

/r/

*

:

/r/

" "

(132)

(25-6)

2008-5-30 2007-1-1

.

.

:

/r/

—

"

"

.

(1)

(4)

(3)

.

.

-

—

(2)

.

(5)

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—

-

(1)

*

(2)-SLP-

(3)

.2009/3/31

2008/10/29

.

/

(7) " :
 - (255) /r/ -
 " : 1998 (6)
 : : ... 180
 [6.4-2]
 :
 (8) [6.4 -4] /r/
 - -
 - -
 :
 : - -
 (9)
 6.4
 " :
 ... " "
 :
 (10)
 (11)
 .(3.6 -2)
 2008-5-30 2007-1-1
 -
 (236)
 /r/
 - Sharf -
 (132)
 (65) " "
 (67)
 (12)
 " -
 (13)
 " "

/r/

Bernthal

:

Bankson

(14)

" :
(19)"

" (20)"

(21)"

(22)"

"
"

/r/

/j/

/ʎ/

/l/

:

(23)

(24)

)

(

/r/

%88.95 /r/

(15)

.(1) (25)

-%86.4

Ladefoged

—

"

- Maddieson

Flap

Retroflex

Tap

.(16)Trill

Approximant

(134)

.(17)

%47.5

.(26)"

.(18)

Jones (27)ⁱⁱ

منطقة اللثة

طرف اللسان

:(1)

Flap

-(32) Roach

(31) Catford

—

(29)

Tap

(30)

Age Group	Male	Female
0-4	85	75
5-9	75	65
10-14	95	85
15-19	85	95
20-24	75	85
25-29	65	75
30-34	55	65
35-39	45	55
40-44	35	45
45-49	25	35
50-54	15	25
55-59	10	20
60-64	5	15
65-69	5	10
70-74	5	10
75-79	5	10
80-84	10	15
85-89	5	10
90-94	5	10
95-99	5	10

/r/

cine-fluoroscopy

Tap

(33)

(34) msc 22-15

Stevens

(2)

(35)

(36)

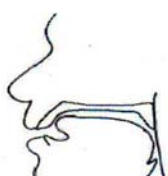
()

sonorant

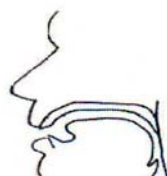
(Tracing papers)



(ɹ)



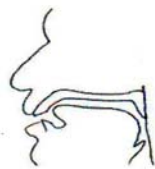
(ɻ)



(l)



(ɹ̥)



(ɻ̥)

:(2)

()

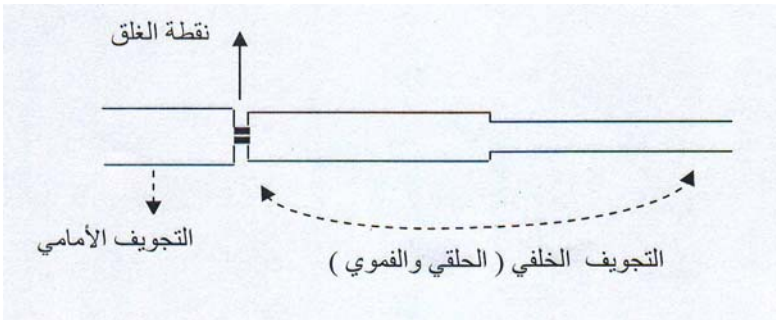
()

()

()

()

(3)



(3)

()

() () ()

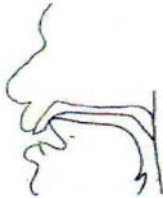
/ri/ /ru/ /ra/

Anterior
(37)
(38)

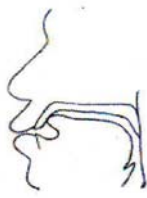
sonorant
(continuant) voiced

High
(coronal)

(4)



(د)



(ج)



(ب)



(ل)

.()

:(4)

" " " " " "

/ri/ /ru/ /ra/ :

—

/r/

(42)

(39)

(43)

(41)

(40)

(44)

()

(132)

()

(13.11-6)	(25-14)	
15	34	
48	20	
0	5	
4	6	
67	65	

(65)

25-14

-6

.(67)

