

**/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

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/

(7) " :  
- ( 255)

/r/ (6)  
1998

180

[6.4-2]

(8) "

[6.4 -4]

/r/

(9)

6.4

(10) "

(11)

(3.6 -2)

2008-5-30 2007-1-1

(236)

-Sharf

/r/

(132)

(12)

(65)

(67)

(13) "

/r/

Bernthal

:

Bankson

(14)

" :  
(19)"

" "  
(20)"

" "  
(21)"  
" "  
(22)"

/r/

/j/

/ʒ/

/l/

:

(23)

(24)

)

(

/r/

%88.95 /r/

(15)

(1 ) (25)

-%86.4

Ladefoged

-

Flap

" - Maddieson

Retroflex

(16) Trill

Tap  
Approximant

(134)

(17)

%47.5

(26)"

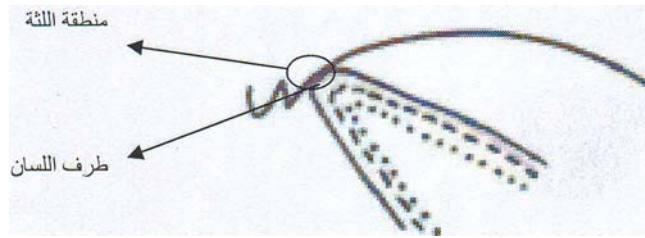
(18)

" :

Jones

(27)»

(28)



:(1)

Flap

-(32)Roach

(31)Catford -

-

-

(29)

Tap

(30)

" " " " " " " " " " :  
 " "  
 " " " "  
 " "

/r/

cine-fluoroscopy

Tap

(33)

(34) msc 22-15

Stevens

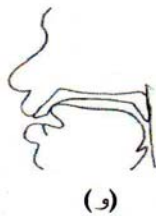
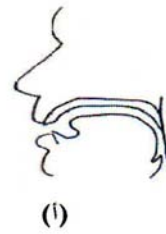
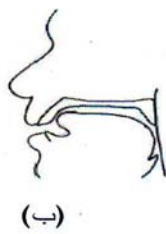
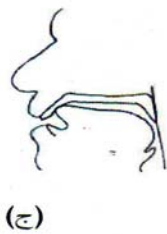
(2) (35)

(36)

( )

sonorant

(Tracing papers)



:(2)

( )

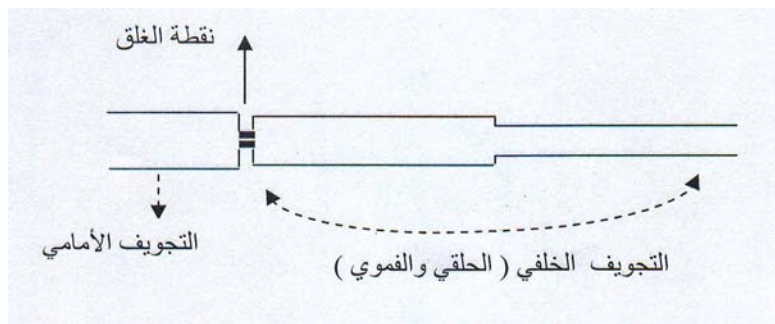
( )

( )

( )

( )

(3)



(3)

( )

( ) ( ) ( )

/ri/ /ru/ /ra/

Anterior  
(37)

sonorant

voiced

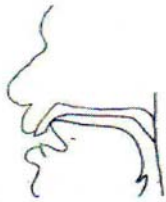
(continuant)

High

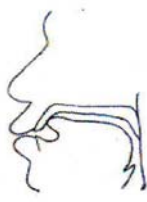
(coronal)

(4)

(38)



(د)



(ج)



(ر)



(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      |  |

-6

(65)

25-14

(67)

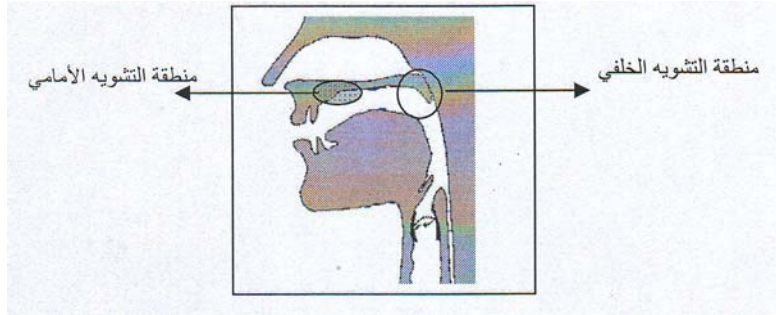
13:11

:

