NoSoundChange

Tyler Lau
July 18, 2016

```
f m n
- 82 84 50
a 86 2 0
e 7 1 0
o 1 54 89
os 2 40 2
$AccSg
  f m n
- 0 0 35
a 86 2 0
e 89 85 15
o 3 94 91
$GenSg
   f
       \mathbf{m}
           n
as 86
es 90 139 139
os 2 40
$DatSg
   f
      m
           n
- 0 25
as 86 0
e 18 136 139
es 74 6
s 0 12
$AblSg
   f m n
a 86 0 0
e 89 84 50
o 2 54 89
os 0 40 2
$NomPl
   {\tt f} \quad {\tt m} \quad {\tt n}
as 86 2 0
es 89 85 50
os 3 94 91
$AccPl
```

 ${\tt f} \quad {\tt m} \quad {\tt n}$

[1] "No Sound Change, TokFreqT"

[1] "Trial 1"

\$NomSg

as 86 2 0 es 90 85 50 os 2 40 2 s 0 54 89

\$GenPl

f m n as 86 2 0 es 92 179 141

\$DatPl

f m n as 86 2 0 es 92 179 141

\$AblPl

f m n
as 86 2 0
es 92 139 139
s 0 40 2

[1] "Trial 2"

\$NomSg

f m n - 89 85 50 a 86 2 0 o 3 94 91

\$AccSg

\$GenSg

\$DatSg

f m n - 92 179 141 a 86 2 0

\$AblSg

\$NomPl

f m n

as 86 2 0 s 92 179 141

\$AccPl

f m n as 86 2 0 es 89 85 0 s 3 94 141

\$GenPl

f m n s 178 181 141

\$DatPl

f m n as 86 2 0 s 92 179 141

\$AblPl

f m n as 86 2 0 es 89 85 0 s 3 94 141

[1] "Trial 3"

\$NomSg

f m n
- 82 84 50
a 86 2 0
es 7 1 0
o 3 94 91

\$AccSg

f m n a 86 2 0 e 89 85 50 o 3 94 91

\$GenSg

f m n as 86 2 0 es 89 85 50 s 3 94 91

\$DatSg

f m n a 86 2 0 e 82 84 50 es 7 1 0 s 3 94 91

\$AblSg

e 82 84 50 es 7 1 0 os 3 94 91

\$NomPl

f m n es 178 181 141

\$AccPl

f m n es 178 181 141

\$GenPl

f m n as 86 2 0 es 92 179 141

\$DatPl

f m n as 86 2 0 es 92 179 141

\$AblPl

f m n as 86 2 0 es 92 179 141

[1] "Trial 4"

\$NomSg

f m n - 89 85 50 a 86 2 0 o 3 94 91

\$AccSg

\$GenSg

f m n
as 86 2 0
is 90 139 139
o 0 38 2

\$DatSg

\$AblSg

\$NomPl

f m n - 2 40 2 as 86 2 68 is 89 85 0 s 1 54 71

\$AccPl

f m n
- 2 40 2
as 86 2 139
es 89 85 0
s 1 54 0

\$GenPl

\$DatPl

 f
 m
 n

 aso
 86
 2
 0

 eo
 92
 179
 2

 o
 0
 139

\$AblPl

[1] "Trial 5"

\$NomSg

f m n - 89 85 50 a 86 2 0 o 3 94 91

\$AccSg

f m n - 0 0 50 a 86 2 0 e 89 85 0

o 3 94 91

\$GenSg

f m n as 86 2 0 s 92 179 141

\$DatSg

f m n a 86 2 0 e 89 85 0 s 3 94 141

\$AblSg

\$NomPl

f m n as 86 2 0 s 92 179 141

\$AccPl

f m n as 86 2 0 s 92 179 141

\$GenPl

f m n as 86 2 0 s 92 179 141

\$DatP1

f m n as 86 2 0 s 92 179 141

\$AblPl

f m n as 86 2 0 s 92 179 141

[1] "Trial 6"

\$NomSg

f m n
- 0 0 50
a 86 2 0
es 89 85 0
o 3 94 91

\$AccSg

\$GenSg

f m n a 86 2 0 e 9 1 50 es 82 84 0 i 1 94 91

\$DatSg

f m n a 86 2 0 e 90 85 50 i 2 94 91

\$AblSg

\$NomPl

f m n - 3 94 141 a 86 2 0 es 89 85 0

\$AccPl

f m n
- 3 94 141
a 86 2 0
es 87 85 0

\$GenPl

f m n a 86 2 0 e 91 179 141

\$DatPl

f m n a 86 2 0 e 92 179 141

\$AblPl

f m n
- 3 94 141
a 86 2 0
e 26 3 0
es 63 82 0

[1] "Trial 7"

\$NomSg

f m n
- 82 84 50

a 86 2 0

e 7 1 0

o 1 54 89

os 2 40 2

\$AccSg

f m n

a 86 2 0

e 89 85 50

o 3 94 91

\$GenSg

f m n

as 86 2 0

e 90 139 139

os 2 40 2

\$DatSg

f m n

as 86 2 0

e 90 139 139

os 2 40 2

\$AblSg

f m n

a 86 2 0

e 89 85 50

o 1 54 89

os 2 40 2

\$NomPl

f m n

as 86 2 50

e 0 85 0

es 90 54 0

os 2 40 2

s 0 0 89

\$AccPl

f m n

as 86 2 139

e 1 139 0

es 89 0 0

os 2 40 2

\$GenPl

f m

as 86 2 0

e 92 179 141

\$DatPl

f m n as 86 2 0 e 92 179 141

\$AblPl

f m n
as 86 2 0
e 90 139 0
es 0 0 139
os 2 40 2

[1] "Trial 8"

