

# Linguistics 2A: Assessed data analysis assignment

## Guidelines:

### The purpose of the exercise

This assignment is designed to test your ability to:

- spot patterns in linguistic data and describe those patterns using the appropriate vocabulary;
- apply the theoretical framework introduced in the Syntax module of this course to come up with an analysis which accounts for a set of data;
- work through the implications of a particular analysis, see whether the predictions of that analysis match all the data, and evaluate that analysis according to this or other criteria.

### How to approach this assignment

- Work through the questions in order. Later questions depend on earlier questions, so answering later questions first will be virtually impossible.
- **Don't leave it all to the last minute.** You will find that the lectures and readings for the latter weeks of the course provide useful ideas, but there are large parts of the assignment that you should be able to tackle straight away, and you will need plenty of time both to work through the data and to think over your answers to the questions.
- Remember that you are aiming for a linguist's technical analysis of the data. You may find it useful to imagine that you have been given the task of documenting and analysing a newly discovered language; consider how you would describe both the basic facts and the subtler characteristics of this language to another linguist (as far as the data allow).

**Base your answers only on the data provided here.** We will refer to the language of the datasets as *Language X*. Though Language X is loosely based upon a real language, many important facts and details have been changed. Any attempt to work out which language this is, or to consult books on, or native speakers of, this language would therefore lead only to confusion and incorrect answers.

You may discuss the data with classmates, but you must specify who your discussion partners were, and you must formulate and write up your answers independently of anyone else. Similar write-ups will be scrutinized carefully, and obvious mismatches in lists of discussion partners will also be investigated thoroughly. If you have any doubts about what constitutes an appropriate level of interaction with classmates, contact Rob Truswell (rtruswel@staffmail.ed.ac.uk) or Caroline Heycock (heycock@ling.ed.ac.uk).

## Presentation

Your submission should be word-processed, including any syntactic trees. You probably will not need to draw on any literature directly; however, if you do so for any reason, you should cite it appropriately and give the full reference.

To add syntactic trees to a word processed document, use one of the following methods:

- The most basic method is to use the drawing tools available as part of the word processor: create each node label in a text box, and join these labels using straight lines or connectors. This is time-consuming, but simple and flexible.
- The programme *Trees*, associated with the Santorini & Kroch textbook, is available from <http://www.ling.upenn.edu/~kroch/Trees.html>. The University of Edinburgh has a multi-user site license for this programme, which is available for Windows and Mac, which enables you to download it for free. The programme has a fairly smooth interface for the construction of quite complex trees, and it is straightforward to incorporate the trees you create into a word processed document. However, some features of the programme are slightly unintuitive. We believe that, with some effort, it is possible to create every tree necessary for this assignment using *Trees*. However two warnings are in order:
  1. some orders of specifier, head, and complement are much more easily produced than others, but the easily produced orders are not necessarily the correct orders;
  2. the method of producing structures involving adjunction is quite obscure: to left-adjoin a constituent, you must hold down the *right* Shift key, while dragging the constituent over the node to which you want to adjoin it. To right-adjoin a constituent, you must hold down Alt as well as the right Shift key.
- There are two further options which come with recommendations but which I am less familiar with. First, the online tree generator at <http://www.ironcreek.net/phpsyntaxtree/> looks intuitive and reasonably flexible. Secondly, TreeForm can be downloaded from <http://sourceforge.net/projects/treeform/>.
- If necessary, you may hand-draw your trees, scan them in, and incorporate them into your document as images. Just make sure that they are legible.

## Word limit

Do not write more than 2,500 words, excluding examples, tables, trees, etc. However, it is possible to cover everything required for this assignment in much less than this, and examiners will be more impressed by clear and concise answers.

## Deadline

The final write-up must be submitted by 12 noon on Monday 8 November. Stephanie Fong will give you precise details about arrangements for submission in due course.

