

6

Morphology



BAMBIFICATION: The mental conversion of flesh and blood living creatures into cartoon characters possessing bourgeois Judeo-Christian attitudes and morals.

Coupland ([1991](#))

Throughout [Chapter 5](#), we approached the description of processes involved in word formation as if the unit called the “word” was always a regular and easily identifiable form, even when it is a form such as *bambification* that we may never have seen before. This doesn’t seem unreasonable when we look at a text of written English, since the “words” in the text are, quite obviously, those sets of things marked in black with the bigger spaces separating them. Unfortunately, there are a number of problems with using this observation as the basis of an attempt to describe language in general, and individual linguistic forms in particular.

Morphology

In many languages, what appear to be single forms actually turn out to contain a large number of “word-like” elements. For example, in Swahili (or Kiswahili, spoken throughout East Africa), the form *nitakupenda* conveys what, in English, would have to be represented as something like *I will love you*. Now, is the Swahili form a single word? If it is a “word,” then it seems to consist of a number of elements that, in English, turn up as separate “words.” A rough correspondence can be presented here:

<i>ni-</i>	<i>ta-</i>	<i>ku-</i>	<i>penda</i>
I	will	you	love

It would seem that this Swahili “word” is rather different from what we think of as an English “word.” Yet there clearly is some similarity between the languages, in that similar elements of the whole message can be found in both. Perhaps a better way of looking at linguistic forms in different languages would be to use

this notion of “elements” in the message, rather than depend on identifying only “words.”

The type of exercise we have just performed is an example of investigating basic forms in language, known as **morphology**. This term, which literally means “the study of forms,” was originally used in biology, but since the middle of the nineteenth century has also been used to describe the study of all those basic “elements” used in a language. What we have been describing as “elements” in the form of a linguistic message are technically known as “morphemes.”

Morphemes

We do not actually have to go to other languages such as Swahili to discover that “word forms” may consist of a number of elements. We can recognize that English word forms such as *talks*, *talker*, *talked* and *talking* must consist of one element *talk*, and the other four elements *-s*, *-er*, *-ed* and *-ing*. All these elements are described as **morphemes**. The definition of a morpheme is “a minimal unit of meaning or grammatical function.” Units of grammatical function include forms used to indicate past tense or plural, for example. So, we can take words apart, as shown in [Table 6.1](#) with *re-new-ed* and *tour-ist-s*, to reveal the different elements in their morphology.

Table 6.1

Morphemes: minimal units of meaning	or grammatical function
<i>re-</i> (“again”) <i>new</i> (“recently made”)	<i>-ed</i> (past tense)
<i>tour</i> (“travel for pleasure”) <i>-ist</i> (“person who”)	<i>-s</i> (plural)

Free and Bound Morphemes

Looking at the examples in [Table 6.1](#), we can make a broad distinction between two types of morphemes. There are [free morphemes](#), that is, morphemes that can stand by themselves as single words, for example, *new* and *tour*. There are also [bound morphemes](#), which are those forms that cannot normally stand alone and are typically attached to another form, exemplified as *re-*, *-ist*, *-ed*, *-s*. These forms were described in [Chapter 5](#) as affixes. So, we can say that all affixes (prefixes and suffixes) in English are bound morphemes. The free morphemes can generally be identified as the set of separate English word forms such as basic nouns, verbs, adjectives and adverbs. When they are used with bound morphemes attached, the basic word forms are technically known as [stems](#). For example:

	<i>undressed</i>			<i>carelessness</i>		
<i>un-</i>	<i>dress</i>	<i>-ed</i>	<i>care</i>	<i>-less</i>	<i>-ness</i>	
prefix	stem	suffix	stem	suffix	suffix	
(bound)	(free)	(bound)	(free)	(bound)	(bound)	

We should note that this type of description is a partial simplification of the morphological facts of English. There are a number of English words, typically derived from Latin, in which the element treated as the stem is not a free morpheme. In words such as *receive*, *reduce* and *repeat*, we can identify the bound morpheme *re-* at the beginning, but the elements *-ceive*, *-duce* and *-peat* are not separate word forms in English and hence cannot be free morphemes. These types of forms are sometimes described as “bound stems.”

Lexical and Functional Morphemes

What we have described as free morphemes fall into two categories. The first category is that set of ordinary nouns (*girl, house*), verbs (*break, sit*), adjectives (*long, sad*) and adverbs (*never, quickly*) that we think of as the words that carry the “content” of the messages we convey. These free forms are called **lexical morphemes**. We can add new lexical morphemes to the language rather easily, so they are treated as an “open” class of words.