\$NomSg

f m n - 89 85 50 a 86 2 0 o 3 94 91

\$AccSg

f m n a 86 2 0 e 89 85 50 o 3 94 91

\$GenSg

f m n
a 86 2 0
e 1 54 89
es 89 85 50
o 2 40 2

\$DatSg

f m n a 86 2 0 es 89 85 49 o 3 94 91

\$AblSg

f m n a 86 2 0 e 89 85 50 o 3 94 91

\$NomPl

f m n a 86 2 0 e 2 40 2 es 90 139 139

\$AccPl

e 1 54 89 es 89 85 50

o 2 40 2

\$GenPl

f m n ao 86 2 0 o 92 179 141

\$DatPl

f m n ao 86 2 0 o 92 179 141

\$AblPl

f m n a 86 2 0 e 0 40 2 es 92 139 139

[1] "Trial 9"

\$NomSg

\$AccSg

\$GenSg

f m n a 86 2 0 e 92 179 141

\$DatSg

f m n a 86 2 0 e 92 179 141

\$AblSg

\$NomPl

f m n

- a 176 141 139 e 2 40 2
- \$AccPl
- f m n 0 33 0
- a 87 2 139 e 91 146 2
- \$GenPl
- f m n
- 90 124 139
- a 86 2 0
- e 2 55 2
- \$DatPl
- f m n
- 0 0 105
- a 86 2 0
- e 92 179 36
- \$AblPl
- f m n
- a 86 2 0
- e 92 179 141
- [1] "Trial 10"
- \$NomSg
- f m n
- 89 85 50
- a 86 2 0
- o 3 94 91
- \$AccSg
- f m n
- 0 0 50
- a 86 2 0
- e 89 85 0
- o 3 94 91
- \$GenSg
- f m n a 86 2 0
- e 92 179 141
- \$DatSg
- f m n
- a 86 2 0
- e 92 179 141
- \$AblSg
- f m n
- 3 0 50
- a 86 2 0

- e 89 85 0 o 0 94 91
- \$NomPl
- f m n - 92 179 141 a 86 2 0
- \$AccPl
- f m n - 3 94 141
- a 86 2 0
- e 89 85 0

\$GenPl

- f m n a 86 2 0
- e 92 179 141

\$DatPl

- $\begin{array}{cccc} & \text{f} & \text{m} & \text{n} \\ \text{a 86} & \text{2} & \text{0} \end{array}$
- e 92 179 141

\$AblPl

- ${\tt f} \quad {\tt m} \quad {\tt n}$
- 3 94 141 a 86 2 0
- e 89 85 0
- [1] "Trial 11"

\$NomSg

- f m n
- 89 85 50
- a 86 2 0
- o 3 94 91

\$AccSg

- f m n
- 0 0 50
- a 86 2 0
- e 89 85 0
- o 3 94 91

\$GenSg

- f m n
- 33 22 50
- a 86 2 0
- e 56 63 0
- o 3 94 91

\$DatSg

- f m n
- 0 0 50

- a 86 2 0
- e 89 85 0
- o 3 94 91

\$AblSg

- f m n
- 0 0 50
- a 86 2 0
- e 89 85 0
- o 3 94 91

\$NomPl

- f m n
- 3 94 91
- a 86 2 50
- es 89 85 0

\$AccPl

- f m n
- 3 94 91
- a 86 2 50
- es 89 85 0

\$GenPl

- f m n
- 3 94 141
- a 86 2 0
- es 89 85 0

\$DatP1

- f m n
- 3 94 141
- a 86 2 0
- es 89 85 0

\$AblPl

- f m n
- 3 94 141
- a 86 2 0
- es 89 85 0

[1] "Trial 12"

\$NomSg

- f m n
- 89 85 50
- a 86 2 0
- o 3 94 91

\$AccSg

- f m n
- 0 0 50
- a 86 2 0
- e 89 85 0
- o 3 94 91

\$GenSg

f m n a 86 2 0 e 92 179 141

\$DatSg

f m n a 86 2 0 e 92 179 141

\$AblSg

f m n a 86 2 0 e 89 85 50 o 3 94 91

\$NomPl

f m n as 86 2 0 s 92 179 141

\$AccPl

f m n
- 3 94 91
as 86 2 0
es 89 85 0
s 0 0 50

\$GenPl

f m n - 86 2 0 e 92 179 141

\$DatPl

f m n -86 2 0 e92 179 141

\$AblPl

f m n -86 2 0 e92 179 141

[1] "Trial 13"

\$NomSg

f m n - 89 85 50 a 86 2 0 o 3 94 91

\$AccSg

f m n
- 0 0 50

a 86 2 0 e 89 85 0

o 3 94 91

\$GenSg

f m n a 86 2 0 e 92 179 141

\$DatSg

f m n a 86 2 0 e 92 179 141

\$AblSg

f m n a 86 2 0 e 89 85 50 o 3 94 91

\$NomPl

f m n - 92 179 2 a 86 2 139

\$AccPl

f m n - 1 94 2 a 86 2 139 e 91 85 0

\$GenPl

f m n e 86 2 0 i 92 179 141

\$DatPl

f m n e 86 2 0 i 92 179 141

\$AblPl

f m n e 86 2 0 i 92 179 141

[1] "Trial 14"

\$NomSg

f m n a 86 2 0 e 89 82 49 o 3 94 91

\$AccSg

f m n a 86 2 0 e 89 85 50 o 3 94 91

\$GenSg

f m n a 86 2 0 e 0 38 2 es 92 141 139

\$DatSg

f m n a 86 2 0 e 3 94 91 es 89 85 50

\$AblSg

f m n a 86 2 0 e 89 85 50 o 1 94 91

\$NomPl

\$AccPl

f m n - 3 92 91 a 86 2 0 e 89 85 50

\$GenPl

f m n a 86 2 0 es 92 179 141

\$DatPl

f m n a 86 2 0 e 0 6 0 es 92 173 141

\$AblPl

f m n
- 2 40 2
a 86 2 0
es 89 85 50
s 1 54 89

[1] "Trial 15"

