
Data Set 1: Ewe

Ewe	English
1 - [zrɔ̃]	"to be smooth"
2 - [15]	"to love"
3 - [mlagoo]	"thick"
4 - [lolo]	"to be large"
5 - [wlu]	"to dig"
6 - [βla]	"suddenly"
7 - [srɔ̃]	"wife"
8 - [glamaa]	"uneven"
9 - [dzre]	"to quarrel"
10 - [atra]	"mangrove"
11 - [fle]	"to pluck"
12 - [dru]	"to be bent"

Examine the distribution of [l] and [r] in Ewe (a Gbe language spoken primarily in Ghana and Togo) and answer the questions below.

- 1. State whether you think [l] and [r] are allophones of separate phonemes or allophones of the same phoneme.
- 2. Are [l] and [r] in contrastive or complementary distribution?
- 3. If [l] and [r] are allophones of separate phonemes, what evidence did you use to make your decision?
- 4. If [l] and [r] are allophones of the same phoneme, then: (a) state the distributions of the allophones; (b) state which sound you think is the underlying phoneme and why; (c) write a rule to derive the allophone(s); (d) explain why it makes sense to group the allophones together from an articulatory perspective.

Data Set 2: Malay

Malay	English
1 - [tarek]	"pull"
2 - [kətil]	"pinch"
3 - [pitər]	"disk"
4 - [lawat:]	"visit"
5 - [tsarek]	"rip"
6 - [ket ^j il]	"small"
7 - [t ^j a ^m pah]	"tasteless"
8 - [kət ^j ut]	"shriveled"
9 - [ket ^j ek]	"pampering"
10 - [bat ^j a]	"steel"
11 - [kət͡ʃil]	"small"
12 - [tsomel]	"cute"

Examine the distribution of [t] and $[\widehat{\mathfrak{tf}}]$ in Malay (an Austronesian language spoken primarily in Brunei, Indonesia, Malaysia, and Singapore) and answer the questions below.

- 1. State whether you think [t] and $[\widehat{\mathfrak{tf}}]$ are allophones of separate phonemes or allophones of the same phoneme.
- 2. Are [t] and $[\widehat{\mathfrak{tf}}]$ in contrastive or complementary distribution?
- 3. If [t] and $[\widehat{tf}]$ are allophones of separate phonemes, what evidence did you use to make your decision?
- 4. If [t] and [t] are allophones of the same phoneme, then: (a) state the distributions of the allophones; (b) state which sound you think is the underlying phoneme and why; (c) write a rule to derive the allophone(s); (d) explain why it makes sense to group the allophones together from an articulatory perspective.

Data Set 3: Mokilese

Mokilese	English
1 - [pi̞san]	"my beard"
2 - [dupukda]	"chop it down"
3 - [puko]	"seed"
4 - [ki̞sa]	"flea"
5 - [supwo]	"hanging"
6 - [kamwəkiti]	"sugar cane"
7 - [piko]	"warm"
8 - [uduk]	"white"
9 - [apud]	"he is carrying it"
10 - [pil]	"to dress"
11 - [apid]	"he stirred it"
12 - [lud͡ʒu]	"read"

Examine the distribution of [i], [u], [i], and [u] in Mokilese (an Austronesian language spoken primarily in Micronesia) and answer the questions below.

- 1. State which sounds are in contrastive distribution, and give examples of minimal pairs which demonstrate this.
- 2. Next, state which sounds are in complementary distribution and the distributions of the allophones (hint: you may want to consider their articulatory properties!).
- 3. For each pair of allophones: (a) state which sound you think is the underlying phoneme and why; (b) write a rule to derive the allophone(s).
