Patterns of Diphthong Adaptation within English Loanwords in Iraqi Arabic

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ABSTRACT

This study investigates the phonological adaptation of diphthongs within English loanwords in Iraqi Arabic (IA). In contrast to earlier small-scale descriptive studies, this study used quantitative content analysis to analyse 346 established loanwords collected through document review and direct observation to determine the diphthong adaptation patterns involved in the nativisation of English loanwords by native speakers of IA. Content analysis results revealed that most GB diphthong adaptations in English loanwords in IA occur in systematic patterns and thus may be ascribed to particular aspects in both L1 and L2 phonological systems. More specifically, the results indicate that the IA output forms tend to maintain the features of the GB input diphthong to the greatest extent possible by either replacing diphthongs with vowel-plus-glide sequences or reducing them to single vowels. Still, several diphthong adaptations were not found to be dictated by phonological considerations, and the way the words were spelt seemed to play a part in the process.

Keywords: Iraqi Arabic; loanwords; borrowing; phonological adaptation; diphthongs

INTRODUCTION

It is common for speakers of one language to borrow words from other languages to make up for lexical deficiencies. Cultural innovation, the prestige of the source language, or other factors may cause such borrowing (Malmkjaer, 2002, p. 238; Naziman & Jaafar, 2018, p. 128; Thomason & Kaufman, 1988, p. 37). Foreign words borrowed into a language occasionally contain sounds and syllable patterns considered illicit in the target language. As these loanwords are integrated into the target language, they undergo some phonological changes imposed by it (Paradis & LaCharité, 2011, p. 763).

Similarly, quite a few words have been borrowed from English into Iraqi Arabic (IA), and with the advent of globalisation, social media, technology, etc., which utilise English as their primary medium, many more loanwords are expected to be incorporated. This continuous incorporation of large numbers of English loanwords into IA requires a systematic, comprehensive phonological analysis that will contribute to a better understanding of IA phonology and phonological theory in general.

Several small-scale studies have been conducted, within the past 15 years, to study English loanwords in IA and the changes they underwent as they were incorporated into IA (Abdullah & Daffar, 2006; Al-Quraishi & Mansour, 2020; Mohammed, 2009; Mubarak & Kadhim, 2019; Salman & Mansour, 2017). However, not only were these studies small-scale, dealing with a

limited amount of data, but also none of them attempted to find out the patterns of these changes. This has created a gap in the literature on IA loanword phonology.

Given the lack of adequate research on the adaptation of English loanwords in IA, the present study takes the first step in bridging this gap by identifying and describing the diphthong adaptation patterns involved in the nativisation of English loanwords by native speakers of IA.

More specifically, the study seeks to answer the following research question:

> How are English diphthongs realised in English loanwords in IA, and what are the diphthong adaptation patterns involved in the nativisation of English loanwords by native speakers of IA?

The following two varieties have been utilised in the current study:

a. Iraqi Arabic (IA), also known as Muslim Baghdadi Arabic or gilit-dialect, is the "dominant, both numerically and in prestige," dialect of the Arabic language spoken in Iraq (Blanc, 1959, p. 449).
b. British English or General British (GB) is the standard English language dialect spoken and written in the United Kingdom (Cruttenden, 2014, p. 80;).

Moreover, this study's analysis of English loanwords in IA is limited to the diphthong adaptations these loanwords have undergone. Pure vowel, consonantal, and suprasegmental adaptations are outside the scope of the current study.

REVIEW OF THE LITERATURE

BORROWING AND LOANWORD ADAPTATION

Linguistic borrowing is the process by which a community of speakers integrates some foreign linguistic elements into their native language (Malmkjaer, 2002, p. 238; Thomason & Kaufman, 1988, p. 37). In analysing any modifications occurring during loan adaptation, it is necessary to remember the distinction between two types of loanwords: established borrowings and nonce borrowings.

Nonce borrowings, or single-word codeswitching, are words borrowed from other languages that are used in the main language of an utterance to describe a particular occasion or situation for which a word does not already exist. Nonce borrowings differ from established borrowings in that they do not meet the frequency of use or degree of acceptance criteria (Poplack, 2001, p. 2063).

On the other hand, established borrowings, the main interest in the present study, are foreign items that entered the lexicon of the target language. These loanwords are to be considered the results of "a completed language change, a diachronic process that once started as an individual innovation but has been propagated throughout the speech community" (Haspelmath, 2009, p. 38).

Poplack (2001, p. 2063) suggests the following three criteria for defining established loanwords:

1. Established loanwords assume the recipient language's morphological, syntactic, and often phonological identity.
2. They tend to be recurrent in the individual's speech and widespread throughout the community.
3. Monolingual speakers of the recipient language have normal access to the stock of established loanwords, together with the rest of the recipient-language vocabulary.

As argued by Peperkamp (2005), a phonological investigation of established loanwords is necessarily diachronic as it explains the modifications applied by the speakers who originally introduced these items. Moreover, borrowings may take on different phonological shapes depending on the sound alterations that occurred during adaptation and those that occurred subsequently. If an item has entered a target language, it might be difficult to tell how it entered the language and whether variables such as orthography were involved (Haunz, 2007).

GB AND IA PHONEMIC INVENTORIES

GB has 44 phonemes: 20 vowels and 24 consonants. Vowels are classified into 12 pure vowels and eight diphthongs. According to Roach (2009, p. 17), diphthongs are "sounds that consist of a movement or glide from one vowel to another."

The 8 diphthongs in GB are further subclassified into:

- Closing diphthongs: /eɪ/, /ɔɪ/, /aɪ/, /əʊ/, and /aʊ/
- Centring diphthongs: /ɪə/, /eə/ and /ʊə/

On the other hand, IA has 39 phonemes: 8 vowels and 31 consonants. All vowels in IA are pure vowels. As for diphthongs, the researcher agrees with linguists like Rahim (1980, p. 277), Ingham (1994, p. 15), Watson (2002, p. 22), and Alhoody (2019, pp. 42-3), among others, that diphthongs are forbidden from surfacing in Arabic and that they are treated as two adjacent units, a vowel plus a glide since their second parts are glides, which are consonants.