Other types of free morphemes are called **functional morphemes**. Examples are articles (*a, the*), conjunctions (*and, because*), prepositions (*on, near*) and pronouns (*it, me*). Because we almost never add new functional morphemes to the language, they are described as a “closed” class of words.

Derivational Morphemes

The set of affixes that make up the category of bound morphemes can also be divided into two types. One type is described in [Chapter 5](#) in terms of the derivation of words. These are **derivational morphemes**. We use these bound forms to make new words or to make words of a different grammatical category from the stem. For example, the addition of the derivational morpheme *-ment* changes the verb *encourage* to the noun *encouragement*. The noun *class* can become the verb *classify* by the addition of the derivational morpheme *-ify*. Derivational morphemes can be suffixes like *-ment* and *-ify* and also prefixes, such as *re-*, *pre-*, *ex-*, *mis-*, *co-*, *un-*.

Inflectional Morphemes

The second set of bound morphemes contains **inflectional morphemes** (or “inflections”). These are not used to produce new words in the language, but rather to indicate the grammatical function of a word. Inflectional morphemes are used to show if a word is plural or singular, past tense or not, and if it is a

comparative or possessive form. English has only eight inflectional morphemes, all suffixes.

Jim's two sisters are really different.

One likes to have fun and is always laughing.

The other enjoyed school as a child and has always been very serious.

One is the loudest person in the house and the other is quieter than a mouse.

In the first sentence, both inflections are attached to nouns, marking possessive (-'s) and plural (-s). There are four inflections attached to verbs: -s (3rd person singular, present tense), -ing (present participle), -ed (past tense) and -en (past participle). Two inflections attach to adjectives: -er (comparative) and -est (superlative).

There is some variation in the form of these inflectional morphemes. For example, the possessive sometimes appears as a plural form -s' (*those boys' bags*) and the past participle is often -ed (*they have talked already*). [Table 6.2](#) has a summary.

Table 6.2

	Nouns	Verbs	Adjectives
Derivational	<i>critic-ism</i>	<i>critic-ize</i>	<i>critic-al</i>
	<i>encourage-ment</i>	<i>class-ify</i>	<i>wonder-ful</i>
Inflectional	<i>Jim-'s</i>	<i>like-s, laugh-ing</i>	<i>quiet-er</i>
	<i>sister-s</i>	<i>enjoy-ed, be-en</i>	<i>loud-est</i>

Morphological Description

The difference between derivational and inflectional morphemes is worth emphasizing. An inflectional morpheme never changes the grammatical category of a word. For example, both *old* and *older* are adjectives. The *-er* inflection here (from Old English *-ra*) simply creates a different version of the adjective. However, a derivational morpheme can change the grammatical category of a word. The verb *teach* becomes the noun *teacher* if we add the derivational morpheme *-er* (from Old English *-ere*). So, the suffix *-er* in Modern English can be an inflectional morpheme as part of an adjective and also a distinct derivational morpheme as part of a noun. Just because they look the same (*-er*) doesn't mean they do the same kind of work.

Whenever there is a derivational suffix and an inflectional suffix used together, they always appear in that order. First the derivational (*-er*) is attached to *teach*, then the inflectional (*-s*) is added to produce *teachers*. Armed with all these terms for different types of morphemes, we can now take most sentences of English apart and list all the “elements.” For example, in the sentence *The teacher's wildness shocked the girls' parents*, we can identify thirteen morphemes.

<i>The</i>	<i>teach</i>	<i>-er</i>	<i>'s</i>	<i>wild</i>	<i>-ness</i>	
functional	lexical	derivational	inflectional	lexical	derivational	
<i>shock</i>	<i>-ed</i>	<i>the</i>	<i>girl</i>	<i>-s'</i>	<i>parent</i>	<i>-s</i>
lexical	inflectional	functional	lexical	inflectional	lexical	inflection

A useful way to remember all these different types of morphemes is presented in [Figure 6.1](#).

