

# Guidelines for Proposition Creation

## Introduction

Propositions are semantic meaning representations of texts that are used in information extraction.

Here, several propositions may be extracted from a sentence.

The prototypic proposition consists of three elements, namely **subject**, **predicate**, and **object**:

Original sentence	Proposition 1
I ate an apple	I  ate  an apple

*Example 1: Simple proposition extraction*

A proposition needs to be as true on its own as it is in a sentence. All elements that are part of an information piece should be included.

## Annotation

### Tool instructions

This annotation is performed in Excel. Please write propositions in the column of the same row as the original sentence. Each proposition is to be written in a box of its own:

Original sentence 1	Proposition 1.1	Proposition 1.2
Original sentence 2	Proposition 2.1	Proposition 2.2

### Proposition structure

The first element is always the subject and the second the predicate. Further element order is not restricted.

Here, propositions cannot only contain several objects, but also modifiers, e.g. temporal (e.g. tomorrow, now, in 1990 ...) or local modifiers (e.g. here, in Paris, outside, ...).

Subjects and objects that are semantically differing objects that are as true separately as they are together, are reformulated to several propositions:

I ate an apple and a pear	I  ate  an apple	I  ate  a pear
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However, if the produced propositions would not be true, they cannot be made:

I ate an apple or a pear	<del>I  ate  an apple</del>	<del>I  ate  a pear</del>
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Adjectives and adverb belong to the element they grammatically refer to:

I only ate an apple	I  only ate  an apple
I ate an apple only	I  ate  an apple  only
I ate only an apple	I  ate  only an apple

If a sentence is not split in several proposition, the proposition must contain each word of the sentence.

## Features of propositions

Produce only propositions that are **asserted**, not implied or entailed in the original sentence:

I succeeded in eating the apple	I  succeeded in eating  the apple	<del>I  ate  the apple</del>

The propositions should be as **minimal** as possible, but also be **complete**, meaning not omit any needed information:

### Subject

A subject mostly answers the question of Who? Or if it an inanimate object also What? In English, it mostly has the first position in a sentence. As an example see Example 1.

However, here, “there” can also act as a subject

There are apples	There  are  apples
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If the **subject** is missing, it needs to be marked

Ate an apple	[subject missing]  ate  an apple
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If a subject can be anaphorically inferred without doubt, insert the correct subject.

If you are hungry, eat an apple	[you]  eat  an apple  if you are hungry	you  are  hungry
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### Predicate

A predicate has to contain a verb. In English, it mostly has the second position in the sentence.

As an example see Example 1.

If the **predicate** is not explicit, insert a fitting implicit verb (mostly an auxiliary verb e.g. to be, to have)

Sweet Apple!	apple  [is]  sweet
Sweet Pink Lady	Pink Lady  [is]  sweet
Green apple tree	apple tree  [is]  green

In the second case “Pink Lady” is a proper noun and is thus treated as an inseparable entity. In the third case, “apple tree” is a compound noun and is thus also treated as an inseparable entity.

If there is neither a clear subject nor a verb, try to use the phrase as a subject or object/modifier, depending on what makes more sense:

Apple!	Apple  is
Sweet	[subject missing]  is  sweet
tomorrow	[subject missing]  is  tomorrow

Sometimes the verb does not have the second position in the sentence. However, in the proposition, it must be on the second position:

After that  I ate the apple.	I  ate  the apple  after that
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If there are **several verbs, that semantically describe the same action**, they are treated as one predicate. Mostly these are verbs that are written in one sequence, excluding to-infinitives and gerunds:

I would have eaten an apple	I  would have eaten  an apple
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But:

I like eating apples	I  like  eating apples
I like to eat apples	I  like  to eat apples

I like eating apples	<del>I  like eating  apples</del>
I like to eat apples	<del>I  like to eat  apples</del>

**Auxiliary and modal verbs** are part of the predicate

I have eaten an apple	I  have eaten  an apple
I must eat an apple	I  must eat  an apple

This also applies to colloquial or rhetoric use of auxiliary verbs:

I did do eat this apple	I  did do eat  this apple
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Constructions with infinitives are regarded as elements:

I tried to eat an apple	I  tried  to eat an apple
I have to eat an apple	I  have  to eat an apple

If there are **several verbs, that describe the different actions that are not both part of a main clause**, they are treated as two separate predicates.

Guess what  I ate an apple	[subject missing]  guess  what	I  ate  an apple
I ate an apple and went home	I  ate  an apple	I  went  home

### *Objects and Modifiers*

The **object** is optional, meaning there can be propositions without an object:

I ate	I  ate
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If there are **further objects**, or **modifiers**, they are also part of the proposition and are attached at the end:

I ate an apple with him yesterday	I  ate  an apple  with him  yesterday
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There are prepositions that function as modifiers e.g. *there, here, in, out, after, ...* . These are to be treated as independent objects:

I ate an apple there	I  ate  an apple  there
I was there for lunch	I  was  there  for lunch

There are also modifiers that contain further propositions

I ate an apple where I parked my car	I  ate  an apple  where I parked my car	I  parked  my car
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### *Other phenomena*

If there is a **negation**, it is attached as part of the element that it negates:

I did <b>not</b> eat an apple	I  did <b>not</b> eat  an apple
I ate <b>no</b> apple	I  ate  <b>no</b> apple

In case of unclearness of what element exactly is negated, it should be attached to the verb if it is “not” and to another element if it is “no”.

