

Supplementary Information

a) Place-manner tuples used to augment EMA trajectories (motivated by the radio_ - phones phoneme feature descriptions in Festvox)

Feature	Description
1	Voicing
2	Unconstricted phoneme
3	Alveolar Fricative
4	Alveolar Lateral
5	Alveolar Nasal
6	Alveolar Approximant
7	Alveolar Stop
8	Labiodental Fricative
9	Dental Fricative
10	Glottal Fricative
11	Labial Nasal
12	Labial Approximant
13	Labial Stop
14	Palatal Affricate
15	Palatal Fricative
16	Palatal Approximant
17	Velar Nasal
18	Velar Stop

b) Sentences used in listening tests Original Source: MOCHA-TIMIT²⁰ dataset:

1. young people participate in athletic activities
2. although always alone we survive
3. at twilight on the twelfth day we'll have chablis
4. swing your arm as high as you can
5. don't do charlie's dirty dishes
6. catastrophic economic cutbacks neglect the poor
7. those thieves stole thirty jewels
8. aluminium cutlery can often be flimsy
9. those musicians harmonize marvellously
10. carl lives in a lively home
11. alimony harms a divorced man's wealth
12. nothing is as offensive as innocence
13. coconut cream pie makes a nice dessert
14. that pickpocket was caught red-handed
15. etiquette mandates compliance with existing regulations
16. she wore warm fleecy woolen overalls
17. he will allow a rare lie
18. before thursday's exam review every formula
19. beg that guard for one gallon of petrol
20. get a calico cat to keep the rodents away
21. she is thinner than i am
22. barb's gold bracelet was a graduation present
23. are your grades higher or lower than nancy's
24. mum strongly dislikes appetizers
25. stimulating discussions keep students' attention
26. critical equipment needs proper maintenance
27. the museum hires musicians every evening
28. only the most accomplished artists obtain popularity
29. where were you while we were away
30. tina turner is a pop singer
31. did dad do academic bidding
32. help greg to pick a peck of potatoes
33. grandmother outgrew her upbringing in petticoats
34. a good attitude is unbeatable
35. addition and subtraction are learned skills
36. when all else fails use force
37. why yell or worry over silly items
38. jane may earn more money by working hard
39. help celebrate your brother's success
40. alfalfa is healthy for you

41. most young rabbits rise early every morning
42. biblical scholars argue history
43. bright sunshine shimmers on the ocean
44. is this seesaw safe
45. this was easy for us
46. only lawyers love millionaires
47. elderly people are often excluded
48. will robin wear a yellow lily
49. basketball can be an entertaining sport
50. a roll of wire lay lay near the wall
51. the dark murky lagoon wound around for miles
52. take charge of choosing her bride's maids' gowns
53. the nearest synagogue may not be within walking distance
54. the hood of the jeep was steaming in the hot sun
55. drop five forms in the box before you go out
56. trish saw hours and hours of movies this saturday
57. cheap stockings run the first time they're worn
58. a leather handbag would be a suitable gift
59. the local drugstore was charged with illegally dispensing tranquilizers
60. the cranberry bog gets very pretty in autumn
61. i know i didn't meet her early enough
62. an adult male baboon's teeth are not suitable for eating shellfish
63. tofu is made from processed soybeans
64. al received a joint appointment in the biology and engineering departments
65. the groundhog clearly saw his shadow but stayed out only a moment
66. i'd rather not buy these shoes than be overcharged
67. the high security prison was surrounded by barbed wire
68. ducks have webbed feet and colorful feathers
69. those answers will be straightforward if you think them through carefully first
70. the bluejay flew over the high building
71. often you'll get back more than you put in
72. the two artists exchanged autographs
73. gregory and tom chose to watch cartoons in the afternoon
74. ship building is a most fascinating process
75. todd placed top priority on getting his bike fixed
76. the proof that you are seeking is not available in books
77. the big dog loved to chew on the old rag doll
78. a big goat idly ambled through the farmyard
79. please dig my potatoes up before the frost
80. did shawn catch that big goose without help
81. chip postponed alimony payments until the latest possible date
82. gus saw pine trees and redwoods on his walk through sequoia national forest
83. the fog prevented them from arriving on time

- 84.bob bandaged both wounds with the skill of a doctor
- 85.rock-and-roll music has a great rhythm
- 86.bob found more clams at the ocean's edge
- 87.cottage cheese with chives is delicious
- 88.the frightened child was gently subdued by his big brother
- 89.steve collects rare and novel coins
- 90.count the number of teaspoons of soysauce that you add
- 91.we like blue cheese but victor likes brie
- 92.that dog chases cats mercilessly
- 93.a chosen few will become generals
- 94.rob made hungarian goulash for dinner and gooseberry pie for desert
- 95.the full moon shone brightly that night
- 96.if people were more generous there would be no need for welfare
- 97.my desires are simple
- 98.give me one informative paragraph on the subject
- 99.the meeting is now adjourned
- 100.shaving cream is a popular item on halloween
- 101.amoebas change shape constantly

c) Class sizes for the listening tests

Category	Class size
1 syllable words	75
2 syllable words	158
3 syllable words	68
4 syllable words	24
Sentences	101

d) Transcription interface for the intelligibility assessment (50 word interface)

Sentence Transcription Instructions (Click to expand)

Play Audio Vol+ Vol- Transcription :

Only choose from these words:

activities desires generals maintenance please
 add dessert getting man's rock-and-roll
 addition dispensing goose moon ship
 athletic divorced grades museum steaming
 bright economic high neglect students'
 brother's engineering hours now sun
 charlie's existing if one there
 chases flimsy in or walk
 colorful full innocence participate you'll
 departments gallon lie people young

e) Number of listeners used for intelligibility assessments

Intelligibility test description	Unique listeners
Transcription_25word	48
Transcription_50word	70
1syl_1in10	187
1syl_1in25	181
1syl_1in50	163
2syl_1in10	146
2syl_1in25	144
2syl_1in50	174
3syl_1in10	101

3syl_1in25	96
3syl_1in50	174
4syl_1in10	52
4syl_1in24	54
sentences_1in10	56
sentences_1in25	63
sentences_1in50	46