PREVIOUS STUDIES ON PHONOLOGICAL LOANWORD ADAPTATION IN IA

Several small-scale studies have been undertaken over the last 15 years to investigate these loanwords and the modifications that occurred when they were assimilated into IA. However, most of these studies (Abdullah & Daffar, 2006; Al-Quraishi & Mansour, 2020; Mohammed, 2009; Mubarak & Kadhim, 2019; Salman & Mansour, 2017) were small-scale, and their focus was mainly on the sociolinguistic or morphological aspects of the adaptation.Only two studies focused on the phonological part of the adaptation, and attempted to offer some patterns of adaptation: As-Sammer (2015) classifying adaptations in terms of adaptation vowel quantity and vowel quality, and Salman (2020) classifying them in terms of phonological processes.

As-Sammer (2015) examined the underlying adaptation processes that occurred when English loanwords were transferred into southern "Basri" IA. The data were 150 English loanwords that the researcher collected over a considerable period of time as a result of to everyday communication. According to As-Sammer (2015, p. 10), there were two ways in which vowels were adapted in his corpus: in terms of quantity (length) and quality (vowel height, vowel backness, and lip rounding). With regards to diphthongs, As-Sammer listed two diphthongs, /eɪ /

and /əʊ/, that changed some of their "qualitative" features when borrowed into IA, where the diphthong /eɪ/ changed into the pure vowels /a/ and /e:/, and the diphthong /əʊ/ changed into /ɔ:/.

Salman (2020) focused on the phonological processes involved in segmental adaptations. Data were collected using a systematic search for loanwords in two dictionaries and a self-observation technique used by the researcher as a native speaker of the language. The researcher listed five phonological processes that affected vowels: substitution, addition, deletion, lengthening, and shortening, and then gave a few examples of each process. No attempt was made in this study to identify diphthong adaptation patterns, but four loanwords with adapted diphthongs showed as examples of the substitution, lengthening, and shortening processes.

Unfortunately, neither As-Sammer (2015) nor Salman (2020) offered any statistics or frequencies justifying their classification of those adaptations, with As-Sammer explicitly concluding that these changes provided "no default patterns" (As-Sammer, 2015, p. 1).

METHOD

RESEARCH DESIGN

To achieve the study's aims, a descriptive non-experimental quantitative design using content analysis was employed to examine the vocalic adaptation patterns of English loanwords in IA. According to Krippendorff (2004, p. 18), content analysis is "a technique for making replicable and valid inferences from texts (or other meaningful matter) to the contexts of their use." There are at least three types of content analysis, which Ahuvia (2001, p. 139) identifies as traditional, interpretive, and reception based. Other researchers, such as Babbie (2007, p. 356) and Holsti (1969, pp. 12–14), divide content analysis into "latent (subjective and qualitative) and manifest (objective and quantitative) categories of analysis," respectively. The current study uses traditional structured manifest content analysis, which requires objectivity and highly systematic procedures and generates quantitative summaries and enumerations of manifest content, i.e., a systematic, quantitative study of verbally communicated material by determining the frequency of specific concepts or terms (Ahuvia, 2001, p. 139; Holsti, 1969, pp. 3-14; Krippendorff, 2004).

Validity is the degree to which an instrument measures what it is supposed to measure (Mackey & Gass, 2016, p. 158). This typically depends on the extent to which the sample represents the population. The validity of this study was enhanced by using the whole accessible population as the research sample, which guaranteed that every loanword in the research population had an equal chance of being included in the research sample.

Interrater reliability is determined by the degree to which two or more independent observers using the same instrument agree. To establish interrater reliability, the researcher asked two other native speakers of IA to confirm the existence of the list of 346 loanwords in IA. The two informants were both born and raised in Baghdad and currently live there too, and their knowledge of English was at the beginner level. In addition, triangulation, or multiple methods of data collection (self-observation, document review), were also used, strengthening reliability and internal validity (Merriam & Grenier, 2019, p. 14).

DATA COLLECTION

The primary source for the corpus constituting most of the data for the current study was an etymological dictionary of loanwords in IA (Albazarkan, 2000) that listed 351 English loanwords in IA. In addition, all English loanwords in IA listed in the following four academic research studies of English loanwords in IA (Abdullah & Daffar, 2006), (Mohammed, 2009), (As-Sammer, 2015), and (Salman, 2020) were added to the corpus, many of which were already mentioned in Albazarkan (2000). Finally, as a native speaker of IA, the researcher drew on a self-observation technique to collect more loanwords over almost a year (March 2021-February 2022). This was done by looking at several monolingual English dictionaries and listening to and writing down what people in the Iraqi community said every day, on TV, on social media, etc.

SAMPLING

Overall, the study identified 590 English loanwords in IA. The researcher and his dissertation supervisor checked and examined the eligibility of these words in compliance with Poplack's (2001, p. 2063) definition of established loanwords. During this cross-examination, only those words (N=346) that agreed with those criteria were included in the study, thus constituting the accessible population. Words that failed to abide by these criteria were ruled out. Therefore, all 346 words (the accessible population) in the current study constituted the data for the present study (see Appendix A).

DATA ANALYSIS

As soon as the corpus loanwords were compiled, the IA pronunciation of these words and the GB pronunciation of their English source words were transcribed using IPA symbols (see Appendix A). The online version of the Cambridge Dictionary, https://dictionary.cambridge.org/, was used as a major source for the GB phonemic transcription of the source words. As mentioned earlier, most loanwords, along with their pronunciation in IA, were taken from dictionaries and word lists in other academic studies, with their pronunciation already supplied. These pronunciations and those of the self-observation activity were double-checked by the researcher, his supervisor, and two other native speakers of IA to ensure the accuracy of the IA phonemic transcriptions in the loanword corpus.

Next, loanwords were examined one by one, comparing their GB and IA pronunciation and marking every vocalic adaptation. The vocalic adaptations of each GB vowel as it entered the IA lexicon were then identified and counted to determine the patterns of vowel adaptations of English loanwords in IA and answer the research question (see the tables in Section 4).

RESULTS

This section focuses on the IA adaptation patterns of GB diphthongs emerging in the loan corpus. As has been noted in Section 2, there are eight diphthongs in the GB phonemic inventory, namely /eɪ/, /aɪ/, /ɔɪ/, /əʊ/, /aʊ/, /eə/, /ɪə/, and /ʊə/ (Roach, 2009). None of these GB diphthongs, however, is *available* in IA., The following subsections discuss how IA speakers deal with GB diphthongs in English loanwords to make them conform to their native IA phonology.

