qaratappa	village in Kirkuk	qurimpa ;ra	a homosextual
pi∫pi∫ spinda:r ? aspiri:n pidʒa;ma	for calling a cat a kind of tree Aspirine pyjamas	mpawwaT pirda:8 po:pli:n	male demted glass kind of cloth
pro:fi:so:r	professor	panarti	penalty (in foot-
	DIDITO	or panalti	ball)

BIBLIOGRAPHY

Al-Bakiri, Hazim. Diraasaat fil? alfadh? al^eaamijja? al Muusilijja wamuqa: ranatiha ma^eal? alfaadh? al^eaamijja fil? aqaaliim? al^earabijja.

As'ad Printing House .Baghdad .1972. pp. 100-10 (In Arabic) .

A-Hamash, Khalil 1. A Contrastive Study of the Sound Systems of Iraqi Arabic and Standard English. Al-Sha'ab Press. Baghdad 1969.

Al-Mouslly. Dawud Al-Chalabi . **Kalimaat Faarisijja Musta^emala fii^eaamijja** - til **Muusil wa**ti ? an**Ha** ?il ^eiraaq taliiha

kalimaat Kurdijja wahindijja. Al-Ani Printing House. Baghdad . 1960. pp. 27-36 (In Arabic).

Youhanna ,Edward . P Sounds in Iraqi Arabic . Al-Mustansiriya Literary-Review. . College of Arts . University of Al Mustansiriya . Vol.1.1975 - 1976 .pp . 35-42.

osaTla pro:tista:nt	in a bucket protestan t	pu∫t pala∫ti	a bad person devilish;bad- mannered—
pairaks kapsu:la pa:∫a ?o:pr a kapra v	pyrax capsule lord opera vooden house for tourists in	kalapt∫a pi:p pla:w pa:k pa:rti	scuff barrel cooked rice even party
Iraqi resor pre:miz pro:li:ta:ri pla:star paida:r paip po:sTa tſi sipraj	cooker proletarian plaster peddle pipe postman spray	?apo:lo pla:stik pla:zma po:landa purtu8a:l ?impirja:lijja poppai	Apolo plastic plazma Poland Purtugal Imperialism a character in cartoon films
pi :ka :dilli tapsi po :li: n pa :Trija: rk puTrus pj :ano: or p paski:r pSo :nda pansali:n salma :npa :k piSwantsi	towel with a hose-pip Panciline	pa; ska:I po;liS t∫ips purtuqa:I ?ampisili:n na:piljo:n ciza or pa:ki:za pist	Napoleon a name (feminine) nissing at someone to pay attention
pandʒ pa∫ pa∫	five talked in a low voice	1)	or dismissing a cat clown

pirwa:z	frame	parāwā: na	blodes - Eu
pasta	song	pusTa:l	blades of the fan
pukla	a lock of hair at the from	of nlachkast	heavy boots
pal at i:qa	novelties	pamp	blanket
pand≾ara		pandz a	pump
panzart∫i		patia <u>Z</u> ti	hand
	person	po:ti:n	sportsmen
pu.∫i	veil	pwa:l	shoes
-		pwa.i	units of domino
pihri:z	special food for the	sick piants	or backgammon
japra ₈	special type of Iraqi	food married	cup
mpajja s	dirty	•	hose - pipe
lampa	lamp	mparTax	cheeky
qanapa	sofa	qo:pt∫a	button
qappaT	finished	qapag	pan's cover
Tappi	ball	qa:pu:T	coat
spe:r	spare-parts	Ta:pu	estate office
rapo:T	report	sipriog	spring
spe:na:8	spinacli	t∫a:pa;n	coarse cloth
Spa:na	spanner	t∫appe:wi	left-handed
sp:ort	gentle	Spa:nja	Spain
po:liski	name of car	?ampe:r	ampere
-	dish of lamb's head etc.	psa:T	carpet
pre:va	rehearsa!		panTaru n trousers
paisikil	bicycle	pa:S	bus
	audir powder	ho:p	stop
pra:wa	fitting	po:li:∫	polish
pant∫ar		mapsu:T	beaten
pTa:la	puncture	pla:ti:n	platinium
po:z	bottles	psira	in a cue
So:pa	swagger heete-	pute:ta	potato
tappu:la	heater	tpa:wa:k	debt settlement
-ppw.ca	a kind of dish	Surimpa:ra	girls-chaser

