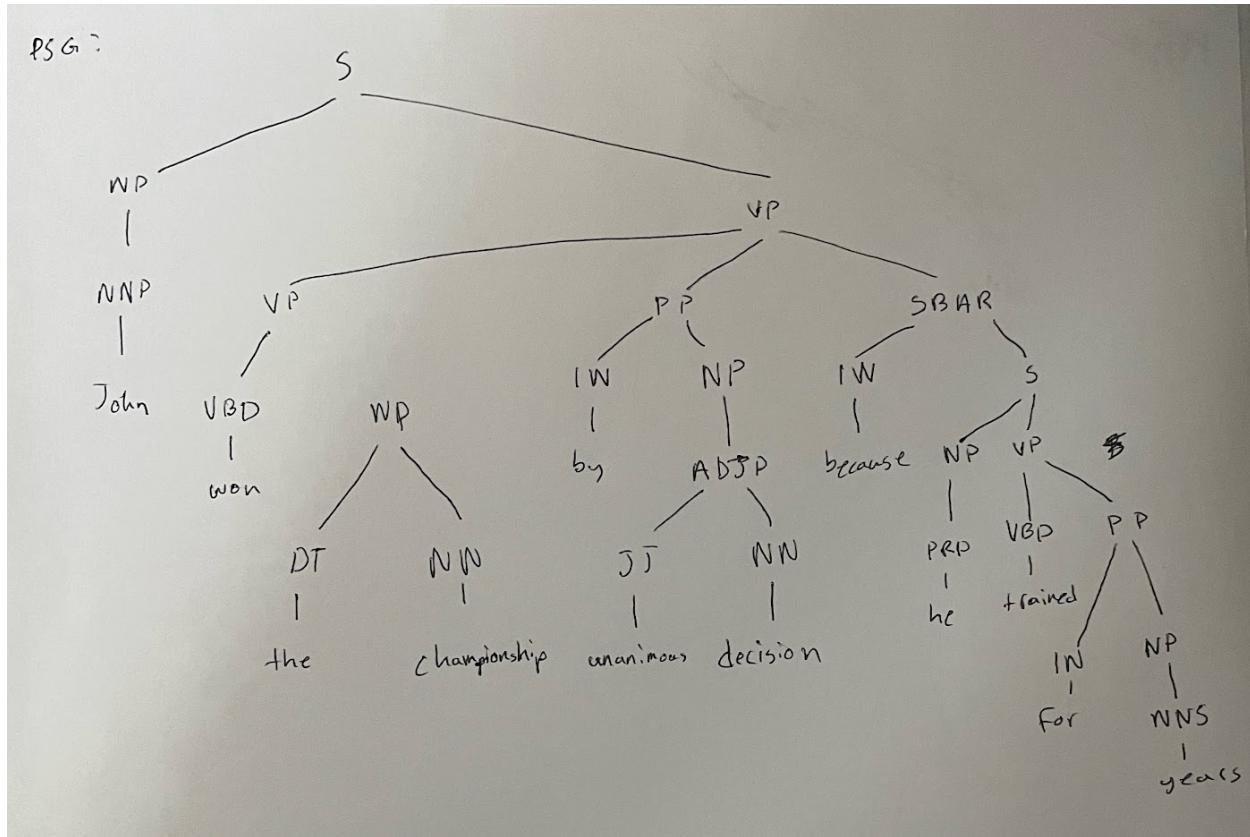


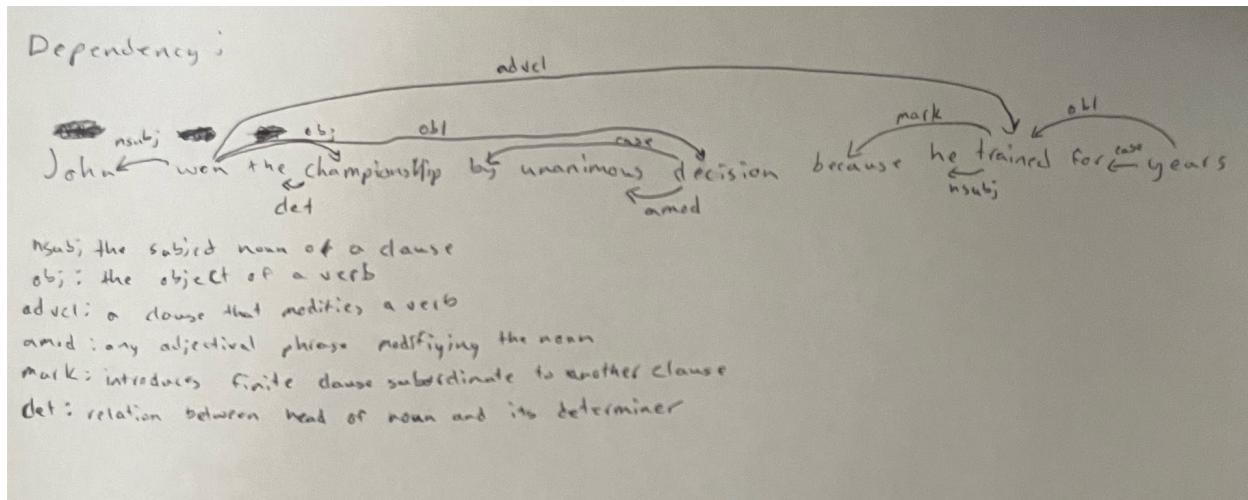
Portfolio Assignment: Sentence Parsing

Sentence: John won the championship by unanimous decision because he trained for years.

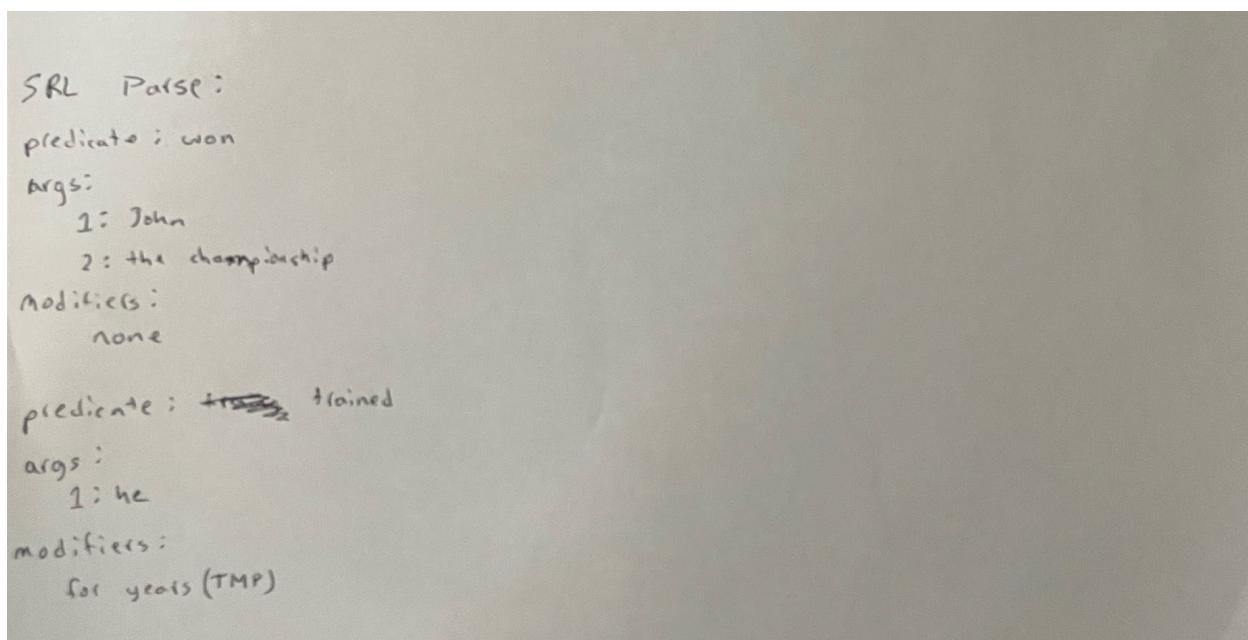
PSG:



Dependency:



SRL:



Arg 1(John) is related to won as it specifies who did the winning.

Arg 2(the championship) is related to won as it specifies what was won.

Arg 1(he) is related to trained as it specifies who did the training.

The modifier(for years) specifies the time that the training lasted for.

Pros and Cons:

PSG:

Some of the pros of this kind of parse is that it generates a good representation of a sentence's syntax. It also labels all of the POS which allows someone or a machine learning model to know

the classification of a word. Some of the cons are that it requires a lot of processing power. And since languages are dynamic, it can be hard to formalize a grammar to classify words into.

Dependency:

A dependency parse is great for identifying relationships between words. As this is an integral part of speech, it is really helpful for machine learning models to have access to this kind of information. Another pro is that it is a more efficient method of parsing. A con is that since they only focus on dependencies, they don't provide a complete breakdown of the system's syntax. Another con is that since language is dynamic, you cannot account for all dependency relationships in a language.

SRL:

An SRL parse is great for getting a breakdown of a sentence's semantics. As semantics is all about what words mean, this is essential for a machine learning model to determine what an input sentence means and how to respond. And since it organizes based on predicates, it can handle complex sentences easier than other parses. A con is that it is not very good at handling slang, as it relies on a predefined set of semantics. Another con is that it takes a lot of processing power.