ADAPTATION OF GB /eɪ/

Within the current study's loanword corpus, GB /eɪ/ is adapted regularly into the IA mid-front unrounded long vowel /e:/ (in 22/30 cases, 72.5%). Instances of this diphthong in the corpus have also been observed to be mapped to /a:/, /a/, /aj/, /i:/, /ɪ/, and /a:j/, as shown in Table 1. The mapping of the GB diphthong /eɪ/ into the pure vowel /a:/ in the three words /ra:da:r/, /ra:de:tar/, and /ra:djɔ:/, may be explained by referring to two factors. First, the source form of all three words has the vowel sound spelt with the letter "a," so it can be argued that English orthography might have played a role in IA speakers' decision to make this mapping. More importantly, to the best of the researcher's knowledge, IA does not have a word that begins with flap /r/ followed by /e:/ and then the plosive consonant /d/. It may be argued that the mapping may be due to IA phonotactic constraints.

TABLE 1. Adaptation of the GB diphthong /eɪ/ in IA

GB input			IA output		Frequency		Total
eɪ	brake	breɪk	e:	bre:k	22	72.5%	
	radar	reɪdɑ:r	a:	ra:da:r	3	10%	
	Nescafé	neskæfeɪ	a	nɪska:fa	1	3.5%	30
	happy birthday	hæpibɜ:θdeɪ	aj	hapibe:rdaj	1	3.5%	
	mayonnaise	meɪəneɪz	i:	ma:jɔ:ni:z	1	3.5%	
	regime	reɪʒi:m	ɪ	rɪdʒi:m	1	3.5%	
	mayonnaise	meɪəneɪz	a:j	ma:jɔ:ni:z	1	3.5%	

ADAPTATION OF GB /ɔɪ/

Only four instances of the GB diphthong /ɔɪ/ appear within the current study's loanword corpus. In all of these instances (in 4/4 cases, 100%), the diphthong is adapted into the IA vowel-plus-glide sequence /ɔ:j/, which shares the closest features with GB diphthong /ɔɪ/, as illustrated in Table 2.

TABLE 2. Adaptation of the GB diphthong /ɔɪ/ in IA

GB input			IA output		Frequency		Total
ɔɪ	boy	bɔɪ	ɔ:j	bɔ:j	4	100%	4

ADAPTATION OF GB /aɪ/

Most of the instances of the GB diphthong /aɪ/ in the current study's loanword corpus are adapted into the IA /a:j/ vowel-plus-glide sequence (in 27/31 cases, 87%) which shares the closest features with GB diphthong /aɪ/. Instances of this diphthong in the corpus have also been mapped to /i:/, /ɪ/, and /a:/, as shown in Table 3.

TABLE 3. Adaptation of the GB diphthong /aɪ/ in IA

GB input			IA output		Frequency		Total
aɪ	light	laɪt	a:j	la:jt	27	87%	
	mile	maɪl	i:	mi:l	2	7%	31
	motorcycle	məʊtəsaɪkəl	ɪ	ma:tˤɔ:rsɪkɪl	1	3%	
	silencer	saɪlənsər	a:	sˤa:lansˤa	1	3%	

ADAPTATION OF GB /əʊ/

Within the current study's loanword corpus, GB /əʊ/ is adapted regularly into IA mid-back rounded long vowel /ɔ:/ (in 34/38 cases, 90%). Instances of this diphthong in the corpus have also been observed to be mapped to /a/, /a:/, and /u:/, as shown in Table 4.

TABLE 4. Adaptation of the GB diphthong /əʊ/ in IA

GB input			IA output		Frequency		Total
əʊ	coat	kəʊt	ɔ:	kɔ:t	34	90%	
	motor	məʊtər	a:	ma:tˤɔ:r	2	5%	38
	domino	dɒmɪnəʊ	a	dɔ:mna	1	2.5%	
	kilo	ki:ləʊ	u:	ke:lu:	1	2.5%	

ADAPTATION OF GB /aʊ/

In most instances of the GB diphthong /aʊ/ in the loanword corpus, this diphthong is adapted into the IA vowel-plus-glide sequence /a:w/ (in 8/11 cases, 74%) which shares the closest features with GB diphthong /aʊ/. One-time instances of this diphthong in the corpus have also been observed to be mapped to /ɔ:/ and /u:/, as shown in Table 5.

TABLE 5. Adaptation of the GB diphthong /aʊ/ in IA

GB input			IA output		Frequency		Total
aʊ	out	aʊt	a:w	ʔa:wt	8	74%	
	shower	ʃaʊər	aw	ʃawar	1	12%	11
	powder	paʊ.dər	ɔ:	pɔ:dra	1	12%	
	blouse	blaʊz	u:	blu:z	1	12%	

ADAPTATION OF GB /ɪə/

The loanword corpus shows that most instances of the GB diphthong /ɪə/ are adapted into IA mid-front long vowel /e:/ (in 4/5 cases, 80). Only one example of this diphthong in the corpus has been mapped to /ɪ/, as shown in Table 6.

TABLE 6. Adaptation of the GB diphthong /ɪə/ in IA

GB input			IA output		Frequency		Total
ɪə	gear	gɪər	e:	ge:r	4	80%	5
	bacteria	bæktɪəriə	ɪ	baktɪrja	1	20%	

ADAPTATION OF GB /eə/

Within the current study's loanword corpus, GB /eə/ is adapted regularly into IA mid-front long vowel /e:/ (in 5/8 cases, 64%). Instances of this diphthong in the corpus have also been observed to be mapped to /ɔ:/, /a/, and /a:/, as shown in Table 7.

TABLE 7. Adaptation of the GB diphthong /eə/in IA

GB input			IA output		Frequency		Total
eə	spare	speər	e:	spe:r	5	64%	
	air conditioner	eəkəndıʃənər	ɔ:	ʔɔ:rkındıʃin	1	12%	8
	aerial	eəriəl	a	arjal	1	12%	
	canary	kəneəri	a:	kana:ri	1	12%	

ADAPTATION OF GB /ʊə/

The GB diphthong /ʊə/is the least common one and appears only twice within the loan corpus, and in both instances, the diphthong is reduced into the IA mid-front long vowel /e:/ as shown in Table 8.

