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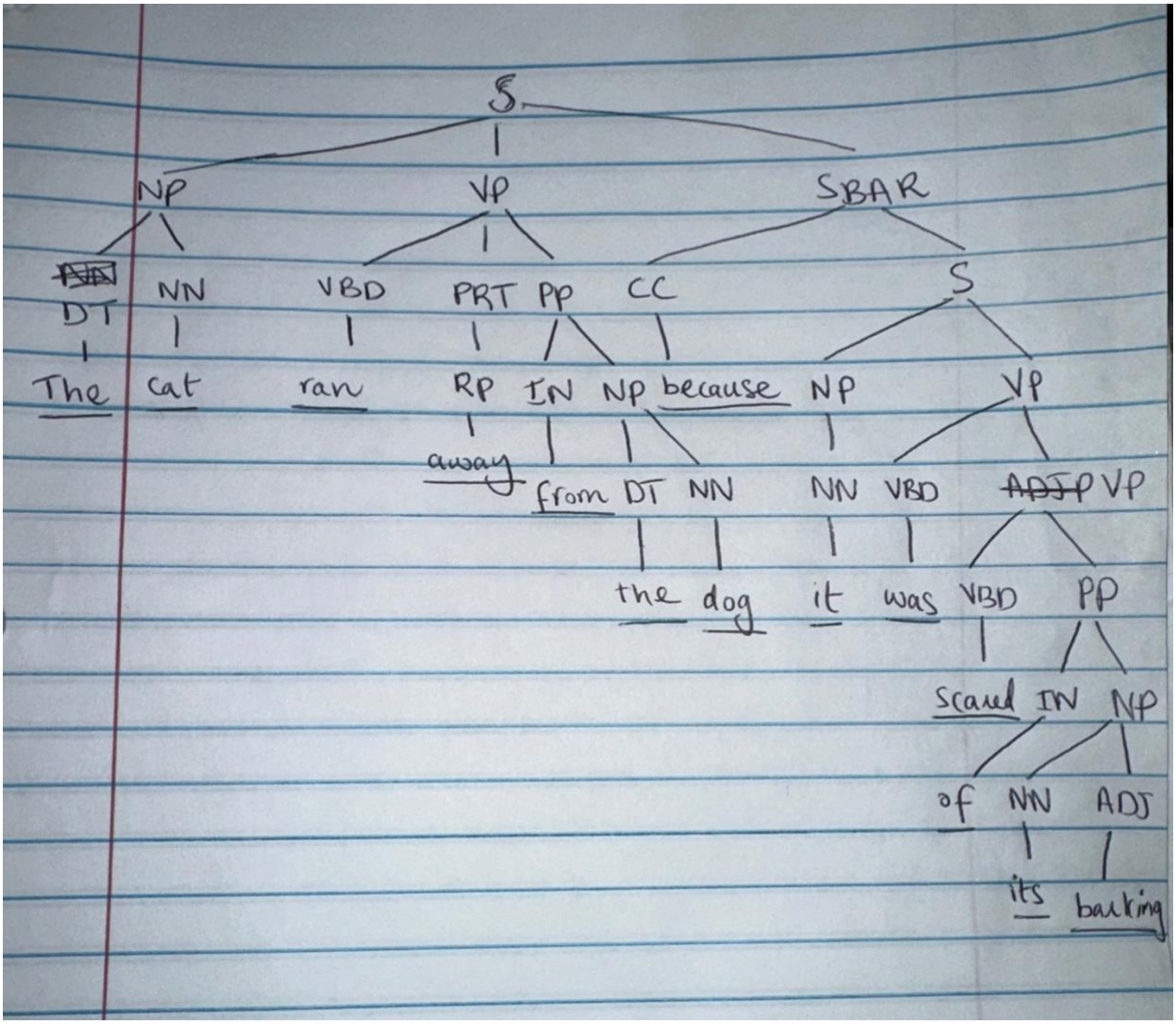
CS 4395.001 Portfolio Assignment: Sentence Parsing

