

Linguistics 20
Fall 2008
Hayes/Homer/Keil/Lima

Your name _____
Your TA _____
Day and time of your section _____

Midterm Exam

- You have one hour and fifty minutes.
- Write all your answers on the exam itself.
- For scratch paper, please use the back of the sheets.
- 100 points total.

1. Derivational morphology (5 points)

- a. Write a rule of derivational morphology, using the format taught in class, that can derive the words below from their bases. Don't forget to include the part of the rule for meaning.

encase, encircle, encode, encourage, endanger, enfranchise, enlist, enmesh, enrapture, ensnare, entrap, entrench, entwine

- b. What is, in general, the subcategorization of verbs formed with *en-*?

2. Reduplication (5 points)

Write a derivational rule, using subscript notation, that can derive the forms in the right column (hypothetical language). Include meaning.

numa	'boat'	numama	'large boat'
safi	'yam'	safifi	'large yam'
la	'cat'	lala	'large cat'
roro	'dog'	rororo	'large dog'

3. Inflectional morphology (20 points)

Assume a hypothetical language in which nouns are inflected for case and person and number of their possessor. Here is the paradigm for the stem meaning 'cat':

gata	'cat-nominative'	gate	'cat-accusative'	gato	'cat-dative'
gatas	'my cat-nom.'	gates	'my cat-acc.'	gatos	'my cat-dat.'
gatat	'your sg. cat-nom.'	gatet	'your sg. cat.-acc.'	gatot	'your sg. cat-dat.'
gatar	'his/her cat-nom.'	gate	'his/her cat.-acc.'	gato	'his/her cat.-dat.'
gatasu	'our cat-nom.'	gatesu	'our cat-acc.'	gatosu	'our cat-dat.'
gatatu	'your-plural cat-nom.'	gatetu	'your-pl. cat-acc.'	gatotu	'your pl. cat-dat.'
gataru	'their cat-nom.'	gateu	'their cat-acc.'	gatou	'their cat-dat.'

- a. List the morphemes present in the data, giving each a translation. Arrange your list by columns in position classes, going from left to right (beginning to end). Label each column (as taught in class) with a label for the class. I've started the list for you here:

Stem

gat 'cat'

Hint: Don't discuss the messy complications with -r here; you can leave them to the next question.

- b. Assume that the inflectional features are as follows:

[Case: Nominative, Accusative, Dative]

[PossessorPerson: 1, 2, 3]

[PossessorNumber: Singular, Plural]

Write a set of inflectional rules, following the general format taught in the course, for the forms listed above. List your rules in the correct order, and give them names.

c. Provide a derivation, of the kind taught in class, for the following two forms. The first line of the derivation is given.

i. *gataru* 'their cat-nominative':

gat [① Case:Nominative, ② PossessorPerson:3, ③ PossessorNumber: Plural]

ii. *gatou* 'their cat-dative':

gat [① Case:Dative, ② PossessorPerson:3, ③ PossessorNumber: Plural]

4. Parsing - subcategorization (10 points)

a. Provide tree structure diagrams for both meanings of the following sentence: 'Fred stole the chicken from Greeley'.

First meaning (someone named Greeley owned the chicken):

Second meaning (chicken came from the town of Greeley):

- b. The sentence 'Fred killed the chicken from Greeley' can only have the second of these two structures. Explain why this is so.

5. Persian phrase structure (5 points)

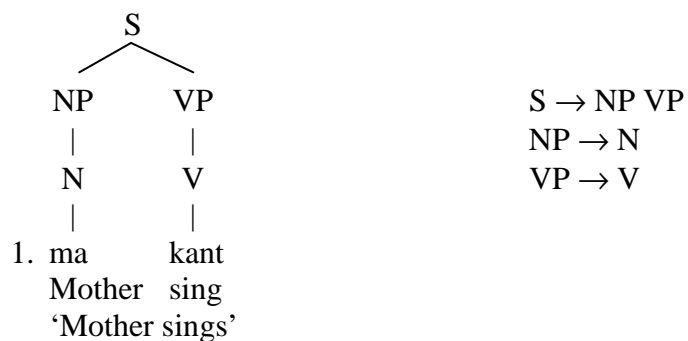
Parse the following sentence of Persian, using the space provided.

man goftam ke ali be riş-e hana:bastej-e xod dastkeşid
 I say-past-1 sg. that Ali on beard-EZ henna-covered-EZ self stroked-past-3-sg.
 'I said that Ali stroked his hennaed beard'

6. Parsing and writing phrase structure rules in a new language (30 points)

The following data are from a made-up language.

- a. Parse every sentence below, using the principles taught in class. Near each tree write the phrase structure rules that are needed to derive it, following the method given in the review session (Class 10). The method is illustrated for you in Sentence 1. You don't need to list rules when they make a repeat appearance; just give the rules that are new with each sentence.