TABLE 8. Adaptation of the GB diphthong /ʊə/ in IA

GB input			IA output		Frequency		Total
ʊə	manicure	mænıkjʊər	e:	manıke:r	2	100%	2

DISCUSSION

The present study examined how GB diphthongs were adapted in English loanwords in IA in an attempt to find out the phonological patterns involved in the IA adaptation of English vowels and how the closest IA matches for GB vowels were chosen. Data analysis revealed that most GB diphthong adaptions in English loanwords in IA occur in systematic patterns and thus may be ascribed to particular aspects in both L1 and L2 phonological systems. Still, several diphthong adaptations were not found to be dictated by phonological considerations, and the way the words were spelt seemed to play a part in the process. The current section addresses the research question, summarising the general patterns of diphthong adaptations found in the loan corpus.

GB diphthongs are all disallowed in IA and thus need to undergo phonological changes to be accepted in the borrowing language. Analysis of loan corpus showed that IA speakers try to keep as many features of both vocalic parts of non-native diphthongs as possible. They do this by replacing the diphthong with a vowel-plus-glide sequence or reducing the diphthong to a single vowel, as shown in Tables 9 and 10.

TABLE 9. Adaptation of the GB diphthongs /aɪ/, /aʊ/, and /ɔɪ/

GB	Typical IA mapping	Other IA mappings
aɪ	a:j	i:, ı, a:
ɔɪ	ɔ:j	
aʊ	a:w	ɔ:, u:

TABLE 10. Adaptation of the GB diphthongs /eɪ/, /ɪə/, /eə/, /ʊə/, and /əʊ/

GB	Typical IA mapping	Other IA mappings
eɪ	e:	a:, a, aj, i:, ı, a:j
ɪə	e:	ı
eə	e:	ɔ:, a:, a
ʊə	e:	
əʊ	ɔ:	a:, a, u:,

VOWEL-PLUS-GLIDE SEQUENCES

Loan corpus analysis shows that the GB diphthongs /aɪ/, /aʊ/, and /ɔɪ/ regularly surface as IA vowels followed by consonantal glides, with the high vowels, which are the second element of these GB diphthongs, surfacing as glides /j/ and /w/ that share the same features in terms of vowel height and vowel rounding. In other words, the second element in the diphthongs /aɪ/ and /ɔɪ/ is changed into /j/ since both /ɪ/ and /j/ are [+high] and [-round], and the second element in the diphthong /aʊ/ is changed into /w/ since both /ʊ/ and /w/ are [+high] and [+round], as shown in Table 11.

TABLE 11. Adaptation patterns of GB diphthongs into IA vowel-plus-glide sequences

GB input			IA output		Frequency	
aɪ	light	laɪt	a:j	la:jt	27/31	87%
ɔɪ	boy	bɔɪ	ɔ:j	bɔ:j	4/4	100%
aʊ	out	aʊt	a:w	?a:wt	8/11	74%

DIPHTHONG REDUCTION

Loan corpus analysis shows that the remaining five GB diphthongs /eɪ/, /ɪə/, /eə/, and /ʊə/ (all replaced with /e:/), and /əʊ/ (replaced with /ɔ:/) regularly surface as single pure vowels in the adapted forms, as shown in Table 12.

TABLE 12. Adaptation patterns of GB diphthongs via diphthong reduction

GB input			IA output		Frequency	
eɪ	brake	breɪk	e:	bre:k	22/30	72.5%
ɪə	gear	gɪər	e:	ge:r	4/5	80%
eə	spare	speər	e:	spe:r	5/8	64%
ʊə	manicure	mænɪkjʊər	e:	manɪke:r	2/2	100%
əʊ	coat	kəʊt	ɔ:	kɔ:t	34/38	90%

Thus, the other strategy that IA adopts to deal with diphthongs is diphthong reduction through coalescence, where the two elements of the diphthongs are merged into a single vowel, with some of the features of each element preserved in their IA correspondents. Diphthongs that undergo diphthong reduction surface as mid vowels, keeping the feature [+mid] of either of its two elements and (except for/ʊə/) preserving its backness or roundness.

In summary, the results agree with those reported by Galal (2004, p. 18), Jarrah (2013, p. 80), As-Sammer (2015, p. 36), Guba (2016, p. xiv, 104), Aloufi (2016), and Alhoody (2019, p. 170) that the borrowing language typically changed source segments onto their phonologically nearest borrowing language phonemes and that the exceptional cases can usually be explained in terms of such factors as vowel harmony, prosodic factors, orthography, etc.

Unfortunately, the results of this section cannot be interpreted within previous literature on IA since none of the prior studies on the adaptation of English words into IA had attempted to identify adaptation patterns.

On the other hand, two studies on two other Arabic dialects, Guba (2016) and Alhoody (2019), have addressed the adaptation of vowel sounds in English words as they are borrowed into other Arabic dialects, namely Ammani Arabic (AA) and Modern Hijazi Arabic (MHA). Despite the similarity in the vowel sound systems in these three dialects, each composed of generally the

same eight pure vowels, other differences between the three dialects, such as their consonants, syllable structure, and prosodic features, lead the three dialects to exhibit different vocalic adaptation patterns.

Thus, the diphthong /ai/ in the loanword *light* is adapted into the IA vowel-plus-glide sequence /a:j/, but the same sound is reduced into the single pure vowel /e:/ in MHA, thus pronounced as /le:t/. On the other hand, the diphthong /eɪ/ in the loanword *laser* is adapted into IA pure vowel /e:/, but the same sound is reduced into the single pure vowel /i:/ in AA, thus pronounced as /li:zar/.

CONCLUSION

This research aimed to explore the diphthong adaptation of English loanwords in IA. More specifically, the study aimed to identify and describe the diphthong adaptation patterns involved in the nativisation of English loanwords by native speakers of IA. The results indicate that the output forms tend to maintain the features of the GB input vowel to the greatest extent possible.

Further findings indicate that diphthongs maintain input features by replacing the diphthong with a vowel-plus-glide sequence or reducing the diphthong to a single vowel. Thus, the GB diphthongs /aɪ/, /aʊ/, and /ɔɪ/ regularly surface as IA vowels followed by the consonantal glides /j/ and /w/. In contrast, the GB diphthongs /eɪ/, /ɪə/, /eə/, /ʊə/, and /əʊ/ regularly surface as single pure vowels in their adapted forms, with the first four typically replaced with /e:/, and the fifth one replaced with /ɔ:/.