\$NomSg

f m n

- 89 85 50

a 86 2 0 o 3 94 91

\$AccSg

f m n

a 86 2 0

e 89 85 50

o 3 94 91

\$GenSg

f m n

- 3 0 27

a 86 2 0

e 0 94 90

es 84 85 11

s 5 0 13

\$DatSg

 ${\tt f} \quad {\tt m} \quad {\tt n}$

- 3 52 2

a 86 2 0

e 89 127 139

\$AblSg

f m n

a 86 2 0

e 89 85 50

o 3 94 91

\$NomPl

f m n

- 3 94 91

a 86 2 0

es 86 76 0

s 3 9 50

\$AccPl

f m n

- 0 94 53

a 89 2 82

e 89 85 6

\$GenPl

f m n

- 1 54 89

a 86 2 0

es 91 125 51

\$DatPl

f m n - 3 94 141 a 86 2 0

e 88 85 0

\$AblPl

f m n - 3 91 139 a 86 2 0 es 89 85 0

[1] "Trial 16"

\$NomSg

f m n - 89 85 50 a 86 2 0 o 3 94 91

\$AccSg

\$GenSg

f m n a 86 2 0 i 92 179 141

\$DatSg

f m n a 86 2 0 i 92 179 141

\$AblSg

\$NomPl

f m n as 86 2 0 s 92 179 141

\$AccPl

f m n
- 3 94 91
as 86 2 0
es 89 85 0
s 0 0 50

\$GenPl

f m n a 86 0 0 i 92 179 141

\$DatPl

f m n a 86 2 0 i 92 179 141

\$AblPl

f m n i 178 181 141

[1] "Trial 17"

\$NomSg

f m n - 89 85 50 a 86 2 0 o 3 94 91

\$AccSg

\$GenSg

f m n - 0 39 2 i 0 54 89 s 177 88 50

\$DatSg

\$AblSg

\$NomPl

f m n s 178 181 141

\$AccPl

f m n as 86 2 0 es 89 85 0 s 3 94 141

\$GenPl

f m n eo 91 125 52 es 0 0 7 s 87 56 82

\$DatPl

f m n eo 91 125 52 s 87 56 89

\$AblPl

f m n eo 91 125 52 s 87 56 89

[1] "Trial 18"

\$NomSg

f m n - 89 85 50 a 86 2 0 o 3 94 91

\$AccSg

f m n a 86 2 0 e 89 85 50 o 3 94 91

\$GenSg

\$DatSg

f m n a 86 2 0 e 90 139 141 o 2 40 0

\$AblSg

f m n a 86 2 0 e 89 85 50 o 3 94 91

\$NomPl

f m n - 783139

a 86 2 0

o 2 40 2

s 83 56 0

\$AccPl

f m n
- 43 127 139

- 43 127 139

a 86 2 0 o 2 40 2

s 47 12 0

\$GenPl

f m n

- 92 179 141

a 86 2 0

\$DatPl

f m n

- 92 179 141

a 86 2 0

\$AblPl

f m n

a 32 1 0

as 54 1 0

es 90 136 109

os 2 40 2

s 0 3 30

[1] "Trial 19"

\$NomSg

f m n

- 82 84 50

a 86 2 0

e 7 1 0

o 3 94 91

\$AccSg

f m n

a 86 2 0

e 89 85 50

o 3 94 91

\$GenSg

f m n

- 1 54 89

a 86 2 0

e 89 85 50

o 2 40 2

\$DatSg

f m n

- 7 55 137
- a 86 2 0
- e 83 84 2
- o 2 40 2

\$AblSg

- f m n
- a 86 2 0
- e 89 85 50
- o 2 94 91

\$NomPl

- f m n
- 6 64 106
- a 90 3 35
- e 82 84 0
- o 0 30 0

\$AccPl

- f m n
- 1 105 0
- a 93 3 139
- e 82 33 0
- o 2 40 2

\$GenPl

- f m n
- 0 0 81
- a 93 3 58
- e 85 178 2

\$DatPl

- f m n
- 76 110 0
- a 93 3 139 e 9 68 2

\$AblPl

- f m n
- 2 84 107
- a 93 3 34
- e 83 94 0

[1] "Trial 20"

\$NomSg

- f m n
- 89 85 50
- a 86 2 0
- o 3 94 91

\$AccSg

- f m n
- a 86 2 0
- e 89 85 50

o 3 94 91

\$GenSg

f m n a 86 2 0 e 83 119 133 es 9 60 4

\$DatSg

f m n a 86 2 0 e 92 179 141

\$AblSg

f m n a 86 2 0 e 89 85 50 o 3 94 91

\$NomPl

\$AccPl

f m n - 1 54 89 a 86 2 0 e 89 122 52

\$GenPl

f m n
- 86 132 139
a 86 2 0
es 2 40 2
s 4 7 0

\$DatPl

f m n
- 85 116 139
a 86 2 0
e 0 11 0
es 2 42 2
s 5 10 0

\$AblPl

f m n a 86 2 0 e 53 53 120 es 39 126 21

[1] "Trial 21"

\$NomSg

f m n - 89 85 50 a 86 2 0

o 3 94 91

\$AccSg

f m n a 86 2 0 e 89 85 50 o 3 94 91

\$GenSg

f m n a 86 2 0 e 9 95 91 es 83 84 50

\$DatSg

f m n a 86 2 0 e 89 85 50 o 3 94 91

\$AblSg

f m n a 86 2 0 e 89 85 50 o 2 94 91

\$NomPl

f m n a 86 2 0 e 3 94 91 es 89 85 50

\$AccPl

f m n
- 1 54 89
es 175 87 50
o 2 40 2

\$GenPl

f m n a 86 2 0 e 3 94 91 es 89 85 50

\$DatPl

f m n as 86 2 0 e 3 94 91 es 89 85 50

\$AblPl

f m n a 86 2 0 e 3 94 91

es 89 85 50

[1] "Trial 22"

