

For the following questions, you will be graded on the clarity of your writing, in terms of the structure, grammar, as well as the appropriateness, correctness and relevance of the particular examples and facts that you use to illustrate or to support your viewpoints.

1. When a second language (L2) user is learning the pronunciation of a target language, it is commonly observed that some of the sounds in L2 are substituted with other sounds, either other L2 sounds or sounds from the speaker's native language (L1). While these substitution patterns may look like mere mispronunciations, these observed patterns in fact reveal how L2 learners use information available in both L1 and L2 and also reflect how speakers process and understand languages. The following examples are sounds produced by Taiwan Mandarin learners of English, compared with those produced by English native speakers. Please answer the following questions based on the data provided below.

English native speaker	Taiwan Mandarin speaker	Gloss
[ðeɪ]	[lɛɪ]	<i>there</i>
[louð]	[loʊs]	<i>loathe</i>
[θɪŋz]	[sɪŋs]	<i>things</i>
[boʊθ]	[boʊs]	<i>both</i>
[ðɪs]	[ɪs]	<i>this</i>
[θæŋks]	[sæŋks]	<i>thanks</i>
[tið]	[tɪs]	<i>teethe</i>
[ðou]	[loʊ]	<i>though</i>
[breθ]	[bres]	<i>breath</i>

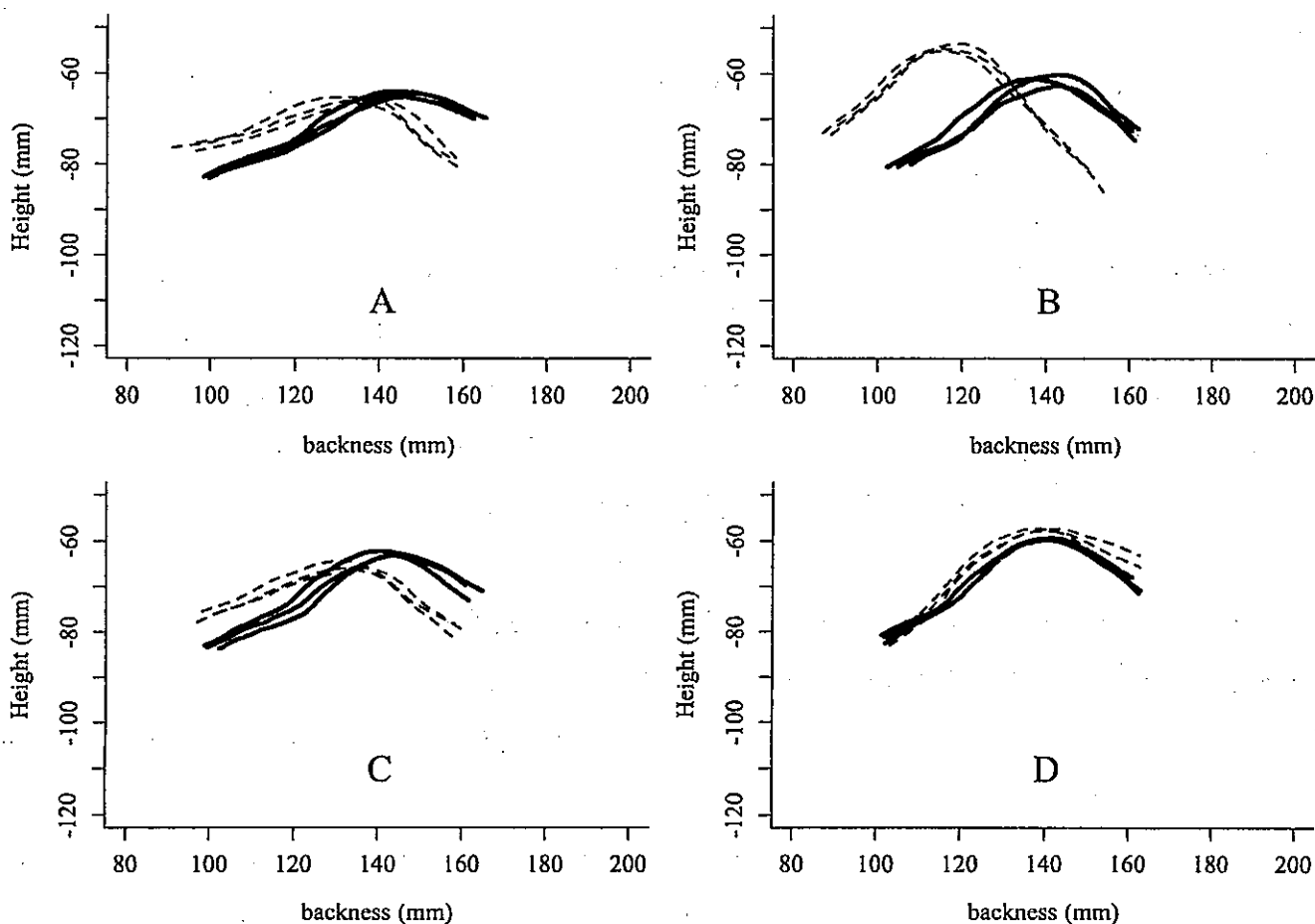
- a. Please characterize the patterns of the sound substitution produced by Taiwan Mandarin speakers. Be as general as possible. (15 points)
 - b. What would be possible accounts or factors determining these substitution patterns? Give your reasons. (5 points)
 - c. According to your analyses, what would be the MOST possible substitution for the name **Bethany**? Explain why. (5 points)
2. Mawo is a dialect of Northwestern Qiang, one of the Sino-Tibetan languages spoken in Sichuan, China. This dialect has four distinct vowels: /a, ə, i, u/. Interestingly, these plain vowels have correspondent counterparts contrasting in a secondary articulation (i.e., with an additional lingual constriction in a different location), labeled by the diacritic [ʰ]. These "non-plain" vowels are transcribed as /aʰ, əʰ, iʰ, uʰ/. Given with the background information, please answer the following questions.

