**Attributes**

Phn1, 2: previous and succeeding phoneme

Num: number (syllabic position)

Snum: subnumber (sub-syllabic position)

\_cls: phoneme class

\_type: phoneme type

**Questions**

* When do changes happen?
* System error?

**V:**

phn2\_snum=1

| \*=TRUE: P (89.000 out of 89.000) *(The program currently ties ‘\*’ to vowels only)*

| \*=FALSE

| | 3-break=TRUE: P (5.000 out of 5.000)

| | 3-break=FALSE

| | | phn1\_snum=3: P (2.000 out of 3.000)

| | | phn1\_snum=0

| | | | 4-break=FALSE: P (11.000 out of 18.000)

| | | | 4-break=TRUE: P (2.000 out of 2.000)

| | | phn1\_snum=1

| | | | phn1\_type=a

| | | | | phn1\_cls=g: P (9.000 out of 9.000)

| | | | | phn1\_cls=n: P (15.000 out of 16.000)

| | | | | phn1\_cls=s

| | | | | | phn2\_num=1: P (17.000 out of 20.000)

| | | | | | phn2\_num=2: D (1.000 out of 2.000)

| | | | phn1\_type=c

| | | | | lm=Nc: P (2.000 out of 3.000)

| | | | | lm=Fc

| | | | | | phn2\_cls=fs: P (3.000 out of 3.000)

| | | | | | phn2\_cls=fn

| | | | | | | phn1\_cls=fs: D (1.000 out of 2.000)

| | | | | | | phn1\_cls=fu: P (6.000 out of 9.000)

| | | | | | | phn1\_cls=n: D (1.000 out of 2.000)

| | | | | | | phn1\_cls=s: P (5.000 out of 5.000)

| | | | | lm=Fr

| | | | | | phn2\_cls=a: P (4.000 out of 4.000)

| | | | | | phn2\_cls=fs: P (8.000 out of 10.000)

| | | | | | phn2\_cls=fu: P (11.000 out of 16.000)

| | | | | lm=G

| | | | | | 4-break=TRUE: P (2.000 out of 2.000)

| | | | | | 4-break=FALSE

| | | | | | | phn2\_num=1: P (16.000 out of 20.000)

| | | | | | | phn2\_num=2: P (2.000 out of 2.000)

| | | | | lm=Nr

| | | | | | phn2\_num=1: P (13.000 out of 14.000)

| | | | | | phn2\_num=2: P (4.000 out of 4.000)

| | | | | | phn2\_num=3: P (3.000 out of 3.000)

| | | | | lm=Sc

| | | | | | phn1\_cls=g: D (4.000 out of 6.000)

| | | | | | phn1\_cls=n: P (3.000 out of 3.000)

| | | | | | phn1\_cls=s: D (2.000 out of 2.000)

| | | | | lm=Sr

| | | | | | phn1\_num=1: P (14.000 out of 27.000)

| | | | | | phn1\_num=2: D (4.000 out of 4.000)

| | | | phn1\_type=n

| | | | | 4-break=FALSE

| | | | | | phn2\_cls=a: P (14.000 out of 14.000)

| | | | | | phn2\_cls=fs: P (11.000 out of 11.000)

| | | | | | phn2\_cls=fn

| | | | | | | phn1\_num=1: P (2.000 out of 2.000)

| | | | | | | phn1\_num=2: P (3.000 out of 4.000)

| | | | | | phn2\_cls=fu

| | | | | | | phn2\_type=c: P (11.000 out of 15.000)

| | | | | | | phn2\_type=o: P (3.000 out of 3.000)

| | | | | | phn2\_cls=n

| | | | | | | phn2\_type=c: P (20.000 out of 20.000)

| | | | | | | phn2\_type=o: P (6.000 out of 6.000)

| | | | | | | phn2\_type=a

| | | | | | | | phn1\_acnt=0: P (2.000 out of 2.000)

| | | | | | | | phn1\_acnt=1: P (11.000 out of 12.000)

| | | | | | phn2\_cls=s

| | | | | | | phn1\_acnt=2: P (5.000 out of 8.000)

| | | | | | | phn1\_acnt=0

| | | | | | | | phn1\_num=1: P (16.000 out of 16.000)

| | | | | | | | phn1\_num=2: P (6.000 out of 7.000)

| | | | | | | phn1\_acnt=1

| | | | | | | | phn2\_num=0: P (2.000 out of 2.000)

| | | | | | | | phn2\_num=2: P (3.000 out of 5.000)