\$NomSg

f m n

- 89 85 50

a 86 2 0

o 3 94 91

\$AccSg

f m n

- 0 0 50

a 86 2 0

e 89 85 0

o 3 94 91

\$GenSg

f m n

- 3 94 91

as 86 2 0

s 89 85 50

\$DatSg

f m n

- 1 33 0

a 86 2 0

e 89 85 0

o 2 61 91

s 0 0 50

\$AblSg

f m n

- 0 0 50

a 86 2 0

e 89 85 0

o 3 94 91

\$NomPl

f m n as 86 2 0

s 92 179 141

\$AccPl

f m n

- 0 15 88

as 86 2 0

es 89 85 0 s 3 79 53

\$GenPl

f m n as 86 2 0 s 92 179 141

\$DatPl

f m n as 86 2 0 es 89 85 0 s 3 94 141

\$AblPl

f m n as 86 2 0 es 89 85 0 s 3 94 141

[1] "Trial 23"

\$NomSg

f m n - 82 84 50 a 86 2 0 e 7 1 0 o 3 94 91

\$AccSg

f m n a 86 2 0 e 89 85 50 o 3 94 91

\$GenSg

\$DatSg

f m n a 86 2 0 e 90 139 139 o 2 40 2

\$AblSg

f m n a 86 2 0 e 89 85 50 o 3 94 91

\$NomPl

f m n
- 1 54 89
a 0 0 50
es 175 87 0

o 2 40 2

\$AccPl

\$GenPl

f m n
- 2 39 2 a 86 2 50 e 90 139 89

\$DatPl

f m n a 86 2 50 e 92 179 91

\$AblPl

f m n a 86 2 50 e 90 139 89 o 2 40 2

[1] "Trial 24"

\$NomSg

f m n - 89 85 50 a 86 2 0 o 3 94 91

\$AccSg

- 92 179 141 a 86 2 0

\$DatSg

f m n - 3 94 141 a 86 2 0 e 89 85 0

\$AblSg

f m n

- 2 0 50
- a 86 2 0
- e 89 85 0
- o 1 94 91

\$NomPl

- f m n
- 92 179 141
- a 86 2 0

\$AccPl

- f m n
- 3 94 141
- es 175 87 0

\$GenPl

- f m n
- 92 179 141
- a 86 2 0

\$DatPl

- f m n
- 3 94 141
- a 86 2 0
- e 89 85 0

\$AblPl

- f m n
- 3 94 141
- a 86 2 0
- e 89 85 0
- [1] "Trial 25"

\$NomSg

- f m n
- 89 85 50
- a 86 2 0
- o 3 94 91

\$AccSg

- f m n
- 1 0 50
- a 86 2 0
- e 89 85 0
- o 2 94 91

\$GenSg

- f m n
- a 86 2 0
- es 92 179 141

\$DatSg

f m n a 86 2 0

es 92 179 141

\$AblSg

f m n a 86 2 0 e 89 85 50 o 3 94 91

\$NomPl

f m n - 0 0 89 a 86 2 50 es 91 125 2 s 1 54 0

\$AccPl

f m n - 1 54 2 a 86 2 137 es 91 125 2

\$GenPl

f m n a 86 2 0 es 92 179 141

\$DatPl

f m n a 86 2 0 es 92 179 141

\$AblPl

f m n a 86 2 0 es 92 179 141

[1] "Trial 26"

\$NomSg

f m n - 89 85 50 a 86 2 0 o 3 94 91

\$AccSg

f m n a 86 2 0 e 89 85 50 o 3 94 91

\$GenSg

f m n a 86 2 0 es 86 179 141 s 6 0 0

\$DatSg

\$AblSg

f m n a 86 2 0 e 89 85 50 o 3 94 91

\$NomPl

f m n - 9 40 2 a 87 56 89 s 82 85 50

\$AccPl

f m n - 2 40 2 a 87 56 89 e 89 85 50

\$GenPl

f m n eo 91 86 51 eso 0 39 1 o 87 56 89

\$DatPl

f m n eo 91 125 52 o 87 56 89

\$AblPl

f m n eo 91 125 52 o 87 56 89

[1] "Trial 27"

\$NomSg

f m n - 89 85 50 a 86 2 0 o 3 94 91

\$AccSg

f m n a 86 2 0 e 89 85 50 o 3 94 91

\$GenSg

f m n a 86 2 0 e 92 179 141

\$DatSg

f m n - 89 85 50 a 86 2 0 o 3 94 91

\$AblSg

f m n a 86 2 0 e 89 85 50 o 3 94 91

\$NomPl

f m n - 92 179 141 a 86 2 0

\$AccPl

f m n - 3 94 91 a 86 2 0 e 89 85 50

\$GenPl

f m n - 92 179 141 a 86 2 0

\$DatPl

f m n - 92 179 141 a 86 2 0

\$AblPl

f m n - 92 179 141 a 86 2 0

[1] "Trial 28"