The present study has made several contributions to IA loanword phonology and loanword phonology in general. First, the study has helped close a gap in the phonology of IA loanwords. Unlike the few previous studies that attempted to explore the behaviour of diphthongs in English loanwords in IA, which were all characterised by analysis of limited amounts of data and where the patterns of phonological adaptations were not examined, the present study conducted a comprehensive and systematic quantitative content analysis of the whole accessible population (346 established loanwords), thus providing the first account of this type of diphthong adaptation patterns.

In addition, this study has provided much-needed documentation of the IA dialect. The methodology used in collecting primary and secondary data and confirming the pronunciation of loanwords within this study and the careful selection of all established loanwords that are accessible to IA speakers lends credence to the quality of the loan corpus collected for the present study which does not only describe a dialect that is constantly evolving but one that may also be utilised in investigating various other features of IA.

REFERENCES

Abdullah, A. B., & Daffar, A. H. M. (2006). English loan words in the spoken Arabic of the southern part of Iraq: A sociolinguistic study. *ADAB AL-BASRAH, (41)*, 19-36.

Ahuvia, A. (2001). Traditional, Interpretive, and Reception Based Content Analyses: Improving the Ability of Content Analysis to Address Issues of Pragmatic and Theoretical Concern. *Social Indicators Research 54*, 139–172. doi:https://doi.org/10.1023/A:10110878

Albazarkan, R. R. (2000). *A dictionary of loanwords in colloquial Iraqi Arabic.* Baghdad: Umara Printing and Design.

Alhoody, M. M. (2019). *Phonological adaptation of English loanwords into Qassimi Arabic: an optimality-theoretic account.* [Unpublished doctoral dissertation]. Newcastle University.

Aloufi, A. (2016). *The Phonology of English Loanwords in UHA.* [Unpublished doctoral dissertation]. University of Sussex.

Al-Quraishi, F. J. S., & Mansour, M. S. (2020). Using English loanwords in Iraqi Arabic with reference to medical field jargon. *PalArch's Journal of Archaeology of Egypt/Egyptology, 17(5)*, 305–323.

As-Sammer, M. (2015). Phonetic and Phonological Adaptations of English Loanwords into Iraqi Arabic: A Generative Study. *Journal of the College of Arts. University of Basrah*, 73, 1-46.

Babbie, E. R. (2007). *The Basics of Social Research.* Wadsworth.

Blanc, H. (1959). Iraqi Arabic Studies. *Middle East Journal*, 13(4), 449–453. https://doi.org/10.2307/4323170

Cruttenden, A. (2014). *Gimson's pronunciation of English.* Routledge.

Galal, M. (2004). An OT approach to loanword adaptation in Cairene Arabic. *KANSAS WORKING PAPERS, Volume 27*, 1–20.

Guba, M. N. (2016). *Phonological adaptation of English loanwords in Ammani Arabic.* University of Salford (United Kingdom).

Haspelmath, M. (2009). Lexical borrowing: Concepts and issues. In M. &. Haspelmath, *Loanwords in the world's languages: A comparative handbook, 35-54.* De Gruyter Mouton.

Haunz, C. (2007). *Factors in loanword adaptation* [Unpublished doctoral dissertation]. University of Edinburgh.

Holsti, O. R. (1969). *Content analysis for the social sciences and humanities.* Addison-Wesley.

Ingham, B. (1994). *Najdi Arabic: Central Arabian.* John Benjamins.

Jarrah, A. (2013). English Loan Words spoken by Madinah Hijazi Arabic Speakers. *Arab World English Journal AWEJ Special issue on Translation, 2*, 67–85.

Krippendorff, K. (2004). *Content analysis: An introduction to its methodology (2nd ed.).* Sage publications.

Mackey, A., & Gass, S. M. (2016). *Second language research: Methodology and design.* Routledge.

Malmkjaer, K. (2002). *The linguistics encyclopedia.* Routledge.

Merriam, S. B., & Grenier, R. S. (2019). *Qualitative Research in Practice: Examples for Discussion and Analysis.* Jossey-Bass.

Mohammed, S. M. (2009). *English loanwords in the Iraqi Arabic dialect.* [Unpublished master's thesis]. Universiti Malaya.

Mubarak, A. S., & Kadhim, L. B. J. (2019). Domestication of English Expressions Used by Iraqi Arabic Speakers: A Sociolinguistic Study. *Bulletin of Advanced English Studies, 3(1)*, 21-33.

Naziman, S. N. M., & Jaafar, S. R. S. (2018). The Adaptation Strategies of English Loanwords among Kelantan Malay Dialect Speakers. 3L, Language, Linguistics, Literature, 24(4).

Paradis, C., & LaCharité, D. (2011). *Loanword adaptation: From lessons learned to findings. The handbook of phonological theory*, 751-778.

Peperkamp, S. (2005). A psycholinguistic theory of loanword adaptations. *In Annual Meeting of the Berkeley Linguistics Society (Vol. 30, No. 1, pp. 341-352).*

Poplack, S. (2001). *Code-switching (linguistic).* In Smelser, N. J. & Baltes, P. B. (Eds.) *International encyclopedia of the social and behavioural sciences*, pp. 2062-2065. Elsevier Ltd.

Rahim, A. J. (1980). *The phonology of spoken Iraqi Arabic from the functional point of view*. [Unpublished doctoral dissertation]. University of Leeds.

Roach, P. (2009). *English phonetics and phonology paperback with audio CDs (2): A practical course.* Cambridge University Press.

Salman, A. A. (2020). English loanwords in Iraqi Arabic: a phonological study. *https://www.researchgate.net/profile/Arwa-Salman/publication/344386558_English_Loanwords_I_Iraqi_Arabic/links/5fbc174092851c933f5189da/English-Loanwords-I-Iraqi-Arabic.pdf*.

Salman, Y. M., & Mansour, M. S. (2017). English loanwords in Iraqi Arabic with reference to computer, internet, and mobile phone jargon. *Cihan University-Erbil Scientific Journal, 1*, 271-294.

Thomason, S. G., & Kaufman, T. (1988). *Language contact, creolisation, and genetic linguistics.* University of California Press.

Watson, J. C. (2002). *The phonology and morphology of Arabic*. OUP.

APPENDIX A

LOANWORD CORPUS

The table below contains all the English loanwords in IA that were used in the study. Proper nouns are denoted by capitalisation, and a hyphen (-) is used to distinguish the several possible pronunciations.

