

Language as Science

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PLURALIZATION PROBLEM SETS

Nicaragua Creole English/Miskito Coast English Creole

Spanish

English

Chinese

Haitian Creole

Armenian

Plural Noun Marking in Nicaragua English Creole (Miskito Coast English Creole)

(Adapted from Honda, M., and W. O'Neil. 2008. *Thinking syntactically*. Malden, MA: Wiley-Blackwell)

About the language: Nicaragua English Creole, also known as Nicaragua Creole English, Mískito Coast Creole, Bluefields Creole English, or Rama Cay Creole English, is a language of the coastal Nicaraguan region of Miskito Coast on the Caribbean Sea [map]; its approximately 20,000 speakers are spread over a number of small villages and on the offshore islands of the Miskito Coast.



(map from [APICS](#))

Note: The word *dem* in NCE is borrowed from the English word *them*, but it has a different meaning and use in Nicaraguan Creole English.

Examine the data:

Data Set 1

Nicaraguan Creole English	English translation
a. The boat-dem de in the river.	'The boats are in the river'
b. I did see Ronald book-dem.	'I saw Ronald's books.'

Make a hypothesis: Based on just these two example sentences, what do you hypothesize to be the meaning of the suffix *-dem*?

Examine more data:

Data Set 2

Nicaraguan Creole English	English translation
c. Ronald send to me two dove.	'Ronald sent me two doves.'
d. Is many dog in Bluefields?	'Are there many dogs in Bluefields?'
e. These dog de in the street	'These dogs are in the street.'
f. He want seven case of beer.	'He wants seven cases of beer.'

Make a hypothesis about this data set:

Why do you think these examples don't use *-dem*? Hypothesize about when *-dem* is needed and when it is not.

Test the hypothesis: Is the following sentence possible in this language? If not, how do you hypothesize that it should be changed to become a possible (grammatical) sentence in Nicaraguan Creole?

g. The man-dem a plaant kann.

'The men are planting corn.'

Plural Noun Marking in Spanish

About the language: Spanish is spoken all over the world, and there are estimated to be about 470 million people who speak Spanish as a first language, with another 100 million who speak it as a second language. It is the second most spoken language in the world, after Chinese. In the United States, more than 43 million people speak Spanish as a first language, and many many more speak it as a second (or third) language, which makes the US the second-largest Spanish speaking country in the world, after Mexico.

The data below comes from a Latin American variety of Spanish.

Examine the data:

Examine the data in the two columns, the singular forms of nouns and the plural forms of nouns. Really study these words to try to see some patterns. It's helpful to discuss some of the things you notice with others.

Data Set 1

singular		plural	
<u>Spanish</u>	<u>English translation</u>	<u>Spanish</u>	<u>English translation</u>
libro	'book'	libros	'books'
clase	'class'	clases	'classes'
mesa	'table'	mesas	'tables'
cebolla	'onion'	cebollas	'onions'
mujer	'woman'	mujeres	'women'
papel	'paper'	papeles	'papers'
canción	'song'	canciones	'songs'
joven	'young person'	jóvenes	'young people'

State your findings:

What are some things you notice as you examine the data? You might have found that there are two different ways to make nouns plural. Identify those two distinct plural endings.

Make a hypothesis:

What is it about the words themselves that determines which plural ending is used? Hypothesize about when a Spanish speaker uses each of the two endings. "I hypothesize that the way to form the plural in this variety of Spanish is to..."

Examine more data:

Data Set 2

Consider these additional words and whether they match with the hypothesis you came up with above.

singular		plural	
paraguas	'umbrella'	paraguas	'umbrellas'
tesis	'thesis, theory'	tesis	'theses, theories'

State your findings: What do you think might be different about these nouns that makes their plural rule different from the one you saw in Data Set 1?

Make a hypothesis:

"I hypothesize that no plural ending is added for these words because..."

Revise Hypothesis:

Revise your rule for the formation of plural in Spanish so that you have a single rule that can account for all of the data in Data Sets 1 and 2.

An extra challenge!

Compare the words in Data Set 2, repeated here with their stressed syllables indicated.

Note: An acute accent (´) over a vowel means that the syllable containing that vowel has more stress on it; that is, the syllable is louder or longer or in some way more prominent than the other syllables in the word. You can learn more about syllables and stress here [[link](#)] but that knowledge isn't necessary to do this problem.