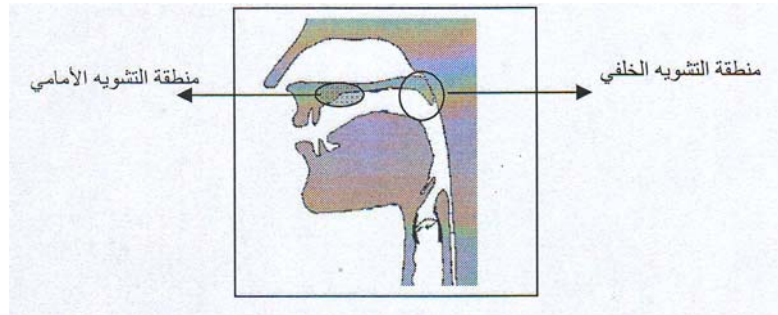
13:11

:

(34)

(15)

(5)



:(5)

-1

"Flap"

(47)

Retroflex flap /ɽ/

*

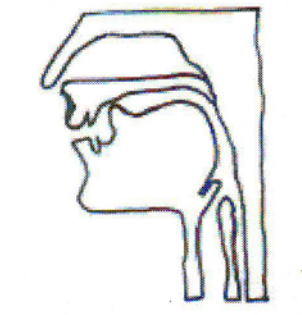
Retroflex /r/

.(6)

Retroflex flap ⁽⁴⁵⁾

.Retroflex approximant /ɻ/⁽⁴⁶⁾

/ɽ/



:(6)

Retroflex approximant /ɭ/

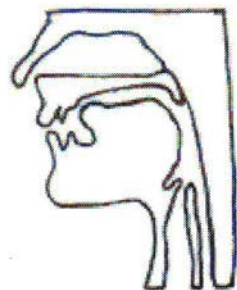
*

" "

" "

— .(7)

— " "

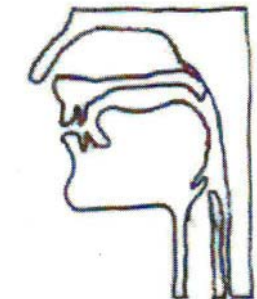


:(7)

Approximant alveolar /ɹ/

-

.(8)



:(8)

:

.(48)''

cine-

20

fluoroscopy

)

.(

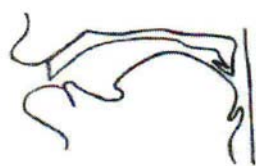
:

:

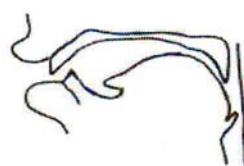
/R/ Uvular Trill

(49)

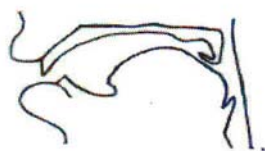
(9)



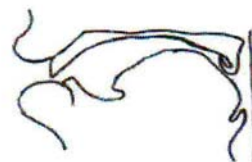
(١)



(١)



(٢)



(٢)

:(9)

()

()

()

()

"

:

" :

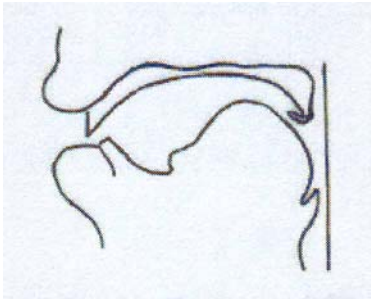
/R/ Uvular approximant

()

IPA

(10)

/ɹ/ :
/R/



:(10)

(13:11-6) :

(25-14)

()

/j/ /ɣ/ /l/

(13:11-6)	(25-14)	
38	9	/l/
4	6	/j/
5	5	/ɣ/
47	20	

⁽⁵⁰⁾(Idiosyncratic) - -

" "

" "

20

"

(52)

(51)"

:

- /r/- (3.6-2)
(6.4-4)

distinctive features

(47)

()

(20) (9) :

/l/ /r/

:

67

()

/r/

(53)

/j/ /ɣ/ /l/

/j/	/ɣ/	/l/	/r/	distinctive features
-	+	+	+	(consonantal)
+	-	+	+	(sonorant) *
-	-	+	+	(anterior)
-	-	+	+	(coronal) /
+	+	+	+	(continuant)
+	+	+	+	(voiced)
-	-	+	-	(lateral)
-	-	-	+	(trill)
6 / 3	6 / 3	2 / 7		/

" :

...

