

# Lithuanian Mini Grammar

Our idea is to build a mini version of the Lithuanian grammar. At first, I'll talk about the very Lithuanian language. It has two main features.

Specific features of the Lithuanian language:

Many endings  
**Free word order**

One of them is great inflection. Second feature is that every word can be at the beginning of the sentence, in the middle of it and at the very end. That is exactly the feature we are trying to process in our project.

I like this book.

Dieses Buch gefällt mir.  
Mir gefällt dieses Buch.

Man patinka ši knyga.  
Man ši knyga patinka.  
Ši knyga patinka man.  
Ši knyga man patinka.  
Patinka man ši knyga.  
Patinka ši knyga man.

As an example, let's take this sentence which can only have one possible word order in English. In the German language, it has two variants of word order. As for the Lithuanian language, this sentence can be written or said in six different ways.

Man patinka ši knyga ?  
Man ši knyga patinka ?  
Ši knyga patinka man ?  
Ši knyga man patinka ?  
Patinka man ši knyga ?  
Patinka ši knyga man ?

Not to mention, just by adding the question mark at the end, all these sentences become questions without any change of the word order.

# Goal

Finding different translations  
for **each** word order.

Basically what we try to do is to come up with an alternative sentence version for every word combination we have in the Lithuanian language.

Mergaitė valgo obuolį.

The girl eats an apple.

So we have this sentence written in English word order.

SVO

The girl eats **an** apple.

SOV

The girl eats **the** apple.

Marking the difference between Subject-Verb-Object and Subject-Object-Verb is done by changing the indefinite article before the object to the definite one because placing the object in the second position highlights it in the Lithuanian language.

OVS

**An** apple is eaten by the girl.

OSV

**The** apple is eaten by the girl.

The second set of the sentences has object in the first position. We chose passive voice by translating such type of sentences. And the passive voice is unusual for Lithuanian verbs in such cases.

VSO

There is the girl eating **an** apple.

VOS

There is the girl eating **the** apple.

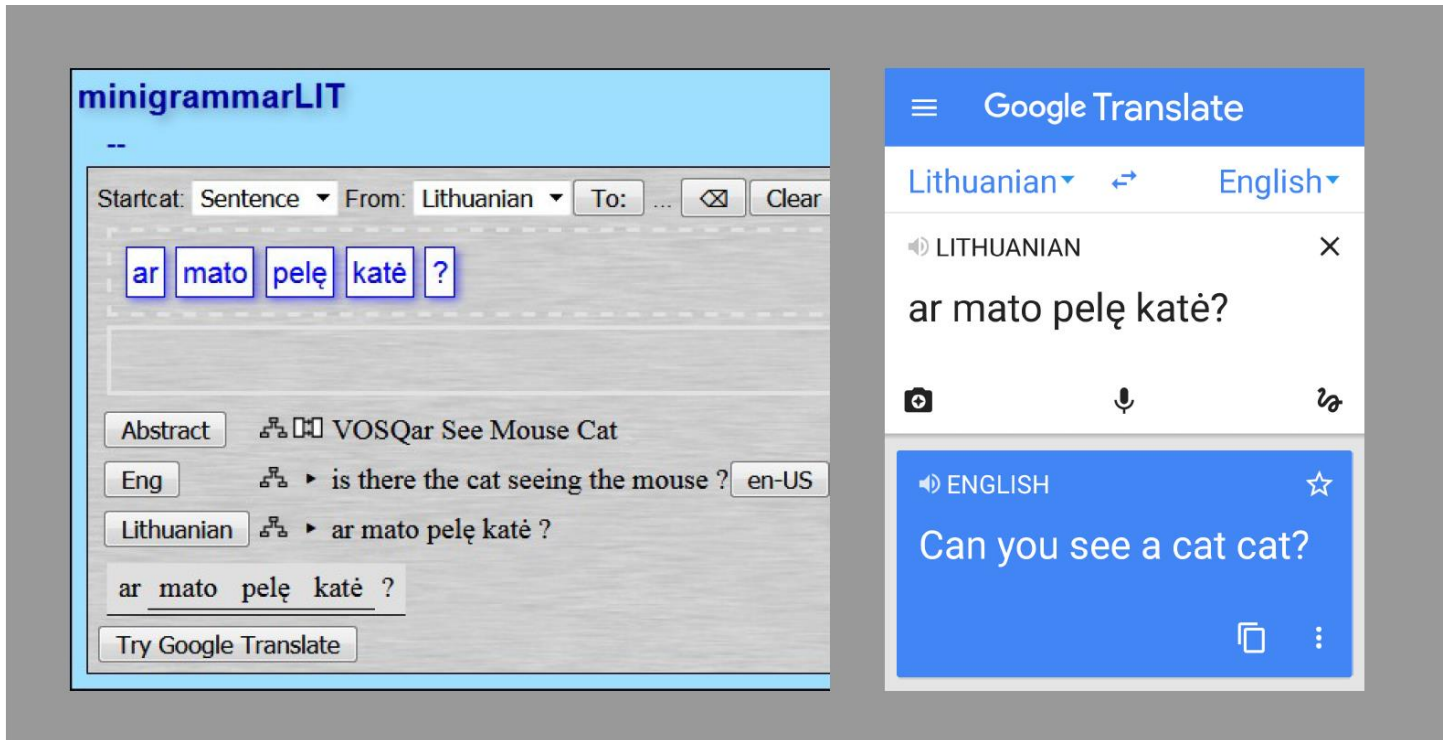
The sentences with the verb in the first position correspond to translation using the construction “there is”.

And now we’ll compare Google and GF translations.

The screenshot shows the 'minigrammarLIT' interface. At the top, it says 'minigrammarLIT' and '--'. Below that, there are dropdown menus for 'Startcat: Sentence', 'From: Lithuanian', and 'To: ...'. The input field contains the Lithuanian sentence 'ar katè mato pelę ?' with each word in a separate box. Below the input field, there are several buttons and text elements: 'Abstract', 'SVOQar See Cat Mouse', 'Eng', 'does the cat see a mouse? en-US', 'Lithuanian', 'ar katè mato pelę ?', and a 'Try Google Translate' button.

The screenshot shows the Google Translate interface. At the top, it says 'Google Translate'. Below that, there are dropdown menus for 'Lithuanian' and 'English'. The input field contains the Lithuanian sentence 'ar katè mato pelę?'. Below the input field, there are several icons: a camera icon, a microphone icon, and a refresh icon. The output field contains the English translation 'Does the cat see the mouse?'.

When using the English word order in Lithuanian sentence, the results are good in both cases.



When the Lithuanian word order is used, Google translation gives inexplicable sentence.

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