Data Set 3:

paráguas	'umbrella'	paráguas	'umbrellas'
tésis	'thesis, theory'	tésis	'theses, theories'
véz	'occasion'	vézes	'occasions'
interés	'interest'	interéses	'interests'

State your findings:

What are some things you notice as you examine the data? Why do you think the first two words, paráguas and tésis have the same form in the singular and plural but the second two have different forms (véz / vézes, interés / interéses)?

Revise Hypothesis:

Revise your rule for the formation of plural in Spanish so that you have a single rule that can account for all of the data in Data Sets 1, 2, and 3.

Plural Noun Marking: English

About the language: English is spoken all over the world, and there are estimated to be about 370 million people who speak English as a first language, with another 978 million who speak it as a second language. It is the third most spoken language in the world, after Mandarin Chinese and Spanish.

Even if you are a speaker of English, you are probably not aware of the rules that underlie how to pluralize nouns in English. Below, you'll consider the ways in which this most common plural ending -s varies according to the ending sound of the word it attaches to.

Examine the data:

Make each of the following words plural, and pay special attention to the **sound** of the plural ending.

Data Set 1	Data Set 2	Data Set 3
top	wig	dish
cat	ball	buzz
buck	rib	church

State your findings:

You should have three different endings: one that sounds like /s/, one like /z/, and a third one that has a vowel before the /z/, which linguists write with an upside down e, called schwa: /əz/.

Re-examine the data:

Reexamine the words in each data set to try to determine what it is about each set that results in that particular plural ending. Discuss some of the things you notice with others.

Collect more data:

Come up with some more words and see which Data Set they fit into when pluralized.

Make a hypothesis:

Hypothesize about when each plural is used.

"I hypothesize that /s/ occurs after...

"I hypothesize that /z/ occurs after...

"I hypothesize that /əz/ occurs after...

Note: **Sibilants** is the name that linguists use to describe the sound of the endings in the words in Data Set 3. These ‘hissing’ or ‘hushing’ sounds group together in many languages.

Test the hypothesis: Even when we encounter new words or made-up words, we know which plural ending to use. Try this by pluralizing each of the following and saying them out loud.

tark	bab	clush
skitskot	sall	blutch

Make up some new words of your own and see if others can make the plural!

Plural Noun Marking in Mandarin

About the language: Mandarin Chinese is the most spoken language in the world. According to Ethnologue, there are 1,119, 961,120 speakers - that's over a billion! - with 921,233,120 first language speakers and another 198,728,000 second language speakers.

Examine the data:

Examine the following singular and plural pairs in Chinese.

singulars		plurals	
Mandarin	English translation	Mandarin	English translation
xióng	'bear'	xióng	'bears'
niǎo	'bird'	niǎo	'birds'
māo	'cat'	māo	'cats'
gǒu	'dog'	gǒu	'dogs'

State your findings:

What do you notice about these singular-plural pairs?

Make a hypothesis:

Hypothesize about how to form the plural in Mandarin.

Note: You probably quickly discovered that Mandarin doesn't add a suffix, like we've seen in some of the other languages. Though it is true that plurals are not marked on nouns in general in the many varieties of Chinese, there are a set of what are called [classifiers](#) or measure words, that occur with nouns when they are used in context. Many languages have these including Swahili, American Sign Language, Japanese, Korean, and Thai.

Plural in Haitian Creole

About the language: Haitian Creole, also known as Ayisyen, Creole, Haitian, Kreyol, Kreyòl, Kreyòl Ayisyen, is a language of Haiti. In Haiti, there are about 7 million speakers, with 8 million spoken in other countries.

Examine the data:

Examine the following singular and plural pairs in Haitian Creole:

singulars		plurals	
Kreyól	English translation	Kreyól	English translation
kay	'house'	kay	'houses'
kabann	'bed'	kabann	'beds'
fi	'girl'	fi	'girls'
tas	'cup'	tas	'cups'