\$NomSg

f m n - 89 86 50 a 86 1 0 o 3 94 91

\$AccSg

f m n - 0 0 50 a 86 2 0 e 89 85 0

o 3 94 91

\$GenSg

f m n - 92 180 141 a 86 1 0

\$DatSg

f m n - 3 94 141 a 86 2 0 e 89 85 0

\$AblSg

f m n - 0 0 50 a 86 0 0 e 89 84 0 o 3 94 91

\$NomPl

f m n - 92 181 141 a 86 0 0

\$AccPl

f m n - 3 95 141 a 86 1 0 e 89 85 0

\$GenPl

f m n - 92 181 141 a 86 0 0

\$DatPl

f m n - 3 95 141 a 86 1 0 e 89 85 0

\$AblPl

f m n eo 178 181 141

[1] "Trial 29" \$NomSg

f m n - 89 85 50 a 86 2 0 o 3 94 91

\$AccSg

f m n a 86 2 0 e 89 85 50 o 3 94 91

\$GenSg

\$DatSg

\$AblSg

f m n a 86 2 0 e 89 85 50 o 3 94 91

\$NomPl

f m n - 0 0 89 a 86 2 0 e 92 179 52

\$AccPl

f m n - 0 54 0 a 86 2 89 e 92 125 52

\$GenPl

f m n - 0 0 89 a 86 2 0 e 92 179 52

\$DatPl

f m n - 0 54 0 a 86 2 89 e 92 125 52

\$AblPl

f m n a 86 2 0 e 92 179 141

[1] "Trial 30" \$NomSg

f m n - 82 84 50

a 86 2 0

o 3 94 91

s 7 1 0

\$AccSg

f m n

- 0 0 50

a 86 2 0 e 89 85 0

o 3 94 91

\$GenSg

f m n

a 86 2 0

s 92 179 141

\$DatSg

f m n

- 2 49 138

a 86 2 0

e 82 84 0

es 7 1 0

s 1 41 1

\$AblSg

f m n

- 0 0 50

a 86 2 0

e 82 84 0

es $7 \ 1 \ 0$

o 3 94 91

\$NomPl

f m n

a 86 2 0

s 92 179 141

\$AccPl

f m n

a 86 2 0

es 89 85 0

s 3 94 141

\$GenPl

f m n

a 84 1 0

s 92 179 141

\$DatPl

f m n

a 86 2 0

es 89 85 0

s 3 94 141

\$AblPl

f m n a 86 2 0 es 89 85 0 s 3 94 141

[1] "Trial 31"

\$NomSg

f m n - 0 0 50 a 86 2 0 e 89 85 0 o 3 94 91

\$AccSg

\$GenSg

f m n a 86 2 0 e 92 179 141

\$DatSg

f m n a 86 2 0 e 92 179 141

\$AblSg

\$NomPl

f m n a 86 1 0 es 89 85 0 s 3 94 141

\$AccPl

f m n a 86 2 0 es 89 85 0 s 3 94 141

\$GenPl

f m n

a 86 2 0 e 92 179 141

\$DatPl

f m n a 86 2 0 e 92 179 141

\$AblPl

f m n a 86 2 0 e 92 179 141

[1] "Trial 32"

\$NomSg

f m n - 89 85 50 a 86 2 0 o 3 94 91

\$AccSg

\$GenSg

f m n - 82 2 0 e 86 179 141 s 10 0 0

\$DatSg

f m n - 90 2 0 e 86 179 141

\$AblSg

f m n a 85 2 0 e 89 85 50 o 3 94 91

\$NomPl

f m n
- 3 94 2
a 0 0 139
as 86 2 0
s 89 85 0

\$AccPl

f m n
- 3 94 2

- a 0 0 139 as 86 2 0
- es 89 85 0

\$GenPl

- f m n a 82 2 0
- e 71 179 141
- es 15 0 0
- s 6 0 0

\$DatPl

- f m n
- a 55 2 0
- as 31 0 0
- e 10 179 141
- es 76 0 0
- s 6 0 0

\$AblPl

- f m n
- e 0 94 141
- es 104 87 0
- s 74 0 0

[1] "Trial 33"

\$NomSg

- f m n
- 0 0 50
- a 86 2 0
- e 89 85 0
- o 3 94 91

\$AccSg

- f m n
- 0 0 50 a 86 2 0
- e 89 85 0
- o 3 94 91

\$GenSg

- f m n
- 0 8 0
- as 86 2 0
- e 1 59 91
- es 89 88 50
- s 2 24 0

\$DatSg

- f m n a 86 2 0
- e 90 158 141
- o 2 21 0

\$AblSg

f m n - 0 0 50 a 86 2 0

e 89 85 0 o 3 94 91

\$NomPl

f m n as 86 2 0 es 89 85 0 s 3 94 141

\$AccPl

f m n
as 86 2 0
es 89 85 0
s 3 94 141

\$GenPl

f m n
as 86 2 0
es 90 174 141
s 2 5 0

\$DatPl

f m n as 86 2 0 es 90 179 141

\$AblPl

f m n as 86 2 0 es 89 85 0 s 3 94 141

[1] "Trial 34"

\$NomSg

f m n
a 86 2 0
o 1 54 89
os 2 40 2
s 89 85 50

\$AccSg

\$GenSg

f m n as 40 0 0

es 92 179 67 s 46 2 74

\$DatSg

f m n as 86 2 0 es 92 179 53 s 0 0 88

\$AblSg

\$NomPl

f m n as 86 2 0 s 92 179 141

\$AccPl

f m n
as 86 2 4
es 90 85 0
s 2 94 137

\$GenPl

f m n
as 86 2 4
es 88 138 33
s 4 41 104

\$DatPl

f m n as 86 2 31 es 85 127 12 s 7 52 98

\$AblPl

f m n as 86 2 0 es 90 85 0 s 2 94 141

[1] "Trial 35"

\$NomSg

f m n - 89 85 50 a 86 2 0 o 3 94 91

\$AccSg

f m n a 86 2 0 e 89 85 50 o 3 94 91

\$GenSg

f m n
as 83 0 0
es 89 84 50
i 0 54 89
s 3 40 2

\$DatSg

f m n a 86 2 0 e 89 85 50 o 3 94 91

\$AblSg

f m n a 86 2 0 e 89 85 50 o 3 94 91

\$NomPl

f m n as 86 2 0 s 92 179 141

\$AccPl

f m n as 86 2 0 es 89 85 50 s 3 94 91

\$GenPl

f m n
bos 86 2 0
ebos 89 85 50
s 3 94 91

\$DatPl

f m n as 86 2 0 es 89 85 50 s 3 94 91

\$AblPl

f m n
bos 86 2 0
ebos 89 85 50
s 3 94 91

[1] "Trial 36"

\$NomSg

f m n - 89 85 50 a 86 2 0

o 3 94 91

\$AccSg

f m n - 0 0 50 a 86 2 0

e 89 85 0

o 3 94 91

\$GenSg

f m n as 86 2 0 s 92 179 141

\$DatSg

f m n as 86 2 0 s 92 179 141

\$AblSg

\$NomPl

f m n as 86 2 0 s 92 179 141

\$AccPl

f m n
as 86 2 0
es 89 85 0
s 3 94 141

\$GenPl

f m n as 86 2 0 s 92 179 141

\$DatPl

f m n as 86 2 0 s 92 179 141

\$AblPl

es 89 85 0 s 3 94 141

[1] "Trial 37"