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- a. In standard IPA, the consonant [ɣ] marks a specific place of articulation with a voiceless counterpart [χ]. Where is this place of articulation? (3 points) When a vowel carries this secondary articulation, the tongue is more retracted and slightly elevated than usual. What is the term for this kind of phenomenon? (2 points)
- b. Study the following data and summarize Mawo's phonotactics (i.e., explain when the plain vowels and non-plain vowels occur.) (5 points)

Mawo	Gloss
/kaxu ^h /	<i>koklass pheasant</i>
/qa ^h /	<i>I</i>
/qə ^h /	<i>head</i>
/ku/	<i>turnip</i>
/qi ^h /	<i>win</i>
/kə/	<i>go</i>
/qu ^h /	<i>afraid</i>
/ki/	<i>house</i>

- c. The following four figures depict tongue traces of the four plain vowels and their counterparts. These traces were retrieved from ultrasound images, which captured the tongue postures from the mid-sagittal plane (i.e., from the midline of the tongue, yielding two axes: vertical height and anterior-posterior axes). Each figure plots three tokens of a plain vowel and three tokens of the non-plain counterpart, indicated by two different line types. Based on the information provided here and in the figures, which of the figures best illustrates the plain vowel /i/ and its non-plain counterpart? Why? (5 points)



- d. Following the previous question, for all four figures, which line represents the “non-plain” vowels? Give your reasons. (5 points)
- e. Given that the plain and non-plain vowels make lingual constrictions at different locations in the mouth, formant values are consequently affected. Based on the information provided in the above text and figures, how is F2 manifested in these “non-plain” vowels? Explain why. (5 points)
3. Both of the following sentences are perfectly grammatical, but only (b), not (a), is ambiguous. Explain the difference between (a) and (b), discuss what the preferred interpretation of (b) is, and explain the preference in terms of processing consideration. (12 points)
- (a) Joanne put the book that Mary had been reading in the study.
- (b) Joanne threw the book that Mary had been reading in the study.
4. Samoan, a Polynesian language, is spoken approximately by 38,700 people in American Samoa and 153,000 in Western Samoa, an independent country. About 162,000 additional Samoan speakers live in New Zealand, Hawaii, Fiji and on the West Coast of mainland USA. . Examine the following Samoan examples and answer the questions below:

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| (1) E fa'a pa'u e faife'au le niu. | 'The missionaries fell the coconut palm.' |
| (2) E fa'a papa'u e le faife'au niu. | 'The missionary fells the coconut palms.' |
| (3) 'Ua pu'e e le fafine le pusi. | 'The woman caught the cat.' |
| (4) E pu'e upega Siaosi. | 'The nets catch George.' |
| (5) 'Ua pa'u le pusi. | 'The cat fell.' |
| (6) 'Ua papa'u faife'au. | 'The missionaries fell.' |
| (7) 'Ua pu'e le upega le faife'au. | 'The net caught the missionary.' |
| (8) E pa'u le upega. | ----- |
| (9) 'Ua fa'a pa'u e Malia le la'au. | 'Mary felled the tree.' |
| (10) 'Ua pu'e e Siaosi le pusi i le upega. | 'George caught the cat with the net.' |
| (11) 'Ua fa'a pu'e e Malia le pusi le upega. | 'Mary caught the cat with the net.' |
| (12) E pu'e e le faife'au le pusi i upega. | ----- |
| (13) E sosi e le tama le ufi i le to'i. | 'The boy cuts the yam with the axe.' |
| (14) E sosi e le teine le ufi. | 'The girl cuts the yam.' |
| (15) E pa'u le to'i. | 'The axe falls.' |
| (16) E fa'a pa'u e le tama le to'i. | 'The boy drops the axe.' |
| (17) E pa'u le tama. | 'The boy falls.' |
| (18) E malamalama le teine. | 'The girl knows.' |
| (19) E malamalama e le teine le uiga. | 'The girl learns the meaning.' |
| (20) E malamalma le teine i le uiga. | 'The girl knows the meaning.' |
| (21) E mana'o e le tama le to'i. | 'The boy covets the axe.' (i.e. he wants it
badly enough that he might steal it.) |
| (22) E mana'o le tama i le to'i. | 'The boy wants the axe.' |
| (23) *E fa'a pa'u le tama i le to'i. | ----- |

- What are the probable translations for example 8 and example 12. (6 points)
- What grammatical relations and semantic roles do each of the case markers *e*, *i* and \emptyset (zero) express? (12 points)
- What valence-increasing construction(s) do you see operating in these data? Give the evidence with example numbers and explain. (8 points)
- What valence-decreasing construction(s) do you see operating in these data? Give the evidence with example numbers and explain. (8 points)
- Explain why example 23 is ungrammatical. (4 points)