| | | | | | | | phn2\_num=1

| | | | | | | | | phn2\_type=a: P (4.000 out of 4.000)

| | | | | | | | | phn2\_type=c: P (25.000 out of 27.000)

| | | | | | phn2\_cls=v

| | | | | | | phn1\_num=2: P (29.000 out of 30.000)

| | | | | | | phn1\_num=1

| | | | | | | | phn2\_acnt=0: P (23.000 out of 26.000)

| | | | | | | | phn2\_acnt=1: P (72.000 out of 78.000)

| | | | | | | phn1\_num=3

| | | | | | | | phn1\_acnt=0: D (1.000 out of 2.000)

| | | | | | | | phn1\_acnt=2: P (2.000 out of 2.000)

| | | | | 4-break=TRUE

| | | | | | phn2\_num=2: P (2.000 out of 2.000)

| | | | | | phn2\_num=3: P (2.000 out of 2.000)

| | | | | | phn2\_num=1

| | | | | | | phn2\_acnt=1: P (4.000 out of 4.000)

| | | | | | | phn2\_acnt=2: D (2.000 out of 2.000)

| | | | | | | phn2\_acnt=-1

| | | | | | | | phn2\_type=c: D (1.000 out of 2.000)

| | | | | | | | phn2\_type=a

| | | | | | | | | lm=Nc: P (2.000 out of 2.000)

| | | | | | | | | lm=Sc: D (1.000 out of 2.000)

| | | | phn1\_type=o

| | | | | 4-break=TRUE: P (5.000 out of 5.000)

| | | | | 4-break=FALSE

| | | | | | phn2\_cls=a: P (2.000 out of 2.000)

| | | | | | phn2\_cls=fn: P (21.000 out of 26.000)

| | | | | | phn2\_cls=fs: P (5.000 out of 7.000)

| | | | | | phn2\_cls=fu: P (4.000 out of 4.000)

| | | | | | phn2\_cls=g: P (29.000 out of 33.000)

| | | | | | phn2\_cls=n: P (17.000 out of 17.000)

| | | | | | phn2\_cls=s: P (37.000 out of 42.000)

| | | phn1\_snum=2

| | | | lm=Fc: D (1.000 out of 2.000)

| | | | lm=Nc: P (5.000 out of 5.000)

| | | | lm=Sc: D (2.000 out of 3.000)

phn2\_snum=2

| phn1\_snum=1

| | lm=Fc: P (7.000 out of 7.000)

| | lm=Nc: M (9.000 out of 9.000)

| | lm=Sr: P (3.000 out of 3.000)

| | lm=Sc

| | | phn2\_cls=a: P (2.000 out of 3.000)

| | | phn2\_cls=s

| | | | phn1\_cls=g

| | | | | 4-break=FALSE: P (3.000 out of 5.000)

| | | | | 4-break=TRUE: D (1.000 out of 2.000)

| | | | phn1\_cls=n

| | | | | phn1\_type=a: P (3.000 out of 5.000)

| | | | | phn1\_type=c: D (4.000 out of 5.000)

| phn1\_snum=2

| | 4-break=TRUE: P (2.000 out of 2.000)

| | 4-break=FALSE

| | | phn2\_num=2: D (2.000 out of 2.000)

| | | phn2\_num=3: D (1.000 out of 2.000)

| | | phn2\_num=0

| | | | lm=G: P (8.000 out of 10.000)

| | | | lm=Sr: P (5.000 out of 5.000)

| | | phn2\_num=1

| | | | lm=Fr: P (5.000 out of 5.000)

| | | | lm=G: P (2.000 out of 2.000)

| | | | lm=Sr

| | | | | phn1\_type=a: P (3.000 out of 5.000)

| | | | | phn1\_type=c: D (8.000 out of 13.000)

phn2\_snum=3

| phn1\_num=0: P (4.000 out of 4.000)

| phn1\_num=2: P (2.000 out of 2.000)

| phn1\_num=1

| | lm=Nc: M (1.000 out of 1.000)

| | lm=Sr: D (1.000 out of 2.000)

**G:**

4-break=True: P (5.000 out of 5.000)

4-break=False

| phn2\_type=a: P (10.000 out of 10.000)

| phn2\_type=c

| | phn2\_num=1: P (16.000 out of 20.000)

| | phn2\_num=2: P (2.000 out of 2.000)

| phn2\_type=o

| | phn1\_snum=1: P (29.000 out of 33.000)

| | phn1\_snum=2: P (8.000 out of 10.000)

| | phn1\_snum=3: P (2.000 out of 2.000)