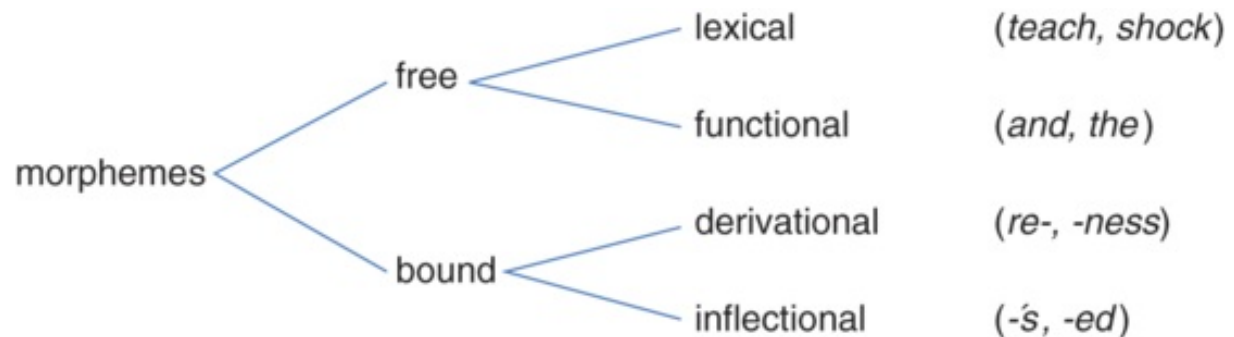


Figure 6.1

Morphs, Allomorphs and Special Cases

The rather neat chart presented in [Figure 6.1](#) conceals a number of outstanding problems in the analysis of English morphology. The inflectional morpheme -s is added to *cat* and we get the plural *cats*. What is the inflectional morpheme that makes *sheep* the plural of *sheep*, or *men* the plural of *man*? These two words are clearly exceptions to the general pattern and have to be treated as special cases.

One way to describe more regular differences in inflectional morphemes is by proposing variation in morphological realization rules. In order to do this, we draw an analogy with processes already noted in phonology (Chapter 4, page [45](#)). Just as we treated phones as the actual phonetic realization of phonemes, so we can propose **morphs** as the actual forms used to realize morphemes. For example, the form *cats* consists of two parts, /kæt/ + /-s/, with a lexical morpheme (“cat”) and an inflectional morpheme (“plural”). The words *dogs* and *horses* also consist of two parts, /dɔg/ + /-z/ and /hɔrs/ + /-əz/, each consisting of a lexical morpheme and an inflectional morpheme (“plural”). So we have at least three forms (/s/, /z/ and /əz/) used to realize the inflectional morpheme “plural.” Just as we noted that there were “allophones” of a phoneme, so we can recognize the existence of **allomorphs** of a morpheme, again using the prefix

“allo-“ (= one of a closely related set). The three allomorphs of the one morpheme (“plural”) are shown in [Table 6.3](#).

Table 6.3

Morpheme	Allomorphs	
plural	/-s/	(“cats”)
	/-z/	(“dogs”)
	/-əz/	(“horses”)

Returning to our special cases, we could propose that there may be a “zero-morph” involved when we add the “plural” morpheme to a word like *sheep*, so that the plural of *sheep* can be analyzed as /ʃip/ + /∅/, adding another form (/∅/) to the set of allomorphs of “plural.” When we add “plural” to /mæn/, we could have a vowel change in the word (æ → ε) as the morph that produces the “irregular” plural form *men*. However, it is more likely that we treat the two forms /mæn/ and /mɛn/ as two distinct lexical morphemes.

There is a similar pattern in the way “past tense” is realized in English. The inflectional suffix *-ed* is used in the typical derivation: *flirted*, *hugged* and *kissed*. The irregular forms are like separate lexical morphemes: *go/went*, *be/was/were*. See Task C, on page [81](#), for more on the allomorphs of past tense in English.

Other languages

When we look at the morphology of other languages, we can find other forms and patterns realizing the basic types of morphemes we have identified. In the following examples, based on Gleason ([1955](#)), we can try to work out how

different forms in the languages are used to realize morphological processes and features.

Kanuri

This first set of examples is from Kanuri, a language spoken in Nigeria.

	Adjective	Noun	
("excellent")	<i>karite</i>	<i>nəmkarite</i>	("excellence")
("big")	<i>kura</i>	<i>nəmkura</i>	("bigness")
("small")	<i>gana</i>	<i>nəmgana</i>	("smallness")
("bad")	<i>dibi</i>	<i>nəmdibi</i>	("badness")

From this set, we can propose that *nəm-* is a prefix, functioning as a derivational morpheme that is used to derive nouns from adjectives. The process is similar to the use of the suffix *-ness* in English, creating the noun *bigness* from the adjective *big*. Discovering a regular morphological feature of this type helps us to make certain predictions when we encounter other forms. For example, if the Kanuri word for "length" is *nəmkurugu*, then we can be reasonably sure that "long" is *kurugu*.

