرچین	/pær' tʃin/	partʃi:n	Install the screw

15.	پردا پلاو	/pær'da: 'pulɒv/	/parda pla:w/	Sheep meat with rice
16.	پرداخت	/pærdɒxt/	Pardax	burnish- smooth
17.	پرده	/pær'de/	/parda/	Curtains
18.	پرنج	/pærnædʒ/	/prendʒ/	Yellow copper
19.	پروانه	/pær'vɒ:ne/	/parwana/	Rotary wheel
20.	پسته	/piste/	Pasta	Song
21.	پلاو	/pulɒv/	/palaw/	Rice
22.	پنجه	/pændʒe/	/pan dʒa/	Kind of game
23.	پهریز	/pa:ri:z/	/pahri:z/	Abstention
24.	پهلوان	/pæhlæ'vɒ:n/	/pahlawan/	Courageous- brave- clown
25.	پیاله	/pjɒ:le/	/pija:la/	Glass
26.	پیرا	/pi:'rɒ:/	/pi:ra/	Cunning woman
27.	تفنگ	/tofæng/	Tofang	Gun- rifle
28.	تنگ	/tæŋ/	/tang/	Stressed
29.	جگر	/dʒger/	dʒegar	Liver
30.	چارپایه	/tʃɒ:rɒ:jæ/	/tʃarpa:ja/	Bed
31.	چارک	/tʃɒ:rk/	/tʃa:rig/	Quarter
32.	چاره	/tʃɒ:re/	/tʃa:ra/	Solution- treatment
33.	چاگون	/tʃɒ:'gu:n/	/tʃa:gu:n/	Scepter
34.	چای	/tʃɒ:i:/	/tʃa:j/	Tea
35.	چپر است	/tʃæp'ra:st/	/tʃipra:z/	Nipper
36.	چراغ	/tʃern:ɔ/	/tʃray/	Shrine
37.	چرخ	/tʃærx/	/tʃarix/	Wheel
38.	چرز	/tʃærz/	/tʃaraz/	Nuts
39.	چشمه	/tʃæf'me/	/tʃafma/	Waterproof
40.	چغل	/tʃyæl/	/tʃeyel/	Informer
41.	چقچقه	/tʃægtʃæge/	/tʃaqtʃaqa/	Sound of cracking
42.	چقلمانات	/tʃɔl.ma:.na:t/	/tʃaqlama:nat/	Sweets
43.	چمپارات	/tʃæm.pa:.ra:t/	/tʃempara:t/	Small copper tablets
44.	چنبر	/tʃæm'bær/	/tʃanbar/	Framework
45.	چندلا	/tʃænd'la:/	/tʃantala/	A man with prestige
46.	چنگال	/tʃen'gɒ:l/	/tʃinga:l/	Fishing rod
47.	چهار	/tʃæ:r/	/tʃaha:r	Number four
48.	چهره	/tʃeh're/	/tʃahra/	Face

49.	چوخ	/tʃuːx/	/tʃoːx/	Homespun
50.	حسن كچل	/həsæn kætʃæl/	/hasan ketʃal/	Proverb refers to recurring again
51.	خدگ	/xæduˈg/	/xeˈdeg/	Trouble, anxious or tickle
52.	دنگله	/dængele/	/dangala/	Like a tumor
53.	زنګي	/zænˈgiː/	/zangi/	Negro
54.	سرچخانه	/sær tʃæ xɒːˈnæ/	/saritʃxaːna/	Market in mosul city
55.	سنگین	/sænˈgiːn/	/sangiːn/	Heavy
56.	عقچین	/ʔægˈtʃin/	/ʔaqtʃiːn/	Beanie
57.	کلیچه	/kolitʃe/	/kleːtʃa/	Kind of cake- like pastry
58.	گردانه	/gerˈdɒːne/	/girdaːna/	Necklace
59.	گرز	/gærz/	Garaz	Fighting machine
60.	گرفت	/gerft/	greft	Catch-arrest
61.	گزا	/gæzɒː/	/gazza/	Nip- bite
62.	گزیر	/gæziːr/	gaziːr	Servant
63.	گوجه	/guːdʒe/	/gawdʒa/	Kind of fruit
64.	گونیه	/guːˈniːe/	/goːniː/	A large bag
65.	لگلک	/leg.leg/	/laglag/	Kind of bird
66.	مرپیچ	/mærˈpiːtʃ/	/marpiːtʃ/	Hose
67.	میوه	/miːve/	/meːwa/	Fruits
68.	نازوک	/nɒːzuːg/	/naːzuːg/	Tender- nice
69.	هنگامه	/hængɒːme/	Hengama	Quarrel
70.	هیچ	/hiːtʃ/	/hiːtʃ/	No thing

Appendix 2 : List of Turkish Loanwords in Mosuli Arabic

	Turkish Words	Turkish Form	Mosuli Form	Meaning
	Arpacı	/arˈpatʃu/	/arpatʃiː/	neighborhood in Mosul
	bardak	/bardaq /	/parday/	glass
	Bergil	/bær.ˈgil/	/bargil/	bottle to take away water
	Çadırçı	/ˈtʃa.dur.tʃu/	/tʃaːdirtʃiː/	camp seller
	Çakmakçı	/ˈtʃakmak.tʃu/	/tʃaqmaqtʃi/	name of Mosuli family
	Çalgı	/ˈtʃalu/	/tʃalyi/	music