### Adverbs of frequency

Adverbs of frequency, such as always, finally, never, usually, etc., are independent elements:

I finally ate the apple	I  ate  the apple  finally
I almost never eat apples	I  eat  apples  almost never

### Subordinate clauses

Difference between dependent and independent clause:

Dependent:

If you're sick, eat an apple	you  eat  apple  if you're sick	you  're  sick
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The subordinate clause is used as an element of the proposition in this case.

Also, in the case of dependent relative pronouns (no comma mostly), include the information in the proposition:

I ate an apple which was red	I  ate  an apple which was red	
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### Independent

~~In the case of independent relative pronouns, the information in the pronoun should left out in the first proposition, as shown in the first example:~~

<del>I ate an apple  which was red</del>	<del>I  ate  an apple</del>	<del>the apple  was  red</del>	
<del>After I came home  I ate an apple</del>	<del>I  came  home</del>	<del>I  ate  an apple</del>	

### Independent

In the case of independent relative pronouns, treat it in the same way:

I ate an apple, which was red	I  ate  an apple, which was red	An apple  was  red	
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After I came home, I ate an apple	I  ate  an apple  after I came home	I  came  home	
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### Orthographic mistakes / Grammar

Make proposition like you understand the text (with orthographic mistake)

Please do not correct orthographic mistakes!

The apples where sweet	The apples  where  sweet
	<del>The apples  were </del> sweet

Connections with conjunctions

Let “with”, “between” semantically together, if it belongs to one of the objects:

I ate the apple with honey	I  ate  the apple with honey
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If it belongs to an independent object, it should be treated as such:

I ate the apple with you	I  ate  the apple  with you
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### Direct or indirect speech

Everything that is *said*, *told*, *answered*, ... is treated as an object. If that object contains another sentence, make a proposition out of it.

I said that the apple was sweet	I  said  that the apple was sweet	the apple  was  sweet
I asked whether the apple was sweet	I  asked  whether the apple was sweet	the apple  was  sweet
I replied that the apple was sweet	I  replied  that the apple was sweet	the apple  was  sweet

### Named Entities

Do not split named entities:

Snow White ate the apple	Snow White  ate  the apple	<del>Snow  ate  the apple;</del> <del>White  ate  the apple</del>
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### Prepositions

In case a preposition cannot semantically be attached to an object, it is part of the predicate

I asked for an apple.	I  asked  for an apple.
I found out about the apple	I  found out  about the apple

I ate a red apple and sneezed	I  ate  a red apple	I  sneezed	<del>I  ate  a red apple </del> <del>and sneezed</del>	<del>I  ate  an apple</del>
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The *sneezing* is a separate proposition. *Red* cannot be left out

## Examples for difficult cases

### Adjectives

I was hungry	I  was  hungry
It can be busy	It  can be  busy

### Temporal adverbs

I am always hungry in the morning	I  am  always  hungry  in the morning	
The apple	It  can be  busy	

### Indirect speech

I asked how tasty the apple from my parents' garden was with respect to its sweetness	I  asked  how tasty the apple from my parents' garden was with respect to its sweetness	the apple from my parents' garden  was  tasty with respect to its sweetness
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### Ungrammatical

How the apple tasted	how the apple  tasted	
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### Passive

The apple was eaten by me	the apple  was eaten  by me
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### Questions

If the question contains another verb| it is treated as separate predicate

What did you do with the apple?	What  did  you do with the apple?	you  do  with the apple
How is that my fault?	how  is  that my fault?	

### Imperative

Let's eat the apple!	[subject missing]  let eat  's  the apple	
Do as I say!	[subject missing]  do  as I say	I  say

### Participle used as an adjective

I am disappointed by the apples taste	I  am  disappointed by the apples taste
The apple shop feels crowded	the apple shop  feels  crowded
It can be disappointing	it  can be  disappointing

### Dependence of elements / Subordinate clauses

If an element is dependent on one other element, be it a modifier or a subordinate clause, it must be placed with the element it is dependent on and not as an independent element

It was interesting that I ate an apple	It  was  interesting that I ate an apple	I  ate  an apple
When she finally came over, she said yes.	she  said  yes  when she finally came over	she  finally came  over

### Independence of elements

I ate an apple here	I  ate  an apple  here	
I ate an apple while you talked about the pear.	I  ate  an apple  while you talked about the pear	you  talked  about the pear
The recommendations given by the waiter were amazing	The recommendations  given  by the waiter  were amazing	
He made me hungry	He  made  me hungry <sup>1</sup>	

### Conjunctions

I ate neither apple nor pear.	I  ate  neither apple nor pear	
I ate no apple or pear	I  ate  no apple	I  ate  no pear

### Make smb. do smth.

She made me eat the apple	She  made  me eat the apple
He made you feel hungry	He  made  you feel hungry

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<sup>1</sup> “hungry“ belongs to “me“, it is not independent and does not belong to “make“. If the sentence would be “He made me coffee”, “coffee” would be independent of “me” and it would belong to coffee.