

Portfolio Assignment: Sentence Parsing

Friday, March 3, 2023 8:44 PM

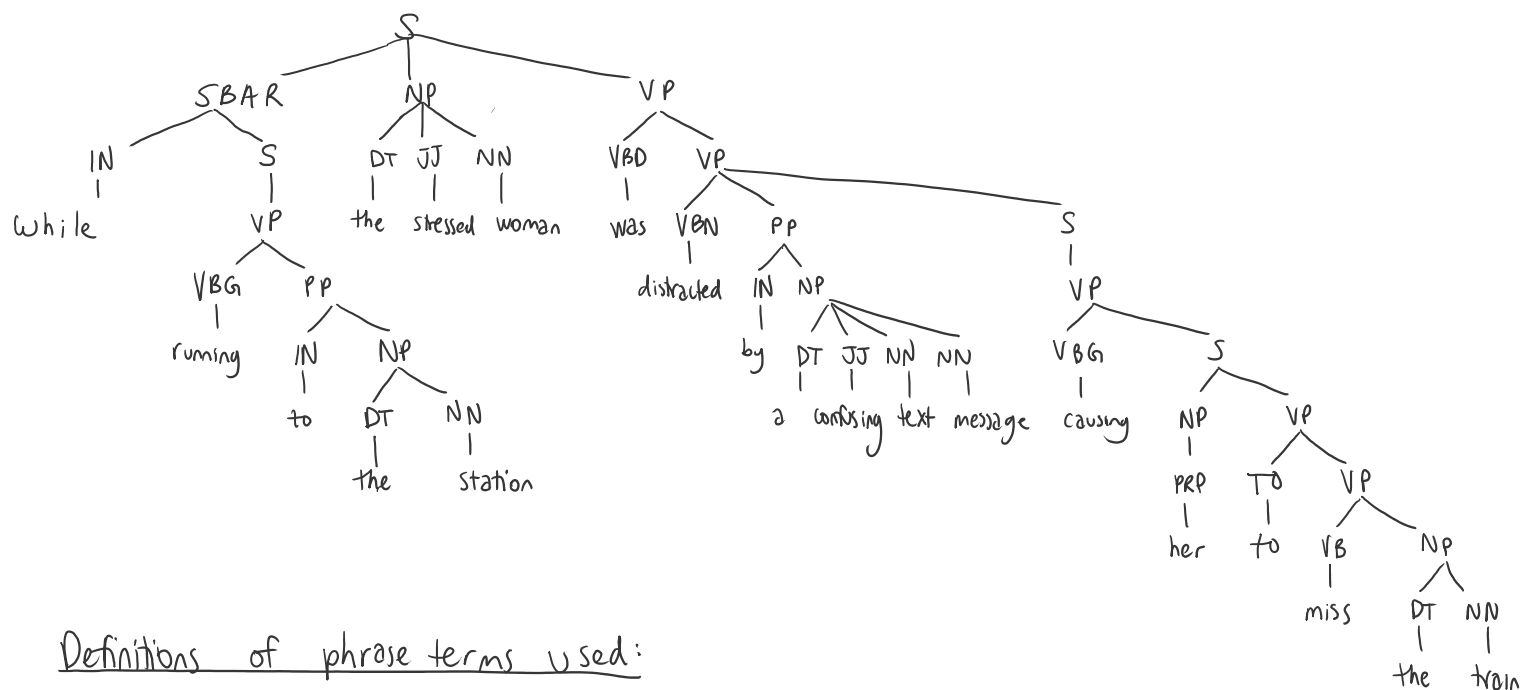
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3/4/2023

1) Sentence to be parsed:

While running to the station, the stressed woman was distracted by a confusing text message, causing her to miss the train.