ÇamÇak	/tʃam.tʃak/	/ tʃamma:qa/	cunning woman
Çanta	/tʃanta/	/ tʃanʃa/	bag
Çardak	/ ' tʃardak/	/tʃardaq/	christian tribe
Çarşaf	/ ' tʃarʃaf/	/tʃartʃaf/	bedspread
Çatal	/ ' tʃatal/	/ tʃaʃal/	fork
Çavuş	/ tʃavuf /	/tʃawi: ʃ /	corporal in the army
Çayçı	/ ' tʃajtʃu/	/ tʃa:jtʃi/	tea vendor
Çekiç	/ ' tʃe.kitʃ/	/tʃakku:tʃ/	hamer
Çekmece	/ ' tʃekmeces/	/ tʃakmatʃa/	drawers
Çelebi	/ ' tʃelebi/	/tʃalabi/	a man with high morality
Çete	/tʃete/	/tʃata /	a person who does not comply with system
Çıllak	/tʃul' lak/	/tʃillaq/	a kick
Çimento	/tʃi.men.to/	/tʃiminto:/	cement
Çıt	/tʃut/	/tʃaʃ/	he jumped
Çizma	/tʃiz.ma/	/ dzizma/	Plastic shoes
Çöl	/tʃæl/	/ tʃo:l/	Wilderness
Çömçe	/tʃœmtʃe/	/ tʃamtʃa/	Ladle
Çörek	/ ' tʃœrek/	/tʃu:rag/	Kind of cake
Çörekçi	/ ' tʃœ.rek.tʃi/	/tʃo:rektʃi/	Cake seller
Çubuk	/tʃu' buk/	/tʃu' buy/	Iron which connects and installs walls
Çürük	/ ' tʃyryk/	/tʃirig/	Bad thing
Dargazeli	/dar.ga.ze.li/	/dargazli:/	Area in Mosul
Değermi	dewermi/	/dagermi/	Rounded thing
Denge	/denge/	/dinga/	Column
Derenge	/de.ren.ge/.	/darnaga/	Drunken
Dizgin	/diz.gin/.	/dizgin/	Rein
Düğme	/dy:mæ/	/dugma/	Button
Fırça	/ ' fuirtʃa/	/firtʃa/	Brush
gır	/guır/	/ger/	Malice
Göl	/gæl/	/gula/	Pond
Gümrük	/ ' gymryk/	/gimrig/	Custom
Gürültü	/gyrywty/	/groti/	Someone annoy others
Kaçak	/ ' ka.tʃak/	/qatʃay/	Smuggling

	Kaçakçı	/ˈka.tʃak.tʃu/	/qatʃajtʃi/	The person who works in smuggling
	Kamçı	/ˈkamtʃu/	/qamtʃi/	Whip
	Kapak	/ˈkapak/	/qapay/	a cover
	Kelepçe	/keˈlep.tʃe/	/kalaptʃa/	Handcuffs
	Mavi	/maːvi/	/ma:wi/	Blue color
	Kopça	/ˈkopʃa/	/qo:ptʃa/	Button
	Lapçın	/ˈlap.tʃu:n/	/la;ptʃi:n/	Leg shoe
	Leğen	/leˈgen/	/lagan/	Plastic bowl
	Otrakçı	/otrakˈtʃi/	/ʔatraqtʃi/	Name of Mosuli family
	Para	/para/	/pa:ra/	Money
	Pervaz	/per.vaz/	/pirwa:z/	Framework of picture
	Pis	/pis/	/pi:s/	Dirty- bad
	Portakal	/pɔr.ta.kal/	/purtuqa:l/	Orange
	Postal	/pos.tal/	/pista:l/	Soldier shoes
	Reçete	/raˈtʃita/	/ra:tʃe:ta/	Prescription
	Saçak	/sa.tʃak/	/sa.tʃay/	Balcony
	Saçma	/ˈsatʃma/	/satʃim/	Bullet- foul talk
	Sapan	/ˈsapan/	/sapan/	Slingshot
	Sigara	/sigara /	/dziga:ra/	Cigarette
	Soba	/soba/	/so:ppa/	Heater
	Suç	/sutʃ/	/su:tʃ/	Cause
	Sürgü	/syrgy /	/sergi /	Latch
	Tapo	/ˈtapo/	/ʔa:ppo:/	Land registry
	Teğel	/ˈtejel/	/tagal/	Sewing dress torn
	Tepsi	/ˈtep.si/	/tapsi:/	Kind of food
	Tezgâh	/tezˈgah/	/dazga:/	Carpenter's table
	Yaprak	/jaˈprak/	/japray/	Kind of food
	Yenge	/ˈjen.ge/	/yenga/	Wife of employer
	Yğrek	/juurek/	/jigrig/	A person in high position
	Zengin	/zenˈgin/	/zangi:n/	Rich
	Züğürt	/zyːˈgyrt/	/ʔizgirti:/	Single