2. ra ma lid-um kant
will Mother song-accusative sing
'Mother will sing a song'¹

3. zo ma na ku-ni kant
should mother of cow-dative sing
'The mother of the cow should sing'

4. pe ku a ma-ni kant
can cow to mother-dat. sing
'The cow can sing to Mother'

¹ This gloss is meant seriously: these sentences are not yes-no questions!

5. ra ku be firanse-ni a ma-ni kon amore-ni lid-um kant
will cow in French-dat. to Mother-dat. with love-dat. song-acc. sing
'The cow will sing a song, in French, to Mother, with love.'

6. ku lid-um na ma-ni na Kofi-ni kant
cow song-acc. of Mother-dat. of Kofi-dat. sing
'The cow sings a song about Kofi's mother'

7. zo sap antem-um fon ma-ni na Firanes-ni kurun
should sheep anthem-acc. by Mother about France softly-sing
'The sheep should softly sing the anthem by Mother about France'

- b. Provide a small, compact set of phrase structure rules that generates all seven sentences. You will need only four phrase structure rules.
- c. Explain how your phrase structure rules could apply in a “loop” (as taught in class) to generate an infinite number of sentences.
- d. Explain in words which NP’s are marked for accusative case (very short answer).
- e. Multiple choice: accusative case appears on: ___ the head of NP, ___ the rightmost word of NP. List an NP from the sentences above that proves this point.
- f. State in words which NP’s are marked for dative case (very short answer).

7. Island constraints (15 points)

- a. Give a derivation for the following ungrammatical sentence. Your derivation should include a deep structure with labeled arrows showing the transformations that apply. Place a box around the island that causes the ungrammaticality.² You don’t have to show the surface structure.

*What song will Fred sing and the national anthem?

² Colors are not required.

- b. The following sentence, though rather similar to the preceding one, is nevertheless grammatical. Explain why. Your answer should consist of brief verbal explanation, along with a (deep structure, boxes and arrows showing movement.) You don't have to show the surface structure separately.

What song and what anthem will Fred sing?

8. Case Marking and Wh- Movement (10 points)

This is meant to be a harder question. If you're stuck, don't spend all your time on it; check your answers to the other questions.

It turns out that the language given in question #6 above has Wh- Movement, and the following two sentences are grammatical:

- a. *kwel lid-um zo ku kant*
which song-acc. should cow sing
'Which song should the cow sing?'
- b. *kwel swin-ni zo ku lidum na kant*
which pig-dat. should cow song of sing
'Which pig should the cow sing a song about?'

Observe that the wh-phrase *kwel lid-um* in (a) is in the Accusative case, and the wh- phrase *kwel swin-ni* in (b) is in the Dative case. This kind of syntactic pattern is found in real languages like German or Russian that have both Wh-Movement and a well-developed case system.

- a. Give a reason why we would expect to get Accusative case on the wh-phrase in (a) but Dative on the wh- phrase in (b).

- b. Propose an analysis under which would could obtain this case marking.

====END OF EXAM====

REFERENCE SECTION

9. English Phrase Structure Rules

- $S \rightarrow NP (Aux) VP$
 $NP \rightarrow \left(\begin{matrix} \{Art\} \\ \{NP\} \end{matrix} \right) (A)^* N (PP)^* (\bar{S})$
 $NP \rightarrow \text{Pronoun}$
 $VP \rightarrow V (NP) (NP) (PP)^* (\bar{S})$
 $PP \rightarrow P NP$
 $\bar{S} \rightarrow (\text{Comp}) S$
- $NP \rightarrow NP (\text{Conj } NP)^*$
 $VP \rightarrow VP (\text{Conj } VP)^*$
 $PP \rightarrow PP (\text{Conj } PP)^*$
 $S \rightarrow S (\text{Conj } S)^*$
 $\bar{S} \rightarrow \bar{S} (\text{Conj } \bar{S})^*$

10. Wh-Movement

$$\begin{array}{cccccc}
 W & [& [X]_{\text{Comp}} & X & \text{wh- } Y &]_S Z \\
 1 & & 2 & 3 & 4 & 5 & 6
 \end{array}
 \rightarrow
 \begin{array}{cccccc}
 W & [& [\text{wh- }]_{\text{Comp}} & X & t & Y &]_S Z \\
 1 & & 4 & 3 & 4 & 5 & 6
 \end{array}$$

where t is an empty element of the same category as wh- .

In words: when a sentence contains an \bar{S} , and the \bar{S} begins with a Comp and contains a wh- phrase, the wh- phrase is moved to occupy the Comp position, leaving behind a trace of the same category.

11. The Coordinate Structure Constraint

Mark as ungrammatical any sentence in which a constituent has been extracted from inside a coordinate structure.