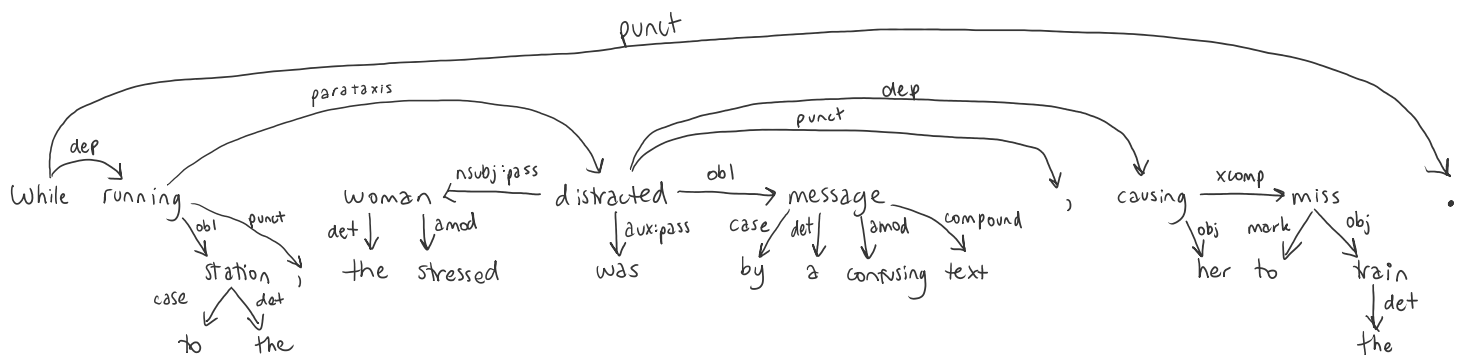
2) PSG Tree:



Definitions of phrase terms used:

- S - Simple declarative clause
- SBAR - Clause introduced by a subordinating conjunction
- IN - Preposition or subordinating conjunction
- VP - Verb phrase
- VBG - Verb, gerund or present participle
- PP - Prepositional phrase
- NP - Noun phrase
- DT - Determiner (such as 'the')
- NN - Noun, singular or mass
- JJ - Adjective
- VBD - Verb, past tense
- VBN - Verb, past participle
- PRP - Personal pronoun
- TO - The word 'to'
- VB - Verb, base form

3) Dependency Parse



Definitions of dependency relations in the parse:

punct - punctuation

dep - dependent

parataxis - placing clauses one after the other without coordination/subordination words

obl - oblique nominal, a nominal functionally corresponding to an adverbial attaching to a verb, adjective, or other adverb

case - case marking, used to treat prepositions, postpositions, and clitic case markers as dependents of the noun they attach to

det - determiner

amod - adjectival modifier

nsubj:pass - passive nominal subject

aux:pass - passive auxiliary

compound - noun compounds (such as phone book)

obj - object

xcomp - clausal complement with external subject

mark - marker, the word marking a clause as subordinate to another clause

4) SRL Parse

1) verb: running

numbered arguments:

- Arg0: the stressed woman
In this case, "the stressed woman" is the agent doing the running.

modifiers:

- DIR: to the station
Definition: Motion along a path

2) verb: was

No arguments or modifiers

3) verb: distracted

numbered arguments:

- Arg0: by a confusing text message
In this case, the "confusing text message" is the agent doing the distracting.
- Arg1: the stressed woman
In this case, "the stressed woman" is the passive actor being distracted.

modifiers:

- TMP: While running to the station
Definition: When the action happened
- PRD: causing her to miss her train
Definition: Secondary predication

4) verb: causing

numbered arguments:

- Arg1: her to miss the train
In this case, missing the train is the passive actor being "caused."

5) verb: miss

numbered arguments:

- Arg0: her
In this case, "her" is the actor that is doing the missing.
- Arg1: the train
In this case, "the train" is the passive actor that is being "missed".

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6) Pros/Cons of each parse

The pro of the PSG parse is that it provided a visually clear breakdown of the sentence. Even though my sentence had multiple verb phrases, the PSG parse helped break down these phrases into smaller subtrees that were easier to process. The con of the PSG parse is that it did not help me interpret the meaning/semantics of the sentence. While it did break apart my multiple clauses and verb phrases, it did not help me understand the relationships between these clauses, and how they modify each other. In comparison with the PSG parse, the pro of the dependency parse is that I was able to better understand the relationships between the different phrases of my sentence. For instance, I was able to see that "causing her to miss her train" was dependent on the verb "distracted". Additionally, the graph allowed me to easily see which words in the sentence were most impactful to the meaning of the sentence as a whole, based on how many relationships they had with other words. The con with the dependency parse is that it was visually difficult to comprehend, as the relationships were not in a simple hierarchical relationship like they were in the PSG parse. The pro of the SRL parse is that it provided the most precise insight into the meaning of my sentence. Through its labeling of numbered arguments, I was able to understand who the actor nouns in the sentence were, and what nouns were being acted on. Additionally, the modifiers were labeled more specifically than they were in the previous parses. For example, my adverbial phrase "While running to the station" was labeled as 'TMP' due to it indicating a period of time. Thus, from the parse alone, I was able to gain a much better understanding of the actual meaning of the words in the sentence. The con of this parse is that it only helped break down my verb phrases, and did not help with the semantics of some of my other words, like adjectives.