



## C-Unit Segmentation Rules

The analysis of oral language samples requires recorded speech to be segmented or divided into units. There are a few different approaches to segmenting utterances, such as phonological units, T-units, and C-units. This document describes the rules for segmenting utterances into Communication Units (C-units), a rule-governed and consistent way to segment utterances.

Disclaimer: There is variation in the literature on how to segment utterances into C-units. All of the samples in the English SALT reference databases were segmented into C-units following the rules in this document. If you intend to compare your sample with samples selected from these databases, you should segment utterances following the same rules.

### Definitions

- C-Unit  
The formal definition of a C-unit is “an independent clause with its modifiers”. It includes one main clause with all subordinate clauses attached to it. It cannot be further divided without the disappearance of its essential meaning.
- Clause  
A clause, whether it is the main clause or a subordinate clause, is a statement containing both a subject and a predicate. Grammatically, a subject is a noun phrase and a predicate is a verb phrase.

### Segmenting Utterances into C-Units

Main clauses can stand by themselves and can be segmented into one C-unit. Subordinate clauses **DEPEND** on the main clause to make sense. They cannot stand alone or be separated from the main clause. So a C-unit will either consist of a main clause or a main clause with its subordinating clause(s). The following examples are broken down into main and subordinate clauses. The main clause is bolded and the subordinate clauses are underlined.

**The canary was perched on a branch** when the man approached him.  
**Anastasia was angry with her mother** because she didn't get to buy a toy.  
When the boy looked in the jar **he saw** that the frog was missing.

Notice the subordinate clauses cannot stand alone, or are incomplete, without the main clause. Thus, they are not separated (segmented further) from the main clause. Each of the above utterances consists of one C-unit and would be transcribed as:

- C The canary was perched on a branch when the man approach/ed him.
- C Anastasia was angry with her mother because she did/n't get to buy a toy.
- C When the boy look/ed in the jar, he saw that the frog was missing.

## Coordinating and Subordinating Conjunctions

When segmenting into C-units it is important to understand the different types of conjunctions which are used to link clauses. There are *coordinating* conjunctions and *subordinating* conjunctions.

- Coordinating Conjunctions

The segmenting rule is simple when utterances contain coordinating conjunctions. These conjunctions link two main clauses which should be separated/segmented into two utterances (or two C-units) that can each stand alone. Common coordinating conjunctions include: and, but, so (not “so that”), and then, then.

Example 1:

C The frog was sit/ing on a lily pad.

C And then it jump/ed in.

Example 2:

C He had to catch the frog.

C Or the waiter would make them leave.

Example 3:

C He climb/ed up on the branch/s.

C But they were/n't branch/s.

Example 4:

C My aunt gave me money for my birthday.

C So I use/ed it to buy some new jeans.

- Subordinating Conjunctions

Subordinating conjunctions link a main clause and a subordinate clause. A C-unit includes the main clause with all subordinate clauses attached to it. The following are examples of subordinating conjunctions:

Early Development: because, that, when, who

Later Development: after, before, so (that), which, although, if, unless, while, as, how, until, as\_\_as, like, where, since, although, who, before, how, while

Examples 1:

C He went to the store because he was out of milk.

Example 2:

C When the boy saw it, the frog jump/ed.

Example 3:

C The man, who usually come/3s to my exercise class, was/n't there today.

Example 4:

C We can/'t find my cat who always run/3s away.

- “because” and “so”

Always consider "because" as a subordinating conjunction. It will not start an utterance unless:

A) It is preceded by the utterance of another speaker as in this example:

- C I like/ed the movie alot.
- E Why did you like it?
- C Because it was really funny.

OR

- B) The subordinating clause is the first clause in the utterance as in this example:
  - C Because my mom was so mad, I did my homework first thing after school.

The word “so” can either be a coordinating conjunction or a subordinating conjunction. If its usage means “so that”, it is a subordinating conjunction. Otherwise it is a coordinating conjunction.

Example 1 (“so” used as a coordinating conjunction):

- C He had to go home.
- C So we could/n’t go to the game.

Example 2 (“so” used as a subordinating conjunction):

- C He had to go home so his mom could take him to the dentist.

#### Other rules for segmenting C-units

- Sentence fragments

Sentence fragments are counted as separate C-units when the final intonation contour of the utterance indicates that a complete thought has been spoken. For example:

- C The boy, the dog, and the frog, they were friend/s.
- Versus
- C The boy, the dog, and the frog. {fragment based on intonation}
- C They were friend/s.

- Elliptical responses

Elliptical responses (sentence fragments) to questions or prompts from the examiner are counted as separate C-units. For example:

- E What did you do next?
- C Shop/ed.

- Yes/No responses or affirmations

If a question or intonation prompt is posed, segment the yes/no response from the subsequent utterance when succeeded by a complete utterance/c-unit. Examples:

- E Is that the Spanish teacher?
- C No.
- C That/'s my science teacher.

E Do you want to read your book now?  
C No.  
C I don't.

E Do you have any pet/s?  
C Yeah.  
C I have a dog.

If a Q or intonation prompt is posed, do *not* segment the Y/N response to stand alone when followed by an incomplete utterance/c unit.

E Do you have any pet/s?  
C Yeah, a dog.

If an utterance begins with an affirmation or starter, and does not follow a question or ~ prompt, do not segment the affirmation/starter from the subsequent words.

E I like dog/s.  
C Yeah I do too.  
E That sound/s interesting.  
C Yeah it was.  
C It was really fun.  
C Yeah we had such a great time.

- Tags

Do not segment phrases such as “you know”, “I guess”, and “I mean” when they are used as tags. For example:

C He/'s gonna live with his dad, I guess.  
C And then, you know, they were go/ing to this town.

- Questions as Tags

Do not segment questions when they are used as tags. For example:

C They got in trouble, right?  
C He miss/ed the bus, did/n't he?

- Dialogue Complement/Complement

Dialogue quotes which are embedded in, or as part of, an utterance are counted as one C-unit as in this example:

C And the boy said, “That/'s my frog”.

Successive main clauses that occur in dialogue quotes are counted as separate C-units. For example:

C And he said, “I/'m ready”.  
C “I want to go to the store now”.

Complement:

- C She thought, "Sam was incorrect".
- C He realize/ed, nothing has changed.

- Grammatical errors

Ignore grammatical errors when segmenting utterances. For example,

- C They is[EW:are] go/ing now.  
{child said, "They is going now."}
- C We \*are go/ing too.  
{child said, "We going too."}

- Pauses and intonation

Do not ignore pauses and intonation when segmenting utterances but, whenever reasonable, segment utterances based on grammar rules. When listening to speech, for example, there is sometimes a significant pause (with or without ending intonation) between a main clause and a subordinate clause. This inclines one to segment the utterance. With C-unit segmentation, however, the utterance would not be segmented as in this following example where the speaker paused for two seconds between the main clause and the subordinate clause:

- C I like/ed the movie alot :02 because it was really funny.

In the following example, however, consider pause time and intonation:

- C I like/ed the movie alot.
- : :02
- E Mhm.
- C Because it was really funny.

If there is a significant pause and ending intonation (falling for statements, rising for questions) between the speaker's first utterance and the examiner's "Mhm", segment the utterances as show above. Otherwise, give the speaker credit for subordination and transcribe these "prompt sounds" as interjections as follows:

- C I like/ed the movie alot :02 < > because it was really funny.
- E <Mhm>.

### References:

The rules for C-unit segmentation were summarized from Hughes, McGillivray, and Schmidek (1997), Loban (1976), Strong (1998), and Jon Miller's class notes from Communicative Disorders 640, Fall, 1999.