APPENDIX 1

ſΑ	Assimilated	words	:	1	$\mathfrak{b}/$	1	15	to	be	realised	as	[b _o]	
----	-------------	-------	---	---	-----------------	---	----	----	----	----------	----	-------------------	--

	ca norte of the		
bHa:li bxand\(\frac{1}{2}\) ar bsa:\(\frac{1}{2}\) ?abxas bqalami	in my condition with a dagger in a hurry cheaper with my pencil	bkubra b∫a:riena Drabta mabqe:t 'ibtisa:m	of his age or size at our street I hit him I didn't stay a proper name (feminine)
bSatfi b∫a:ra ?ab∫av kabt bfa:riq bsur€a mibttal	next to me or in my class good news more cruel suppression with a difference in a hurry wet	bqarjatna jibt∫i ?absaT Habs ?abTa:! ?ibtiha:dʒ bta:ri:xil@arab	in our village cries easier prison heroes a proper name (feminine) in the history of Arabs
mubtada? b∫arafi mibtili Borrowed pa:ro:la pa:Ta	subject by my honour burdened API Words (in Mislawi and Bas trick equal result	bke:fak PENDIX 11 ghdadi dialects) pa:ra pa:lu:ta	we stayed plant as you like penny sweets pa: bka fan

pa:ro:la	trick	рала	pomy
pa:Ta	equal result	pa:lu:ta	sweets
pa:nda:n	ink	pa:bka or p	
patja	step	si:pa:ja or	e:pa:ja roof-rack
	t∫arpa:ja bed	puxta	well-cooked or crushed
part∫am	rivet	part sa	a piece of cloth overalls
pe:k	a small glass of		curtain
pa:lTu	coat	parda	•
paraT	vomit	prind∡	copper

-mic terms, a plus juncture, /+/, is obviously there, a fact which is unquestionable. Even for [khaphth] 'supression' and [Haphs] 'prison, aspiration is not as marked as it is belived (*Ibid.*). Both words are clearly heard from the radio or TV, for example, as [kabt] and [Habs], respectively.

To sum up this point, I find it necessary to set down a rule where the allophones of /b/ are realised in IA native words as [b] s:

Rule VII

Conclusion

When / b / is adjacent to voiceless consonants in IA native words, the resultant allophone is $[b_o]$ and not $[p^h]$ since this phonetic process results in partial assimilation, i. e., devoicing. [p] sounds in loan words occur in all positions, i. e., initially, intervocalically and finally. These [p] s have four degrees of aspiration; each degree is determined by the position a [p] sound occupies. It may either be moderately or strongly aspirated in word-initial position before vowels and in word — medial position, while it is less aspirated or unaspirated when forming part of a consonant cluster.

^{5.} Listen to the recurrent word [?iphthada] in one of Abdul Halim Hafudh's songs, the late Egyptian singer.

^{6.} The rule is to be read as: |b| assimilates into $[b_o]$ before one of the bracketed voiceless consonants

```
/bxand\[ \] ar / \longrightarrow [b_xand\[ \] ar [pxand\[ \] ar] 'with a dagger' / bkubra / \longrightarrow [b_kubra] \sim [pkubra] 'of his age or size' / bqalami / \longrightarrow [b_qalami] \sim [pqalami] 'with my pencil' / bfa:riq / \longrightarrow [b_ fa:riq] \longrightarrow [pfa:riq] \sim [ffa:riq] 'with a difference' /?ibtisa:m/ \longrightarrow [?ib_btisa:m] \sim [?iptisa:m]'a feminine proper name' / ?absaT/ \longrightarrow [?ab_saT] \sim [?apsaT] easier / bt \[ \] e:t / \longrightarrow [b_tfe:t] \[ \] [ptfe:t]'l cried' / b\[ \] a:ri@na/ \longrightarrow [b_bfa:ri@na] 'at our street' / ?abTa:l / \longrightarrow [?ab_ata:l] \sim [?apTa:l] 'herces' / bsur@a / \longrightarrow [b_sur@a] \sim [psur@a] 'in a hurry'
```

One may find many other examples of /b/ realisations in IA, especially when it is adjacent to /t/ (see Appendix I).

Now, even if it were possible to produce an aspirated [p] in [?ip——] in the following examples:

```
[?iphthakhra] 'innovated'
[?iphthalasa] 'swallowed'
[?iphthada?a] 'started' (Ibid., P. 34)
```

then a pause is clearly marked between the first and second syllables. Consequently, these words would seem artificial. Nevertheless, to speak in phone

^{4.} \sim means that [p] alternates with $[b_o]$.