(34)

(15)

(5 )



:(5)

-1

"Flap"

(47)

**Retroflex flap /ɽ/**

\*

**Retroflex /r/**

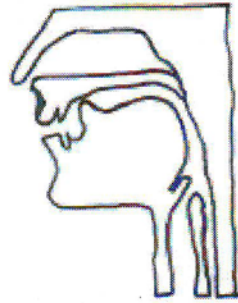
(6 )

Retroflex flap <sup>(45)</sup>

.Retroflex approximant /ɻ/<sup>(46)</sup>

/ɽ/





:(6)

Retroflex approximant /ɻ/

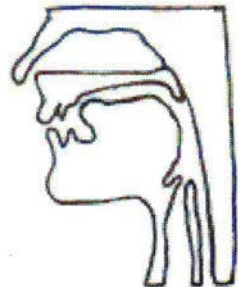
\*

" "

" "

.(7 )

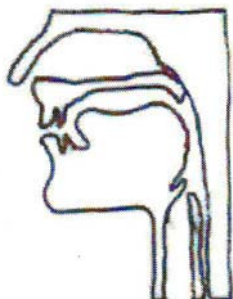
." "



:(7)

Approximant alveolar /ɹ/

(8 )



:(8)

:

(48)»

- - - - -  
- - - - -  
- - - - -  
- - - - -

cine-

20

fluoroscopy

)

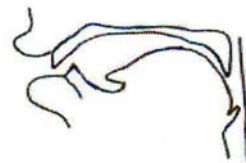
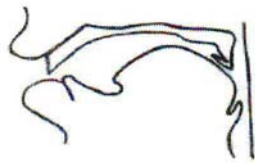
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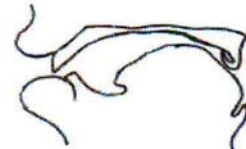
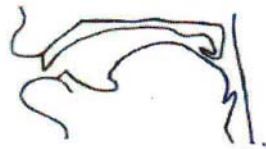
(49)

(9)



(1)

(1)



(2)

(2)

(9)

( )

( )

( )

( )

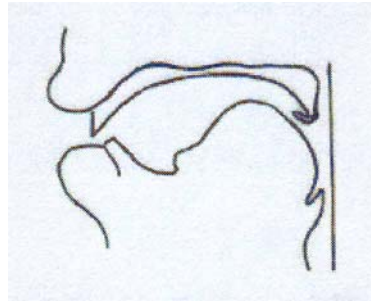
/R/ Uvular approximant

( )

IPA

(10)

/ɹ/: - -  
/R/ " "



:(10)

(13:11-6) : ( ) :

(25-14)

( )

/j/ /ɹ/ /l/

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

<sup>(50)</sup>(Idiosyncratic) - -

" "

" " " " " "

" " " "

(3.6-2)  
 (6.4-4)

(52)

(51)

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 |     | /                    |

/ɣ/

(

(54)»

/r/

\_(56)

:

( )

.( )

(65/5)

/j/

/r/

•

)

/j/

(

/r/

6.4-4

" :"

"

(20/6)

(47/4)

(57)»

(25-14)

:

(55)

(13:11-6 )

/ɣ/

/r/

•

)

- - - - -

( )  
( )  
( )

( )  
**(25-14)**

|  |  |   |   | <b>(25-14)</b> |
|--|--|---|---|----------------|
|  |  | + |   | -1             |
|  |  | + |   | -2             |
|  |  |   | + | -3             |
|  |  |   |   | -4             |
|  |  |   |   | -5             |
|  |  |   | + | -6             |

( )  
**(13:11-6)**

|  |   |   |  | <b>(13:11-6)</b> |
|--|---|---|--|------------------|
|  |   |   |  | -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 | Substitution                |
| Uvular approximant               |                 |                             |
| /l/                              | Deletion        |                             |
| /j/                              |                 |                             |
| /r/                              |                 |                             |
|                                  | Mix             |                             |
|                                  |                 |                             |

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.435 4 : (19)

.196 : (20)

.131 : (21)

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.95 : (23)

.60 1 : (24)

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122 : (12)

: (13)

.49 2 : (8)

.22-14 : (9)

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.283 4-3 36 : (11)

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 - : (57) .acquisition of Arabic consonants.p647  
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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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