\$NomSg

f m n - 89 85 50

a 86 2 0

o 3 94 91

\$AccSg

f m n

a 86 2 0

e 89 85 50

o 3 94 91

\$GenSg

f m n

a 86 2 0

e 92 179 141

\$DatSg

f m n

a 86 2 0

e 92 179 141

\$AblSg

f m n

a 86 2 0

e 89 85 50

o 3 94 91

\$NomPl

f m n

- 3 94 91

a 86 1 0

es 89 85 50

\$AccPl

f m n

- 3 94 91

a 86 2 0

es 89 85 50

\$GenPl

f m n a 86 2 0

e 92 179 141

\$DatPl

f m n

a 86 2 0

e 92 179 141

\$AblPl

f m n a 86 2 0 e 92 179 141

[1] "Trial 38"

\$NomSg

f m n - 89 85 50 a 86 2 0

o 3 94 91

\$AccSg

\$GenSg

f m n
- 3 94 91
a 11 0 0
as 75 2 0
s 89 85 50

\$DatSg

f m n - 3 94 91 a 86 2 0 s 89 85 50

\$AblSg

\$NomPl

f m n - 3 93 91 as 86 1 0 s 89 87 50

\$AccPl

\$GenPl

f m n s 178 181 141

\$DatPl

f m n as 86 1 0 s 92 180 141

\$AblPl

[1] "Trial 39"

\$NomSg

f m n - 89 85 50 a 86 2 0 o 3 94 91

\$AccSg

\$GenSg

f m n a 86 2 0 e 92 179 141

\$DatSg

f m n a 86 2 0 e 92 179 141

\$AblSg

\$NomPl

f m n
- 87 131 0
a 86 2 139
es 2 40 0
s 3 8 2

\$AccPl

f m n

- 1 54 0 a 86 2 139 e 89 85 0
- es 2 40 0

\$GenPl

- f m n - 6 0 139
- a 86 2 0
- e 85 179 2

\$DatPl

- f m n
- 2 0 139
- a 86 2 0
- e 90 179 2

\$AblPl

- f m n - 0 0 137
- a 86 2 0
- es 91 125 0
- s 1 54 4

[1] "Trial 40"

\$NomSg

- f m n
- 89 85 50
- a 86 2 0
- o 3 94 91

\$AccSg

- f m n
- 0 0 50
- a 86 2 0
- e 89 85 0
- o 3 94 91

\$GenSg

- f m n
- 3 94 91
- a 86 2 0
- s 89 85 50

\$DatSg

- f m n
- 3 94 91
- a 86 2 0
- e 89 85 0
- s 0 0 50

\$AblSg

- f m n
- a 86 2 0

- e 89 85 0
- o 3 94 91
- s 0 0 50

\$NomPl

- ${\tt f} \quad {\tt m} \quad {\tt n}$
- a 86 2 0
- s 92 179 141

\$AccPl

- f m n
- a 86 2 0
- e 89 85 0
- s 3 94 141

\$GenPl

- f m n
- a 86 2 0
- s 92 179 141

\$DatPl

- f m n
- a 86 2 0
- e 89 85 0
- s 3 94 141

\$AblPl

- f m n
- a 86 2 0
- e 89 85 0
- s 3 94 141

[1] "Trial 41"

\$NomSg

- f m n
- 89 85 50
- a 86 2 0
- o 3 94 91

\$AccSg

- f m n
- a 86 2 0
- e 89 85 50
- o 3 94 91

\$GenSg

- ${\tt f} \quad {\tt m} \quad {\tt n}$
- 70 117 134
- a 84 0 0
- e 24 64 7

\$DatSg

- f m n
- 1 54 89

a 86 2 0 e 91 125 52

\$AblSg

f m n a 86 1 0 e 89 85 50

o 3 94 91

\$NomPl

f m n - 91 125 52 a 87 56 89

\$AccPl

f m n - 88 105 49 a 87 57 89 e 3 19 3

\$GenPl

f m n - 76 117 129 a 85 9 8 e 17 55 4

\$DatPl

f m n - 70 104 96 a 87 31 41 e 21 46 4

\$AblPl

f m n -80 13 6 e98 168 135

[1] "Trial 42"

\$NomSg

f m n - 89 85 50 a 86 2 0 o 3 94 91

\$AccSg

\$GenSg

f m n
- 90 139 139

a 86 2 0 o 2 40 2

\$DatSg

f m n - 1 54 139 a 86 2 0 e 89 85 0 o 2 40 2

\$AblSg

\$NomPl

f m n
- 7 54 139
a 86 2 0
o 2 40 2
s 83 85 0

\$AccPl

\$GenPl

f m n
- 7 32 141
a 86 2 0
s 85 147 0

\$DatPl

f m n - 92 170 141 a 86 2 0 s 0 5 0

\$AblPl

f m n - 6 0 48 a 86 2 0 s 86 179 93

[1] "Trial 43" \$NomSg f m n a 86 2 0 o 0 54 89

u 2 40 2

\$AccSg

f m n
- 90 85 50

a 86 2 0

o 0 54 89

u 2 40 2

\$GenSg

f m n a 86 2 0

e 89 139 139

u 2 40 2

\$DatSg

 $\begin{array}{ccccc} & \text{f} & \text{m} & \text{n} \\ \text{a 86} & \text{2} & \text{0} \end{array}$

e 89 139 139

u 2 40 2

\$AblSg

f m n

a 86 2 0

e 89 85 50

o 0 54 89

u 2 40 2

\$NomPl

f m n

- 1 54 89

a 86 2 0

e 0 0 50

es 89 85 0

u 2 40 2

\$AccPl

f m n

- 1 54 89

a 86 2 0

e 0 0 50

es 89 85 0

u 2 40 2

\$GenPl

f m n

a 86 2 0

e 89 139 139 u 2 40 2

\$DatPl

f m n

- a 86 2 0 e 89 139 139
- u 2 40 2

\$AblPl

- f m n a 86 2 0 e 89 139 139
- u 2 40 2

[1] "Trial 44"