Rule V

$$\# (V) + \begin{cases} m \\ r \\ s \\ S \\ t \end{cases} + [p] + (V) = [+ aspirated] - 2$$

2. But when it is the first element of initial and medial clusters. [p] is [-aspirated] — 0 since the adjacent consonats are voiced (except for/j/and/w/which behave like vowels,), but [p] can have [+ aspirated] — 1 since the second elements are voiceless:

Rul VI A

(V) + [p] / -
$$\left\{ \begin{array}{c} 1 \\ m \\ r \end{array} \right\}$$
 + (V) [-aspirated] - 0

Rule VI B
$$\begin{pmatrix}
s \\
S \\
T
\end{pmatrix}$$
Rule VI C
$$\begin{pmatrix}
t \\
t
\end{pmatrix}$$

$$[p] - [p^h] / - \left\{ \begin{array}{c} w \\ j \end{array} \right\} = [+ aspirated] - 2$$

One last note to be made is that of a geminate [p] sound. It is usually the second which is aspirated, with the feature $[+aspirated] <_3^2$ as in [qaratappha] a village in Kirkuk and [popphai] a name heard in cartoon films.

The second type of [p] sounds covers the following instances borrowed from English whose/b/sounds are changed into [p] s, e.g., [pha:s]. hus, [phaisikil] bicycle and [?akropha:ti:ki] acrobat. The degrees of aspiration of these [p] s are the same as those given in Rules I, IV and II, respectively.

[parda]

curtain

[po:dra] powder

Aspiration in intervocalic occurrences is at a maximum degree:

Rule II

$$[p] \longrightarrow [ph] / \longrightarrow \begin{bmatrix} a : \\ a : \\ a : \\ a \end{bmatrix} \longrightarrow \begin{bmatrix} a : \\ a : \\ a \end{bmatrix} = [+ aspirated] \longrightarrow 3$$

$$\begin{bmatrix} a : \\ a : \\ a : \\ a : \\ a : \end{bmatrix}$$

$$\begin{bmatrix} a : \\ a : \\ a : \\ a : \end{bmatrix}$$

[p] scarcely occurs in word-final position where it is usually weakiy r leased:

Rule III

as in :

[paip] pipe, [pi:p] barrel and [ho:p] stop.

I have also observed that [ph] occurs before two diphthongs only, where it may either be moderately or strongly aspirated:

Rule IV

$$[p] \longrightarrow [ph]/ \longrightarrow {au \atop ai} \longrightarrow [+ aspirated] \longrightarrow 2 (3)$$

as in:

[ph aisikil] bicycle, [ph aida: r] peddle, [ph audir] powder 3

In consonant clusters [p] is felt to be either aspirated or unaspirated. When aspirated, only three degrees are possible:

- When it forms the second element of initial and medial clusters. whatever the environment is, [p] acquires [+ aspirated] --- 2:
- [po:dra] is also heard.

To start with, four degrees of aspiration are recognised:

[0 aspirated] = unaspirated

[1^r aspirated] = minimum aspiration

[2 aspirated] = medium aspiration

[3 aspirated] = maximum aspiration

Generally speaking, the first degree is [-aspirated], while the other three are [+aspirated]. However, these degrees are determined by the various positions [p] sounds occupy. For example, when [p] occurs before vowels in word-initial position or intervocalically, aspiration will be greater than when forming part of a consonant cluster. The reason is obvious in that vowels are completely oral, a feature which allows the compressed air flow easily. Thus, as a general rule [p] occurring in word-intial position before all vowels or intervocalically is automatically [+ aspirated] with varying degrees.

Rule 1

$$\begin{vmatrix}
a \\
a : \\
u :
\end{vmatrix}$$

$$e : \qquad = [+ aspirated] < 3$$

$$\begin{vmatrix}
0 : \\
i \\
i :
\end{vmatrix}$$

Owing to the degrees of aspiration of [p] socurring before these vowels, it is felt that the amount and force of air to be puffed at the time of production become less when vowels get backed and longer. The following diagram illustrates the decrease in both as the arrows move rightwards:

However, one might assign the feature [aspirated] — 3 to the [p] s that occur before the first three vowels since they are front while [+aspirated] —2 is given to the [p] s occurring before the rest, e.g.,

- 1. [pirtsi:m] rivet 5. [puxta] over-crushed
- 2. [pi:p] barrel 6. [pu:∫i] vell
- 3. [pe:k] a small glass of drink 7. [pa:ja] step

. Introduction

[p] sounds in Iraqi Arabic (henceforth IA) ¹ are mere borrowings. They are taken mainly from Persian, Turkish, Aramaic and English (cf. Al-Bakri pp. 100-10; and Al-Mosully, pp. 27-36). These [p] s are of two types, either those occurring in loan words or realisations of [b] sounds of some words borrowed from English. Those resulting from partial assimilation of the IA native /b/ due to adjacent voiceless consonants are devoiced [b] s and not [p] s.