**Nc:**

phn2\_cls=s: M (11.000 out of 11.000)

phn2\_cls=n

| phn2\_type=c: P (22.000 out of 22.000)

| phn2\_type=o: P (20.000 out of 20.000)

| phn2\_type=a

| | 4-break=True: P (2.000 out of 2.000)

| | 4-break=False

| | | phn1\_acnt=0: P (2.000 out of 2.000)

| | | phn1\_acnt=1: P (11.000 out of 12.000)

**Nr:**

phn2\_num=0: P (20.000 out of 20.000)

um=2: P (5.000 out of 5.000)

phn2\_num=3: P (3.000 out of 3.000)

phn2\_num=1

| phn2\_type=a: P (14.000 out of 15.000)

| phn2\_type=c: P (13.000 out of 14.000)

**Fc:**

4-break=True: D (1.000 out of 2.000)

4-break=False

| phn2\_cls=a: P (9.000 out of 9.000)

| phn2\_cls=fn

| | phn1\_acnt=-1: P (15.000 out of 20.000)

| | phn1\_acnt=1

| | | phn1\_num=1: P (2.000 out of 2.000)

| | | phn1\_num=2: P (3.000 out of 4.000)

| phn2\_cls=fs

| | phn1\_snum=1: P (18.000 out of 18.000)

| | phn1\_snum=2: P (2.000 out of 3.000)

| phn2\_cls=fu

| | phn2\_type=c: P (11.000 out of 15.000)

| | phn2\_type=o: P (4.000 out of 4.000)

**Fr:**

phn2\_cls=a: P (9.000 out of 9.000)

phn2\_cls=fn: P (21.000 out of 26.000)

phn2\_cls=fs

| phn2\_type=c: P (12.000 out of 14.000)

| phn2\_type=o: P (6.000 out of 8.000)

phn2\_cls=fu

| phn1\_type=c: P (11.000 out of 16.000)

| phn1\_type=o: P (4.000 out of 4.000)

**Sc:**

phn1\_type=#: D (7.000 out of 10.000)

phn1\_type=a

| phn2\_cls=a: P (2.000 out of 3.000)

| phn2\_cls=s: D (3.000 out of 6.000)

phn1\_type=c

| phn1\_num=2: P (2.000 out of 2.000)

| phn1\_num=3: P (2.000 out of 3.000)

| phn1\_num=1

| | phn1\_cls=n: D (4.000 out of 5.000)

| | phn1\_cls=s: D (4.000 out of 5.000)

| | phn1\_cls=g

| | | phn2\_snum=1: D (4.000 out of 6.000)

| | | phn2\_snum=2

| | | | 4-break=False: P (2.000 out of 3.000)

| | | | 4-break=True: D (1.000 out of 2.000)

phn1\_type=n

| 4-break=True: P (2.000 out of 3.000)

| 4-break=False

| | phn1\_acnt=2: P (5.000 out of 8.000)

| | phn1\_acnt=0

| | | phn1\_num=1: P (17.000 out of 17.000)

| | | phn1\_num=2

| | | | phn2\_num=0: P (5.000 out of 6.000)

| | | | phn2\_num=2: P (2.000 out of 2.000)

| | phn1\_acnt=1

| | | phn1\_num=2: P (4.000 out of 6.000)

| | | phn1\_num=1

| | | | phn2\_type=a: P (4.000 out of 4.000)

| | | | phn2\_type=o: P (2.000 out of 2.000)

| | | | phn2\_type=c

| | | | | phn2\_cls=a: P (2.000 out of 2.000)

| | | | | phn2\_cls=s: P (25.000 out of 27.000)

**Sr:**

phn2\_cls=a: P (9.000 out of 9.000)

phn2\_cls=s

| phn2\_type=a

| | phn1\_num=2: D (2.000 out of 3.000)

| | phn1\_num=1

| | | phn1\_snum=1: P (18.000 out of 21.000)

| | | phn1\_snum=2: P (3.000 out of 5.000)

| phn2\_type=c

| | phn2\_snum=2: D (10.000 out of 16.000)

| | phn2\_snum=3: D (1.000 out of 2.000)

| | phn2\_snum=1

| | | phn1\_num=1: P (14.000 out of 27.000)

| | | phn1\_num=2: D (4.000 out of 4.000)

| phn2\_type=o

| | phn1\_snum=1: P (38.000 out of 43.000)

| | phn1\_snum=2: P (5.000 out of 5.000)