



Student Resource

Procedures for Grammatical Analysis of Unfamiliar Languages

In Chapter 4 you learned to work with words in languages that are unfamiliar to you. You learned to parse words into morphemes, to classify and provide meanings for each morpheme, and to describe the phonological processes that occur when morphemes combine. We now move from the combination of morphemes to the combination of words, but you will find that many of the basic analytical principles remain the same.

STEP 1: Inspect the data.

As with morphological analysis, it will always help you to familiarize yourself with a data set, so that you can see commonalities across examples; these commonalities will be the starting point for your analysis.

For example, the following sentences were taken from Mark Post's (2007) doctoral dissertation, *A Grammar of Galo* (Research Centre for Linguistic Typology, La Trobe University; the data have been slightly simplified here.) Galo is a Tibeto-Burman language spoken in Northeast India. Read both the sentences and the translations.

Transcription notes: The IPA symbol [i̯] is called a barred-i. It denotes a high central unrounded vowel; orthographic *c* represents a postalveolar affricate; accent marks indicate tone.

- (a) *ηó issəm cirdù.*
'I'm boiling the water.' (p. 416)
- (b) *issə ηóm piikâpká.*
'The water sprayed me.' (p. 530)
- (c) *biskutá ηóm zīgâakaakú.*
'Biscuits fattened me (i.e., made me fat).' (p. 535)

Assume that the problem asks you to determine the meaning of each word, break words into morphemes where possible, and discuss the relative ordering of the subject, object, and verb.

Student Resources: Procedures for Grammatical Analysis of Unfamiliar Languages

STEP 2: Determine the basic meanings of individual words by starting with forms and meanings that occur more than once in the data set. Morphologically analyze words as the data suggest.

We can see that the free translations of these examples all have a first-person singular pronoun, either 'I' or 'me'. When we compare the Galo forms, we see that all three sentences have a word of the shape *ηó* 'I' or *ηóm* 'me.' Morphological analysis allows us to identify a morpheme boundary in *ηó-m*, consisting of a first-person singular pronoun *ηó* plus a suffix. The suffix *-m* occurs in the form translated as 'me,' i.e., when the pronoun is the object. We can thus analyze the *-m* as an object case-marker, which is called **accusative** (see Textbox 5.2). This analysis is confirmed when we look further at the examples and find two forms for the word that translates as 'water': *issəm* in (a) and *issə* in (b). When we apply what we've already learned to this pair, we get *issə-m*, with the *-m* again occurring when the noun is the object of the sentence (the terms **subject** and **object** will be discussed fully in Chapter 6). You can see that linguistic analysis is a cyclic process: you apply your working analysis to new data and sometimes this confirms what you've done (as it did here), but other times it does not confirm it, in which case you go back to think it through again.

Looking at the remaining vocabulary, you probably recognized the English loanword *biskutá* 'biscuit', which means the remaining word in that sentence *ziigákaakú* must mean 'fattened'. We have two other verbs as well. What are they?

We can now make a glossary, which is a helpful way to **keep track of what you know**:

- *ηó* 1st-person singular pronoun
- *issə* 'water'
- *-m* ACCUSATIVE
- *biskutá* 'biscuit'
- *ziigákaakú* 'fattened'
- *cirdù* 'boiling'
- *piikápká* 'sprayed'

STEP 4: Make explicit observations about properties of units larger than the word.

We can see in all of these examples that the verb comes at the end of the clause and that subjects precede objects.

- Verbs come at the end of the clause.
- Subjects precede objects, which end in the accusative suffix *-m*.

STEP 5: Check that your analysis is consistent and apply it to any new examples.

Let's now see if our analysis holds up to new data:

(d) *ηó biəm cendù.*
'I know him.' (p. 687)

(e) *ηóm biî cendù.*
'He knows me.' (p. 687)

Using what we've already learned, we recognize that *ηó* is 'I' and *ηó-m*, which has the accusative suffix, is 'me'. We know that verbs come at the end of the clause, so 'knows' is probably *cendù*. That means *biəm* must be 'him' (object) in (d) and *biî* must be 'he' (subject) in (e). Again we find our accusative case-marker, so we can posit that the pronoun that translates as 'him' is morphologically *biə-m*. We can note that the third-person singular

Student Resources: Procedures for Grammatical Analysis of Unfamiliar Languages

pronoun has two allomorphs (*biî* and *bîə-*), but we don't have adequate data here to determine their distribution.

- *cendù* 'knows'
- *biî* and *bîə-* 3rd-person singular pronoun (two allomorphs)

Regarding our grammatical statements, we now have further evidence for verbs coming at the end of the clause. But what about the ordering of the subjects and the objects? While (g) has the subject before the object, in (h) the first-person object pronoun, *ɣóm*, precedes the third-person subject pronoun, *biî*. (Note, though, that this doesn't create any confusion, as the accusative *-m* indicates which pronoun is the object.) We therefore need to revise our statement regarding this ordering in light of the new data:

- The ordering of subjects and objects before the verb is flexible; both subject-object and object-subject orders are attested in the data set.
- Objects end in the accusative suffix *-m*.

This process of reanalysis, revision, and refinement is common in linguistic analysis.

STEP 6: Clearly write up your analysis in prose.

See the associated student resource: **Writing for Linguistics: Grammatical Analysis**, which includes a prose write-up of this small problem.