Aspiration of these [p] s, which is an outcome of factors involving:

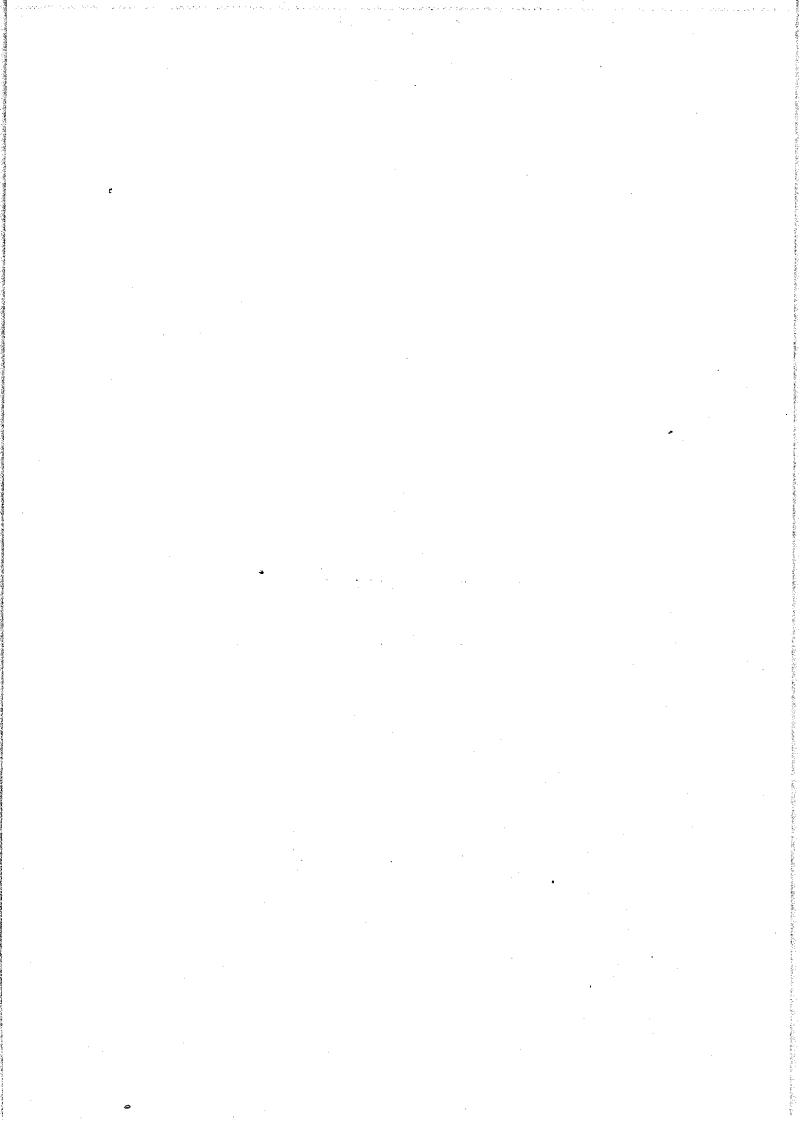
- a. the amount of air compressed in the oral cavity to be finally exploded,
- b. tension of lips; and
- c. the degree of tenseness of the muscles involved in speech organism (cf. Youhanna, p. 39), is determined by the various positions they occupy. Therefore, the distribution of all these [p] s is necessary since the degree of aspiration can be detected and marked only after finding out the position a certain [p] sound occupies.

Analysis

The [p] s occurring in loan words seem to vary in the degree of aspiration from one position to another. But to say that [ph] "occurs before front vowels in a few loan words" and that the unaspirated [p] "occurs elsewhere in a few loan words" (Al-Hamash, p. 22) seems insufficient. This paper will discuss aspiration in details through presentation of specific phonetic rules in accordance with the distribution of these (p] s.

^{1.} Baghdadi is usually taken to represent IA because it is understood by all Iraqis. This article pays due attention to Mislawi dialect since many borrowed forms do not exist in Baghdadi.

^{2.} In the data collected for analysis, I could find some 145 loan words. (see Apendix 11).



Distribution and Aspiration of [p] Sounds in Iraqi Arabic

BY
DINHA TOBIYA GORGIS, M.A .

ASSISTANT LECTURER