\$NomSg

- f m n
- 89 85 50
- a 86 2 0
- o 3 94 91

\$AccSg

- f m n
- 0 0 50
- a 86 2 0
- e 89 85 0
- o 3 94 91

\$GenSg

- f m n
- 3 94 141 a 86 2 0
- e 89 85 0

\$DatSg

- f m n
- 3 94 141
- a 86 2 0
- e 89 85 0

\$AblSg

- f m n
- 3 0 50
- a 86 2 0
- e 89 85 0
- o 0 94 91

\$NomPl

- f m n - 92 179 141
- a 86 2 0

\$AccPl

- ${\tt f} {\tt m} {\tt n}$
- 3 94 2
- a 86 2 139 e 89 85 0

\$GenPl

f m n - 3 94 141

a 86 2 0 e 89 85 0

\$DatPl

f m n - 3 94 141

a 86 2 0

e 89 85 0

\$AblPl

f m n

- 3 94 141

a 86 2 0 e 89 85 0

[1] "Trial 45"

\$NomSg

f m n

- 89 85 50

a 86 2 0 o 3 94 91

\$AccSg

f m n

a 86 2 0

e 89 85 50

o 3 94 91

\$GenSg

 ${\tt f} \quad {\tt m} \quad {\tt n}$

a 86 2 0

e 92 179 141

\$DatSg

f m n

a 86 2 0

e 92 179 141

\$AblSg

f m n

a 86 2 0

e 89 85 50

o 3 94 91

\$NomPl

f m n

a 86 55 139

e 3 40 0

es 89 84 0

\$AccPl

f m n
- 0 6 2
a 86 51 139
e 3 40 0
es 89 84 0

\$GenPl

f m n a 86 2 0 e 92 179 141

\$DatPl

f m n a 86 2 0 e 92 179 141

\$AblPl

f m n a 86 2 0 e 92 179 141

[1] "Trial 46"

\$NomSg

f m n - 89 85 50 a 86 2 0 o 3 94 91

\$AccSg

f m n a 86 2 0 e 89 85 50 o 3 94 91

\$GenSg

f m n - 90 0 0 a 86 2 0 e 2 179 141

\$DatSg

f m n - 90 0 0 a 86 2 0 e 2 179 141

\$AblSg

f m n a 86 2 0 e 89 85 50 o 3 94 91

\$NomPl

f m n

- 92 179 141 a 86 2 0

\$AccPl

f m n - 92 179 141 a 86 2 0

\$GenPl

f m n - 92 179 141 a 86 2 0

\$DatPl

f m n - 92 179 141 a 86 2 0

\$AblPl

f m n - 92 179 141 a 86 2 0

[1] "Trial 47"

\$NomSg

f m n - 89 85 50 a 86 2 0 o 3 94 91

\$AccSg

f m n - 0 0 50 a 86 2 0 e 89 85 0 o 3 94 91

\$GenSg

f m n as 86 2 0 es 92 179 141

\$DatSg

f m n - 3 9 56 a 86 2 0 e 89 170 85

\$AblSg

\$NomPl

f m n - 92 179 2 a 86 2 139

\$AccPl

f m n - 3 94 2 a 86 2 139 e 89 85 0

\$GenPl

f m n
- 89 85 139
a 86 2 0
es 0 63 0
s 3 31 0

\$DatP1

f m n - 3 94 141 a 86 2 0 e 89 85 0

\$AblPl

f m n - 3 94 141 a 86 2 0 e 89 85 0

[1] "Trial 48"

\$NomSg

f m n - 0 0 50 a 86 2 0 e 89 85 0 o 3 94 91

\$AccSg

\$GenSg

f m n
- 1 54 139
a 86 2 0
es 89 85 0
o 2 40 2

\$DatSg

- f m n - 14456
- a 86 2 0
- a 00 2 (
- e 89 85 0 o 2 50 85

\$AblSg

- f m n
- 0 0 50
- a 86 2 0
- e 89 85 0
- o 3 94 91

\$NomPl

- ${\tt f} {\tt m} {\tt n}$
- a 86 2 139
- es 92 179 2

\$AccPl

- f m n
- a 86 2 139
- e 89 85 0
- es 3 94 2

\$GenPl

- f m n
- a 86 2 139 es 92 179 2

\$DatP1

- f m n
- a 86 2 139
- es 92 179 2

\$AblPl

- f m n
- a 86 2 139
- es 92 179 2

[1] "Trial 49"

\$NomSg

- f m n
- 82 84 50
- a 86 2 0 e 7 1 0
- o 3 94 91

\$AccSg

- f m n
- 0 0 50
- a 86 2 0
- e 89 85 0 o 3 94 91

\$GenSg

\$DatSg

f m n a 86 2 0 e 90 139 139 o 2 40 2

\$AblSg

f m n a 86 0 0 e 89 84 50 o 3 94 91

\$NomPl

f m n
- 1 54 138
a 86 2 1
es 89 85 0
o 2 40 2

\$AccPl

f m n
- 1 54 90
a 86 2 49
es 89 85 0
o 2 40 2

\$GenPl

f m n a 86 2 0 e 92 179 141

\$DatPl

f m n a 86 2 0 e 92 179 141

\$AblPl

[1] "Trial 50"