Ganda

Different languages also employ different means to produce inflectional marking on forms. Here are some examples from Ganda, a language spoken in Uganda.

	Singular	Plural	
("doctor")	<i>omusawo</i>	<i>abasawo</i>	("doctors")

("woman")	<i>omukazi</i>	<i>abakazi</i>	("women")
("girl")	<i>omuwala</i>	<i>abawala</i>	("girls")
("heir")	<i>omusika</i>	<i>abasika</i>	("heirs")

From this small sample, we can observe that there is an inflectional prefix *omu-* used with singular nouns, and a different inflectional prefix *aba-* used with the plural of those nouns. If we learn that *abalenzi* is a Ganda plural, meaning "boys," then we can be pretty sure that the singular form meaning "boy" must be *omulenzi*.

Ilocano

When we look at Ilocano, a language of the Philippines, we find a quite different way of marking plurals.

	Singular	Plural	
("head")	<i>úlo</i>	<i>ulúlo</i>	("heads")
("road")	<i>dálan</i>	<i>daldálan</i>	("roads")
("life")	<i>bíag</i>	<i>bibíag</i>	("lives")
("plant")	<i>múla</i>	<i>mulmúla</i>	("plants")

In these examples, there seems to be repetition of the first part of the singular form. When the first part is *bí-* in the singular, the plural begins with this form repeated *bibí-*. The process involved here is technically known as [reduplication](#) (= "repeating all or part of a form"). Having seen how plurals differ from singular forms in Ilocano, you should be able to take this plural form *taltálon*

(“fields”) and work out what the singular (“field”) would be. If you follow the observed pattern, you should get *tálon*.

Tagalog

Here are some examples from Tagalog, another language of the Philippines.

<i>basa</i> (“read”)	<i>tawag</i> (“call”)	<i>sulat</i> (“write”)
<i>bumasa</i> (“Read!”)	<i>tumawag</i> (“Call!”)	<i>sumulat</i> (“Write!”)
<i>babasa</i> (“will read”)	<i>tatawag</i> (“will call”)	<i>susulat</i> (“will write”)

If we assume that the first form in each column can be treated as a stem, then it appears that, in the second item in each column, an element *-um-* has been inserted after the first consonant, or more precisely, after the syllable onset. It is an example of an **infix** (described in Chapter 5, page [62](#)).

In the third example in each column, the change involves a repetition of the first syllable, as *basa* becomes *babasa*. So, referring to the future in Tagalog is done via reduplication. Using this information, we can complete these examples:

<i>lakad</i> (“walk”)	(“Walk!”)	(“will walk”)
_____	_____	_____
<i>lapit</i> (“come here”)	(“Come here!”)	(“will come here”)
_____	_____	_____

In the second column, with the infix *-um-*, we would write *lumakad* and *lumapit*. In the third column, with reduplication, we would write *lalakad* and *lalapit*. So, next time you’re enjoying a stroll through the streets of Manila and

you hear *lumapit!*, you'll know what to do. Learn more about Tagalog in Task D, on page [82](#).

Study Questions

1 How many morphemes are there in the word *terrorists*?

2 What kind of morpheme is the suffix in *slowly*?

3 What are the functional morphemes in the following sentence? *When she walked into the room, the doctor asked me if I had a sore throat or an annoying cough.*

4

(i) List the bound morphemes in these words: *fearlessly, happier, misleads, previewer, shortening, unreconstructed*

(ii) Which of these words has a bound stem: *consist, deceive, introduce, repeat*?

(iii) Which of these words contains an allomorph of the morpheme “past tense”: *are, have, must, sitting, waits*?

5

(i) Which word(s) in the following sentence would you put in a closed class?
Bob brought hot donuts to class.

(ii) Which word(s) in the following sentence would you put in an open class?
I put it on the shelf near you and him.