No.	Loanword	Original Form (GB)	Adapted Form (IA)
1	accordion	əkɔ:diən	ʔakɔ:rdjɔ:n
2	aerial	eəriəl	ʔarjal
3	airbag	eəbæg	ʔe:rba:g
4	air conditioner	eəkəndıʃənər	ʔɔ:rkındıʃin - ʔe:rkɔ:ndıʃinar
5	album	ælbəm	ʔalbɔ:m
6	aluminium	æljəmıniəm	ʔalamınjɔ:m
7	ampere	æmpıər	ʔampe:r - ʔambe:r
8	android	ændrɔıd	androːjd
9	aspirin	æspərın	ʔaspıri:n
10	atlas	ætləs	ʔatˤlas
11	automatic	ɔ:təmætık	ʔɔ:tɔ:ma:ti:ki
12	axle	æksəl	ʔaksıl
13	back	bæk	bag
14	bacteria	bæktıəriə	baktırja
15	baking powder	beıkıŋ paʊdər	be:kın pa:wdar
16	balance	bæləns	balansˤ
17	balcony	bælkəni	balakɔ:na - ba:lkɔ:n
18	(Intragastric) balloon	bəlu:n	ba:lɔ:n
19	bandage	bændıdʒ	ba:ndıdʒ
20	bank	bæŋk	bang
21	bar	bɑ:(r)	ba:r
22	battery	bætəri	pa:tri - ba:tri
23	beige	beıʒ	be:dʒ
24	Bermuda (shorts)	bəmju:də	bırmɔ:da
25	bicycle	baısıkl	ba:jsıkıl
26	billiards	bıliədz	bılja:rd
27	biscuit	bıskıt	bıskıt
28	block	blɒk	blɔ:k
29	blouse	blaʊz	blu:z
30	body (of a car)	bɒdi	badi
31	bonnet	bɒnıt	bani:d
32	boot (type of shoe)	bu:t	bu:t
33	bottle	bɒtl	bʊtˤʊl
34	(box) cutter	kʌtər	katar
35	bracket (lighting support)	brækıt	bra:ke:t
36	brake [pedal]	breık	bre:k
37	break (recess)	breık	bre:k
38	bug	bʌg	bˤag
39	bus	bʌs	ba:sˤ
40	busboy (waiter/garcon)	bʌsbɔı	bɔ:j
41	bye bye	baıbaı	bajba:j
42	cabin	kæbın	ka:bi:na
43	cable	keıbl	ke:bıl
44	cake	keık	ke:k
45	camera	kæmərə	ka:mıra
46	canary	kəneəri	kana:ri
47	captain	kæptın	ka:ptın
48	caravan	kærəvæn	karava:n
49	carburettor	kɑ:bəretər	ka:bre:ta - ka:bre:tar
50	carbon	kɑ:bən	ka:rbɔ:n

51	card	kɑ:d	ka:rt invitation
52	cartoon	kɑ:tu:n	ka:rtɔ:n
53	cash	kæʃ	ka:ʃ
54	cashier	kæʃɪər	ka:ʃe:r
55	cashew	kæʃu:	ga:zɔ:
56	casino	kəsi:nəʊ	ga:zi:nɔ:
57	catalogue	kætəlɒg	katalɔ:k
58	cement	sɪment	smɪnt
59	centre	sentər	santar
60	ceramics	səræmɪks	si:ra:mi:k
61	chance	tʃɑ:ns	tʃansˤ
62	chassis	ʃæsi	ʃa:sˤi
63	chef	ʃef	ʃe:f
64	cheque	tʃek	tʃe:k ; ʃe:k
65	chips	tʃɪps	tʃɪbɪs
66	cholera	kɒlərə	kɔ:lɪra
67	cigarette	sɪgəret	dʒɪga:ra
68	cinema	sɪnəmə	si:nama
69	circus	sɜ:kəs	se:rk
70	classic	klæsɪk	kla:si:ki
71	clips	klɪps	klɪps
72	clutch	klʌtʃ	klatʃ
73	coat	kəʊt	kɔ:t
74	coca cola	kəʊkəkəʊlə	kɔ:kakɔ:la
75	cocktail	kɒkteɪl	kɔ:kte:l
76	coil	kɔɪl	kɔ:jɪl
77	colon (body part)	kəʊlɒn	qɔ:lɔ:n - qa:lɔ:n
78	commission	kəmɪʃən	kɔ:mɪʃin
79	compressor	kəmpresər	kɔ:mpre:sar - kɔ:mbre:sar
80	computer	kəmpju:tər	kɔ:mpju:tar - kɔ:mbju:tar
81	Concrete	kɒŋkri:t	kɔ:nkri:t
82	conditioner (hair)	kəndɪʃənər	kɔ:ndɪʃinar
83	corner (football)	kɔ:nər	kɔ:rnar
84	corridor	kɒrɪdɔ:r	kɪlɪdɔ:r - kɒlɪdɔ:r - kɪlɪdɔ:r
85	counter	kaʊntə	ka:wɪntar
86	couple	kʌpəl	kapɪl - kabɪl
87	coupon	ku:pɒn	kɔ:bɔ:n
88	course	kɔ:s	kɔ:rs
89	cover	kʌvər	kavar
90	cowboy (jeans)	kaʊbɔɪ	ka:wbɔ:j
91	crane	kreɪn	kre:n
92	cream	kri:m	kri:m
93	crystal	krɪstəl	krɪsta:l
94	cup	kʌp	ku:b
95	cushion	kʊʃən	kʊʃin
96	custard	kʌstəd	ka:star
97	dashboard	dæʃbɔ:d	daʃbu:l
98	design	dɪzaɪn	dɪza:jn
99	diploma	dɪpləʊmə	dɪblɔ:m
100	diplomat	dɪpləmæt	dɪblʊma:si
101	disc	dɪsk	dɪsk
102	doctor	dɒktər	dɪktɔ:r
103	dollar	dɒlər	du:la:r
104	domino	dɒmɪnəʊ	dɔ:mna
105	double	dʌbl	dabal
106	dozen	dʌzən	darzan
107	drama	drɑ:mə	dra:ma
108	drill (tool)	drɪl	dre:l
109	drunkard	drʌŋkəd	drɪŋga
110	dynamo	daɪnəməʊ	da:jnamɔ:
111	eczema	eksɪmə	ʔagzɪma
112	elastic (band)	ɪlæstɪk	la:sti:k