\$NomSg

f m n - 82 84 50 a 86 2 0 e 7 1 0 o 3 94 91

\$AccSg

f m n - 0 54 50

a 86 2 0

e 89 31 0

o 3 94 91

\$GenSg

f m n

a 86 2 0

e 90 139 139

o 2 40 2

\$DatSg

f m n

a 86 2 0

e 90 139 139

o 2 40 2

\$AblSg

f m n

a 86 0 0

e 89 85 50

o 3 94 91

\$NomPl

f m n

- 83 138 0

a 93 3 139 o 2 40 2

\$AccPl

f m n

- 1 54 0

a 93 3 139

e 82 84 0

o 2 40 2

\$GenPl

f m n

- 7 0 131 a 86 2 0

e 85 179 10

\$DatPl

f m n

- 7 0 124

a 86 2 0

e 85 179 17

\$AblPl

f m n

```
- 5 0 118
a 86 2 0
e 85 139 21
o 2 40 2
```

- [1] "Percentage of trials where all plurals end in /s/ 16 %"
- [1] "Percentage of trials where Nom and Acc plurals end in /s/ 18 %"
- [1] "Percentage of trials where all masculine/feminine plurals end in /s/ 16 %"
- [1] "Percentage of trials where masculine/feminine Nom and Acc plurals end in /s/ 18 %"
- [1] "Percentage of trials where Nom.Sg and Acc.Sg end up the same 16 %"
- [1] "Percentage of trials where Abl.Sg and Acc.Sg end up the same 72 %"
- [1] "Percentage of trials where Nom.Sg, Acc.Sg, and Abl.Sg end up the same 10 %"
- [1] "Percentage of trials where Nom.Pl and Acc.Pl end up the same 26 %"
- [1] "Percentage of trials where Abl.Pl and Acc.Pl end up the same 28 %"
- [1] "Percentage of trials where Nom.Pl, Acc.Pl, and Abl.Pl end up the same 8 %"
- [1] "Percentage of trials where Gen.Sg and Dat.Sg end up the same 48 %"
- [1] "Percentage of trials where Gen.Pl and Dat.Pl end up the same 64 %"
- [1] "Percentage of trials where all singulars end up the same 0 %"
- [1] "Percentage of trials where all plurals end up the same 0 $\%\mbox{"}$
- [1] "Percentage of trials where all forms end up the same 0 %"
- [1] "I.SG Systems"

I_sg_systems

a a,as a,as,s -,a a,es 0.70 0.22 0.04 0.02 0.02

[1] "II.SG Systems"

II_sg_systems

-,e,es,o	0,8	es,o	-,e,o	e,es,o	i,o	-,0	e,o
0.02	0.04	0.04	0.04	0.06	0.08	0.20	0.38
	0,08,8	0	is,o	es,o,s	e,i,o	-,o,s	-,is,o
	0.02	0.02	0.02	0.02	0.02	0.02	0.02

[1] "III.SG Systems"

III_sg_systems

-,e -,e,es -,e,es,s -,e,is -,e,i,is e,es 0.46 0.22 0.14 0.08 0.04 0.02 0.02 0.02

[1] "IV.SG Systems"

IV_sg_systems

e,o	0	-,0	0,8	-,o,s	e,es,o	es,o	i,o
0.28	0.20	0.12	0.06	0.04	0.04	0.04	0.04
-,e,o	-,e,o,s	-,is,o	-,o,os,s	es,o,os	i,is,o	0,08	0,08,8
0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
u							
0.02							

[1] "V.SG Systems"

V_sg_systems

-,e	-,e,es	е	e,es	-,e,s	-,e,is	e,es,s	-,e,es,s
0.40	0.12	0.12	0.12	0.10	0.04	0.04	0.02
-,e,i	-,e,i,is						
0.02	0.02						

[1] "I.PL Systems"

I_pl_systems

a	as	a,es	as,s
0.50	0.14	0.04	0.04
-,a,e	-,as	a,ao	a,as
0.02	0.02	0.02	0.02
a,as,aso	a,as,bos,ebos,s	a,as,es	a,as,es,s
0.02	0.02	0.02	0.02
a,as,i	a,e	a,eo	a,o
0.02	0.02	0.02	0.02
as,bos	as,es		
0.02	0.02		

[1] "II.PL Systems"

II_pl_systems

				J
-,s	-	S	-,e	-,a,e
0.06	0.08	0.12	0.14	0.14
-,a,e,s	es,s	-,es,s	-,a,es,s	-,a
0.02	0.04	0.04	0.04	0.04
-,eo	-,e,s	-,e,es	-,as,e,eo,o,s	-,a,i
0.02	0.02	0.02	0.02	0.02
as,es,s	as,e,es,s	a,o	a,es	-,i,s
0.02	0.02	0.02	0.02	0.02
	es,os,s	es	e,s	e,es,o
	0.02	0.02	0.02	0.02

[1] "III.PL Systems"

<pre>III_pl_systems</pre>			
es,s	-,a,e	-,e	-,e,es,s
0.12	0.10	0.06	0.06
a,e,es	e,es	es	-,e,es
0.06	0.06	0.06	0.04
e,es,s	-	-,a,e,es	-,a,e,es,s
0.04	0.02	0.02	0.02
-,a,e,i	-,a,es	-,e,eo	-,es,s
0.02	0.02	0.02	0.02
a,e,es,s	a,es	as,e,es	as,eo,es,is,o,s
0.02	0.02	0.02	0.02
е	e,ebos,s	e,eo,s	e,s
0.02	0.02	0.02	0.02
ebos,es,s	eo,es,s	es,i,s	es,o
0.02	0.02	0.02	0.02
S			
0.02			

[1] "IV.PL Systems"

IV_pl_systems
S

S	-	-,e	e,o	е	es	-,e,o	-,eo
0.12	0.10	0.10	0.08	0.06	0.06	0.04	0.04
-,es	-,s	e,es	es,s	-,e,es,o	-,e,s	-,eo,eso	-,i
0.04	0.04	0.04	0.04	0.02	0.02	0.02	0.02
-,i,s	-,o,os	-,o,s	e,os	e,s	eo,s	es,os,s	u
0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02

[1] "V.PL Systems"

V_pl_systems

e,es	-,e	es	es,s	-	-,e,eo
0.22	0.12	0.12	0.10	0.04	0.04
-,e,es	e,es,s	-,a	-,a,e	-,e,i	-,es
0.04	0.04	0.02	0.02	0.02	0.02
a	е	e,ebos,s	e,s	ebos,es,s	eo,es,io,is
0.02	0.02	0.02	0.02	0.02	0.02
eo,es,s	es,i,s	es,o	s		
0.02	0.02	0.02	0.02		