## Dataset 1

- (1) Ksunmes Farid  
'Farid slept'
- (2) Ksunmes a balkan  
'The horse slept'
- (3) Galtugunmes Farid as balkans wa dis qugurs  
'Farid chased the horse and a pig'
- (4) Halunmes a gada as balkans naq  
'The boy rode the horse yesterday'
- (5) Halunlak a gada dis balkans paka  
'The boy will ride a horse tomorrow'
- (6) Gunlak Farid dis balkans are gadare wa zur  
'Farid will give a horse to the boy and to me'
- (7) Kelunmesan zun dis ktabs rez are salare  
'I read a book in the garden'
- (8) Xsusin zun as sals  
'I own the garden'
- (9) Gunmes di qari dis ktabs zur  
'A woman gave a book to me'
- (10) Kelun a xsi aren qariren dis ktabs  
'The woman's daughter is reading a book'
- (11) Kamalakan zun wus Faridare paka  
'I will introduce you to Farid tomorrow'
- (12) Kamalmesas wun Farids zur  
'You introduced Farid to me'
- (13) Halunas wun dis balkans  
'You are riding a horse'
- (14) Kamalmesan zun as qaris wur rez are kwalare naq  
'I introduced the woman to you in the house yesterday'
- (15) Ksun a kic rez are kwalare aren qariren  
'The dog is sleeping in the woman's house'
- (16) Gunmes a buba wuren dis kwals zur wa a qari dis ktabs are xsire zuren  
'Your father gave a house to me and the woman (gave) a book to my daughter'
- (17) Xsusi a buba zuren dis balkans wa Farid dis kics  
'My father owns a horse and Farid (owns) a dog'
- (18) Qacunmesan zun dis kics waj are xsire zuren  
'I bought a dog for my daughter'
- (19) Fikiran zun xsusin zun as ktabs  
'I think I own the book'
- (20) Fikiri a buba wuren halunan zun dis qugurs rez are nikare zuren wa rez are kwalare  
'Your father thinks I ride a pig in my field and in the house'

- (21) Fikiri a buba Faridaren kelunmes a qari as ktabs wuren  
'Farid's father thinks the woman read your book'
- (22) Luhunmesan zun galtugun a qugur as kics  
'I said the pig chases the dog'
- (23) Luhunmes a xsi zuren galtugunlak a kic susles  
'My daughter said the dog will chase itself'
- (24) Aqajunlakas wun zur xsusis wun dis niks wa halun a xsi wuren dis balkans  
'You will tell me you own a field and your daughter rides a horse'
- (25) Fikiri a buba aren dustaren zuren xsusin zun dis masins  
'My friend's father thinks I own a car'
- (26) Fikiri a dust wuren xsusi sun dis masins  
'Your friend thinks he owns a car'
- (27) Aqajunmes a xsi zuren zur gunlak sun dis qugurs zur paka  
'My daughter told me she will give me a pig tomorrow'
- (28) Aqajunlak a xsi zuren zur paka gunmes sun dis qugurs zur  
'My daughter will tell me tomorrow she gave me a pig'
- (29) Aqajunlak a xsi zuren dis tabs zur paka  
'My daughter will tell me a lie tomorrow'
- (30) Aqajunmesan zun dis hikajas are xsire wuren  
'I told a story to your daughter'
- (31) Luhunmesan zun xi Farid xsusi dis sals  
'I said that Farid owns a garden'
- (32) Fikirin zun xi Farid xsusi dis sals wa xi Farid kan as sals suren  
'I think that Farid owns a garden and that Farid likes his garden'
- (33) Aqajunmes Nabisat Faridare x'a qugur suren galtugunmes sus  
'Nabisat told Farid that his pig chased him.'
- (34) Fikiri Farid aqajunmesan zun Nabisatare xi sun xsusi dis sals  
'Farid thinks I told Nabisat that he owns a garden.'
- (35) Zuzunmes a xsi Nabisataren ta zun kanan sus  
'Nabisat's daughter asked if I like her'
- (36) Zuzunmesan zun Faridare t'a xsi zuren aqajunmes dis tabs zur  
'I asked Farid if my daughter told me a lie'
- (37) Fikiris wun xi zun kanan zusles  
'You think that I like myself'
- (38) Zuzunmes a xsi zuren t'a balkan zuren xsusimes susles  
'My daughter asked if my horse owned itself'
- (39) Zuzunan zun zusles ta Farid kan zus  
'I wonder if Farid likes me'
- (40) Zuzun Farid susles ta zun kanan sus  
'Farid wonders if I like him'

## Question 1 [40 marks]

(a) List all the morphemes that occur in Dataset 1, giving the syntactic category of each together with a brief gloss. For functional morphemes, a simple translation into English is not enough: your answer should use the appropriate technical vocabulary, making reference to distinctions in tense, definiteness, case, agreement, etc., as appropriate. If you notice any alternations in the realisation of morphemes, indicate it here and describe how a particular realisation of a morpheme is selected [23 marks].

(b) Describe the basic constituent order of Language X, as exemplified in Dataset 1. Do not focus exclusively on the order of subject, object, and verb. Instead, try to make statements about word order in noun phrases, prepositional phrases, etc., as well as in main and subordinate clauses [6 marks].

