Minimal pairs and Sound distribution
Unit 3, Class 2

NAMS

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Minimal pairs

- Two words that are identical expcept for one sound each.
- Replacing one sound, a word in the minimal pair can be changed into another.
- If two words are minimal pairs differing only in [X] and [Y], then they are said to be minimal pairs for [X] and [Y].
- If there are minimal pairs of [X] and [Y], then they are allophones of different phonemes.

Minimal pairs: Examples

- Minimal pairs of [kʰ] and [b] in English test:
    - 'cat': [kʰæt], 'bat': [bæt]
- Minimal pairs of [p] and [pʰ] in Nepali:
    - 'parsi': [pʌrsi], 'pharsi': [pʰʌrsi]
- Not minimal pairs of [p] and [pʰ] in English:
    - 'pan': [pʰæn], 'span': [spʰæn]
- In Nepali, [p] and [pʰ] are allophones of different phonemes /p/ and /pʰ/, but in English they are allophones of the same phoneme /p/.

- Set of positions sounds can occupy in an utterance
- A part of knowledge of language is the knowledge of restrictions on distribution

Contrastive distribution

- If two phones [X] and [Y] distinguish two words in a minimal pair, they are in contrastive distribution.
- [p] and [pʰ] are in contrastive distribution in Nepali ([pʌrsi] vs [pʰʌrsi]) but not in English ([pʰæn] and [spʰæn]).

Complementary distribution

- If there are no minimal pairs for the phones [X] and [Y], they are in complementary distribution.
  - Native speakers follow the implicit distribution rule where one allophone or the other occurs.
    - e.g., [p] and [pʰ] in English
    - /p/ is aspirated when it is the first sound in a syllable (onset).
- Allophones of the same phoneme are in complementary distribution.
  - e.g., allophones of /d/ in Nepali
  - 'māḍ': [maːɽ], 'damaru': [dʌmru] → /ḍ/
- Replacing one for the other won't necessarily change the meaning of the word.
  - But one doesn't occur in the environment/context where other occurs.

Free variation

- Phenomenon of two (or more) sounds occuring in the same environment without changing the meaning of the word
  - not considered incorrect by native speakers of the language
- route: [ruːt] and [raʊt] in English
- ain: [ʌin] vs [en] in Nepali*

*[en] is considered incorrect by many speakers of Nepali.