6 How many regular inflectional morphemes are there in English?

7 What are the inflectional morphemes in these expressions?

(a) *Have you eaten yet?*

(b) *Do you know how long I've been waiting?*

(c) *She's younger than me and always dresses in the latest style.*

(d) *We looked through my grandmother's old photo albums.*

(e) *My parents' parents were all from Scotland.*

8 What are the allomorphs of the morpheme “plural” in the following set of English words?

criteria, dogs, oxen, deer, judges, stimuli

9 In Indonesian, the singular form translating “child” is *anak* and the plural form (“children”) is *anakanak*. What is the technical term used to describe this relationship?

10 Provide equivalent forms, in the languages listed, for the English translations shown on the right below.

Ganda	<i>omuloŋgo</i>	(“twin”)	–	(“twins”)	_____
Ilocano	<i>tawtáwa</i>	(“windows”)	–	(“window”)	_____
Ilocano	<i>tálon</i>	(“field”)	–	(“fields”)	_____
Kanuri	<i>nəmkəǰi</i>	(“sweetness”)	–	(“sweet”)	_____
Tagalog	<i>bili</i>	(“buy”)	–	(“will buy”)	_____
Tagalog	<i>kain</i>	(“eat”)	–	(“Eat!”)	_____

Tasks

A What is “suppletion”? Were there any examples of English suppletive forms described in this chapter?

B What are enclitics and proclitics? Does English have both? What are some typical English examples? Why aren’t they just called affixes?

C The regular past tense suffix (-ed) has three different pronunciations that illustrate a connection between the morphology and phonology of English, an area of investigation described as “morphophonology.”

(i) Can you complete [Table 6.4](#) (similar to Table 6.3, on page 77), listing the following verbs in the past tense as examples of each of the three pronunciations?

cherish, detest, flirt, hug, kiss, like, loathe, love, offend

(ii) Can you state the phonological conditions that determine how the past tense morpheme is pronounced?

Table 6.4

Morpheme	Allomorphs	Examples
	/-t/	<i>kissed</i> _____ _____ _____
past tense	//	_____ _____ _____
	//	_____ _____ _____

D Using what you learned about Tagalog, plus information from the set of examples here, create appropriate forms of these verbs for (1)–(10) below.

basag (“break”), *bili* (“buy”), *hanap* (“look for”), *kain* (“eat”)

(“Write!”)	<i>sumulat</i>	(“Call!”)	<i>tumawag</i>
(“was written”)	<i>sinulat</i>	(“was called”)	<i>tinawag</i>
(“is writing”)	<i>sumusulat</i>	(“is calling”)	<i>tumatawag</i>
(“is being written”)	<i>sinusulat</i>	(“is being called”)	<i>tinatawag</i>
(1) (“Buy!”)	_____	(6) (“is eating”)	_____
(2) (“was bought”)	_____	(7) (“is breaking”)	_____
(3) (“was broken”)	_____	(8) (“is being broken”)	_____
(4) (“was looked for”)	_____	(9) (“is being looked for”)	_____
(5) (“is looking for”)	_____	(10) (“is being eaten”)	_____

E Look over the following examples from Hungarian (based on Frommer and Finegan, [2012](#): 3) and try to answer the questions that follow.

(1) <i>te szép vagy</i>	“you’re beautiful” (singular)
(2) <i>én beteg vagyok</i>	“I’m ill”
(3) <i>te magas vagy</i>	“you’re tall” (singular)
(4) <i>mi lankadtak vagyunk</i>	“we’re tired”

(5) <i>ti kedvesek vagytok</i>	“you’re nice” (plural)
(6) <i>ti betegek vagytok</i>	“you’re ill” (plural)
(7) <i>mi magasak vagyunk</i>	“we’re tall”
(8) <i>te kedves vagy</i>	“you’re nice” (singular)
(9) <i>én lankadt vagyok</i>	“I’m tired”
(10) _____	“you’re beautiful” (plural)

(i) Did you complete the example in (10)?

(ii) What are the five free (adjective) morphemes in the data?

(iii) What are the four pronouns? Are these lexical or functional morphemes?

(iv) What are the three verb suffixes? Are these derivational or inflectional suffixes?

(v) What are the two adjective suffixes? What do you think is the basis for choosing one or the other?

F Using what you learned about Swahili and information provided in the set of examples below, create appropriate forms as translations of the English expressions (1)–(6) that follow.