(c) Translate the following sentences into Language X [6 marks]:

(i) My daughter's friend is riding my father's horse in a field.

(ii) Your father said that your daughter thinks she owns me.

(iii) Nabisat thinks a friend gave Farid's dog to the woman.

(d) Draw elementary trees for the following lexical items. If the datasets provide evidence that multiple elementary trees are necessary, draw all the relevant elementary trees [5 marks].

(i) a

(ii) dust

(iii) gun

(iv) aqajun

## Dataset 2

(41) Zir a kic galtugunmes as masins  
'It was the dog that chased the car'

(42) Ziran zun halunmesan dis balkans  
'It was me that rode a horse'

(43) Ziras wun ksunmesas rez are salare  
'It was you that slept in the garden'

(44) Jan zun ksunan rez are kwalare  
'It is me that sleeps in the house'

(45) Ziras wus galtugunmes a kic  
'It was you that the dog chased'

(46) Ja as qugurs kanan zun  
'It is the pig that I like'

- (47) Zedan zur gunlak Farid as kwals  
'It will be to me that Farid will give the house'
- (48) Zedan zun xsusilakan as kwals  
'It will be me that will own the house'
- (49) Zir rez are salare halunmesas wun dis balkans  
'It was in the garden that you rode a horse'
- (50) Zir naq halunmesas wun dis balkans rez are salare  
'It was yesterday that you rode a horse in the garden'
- (51) Zeda galtugun as kics zun  
'It will be chasing the dog that I do'
- (52) Zeda ksun zun paka  
'It will be sleeping that I do tomorrow'
- (53) Zir aqajun dis tabs wun  
'It was telling a lie that you did'
- (54) Zir kelun dis ktabs rez are kwalare a qari naq  
'It was reading a book in the house that the woman did yesterday'
- (55) Zeda kelun dis ktabs paka a qari rez are kwalare  
'It will be reading a book tomorrow that the woman does in the house'
- (56) Zeda kelun dis ktabs rez are kwalare paka a qari  
'It will be reading a book in the house tomorrow that the woman does'

## Question 2 [15 marks]

(a) Describe how the constituent order in the sentences in Dataset 2 differs from that in Dataset 1 [7 marks].

(b) For each of the sentences below, say whether the underlined words jointly constitute a single syntactic constituent. Provide evidence for your answers using constituency tests. Where suitable evidence is available, use more than one constituency test. If you do not have the evidence to decide whether the underlined part is a constituent, or if the answer is otherwise unclear, say why.

All the evidence you need to decide on these matters is contained in Datasets 1 and 2. No marks will be given for constituency tests performed on English translations, or for answers based on intuitions about how constituency tests "should" work in Language X [8 marks].

- (i) Kamalmes di dust Faridaren Farids zur
- (ii) Ksunmes a qari rez are kwalare naq
- (iii) Xsusi Farid dis kics
- (iv) Galtugunlak a qugur as kics

### Question 3 [45 marks]

(a) Provide a structural analysis for Language X. You may find it easiest to start by concentrating exclusively on Dataset 1, before extending your analysis to cover the more complex pattern in Dataset 2. However, remember that the aim of the exercise is to produce a single unified grammar covering both datasets, not to produce one grammar for each dataset.

The answers you give to Questions 1 and 2 should give you some pointers about where to start looking. You may want to make use of types of movement, and of syntactic categories and projections, which are different from those we have covered in class. If so, be consistent, and be as explicit as possible about why you are proposing what you are.

Remember that the goal of this exercise is to produce a generative grammar of Language X, as represented in Datasets 1 and 2. This means that your answer should be explicit. An ideal answer will generate all the sentence types covered in the datasets, and surely slightly more than just that (because Datasets 1 and 2 only represent a very partial sample of the possibilities of Language X), but an ideal answer will not predict that anything in the datasets is impossible, and it will not predict that anything vastly different from the examples in the datasets is possible. You should justify your analysis by showing that it predicts the phenomena exemplified in the datasets to be grammatical in Language X, and by showing that it does not predict phenomena which, we may infer from the datasets, do not occur in Language X. You might also want to identify any major questions or problems raised by your analysis. For example, if certain sentences in the datasets are not covered by your analysis, explain why they are problematic [30 marks].

(b) Using your analysis of Language X, draw tree diagrams for the following sentences [15 marks]:

- (i) Kanan zun as bubas zuren
- (ii) Zuzunmes a qari zur ta Farid gunlak dis ktabs sur
- (iii) Zir qacun dis masins a xsi wuren naq