

Sample Write-up for Homework 1

Problem 1: Spanish [r] and [r̄]

A.

	Initial Position	Medial Position	Final Position
[r]		√	√
[r̄]	√	√	

B. Do [r] and [r̄] contrast in initial position?

No, they do not contrast in initial position. [r̄] occurs in word-initial position: [r̄restar], [r̄rumba]. [r] does not occur in word-initial position.

C. Do [r] and [r̄] contrast in medial position?

Yes, they do contrast in medial position. Both [r] and [r̄] occur in word-medial position: [pero], [pēro].

D. Do [r] and [r̄] contrast in final position?

No, they do not contrast in final position. [r] occurs in word-final position: [ir], [r̄eir]. [r̄] does not occur in word-final position.

E. What can you say about the phonemic status of [r̄] and [r] in Spanish?

[r̄] and [r] are different phonemes in Spanish. Even though they do not contrast in initial and final position they still contrast in word-medial position. This is sufficient evidence to determine that they are different phonemes. Minimal pairs showing the contrast are:

[pero]	[pēro]
[bara]	[bāra]
[karo]	[kāro]

Problem 2: Korean1. [p p^h b]

There are 2 phonemes in this set of phones: /p/ and /p^h/.

[p] and [p^h] occur in the same environments and therefore belong to different phonemes.

A minimal pair contrasting [p] and [p^h] is [pul] / [p^hul].

[p] and [b] never occur in the same environment: [b] occurs between vowels (however, the problem set really should have more than one example) and [p] occurs word-initially, after a consonant, and before a consonant. Since they are phonetically similar (differ only in voicing) and in complementary distribution, they are allophones of the same phoneme.

/p/ → [b] / vowel __ vowel
 → [p] elsewhere

2. [t t^h d]

There are 2 phonemes in this set of phones: /t/ and /t^h/.

[t] and [t^h] occur in the same environments and therefore belong to different phonemes.

A near minimal pair contrasting [t] and [t^h] is [tal] / [t^ha:l].

[t] and [d] never occur in the same environment: [d] occurs between vowels and [t] occurs word-initially and after a consonant. Since they are phonetically similar (differ only in voicing) and in complementary distribution, they are allophones of the same phoneme.

/t/ → [d] / vowel __ vowel
→ [t] elsewhere

3. [tʃ tʃ^h dʒ]

There are 2 phonemes in this set of phones: /tʃ/ and /tʃ^h/.

[tʃ] and [tʃ^h] occur in the same environments and therefore belong to different phonemes.

A near minimal pair contrasting [tʃ] and [tʃ^h] is [tʃim] / [tʃ^him].

[tʃ] and [dʒ] never occur in the same environment: [dʒ] occurs between vowels and [tʃ] occurs word-initially. Since they are phonetically similar (differ only in voicing) and in complementary distribution, they are allophones of the same phoneme.

/tʃ/ → [dʒ] / vowel __ vowel
→ [tʃ] elsewhere

4. [k k^h g]

There are 2 phonemes in this set of phones: /k/ and /k^h/.

[k] and [k^h] occur in the same environments and therefore belong to different phonemes.

A near minimal pair contrasting [k] and [k^h] is [kogi] / [k^hoŋ].

[k] and [g] never occur in the same environment: [g] occurs between vowels and after [l] (with more examples, it would probably turn out that /p/ and /t/ have the same alternation pattern and therefore a better statement of distribution would be “between voiced sounds”) and [k] occurs word-initially, after a consonant and before a consonant. Since they are phonetically similar (differ only in voicing) and in complementary distribution, they are allophones of the same phoneme.

/k/ → [g] / voiced sound __ vowel
→ [k] elsewhere

5. [tʃ ʃ]

There are 2 phonemes in this set of phones: /tʃ/ and /ʃ/.

[tʃ] and [ʃ] occur in the same environment (word initial position) and therefore belong to different phonemes. A near minimal pair contrasting [tʃ] and [ʃ] is [tʃim] / [ʃinpu].

6. [s z ʃ]

There is one phoneme in this set of phones: /s/.

[s], [z] and [ʃ] never occur in the same environment: [z] occurs after a nasal, [ʃ] occurs before [i], and [s] occurs word-initially, intervocalically, and after a [k]. Since they are phonetically similar (fricatives) and in complementary distribution, they are allophones of the same phoneme.

/s/ → [z] / nasal __
 → [ʃ] / __ i
 → elsewhere

7. [l r]

There is one phoneme in this set of phones: /l/.

[l] and [r] never occur in the same environment: [l] occurs word-finally, and [r] occurs between vowels. Since they are phonetically similar (alveolar approximants) and in complementary distribution, they are allophones of the same phoneme.

/l/ → [r] / vowel __ vowel
 → [l] elsewhere

Note: You could also analyze /r/ as the underlying phoneme. The rules would be:

/r/ → [l] / __ #
 → [r] elsewhere

But this would complicate your analysis of [lʲ]. It is nicer to say that /l/ is the phoneme, it becomes a trill between vowels and becomes palatalized before a consonant.

8. [l ʲ]

There is one phoneme in this set of phones: /l/.

[l] and [ʲ] never occur in the same environment: [l] occurs word-finally, and [ʲ] occurs between a consonant and a vowel. Since they are phonetically similar (lateral approximants) and in complementary distribution, they are allophones of the same phoneme.

/l/ → [ʲ] / consonant __
 → [l] elsewhere

Really 7 and 8 should be combined as one rule:

/l/ → [r] / vowel __ vowel
 → [ʲ] / consonant __
 → [l] elsewhere

Phonemic transcription:

- | | | |
|---------------------------|--------------------------|----------------------------|
| 1. /sikan/ | 18. /talkita/ | 27. /ip ^h ita/ |
| 2. /sa:lám/ | 20. /tʃ ^h im/ | 31. /sokum/ |
| 3. /p ^h alman/ | 21. /insa/ | 34. /p ^h uŋsok/ |
| 5. /a:pətʃi/ | 23. /paŋsək/ | 37. /koki/ |
| 6. /tele/ | 26. /p ^h ato/ | 39. /su:ko/ |

Some guidelines for writing up your homework

1. Be as neat, ordered and concise as possible. First work out the problem on scratch paper, and then write up the important points for the assignment you turn in. Think of it like writing a paper, first you brainstorm your ideas and decide on the points you want to cover and the structure the paper will take, only then should you start writing the paper. *I don't want any homework where it looks like you are working through* the problem on the paper you turned in to me.*
2. When you are citing examples of words always write out the word; don't just give numbers referring to the words.
3. Cite examples. Whenever you make a statement about the phonemic status of sounds always bring in examples that illustrate your point,
4. Your handwritten transcription of sounds should look roughly like the printed version – don't use cursive writing.
5. Stick to one transcription system. For example if you use IPA ʃ, don't use š.
6. Remember that //s are for phonemes and []'s are for allophones. Every time you write a sound think about whether you are referring to the phoneme or allophone and use the appropriate transcription. For example, “[d] is an allophone of the phoneme /t/.”
7. Please double-check your environments. It is easy to overlook words in the data set and to confuse symbols. Once you make your tables, check them with the data.