<i>nitakupenda</i> (“I will love you”)	<i>alipita</i> (“She passed by”)
<i>watanilipa</i> (“They will pay me”)	<i>uliwapika</i> (“You cooked them”)
<i>tutaondoka</i> (“We will leave”)	<i>walimpiga</i> (“They beat him”)

(1) _____ (“She loved you”)

(4) _____ (“We paid him”)

(2) _____ (“I will cook them”)

(5) _____ (“She will beat me”)

(3) _____ (“You will pass by”)

(6) _____ (“They left”)

G These examples are from Samoan, as reported in Yu (2007: 24), and based on Mosel and Hovdhaugen (1992). (The consonant represented by ʔ is a glottal stop, as described in Chapter 3.)

	Singular	Plural
(“love”)	<i>alófa</i>	<i>alolófa</i>
(“clever”)	<i>atamáí</i>	<i>atamamáí</i>
(“work”)	<i>galúe</i>	<i>galulúe</i>
(“brave”)	<i>tóa</i>	<i>totóa</i>

(i) What is the morphological process involved here and where exactly does it take place in the word form?

(ii) What would be the plural of *avága* (“elope”), *má* (“ashamed”), *maʔalíli* (“cold”) and *toʔúlu* (“fall”)?

H Regular nouns in Tamasheq (spoken in north-west Africa) have different forms when they are singular or plural, masculine or feminine.

(i) Using the general patterns in the examples listed here (based on Sudlow, 2001), fill in the missing words to complete the chart.

(ii) Can you describe the general patterns found here relating singular to plural forms of the same noun?

(iii) Are the affixes involved derivational or inflectional? Is there a special term for affixes that have the structure illustrated in most of the plural nouns here?

	Singular		Plural
<i>amadray</i>	("younger brother")	<i>imadrayan</i>	("younger brothers")
<i>amanokal</i>	("chief")	<i>imanokalan</i>	("chiefs")
<i>amawad</i>	("adolescent boy")	<i>imawadan</i>	("adolescent boys")
<i>amaqqar</i>	("older brother")	_____	("older brothers")
<i>amaraw</i>	("parent")	_____	("parents")
<i>anharag</i>	("male neighbor")	_____	("male neighbors")
<i>enhad</i>	("craftsman")	<i>inhadan</i>	("craftsmen")
<i>esed</i>	("donkey")	<i>isedan</i>	("donkeys")
<i>esen</i>	("tooth")	_____	("teeth")
<i>tabarart</i>	("female child")	<i>tibararen</i>	("female children")
<i>tagolayt</i>	("stepdaughter")	<i>tigolayen</i>	("stepdaughters")
<i>tahayawt</i>	("female	_____	("female

	descendant”)		descendants”)
<i>tamadrayt</i>	(“younger sister)	_____	(“younger sisters”)
<i>tamagart</i>	(“female guest)	_____	(“female guests”)
<i>tamaqqart</i>	(“older sister)	_____	(“older sisters”)
_____	(“spoon)	<i>tisokalen</i>	(“spoons”)
_____	(“concubine)	<i>tiwayhaten</i>	(“concubines”)
_____	(“road)	<i>zabotan</i>	(“roads”)
_____	(“market”)	<i>hebutan</i>	(“markets”)
<i>bahu</i>	(“lie”)	<i>bahutan</i>	(“lies”)
<i>bokəti</i>	(“bucket”)	<i>bokətitan</i>	(“buckets”)

I The following examples are from Manambu, a language spoken in northern Papua New Guinea, as reported in Aikhenvald (2008). (There is also a basic description in Aikhenvald and Genetti, 2014.) They illustrate a derivational process in which noun-like forms are created from verb stems. After studying the first set of examples and the additional verb stems, can you add appropriate forms to the sentences below?

Verb stem	Noun-like form
<i>kawar</i> (“to take up”)	<i>kawarkawar</i> (“carrying and going up”)
<i>yawi kur</i> (“to do work”)	<i>yawi kurkur</i> (“doing work”)
<i>nas[ə]</i> (“to count”)	<i>nasənas</i> (“counting”)

warya (“to fight”)

waryawari (“fighting”)

kə (“to eat”)

wali (“to walk around”)

wuk[ə] (“to hear”)

təməl (“to roll”)

war (“to go up”)

wukəmar (“to forget”)

və (“to stare”)

warsam (“to be angry”)

yi (“to talk”)

(1) *kasan* _____ *vyakəta*

peanut-going up-good

(“Peanuts going up/growing fine”)

(2) *adi pato* _____ *tənadi*

those-ducks-walking around-they are

(“Those ducks keep wandering around”)