113	exhaust	ɪgzɔ:st	ʔɪgzɔ:z
114	eye shadow	aɪ ʃædəʊ	ʃadɔ:
115	eyeliner	aɪlaɪnər	ʔa:jla:jnar
116	Facebook	feɪsbʊk	fe:sbʊk - fe:s
117	feed pump	fi:dpʌmp	fi:tpam
118	fifty-fifty	fɪfti -fɪfti	fɪfti -fɪfti
119	file	faɪl	fa:jal
120	film	fɪlm	fɪlɪm
121	filter	fɪltər	fɪltar
122	fit	fɪt	fɪt
123	fitter	fɪtər	fi:tar
124	flash (camera)	flæʃ	fla:ʃ
125	foam	fəʊm	fɔ:m
126	folklore	fəʊklɔ:r	fɪlɪklɔ:r
127	foul	faʊl	fa:wal
128	freezer	fri:zər	fri:z - fri:zar
129	full	fʊl	fʊl
130	fuse	fju:z	fju:z
131	gallon	gælən	galan
132	game	geɪm	ge:m
133	gangrene	gæŋgri:n	gangari:n
134	garage	gærɑ:ʒ	gara:ʤ
135	gas	gæs	ɣa:z
136	gasket	gæskɪt	ga:zge:t
137	gear	gɪər	ge:r
138	geyser	gi:zər	gi:zar
139	glass	glɑ:s	gla:sˤ
140	goal	gəʊl	gɔ:l
141	gorilla	gərɪlə	ɣɔ:rɪlla
142	gram	græm	ɣra:m
143	grease	gri:s	gri:z
144	gross	grəʊs	glɔ:sˤ
145	group	gru:p	gru:b
146	gauge	geɪʤ	ge:ʤ
147	guarantee	gærənti:	garanti
148	guitar	gɪtɑ:r	gi:ta:r
149	gym	ʤɪm	ʤɪm
150	hall	hɔ:l	hɔ:l
151	hamburger	hæmbɜ:gər	hambargar
152	handbrake	hændbreɪk	hɪndɪbre:k
153	happy birthday	hæpibɜ:θdeɪ	hapibe:rdaj
154	headphone	hedfəʊn	hadfɔ:n - hatfɔ:n
155	heater	hi:tər	hi:tar
156	helicopter	helɪkɒptər	halɪkɔ:ptar
157	horn	hɔ:n	hɔ:rɪn
158	ice cream	aɪskri:m	ʔa:jsɪkri:m
159	inch	ɪnʧ	ʔɪnʤ
160	influenza	ɪnfluenzə	fla:wanza
161	Instagram	ɪnstəgræm	ʔɪnɪstagra:m
162	iPhone	aɪfəʊn	ʔa:jfɔ:n
163	Isolation (tape)	aɪsəleɪʃən	sle:ʃɪn
164	jack	ʤæk	ʤag
165	Jacket	ʤækɪt	ʧa:ke:t
166	jeans	ʤi:nz	ʤi:nz
167	jeep	ʤi:p	ʤe:b
168	jelly	ʤeli	ʤali
169	Jerrycan (container)	ʤerikæn	ʤalika:n
170	joker	ʤəʊkər	ʤɔ:kar
171	judo	ʤu:dəʊ	ʤɔ:dɔ:
172	ketchup	keʧʌp	kaʧap - kaʧab
173	kettle	ketəl	kɪtli
174	keyboard	ki:bɔ:d	ki:bɔ:rd

175	kilo	kiːləʊ	keːluː
176	kiwi	kiːwiː	kiːwiː
177	Kleenex	kliːneks	kliːnɪks
178	laptop	læptɒp	laːbtɔːb
179	laser	leɪzər	leːzar
180	light	laɪt	laːjt
181	line	laɪn	laːjɪn
182	load	ləʊd	lɔːd
183	lorry	lɒri	lɔːri
184	make-up	meɪkʌp	meːkab
185	mall	mɔːl	mɔːl
186	manhole	mænhəʊl	manhɔːl
187	manicure	mænɪkjʊər	manɪkeːr
188	mascara	mæskɑːrə	maskaːra
189	mask	mɑːsk	maːsk
190	master's (degree)	mɑːstəz	maːstar
191	maximum	mæksɪməm	maksɪmam
192	mayonnaise	meɪəneɪz	maːjɔːniːz
193	menu	menjuː	maːnjuː
194	metre	miːtər	matɪr
195	microwave	maɪkrəweɪv	maːjkrɔːweːv
196	mile	maɪl	miːl
197	million	mɪljən	mɪljɔːn
198	millionaire	mɪljəneər	mɪljɔːneːr
199	minimum	mɪnɪməm	mɪnɪmam
200	missed call	mɪstkɔːl	mɪskɔːl
201	mobile	məʊbaɪl	mɔːbaːjɪl
202	model	mɒdəl	mɔːdeːl
203	modern	mɒdə(r)n	mɔːdrɪn
204	motor	məʊtər	maːtˤɔːr
205	motorcycle	məʊtəsaɪkəl	maːtˤɔːr-sɪkɪl
206	(computer) mouse	maʊs	maːws
207	neon	niːɒn	njɔːn
208	negative (photo)	negətɪv	nagatɪv
209	Nescafé	neskæfeɪ	nɪskaːfa
210	nylon	naɪlɒn	naːjlɔːn
211	(day) off	ɒf	ɔːf
212	offside	ɒfsaɪd	ʔɔːfsaːjd
213	out	aʊt	ʔaːwt
214	oven	ʌvən	ʔɔːvɪn
215	oxygen	ɒksɪʤən	ʔɔːksɪʤiːn
216	ozone	əʊzəʊn	ʔɔːzɔːn
217	packet	pækɪt	paːkeːt - baːkeːt
218	parachute	pærəʃuːt	baraʃuːt
219	park	pɑːk	paːrk - baːrk
220	parliament	pɑːlɪmənt	parlamaːn - barlamaːn
221	pass (football, ticket)	pɑːs	baːsˤ
222	pedal	pedəl	paːjdar - baːjdar
223	pedicure	pedɪkjʊər	badɪkeːr
224	penalty	penəlti	balanti - panarti -banarti
225	Pepsi	pepsi	bɪbsi
226	piano	piænəʊ	pjaːnɔː - bjaːnɔː
227	pickup (truck)	pɪkʌp	biːkap - biːkab
228	piston	pɪstən	pɪstɪm - bɪstɪm
229	pizza	piːtsə	biːtza
230	plaster	plɑːstər	plaːstar - blaːstar
231	plastic (n)	plæstɪk	plaːstiːk - blaːstiːk
232	pliers	plaɪəz	plaːjɪs - blaːjɪs
233	plug	plʌg	blak
234	polish	pɒlɪʃ	pɔːlɪʃ - bɔːlɪʃ
235	pose (position)	pəʊz	pɔːz
236	poster	pəʊstər	pɔːstar - bɔːstar

