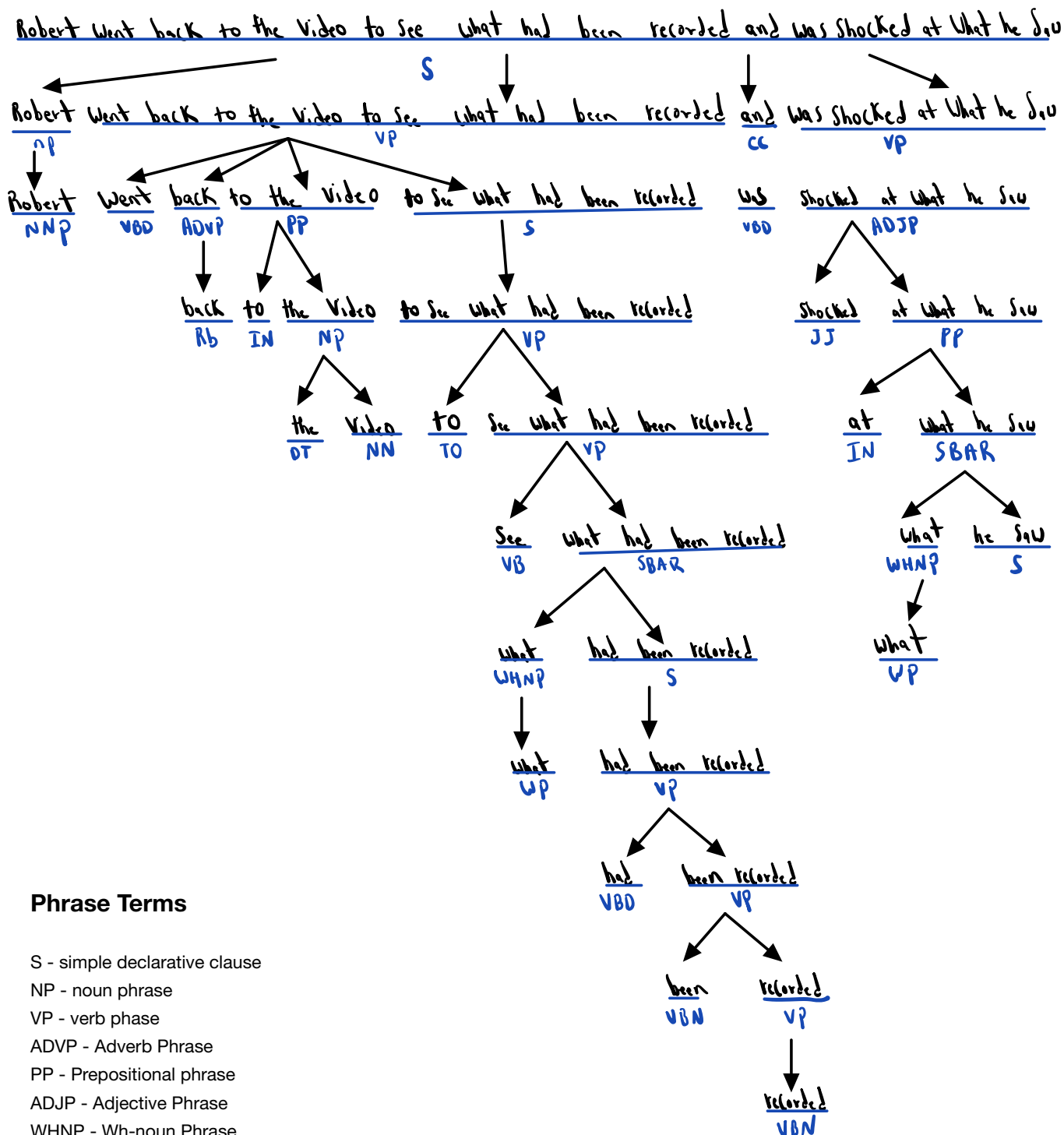


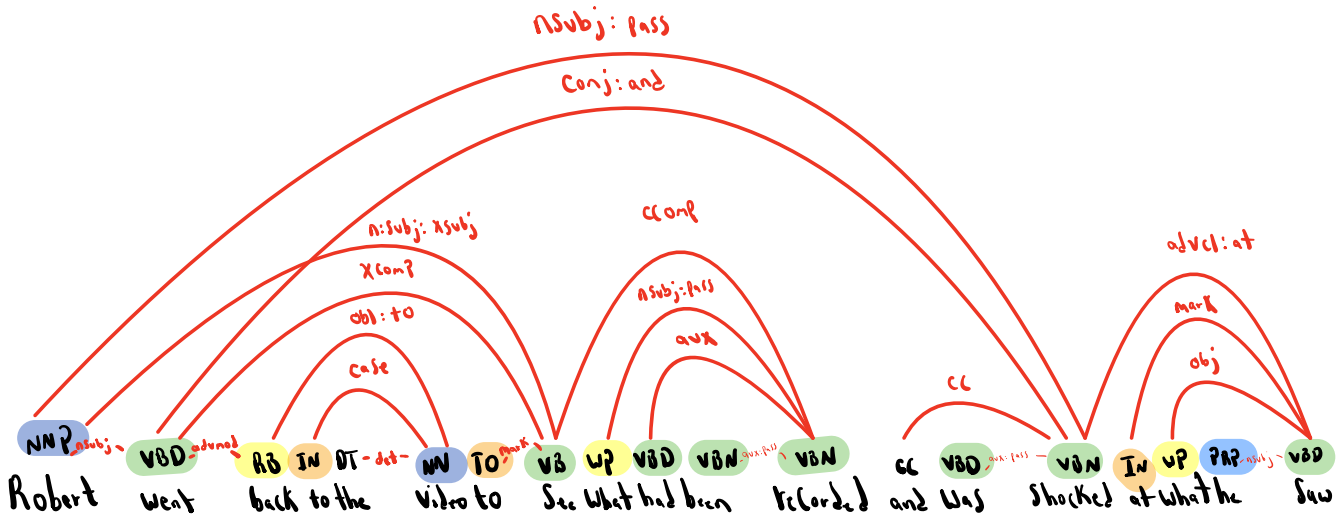
Sentence Parsing

PSG Parse

Sentence: Robert went back to the video to see what had been recorded and was shocked at what he saw.



Dependency Parse



Dependency Relations

aux: An auxiliary of a clause is a non-main verb of the clause

cc: A coordination is the relation between an element of a conjunct and the coordinating conjunction word of the conjunct

advcl: An adverbial clause modifier of a VP or S

ccomp: A clausal complement of a verb or adjective is a dependent clause with an internal subject which functions like an object of the verb, or adjective

mark: A marker is the word introducing a finite clause subordinate to another clause

nsubj: A nominal subject is a noun phrase which is the syntactic subject of a clause

xcomp: An open clausal complement (xcomp) of a verb or an adjective is a predicative or clausal complement without its own subject

advmod: An adverb modifier of a word is a (non-clausal) adverb or adverb-headed phrase that serves to modify the meaning of the word

det: A determiner is the relation between the head of an NP and its determiner

obj: Direct object

SRL Parse

1. Went

Robert Went back to the Video to see what had been recorded and was shocked at what he saw
Arg 0 Verb Arg 4 modifier: PRP

2. See

Robert Went back to the Video to see what had been recorded and was shocked at what he saw
Arg 0 Verb Arg 1

3. had

Robert Went back to the Video to see what had been recorded and was shocked at what he saw
Verb

4. been

Robert Went back to the Video to see what had been recorded and was shocked at what he saw
Verb

5. recorded

Robert Went back to the Video to see what had been recorded and was shocked at what he saw
Arg 1 Verb

6. was

Robert Went back to the Video to see what had been recorded and was shocked at what he saw
Verb Arg 2

7. Saw

Robert Went back to the Video to see what had been recorded and was shocked at what he saw
Arg 1 Arg 0 Verb

Pros and Cons

PSG Parsing

Pro: Good when we want to extract sub-phrases from the sentence

Con: natural language is often ambiguous, meaning there can be multiple valid parse trees for the same sentence.

Dependency Parsing

Pro: can be more useful for several downstream tasks like Information Extraction or Question Answering.

Con: The model is much more complex than the other parsing methods

SRL Parsing

Pro:

- It recognizes virtually all programming language constructs for which CFG can be written
- It can detect syntactic errors
- It is an efficient non-backtracking shift reducing parsing method.

Con: It doesn't capture useful semantics about nouns and noun phrases