(3) _____ *ata nal*

rolling-then-there was

(“Then there was a noise of rolling and rolling”)

(4) *nagw* _____ *bər bətay lakubra*

sago-eating-they-already-knew

(“They already knew about eating sago”)

(5) *dayak* _____ *tənad*

at them-being very angry-he is

(“He is very angry at them”)

(6) _____ *akəs təkwanawun*

forgetting-never-I stand

(“I’m never forgetful”)

(7) *lə wuna takwam* _____ *ma*

she-my-wife-staring at-not

(“She is not staring at my wife”)

(8) _____ *wukəna* _____ *suan yina*

hearing-she hears-talking-hard-she talks

(“She hears (and understands), (but) talking is hard”)

Discussion Topics/Projects

I In English, plural forms such as *mice* appear to be treated in a different way from plurals such as *rats*. If you tell people that a place is infested with mice or rats, they will accept the compounds *mice-infested* and *rat-infested*, but not **rats-infested*. This would suggest that the forms with the regular plural affix (-s) follow a different rule in compounding than irregular plural forms such as *mice*. Can you think of a way to state a rule (or sequence of rules) that would accommodate all the examples given here? (The asterisk * designates an unacceptable form.)

<i>teethmarks</i>	<i>the feet-cruncher</i>	<i>lice-infested</i>	<i>a people-mover</i>
<i>clawmarks</i>	<i>the finger-cruncher</i>	<i>roach-infested</i>	<i>a dog-mover</i>
<i>*clawmarks</i>	<i>*the fingers-cruncher</i>	<i>*roaches-infested</i>	<i>*a dogs-mover</i>

(For background reading, see chapter 6 of Pinker, [1999](#).)

II In Turkish, there is some variation in the plural inflection

	Singular		Plural	
(“man”)	<i>adam</i>	–	<i>adamlar</i>	(“men”)

("gun")	_____	–	<i>toplar</i>	("guns")
("lesson")	<i>ders</i>	–	_____	("lessons")
("place")	<i>yer</i>	–	<i>yerler</i>	("places")
("road")	_____	–	<i>yollar</i>	("roads")
("lock")	_____	–	<i>kilitler</i>	("locks")
("arrow")	<i>ok</i>	–	_____	("arrows")
("hand")	<i>el</i>	–	_____	("hands")
("arm")	<i>kol</i>	–	_____	("arms")
("bell")	_____	–	<i>ziller</i>	("bells")
("friend")	_____	–	<i>dostlar</i>	("friends")
("apple")	<i>elma</i>	–	_____	("apples")

(i) Can you provide the missing forms?

(ii) What are the two plural morphs exemplified here?

(iii) Treat the written forms of *a* and *o* as representing back vowels and *e* and *i* as representing front vowels. Using this information, can you state the conditions under which each of the plural morphs is used?

(iv) On the basis of the following phrases, how would you describe the Turkish translation equivalents of *your* and the conditions for their use?

<i>dishin</i>	("your tooth")	<i>topun</i>	("your gun")
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<i>okun</i>	("your arrow")	<i>dersin</i>	("your lesson")
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kushun (“your bird”) *kibritlerin* (“your matches”)

(v) While English usually marks location with prepositions (**in** *a house* or **at** *a place*), Turkish has postpositions (*house-in* or *place-at*). After looking at the following examples, try to identify the three versions of the “location” suffix and the conditions for their use.

(“book”)	<i>kitap</i>	–	<i>kitapta</i>	(“in a book”)
(“chair”)	<i>koltuk</i>	–	<i>koltukta</i>	(“in a chair”)
(“room”)	<i>oda</i>	–	<i>odada</i>	(“in a room”)
(“restaurant”)	<i>lokanta</i>	–	<i>lokantada</i>	(“in a restaurant”)
(“house”)	<i>ev</i>	–	<i>evde</i>	(“in a house”)
(“place”)	<i>yer</i>	–	<i>yerlerde</i>	(“in places”)
(“hand”)	<i>el</i>	–	<i>ellerimde</i>	(“in my hands”)
(“road”)	<i>yol</i>	–	<i>yollarda</i>	(“in roads”)

(vi) When Turkish speakers borrowed (from French) the word *randevu*, meaning “an appointment,” how do you think they expressed “in an appointment”?

(For more examples, see Gleason, [1955](#). For more on Turkish, see Lewis, [2000](#).)

Further Reading

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