237	pound (sterling)	paʊnd	pa:wan
238	powder	paʊdər	pɔ:dra - bawdar
239	prestige	presti:ʒ	prɪsti:dʒ
240	professor	prəfesər	prɔ:fɪsɔ:r
241	(overhead) projector	prədʒektər	prɔ:dʒaktar
242	protocol	prəʊtəkɒl	prɔ:tɔ:kɔ:l - brɔ:tɔ:kɔ:l
243	pump	pʌmp	bam - pam
244	puncture	pʌŋktʃər	pantʃar - bantʃar
245	pyjamas	pədʒɑ:məz	bɪdʒa:ma
246	Pyrex	paɪreks	ba:jraks
247	quiz	kwɪz	kwɪz
248	racket	rækɪt	rɪkɪt
249	radar	reɪdɑ:r	ra:da:r - la:da:r
250	radiator	reɪdieɪtər	ra:de:tar
251	radio	reɪdiəʊ	ra:djɔ: - ra:djɔ:n
252	receiver	rɪsi:vər	rɪsi:var
253	regime	reɪʒi:m	rɪdʒi:m
254	relax	rɪlæks	ri:la:ks
255	remote [control]	rɪməʊt	ri:mɔ:t - ri:mɔ:n(t)
256	ring (cars)	rɪŋ	rɪng
257	robe	rəʊb	rɔ:b
258	rod	rɒd	rɔ:tˤ
259	roller (paint)	rəʊlər	rɔ:la
260	routine	ru:ti:n	rɔ:ti:n
261	salad	sæləd	zala:tˤa
262	(hair) salon	sælɒn	sˤa:lɔ:n
263	salsa	sælsə	sˤalsˤa
264	sandal	sændəl	sˤandal
265	sandwich	sænwɪdʒ	sandawi:dʒ
266	satellite (dish)	sætəlaɪt	satala:jt - dɪʃ
267	sauna	sɔ:nə	sa:wna
268	sausage	sɒsɪdʒ	sˤɔ:sˤadʒ
269	scrap	skræp	sɪkra:b
270	second (driver)	sekənd	sɪkɪn
271	secretary [m]	sekrətəri	sɪkɪrte:r
272	set	set	se:t
273	shampoo	ʃæmpu:	ʃa:mpɔ: - ʃa:mbɔ:
274	share	ʃeər	ʃe:r
275	shift	ʃɪft	ʃɪft
276	shorts	ʃɔ:ts	ʃɔ:rt
277	shower	ʃaʊər	ʃawar
278	side	saɪd	sa:jɪd
279	silencer	saɪlənsər	sˤa:lansˤa
280	silo	saɪləʊ	sa:jlɔ:
281	sink	sɪŋk	sɪnk
282	skate	skeɪt	ske:t
283	slide	slaɪd	sla:jd
284	sister (nurse)	sɪstər	sɪstar
285	soda	səʊdə	sˤawda
286	sorry	sɒri	sɔ:ri
287	soup	su:p	su:p
288	spanner	spænər	spa:na - sba:na
289	spare (tyre)	speər	spe:r - sbe:r
290	special	speʃəl	spaʃal - sbaʃal
291	split (unit)	splɪt	sɪblɪt
292	sponge	spʌndʒ	sfandʒ
293	spray	spreɪ	sɪpre: - sɪbre:
294	Spring	sprɪŋ	sɪprɪng
295	standard	stændəd	standar
296	starter	stɑ:tər	sta:rtar
297	steak	steɪk	ste:k
298	steering (wheel)	stɪərɪŋ	ste:rɪn

299	stock	stɒk	stɔːk
300	stool	stuːl	stuːl
301	(live) stream	striːm	sɪtriːm
302	stress (worry)	stres	sɪtreːs
303	stretch (leggings)	stretʃ	sɪtreːdʒ
304	studio	stjuːdiəʊ	stɔːdjɔː
305	subbase	sʌbbeɪs	sɪbbeːs
306	switch	swɪtʃ	swiːtʃ
307	syphon	saɪfən	siːfɔːn
308	syringe	sɪrɪndʒ	srɪndʒa
309	table lamp	teɪbəl læmp	teːbɪl laːm
310	tank	tæŋk	taːnki
311	tanker	tæŋkər	tankar
312	tattoo	tətuː	taːtɔː
313	taxi	tæksi	taksi
314	telephone	telɪfəʊn	talɪfɔːn
315	television	telɪvɪʒən	talvɪzjɔːn
316	tennis	tenɪs	tanɪs
317	thermos	θɜːməs	tɪrmɪz
318	thermostat	θɜːməstæt	θeːrmɔːstæt
319	ticket	tɪkɪt	tɪkɪt
320	Tide	taɪd	taːjt
321	toast	təʊst	tɔːst
322	toaster	təʊstər	tɔːstar
323	tomato	təmɑːtəʊ	tˤamaːtˤa
324	ton	tʌn	tˤan
325	top	tɒp	tɔːb
326	tracksuit	træksuːt	traːksuːd
327	tractor	træktər	traktar
328	traffic (lights)	træfɪk	trafɪk
329	trailer	treɪlər	treːla
330	transit	trænzɪt	traːnzeːt
331	T-shirt	tiːʃɜːt	tiːʃeːrt
332	tube (in a tyre)	tʃuːb	tʃuːb
333	tyre	taɪər	taːjar
334	vanilla	vənɪlə	vaːnɪlla
335	video	vɪdiəʊ	vɪdjɔː
336	visa	viːzə	viːza
337	vitamin	vɪtəmɪn	fiːtaːmiːn
338	volt	vɒlt	vɔːlt
339	washer	wɒʃər	waːʃar
340	WhatsApp	wɒtsæp	watsap - wats
341	wheel	wiːl	wiːl
342	wire	waɪər	waːjar
343	wrong side	rɒŋsaɪd	rɔːngsaɪd - rɔːn
344	yacht	jɒt	jaxɪt
345	zig zag	zɪgzæg	zɪgzaːg
346	zoom	zuːm	zuːm