

Name: _____

Section: _____

Linguistics 001

Spring 2009

Homework 5

Due: Wed, April 1 2009 (no foolin')

Problem I [2 points, 1 per rule]

The data below are from Paul at the age of two; they were collected by his father. Consider the sets of data and answer the questions at the end of each section.

(i)	Adult word	Paul	Adult word	Paul
	sun	[sʌn]	snake	[neɪk]
	see	[si]	sky	[kaɪ]
	spoon	[pun]	stop	[tʌp]

State a phonological rule that describes Paul's pronunciation of these words.

/s/ -> [∅] / # __ C

(ii)	Adult word	Paul	Adult word	Paul
	bed	[bɛt]	bus	[bʌs]
	wet	[wɛt]	buzz	[bʌs]
	egg	[ɛk]	man	[mæn]
	rake	[rek]	door	[dɔr]
	tub	[tʌp]	som	[sʌm]
	soap	[sɔʊp]	boy	[bɔɪ]

State another phonological rule describing Paul's pronunciations here.

[voiced] -> [unvoiced] / __ # (a.k.a. word-final devoicing)

Problem II [2 points, 1 per question]

In early children's speech, certain patterns have been observed.

- Features often *spread* from one consonant to another within a word.
- Across all languages, labials tend to be word-initial and velars tend to be word final.

Here is a piece of data from Marika, a Dutch infant:

Adult pronunciation	Marika's pronunciation	Meaning
/kip/	[pip]	chicken

Which observation (a or b) is evidenced here? Explain specifically, using consonant features.



Marika occasionally says [pik] for *chicken*, as well. What does this say about observation (a) and (b), and their interaction? What must be true in order for [pik] to be a possible production of [kip]?

ACCEPTABLE:
(b) is applying, not (a). to get this production, we have to rule out spreading of features after (b) applies.

ALSO ACCEPTABLE, AND COMMENDED:
(a) must apply before (b). features are spread (doesn't matter which direction, actually), and the resultant form forcibly conforms to a general pattern of "word-initial = labial, word-final = velar"

Problem III [2 points]

Guglielmo is a child who grew up in Jakarta, learning both Indonesian and Italian from his parents, though he favors Indonesian. These languages have many differences, but we'll focus on how they realize WH-questions. Indonesian has a pattern where WH-questions don't move from their place. For instance, a question about an object has a WH-word in object position:

Siti mau apa?
Siti wants what
'What does Siti want?'

In Italian, WH-words behave (mostly) like English, where they move to the beginning of a sentence:

Che cosa volete mangiare?
What thing want.2sg to.eat
'What do you want to eat?'

If the Indonesian pattern influences Guglielmo's production of Italian WH-questions, what error do we predict he will make in speaking Italian?

"forgetting" to move the questioned item and leaving it in situ.

**vollete mangiare che cosa
want.2sg to.eat what thing?**

Problem IV [2 points, 1 per generalization]

If a child hears an utterance that contains three syllables, “BA ta KA”, where capitalization indicates primary stress, what are all the possible segmentations into words; i.e. in what ways can these three syllables can be combined to form words?

Must display understanding of two generalizations:

- all words have one primary stress
- position of primary stress within the word is parameterized across languages and in fact shows some variation within a language.

BA | ta KA

BA ta | KA

***BA | ta | KA**

***BA ta KA**

Problem V [2 points]

In English [t] and [t^h] are allophones, but in some other languages (e.g. Mandarin Chinese), they are different phonemes. 7-month-old English-learning infants were tested on their ability to discriminate between /ta/~da/ contrasts, and /ta/~t^ha/, the latter of which is non-native. At 7 months, the children showed little ability to discriminate between the two. What would we expect to happen in the ability to discriminate between the two as the children age?

We only asked for the prediction, so points are awarded on an all-or-nothing basis for whether or not the answer is "We predict that, as they age, the children will be unable to discriminate between nonnative sounds."

If an explanation is included, make notes. The phrase "If you don't use it, you lose it", while not incorrect, is not sufficient to answer this type of question on the final.

s/b: "Categorical perception (integral to the learning process) entails the loss of the children's ability to perceive phonetic differences within the phonemic categories that they have learned."