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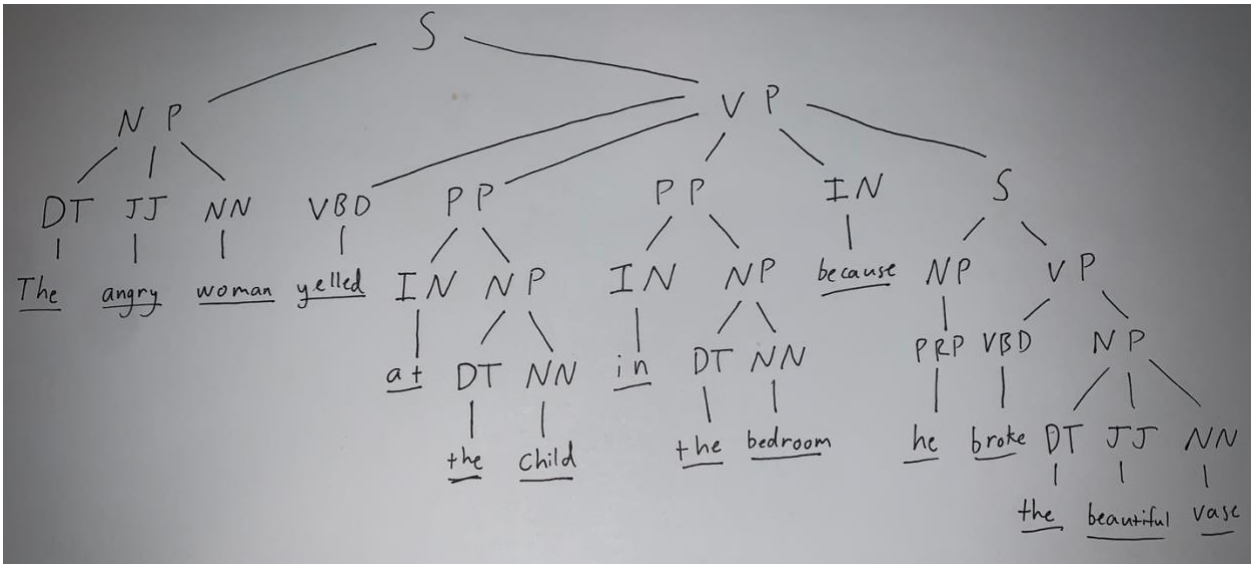
Sentence Parsing

Sentence:

The angry woman yelled at the child in the bedroom because he broke the beautiful vase

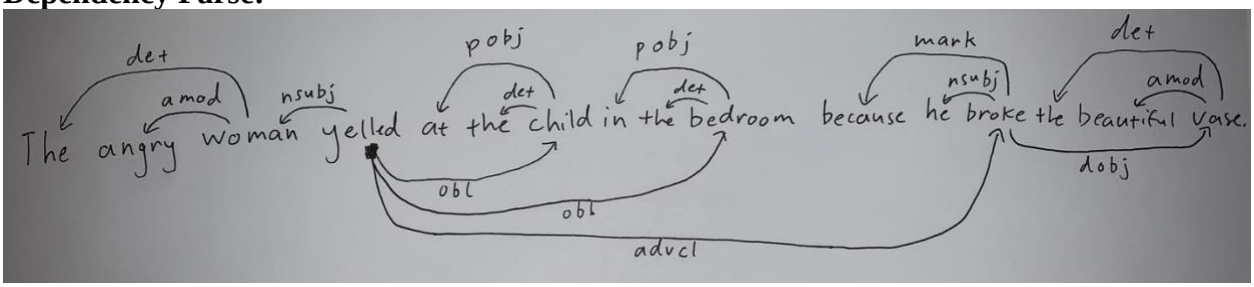
PSG Tree:



Definitions:

- *S* - Sentence: A simple declarative clause
- *NP* - Noun Phrase: Subject of a sentence
- *VP* - Verb Phrase: Verb and object of a sentence
- *NN* - Noun: Person, place, or thing
- *DT* - Determiner: Determines the kind of reference to a noun
- *JJ* - Adjective: Describes an attribute of a noun
- *VBD* - Past Tense Verb: An action that happened in the past
- *IN* - Preposition: Relationship between a noun and another part of a sentence
- *PP* - Prepositional Phrase: A preposition and its object
- *PRP* - Personal Pronoun:

Dependency Parse:



Definitions:

- *det* - Determiner: between a noun and its determiner
- *amod* - Adjectival Modifier: Adjectival phrase that modifies a noun phrase
- *nsubj* - Nominal Subject: Noun phrase that is the subject of a clause

obl - Oblique Nominal: Nominal (noun, pronoun, or noun phrase) that acts as a non-direct argument
pobj - Object of a Preposition: The object that a preposition refers to
advcl - Adverbial Clause Modifier: Clause modifying a verb
mark - Marker: Word that introduces a clause subordinate to another clause

SRL Parse:

Verb: "yelled"
- *Arg0* - "The angry woman"
  Agent of the sentence: The woman is yelling
- *Arg2* - "at the child"
  Subject of the sentence: The child is being yelled at
- *LOC* - "in the bedroom"
  Modifies the verb's location: The woman is yelling in the bedroom
- *CAU* - "because he broke the beautiful vase"
  Modifies the verb's cause: The woman is yelling because the vase broke

Verb: "broke"
- *Arg0* - "he"
  Agent of the sentence: He broke the vase
- *Arg1* - "the beautiful vase"
  The passive actor/recipient: The vase was broken by him

Pros and Cons:

These three parses all provide varying information about a sentence. PSG parsing has the advantage of identifying grammar usage. It identifies the semantic hierarchical relationships between the words and phrases in a sentence. However, it does not actually identify the functional relationships between the parts of the sentence and there can be a degree of ambiguity. The dependency parse has the advantage of identifying the dependencies between the parts of a sentence which can be even more useful for validating the relationship between semantics and grammar. This does however only identify relationships and does not identify meaning. SRL parsing has the advantage of giving us information on the meanings of specific verb usages in a sentence by looking at its relationships to the arguments around it. This is useful for identifying meaning, but it does not give grammar information. The three parses give different information and serve different purposes. In my opinion, the parses work best when used together as they cover each other's weaknesses and serve new functions.