/ʁ/ ((54)„
/r/

_(56)

:()
.()
(65/5)

/j/ /r/ •

)

/j/ (/r/

6.4-4

" : " (20/6)
(47/4)

(57)„

(55)

(25-14)

(13:11-6)

/ʁ/ /r/ •

)

- - . -

. .

()

()

()

.

. .

()
(25-14)

				(25-14)
		+		-1
		+		-2
			+	-3
				-4
				-5
			+	-6

()
(13:11-6)

				(13:11-6)
				-1
				-2
		+		-3
	+			-4

()

manner and place of articulation		Pattern of disordered / r /
Retroflex flap	Retroflex	Frontal distortion
Retroflex approximant		
Approximant alveolar		
Uvular trill		Back distortion
Uvular approximant		
/l/		Substitution
/j/		
/ɣ/		
		Deletion
		Mix

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.254

.154 1

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: (1)

(2)

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$$\begin{array}{rcl}
 .435 & 4 & . \quad (19) \\
 .196 & & : \quad (20) \\
 .131 & . & : \quad (21) \\
 & & : \quad (22) \\
 & .95 & \\
 .60 & 1 & : \quad (23) \\
 & & (24)
 \end{array}$$
$$\begin{array}{rcl} & : & .345 \\ & : & .146 \\ : & & .63 \\ & & \\ & : & 156 \\ & & .177 \end{array} \quad (25)$$

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$$- \quad 2003 \quad : \quad (27)$$

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$$(29)$$
$$\begin{aligned} & \vdots \\ & \vdots \quad .531 \\ & \vdots \end{aligned} \quad (3)$$

.251

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$$\frac{1}{2} : \frac{1}{2} \quad (5)$$

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$$\begin{array}{rcl} 2 & 4 & 1 \\ 2 & & \end{array} \quad \begin{array}{rcl} & & : \\ & & .236 \\ & & .197 \end{array} \quad (7)$$

. 122

$$.49 \quad 2 \quad . \quad : \quad (8)$$

.22-14 : (9)

$$.283 \quad 4-3 \quad 36 \quad 1985 \quad (10)$$
$$\frac{1983}{.117} = 80 \quad (11)$$

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- (39)
- (40)
- (41)
- (42)
- (43)
- (44)
- (45)
- (46)
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- 55 : (34)
- 15msc
- 20msc
- .49
- .22msc CSL
- (35)
- (36)
- (37)
- (38)
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:
.69•84•85•90

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: (54)
.15
: (55) : (51)
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.382 (53)

.2 1960
1425
- 1984
2005
.1
1983 1949
1999 1984
1983
: 2005
.1
- 2003
1985 1992
.4-3 36 1985 2003 4
1983
.80
2006
.3 1985 1990 2000

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- .60 3
- . . .
- 1990
- .4 1
- 2003
- . 1987
- .26-25
- 1996
- .1
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The Articulation Disorders in Producing the Arabic /r/ Descriptive and Analytical Study

*Ibtisam H. Jameel, Hana'a Nawwaf and Jehad Al-Arayfi**

ABSTRACT

This study is concerned with articulation disorders of the Arabic /r/ sound and it is presented in three sections: The first one is the concept of misarticulation in general which is depicted in both the classical and modern linguists' point of view. The second section focuses on the description (criteria) of the normally produced Arabic /r/. The last section tackles the misarticulated /r/ in terms of its various kinds and forms (patterns).

A group of 132 subjects who suffer from (exhibit) difficulties producing the /r/ sound participated in the study. They ranged in age from 6 to 25. All the subjects were monolingual and lived in Jordan. The speech samples were collected from January 1. 2007 to May 30. 2008 at the Center of Phonetic and Research in the University of Jordan, Amman, Jordan. According to the case histories and evaluation reports, the subjects did not have any hearing, Language, Neurological, Anatomical, or physiological problems.

Keywords: Articulation Disorder, Normal /r/, Disordered /r/, Distortion, Substitution, Deletion.

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