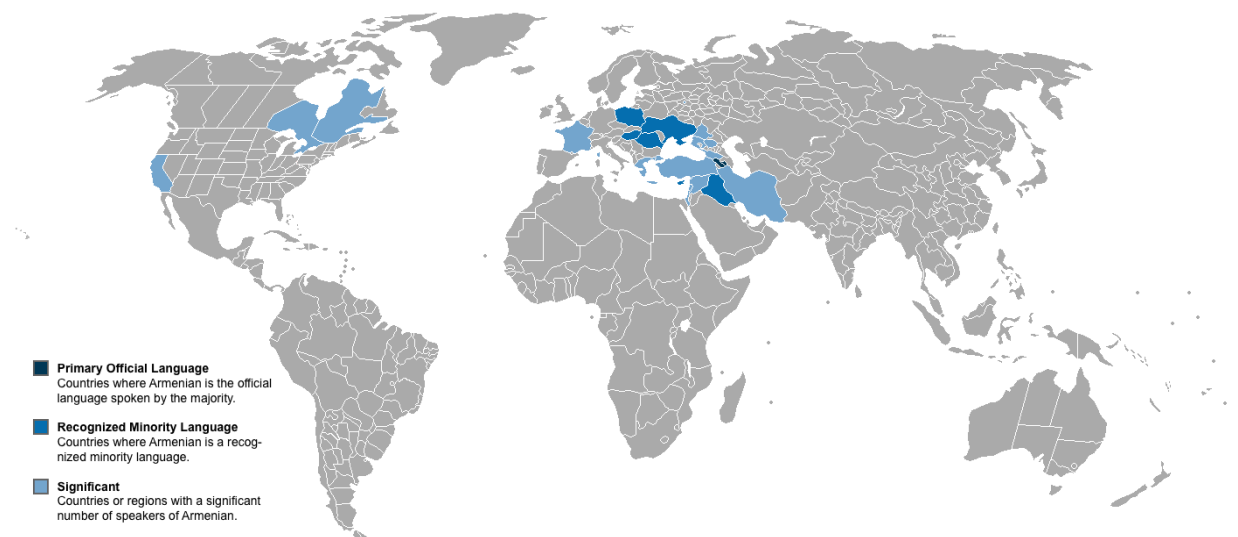
Make a hypothesis:

Hypothesize about how to form the plural in Haitian Creole.

Plural Marking in Armenian

(Adapted from Honda, Maya & Wayne O'Neil. 2008. *Thinking Syntactically*. Wiley-Blackwell)

About the language: Armenian is a language of Armenia with about 3 million speakers. Outside of Armenia, there are another 1 million speakers.



(image from <https://commons.wikimedia.org/wiki/File:Map-of-speakers-of-armenian.png>)

The data that follow illustrate singular nouns and their plural forms in Armenian.

For all of the data in this problem set

- a period marks **syllable** boundaries, breaking the word up into its syllables
- a hyphen (-) marks the boundary of a **suffix**, which may not necessarily coincide with a syllable boundary.
- The words are transliterated from the Armenian writing system; that is, each letter of the Armenian alphabet is given its corresponding representation in the Latin alphabet.

Examine the data:

Data Set 1

Examine the following singular and plural pairs in Armenian. Really study these words to begin to see some patterns. Discuss some of the things you notice with others.

singular		plural	
Armenian	English translation	Armenian	English translation
ga.dou	'cat'	ga.dou-ner	'cats'
tas	'lesson'	ta.s-er	'lessons'
kirk	'book'	kir.k-er	'books'
shov.ga	'market'	shov.ga-ner	'markets'

State your findings:

Just from examining these four pairs of words, you might have determined that a plural is formed by adding a plural suffix (-ner or -er) to the singular form of the noun. Your next task is to hypothesize about when each plural form is used.

Make a hypothesis:

Formulate a hypothesis about when -ner occurs and when -er occurs.

Examine more data:

Data Set 2

Now consider the following data. (Note that by linguistic convention, a word that speakers would judge to be unacceptable in the language is marked with an asterisk *.)

singular		plural	
Armenian	English translation	Armenian	English translation
ha.koost	'dress'	ha.koost.-ner	'dresses'
au.to.nav	'airplane'	au.to.nav.-ner	'airplanes'
doon	'house'	doo.n-er	'houses'
du.gha	'boy'	du.gha.-ner	'boys'
looy.s	'light'	looy.s-er	'lights'
		(not *looy.s.-ner)	
ba.doo.han	'window'	ba,doo.han.-ner	'windows'
		(not *ba.doo.ha.n-er)	

State your findings:

Does your hypothesis you made above account for these additional data? If it does, then discuss how it does. If your hypothesis does not account for these data, then reformulate your hypothesis so that it explains all of the data in both Data Set 1 and 2.

Revise hypothesis (if necessary):

Plurality in Trinidadian Creole

Problem set in progress. Draft notes here:

In Trinidad English Creole, marking singularity and plurality directly on a noun isn't necessary. Instead, number is expressed through an attachment of a plural demonstrative after the noun phrase, as shown below.

De dog en dem.

It's also possible in Trinidad English Creole to indicate plurality through words that express quantity, such as *plenty*, *tumuch*, and *a set a*. This is exemplified here, where each of these conveys that *She has a lot of dresses*.

Shi hav plenty dress.

Shi hav tumuch dress.

Shi hav a set a dress.