

Morphological Variation

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• Linguistics for Juniors¹ •

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1 Terminology review

Morphemes are generally classified as either *inflectional* or *derivational*.

Inflectional ⇒ express grammatical information such as tense, number, person, gender, or case, without creating a new word.

- examples: number, tense, person, gender, case

(1) I walk-ed to her house yesterday
1p.SG walk-PST to 3p.SG.F.POSS house yesterday
'I walked to the house yesterday.'²

Derivational ⇒ create new words by adding meaning-changing elements to a base.

- examples: diminutives, verbalizers, nominalizers

(2) We were excite-d about the announce-ment of the new pig-let-'s birth
1p.PL be.PST excite-RES about the announce-NMLZ of the new pig-DIM-POSS birth
'We were excited about the announcement of the new piglet's birth.'

The above examples utilize a **gloss**, which provides a guide that explicitly breaks down the morphological complexity of words in a sentence example.³

Each line of a gloss corresponds word-by-word and morpheme-by-morpheme to the original sentence:

- the first line shows the original sentence,
- the second line breaks it down into meaningful parts, and
- the third line provides a natural English translation.

Linguists use the standard convention of Leipzig Glossing, which can be found here:

eva.mpg.de/lingua/pdf/Glossing-Rules

¹This handout series was prepared for high school interns participating in the Science Internship Program (SIP) during Summer 2025. It is a work in progress; feedback and suggestions are welcome.

²The glossing abbreviations follow the Leipzig Glossing Rules. Abbreviations used in this handout include: SG (singular), PL (plural), PST (past), PRS (present), IND (indicative), POSS (possessive), NMLZ (nominalizer), RES (resultative), DIM (diminutive), CL (classifier), CAUS (causative), NEG (negation), FUT (future), ACC (accusative), GEN (genitive), LOC (locative).

³In linguistics, a *predicate* is the part of a sentence that describes what is happening or what is being said about someone or something. In 'I walked', the verb *walked* is the predicate because it expresses the action associated with the subject *I*.

Practice What grammatical information is contained within the following words/phrases?

1. exclaimed, exclaim, will explain
2. we, our, us
3. him, her, he, she
4. you
5. dogs, geese, children

2 Morphological typology

The term *typology* describes a system of classification based on broad types or categories. It uses the same Latin root *typus* found in the word ‘type’. In linguistics, *language typology* describes a system of classification of the world’s languages based on broadly defined characteristics, such as word order, morphological behavior, and more⁴.

Here is one method of characterizing languages by morphological behavior:

- **isolating**: languages that tend to use very little affixation and instead express grammatical information through separate words

- (3) Tā chī le yī ge yóutiáo
3psG eat PFV one CL fritter
‘He ate one fritter.’

Mandarin Chinese

- **agglutinating**: languages that largely use affixes to express grammatical information.

- (4) Saç-ım-ı kes-tir-e-me-yebil-ecek-ti-m.
hair-1POSS-ACC cut-CAUS-ABIL-NEG-POSS-FUT-PST-1SG
‘It was likely that I wasn’t going to be able to get my hair cut.’

Turkish

- **inflectional**: languages that bundle a lot of grammatical information into one morpheme or very few morphemes.

- (5) amō
love.PRSINDACT1SG
‘I love.’

Latin

3 Problemset on Zoque

On the following page is a dataset on Zoque, an indigenous language of Mexico spoken by about 100,000 people. The data is written in IPA (the International Phonetic Alphabet). While we won’t

⁴The wording of this section is adapted from a Fall 2024 handout by Maziar Toosarvandani.

discuss the IPA in great detail, here is a key to help you with some of the less familiar symbols⁵.

- [ə] ⇒ pronounced like “uh”
- [ʔ] ⇒ pronounced like the space between “uh-oh”
- [ŋ] ⇒ pronounced like the “ng” in “sing”
- [ʃ] ⇒ pronounced like “sh”

Practice Investigate the list of words and phrases of Zoque provided below, and create a full inventory of all of the morphemes you can identify. How would you say the following?

- booklets
- childlike
- The hens went.
- The fox whelps also come.

pən	man
pəntaʔm	men
pənkəsi	on a man
pənkotoya	for a man
pəhiʔŋ	with a man
pəkəsitaʔm	on men
pəkəsifeh	as on a man
pəʃfeh	manlike
pəʃehtaʔm	like men
nanah	mother
nanahtaʔm	mothers
nanahkotoya	for a mother
ʔunehiʔŋ	with a child
ʔunehiʔŋtaʔm	with children
naka	skin, leather
nakapit	by means of leather
nakapitʃeh	as if by means of leather
yomo	woman
yomotaʔm	women
yomohiʔŋ	with a woman
yomotih	just a woman
yomoʔune	girl
kahʃi	hen
kahʃiʔune	chick
libru	book
libruʔune	booklet
wetu	fox
wetuʔune	fox whelp

⁵This dataset was provided by Jason Ostrove.

teʔ pən	the man
maɲu teʔ pən	the man went.
maɲpa teʔ pən	The man goes.
maɲkeʔtpa teʔ yomo	The woman also goes.
minpa teʔ ʔune	The child comes.
minu teʔ ʔune	The child came.
maɲkeʔtu	He also went.
maɲutih	He went (and did nothing more).