Sentence: "The cat ran away from the dog because it was scared of its barking"

PSG Tree:

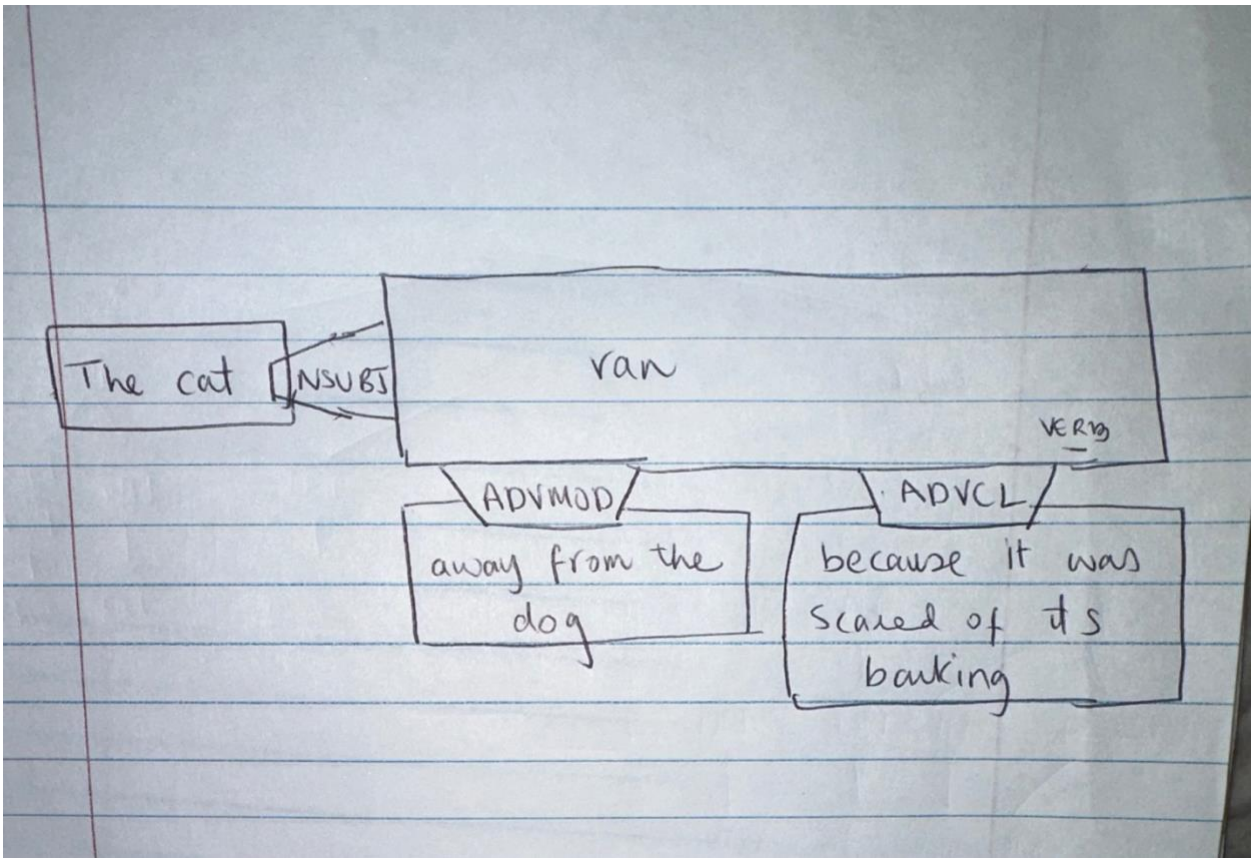


Phrase terms:

S: Simple declarative clause. A clause that is not introduced by a conjunction or a wh-word and that does not exhibit subject-verb inversion.
SBAR: Clause introduced by a (possibly empty) subordinating conjunction.
NP: Noun Phrase. A phrase that contains a noun.
VP: Verb Phrase. A phrase that contains a verb.

PRT: Particle. Category for words that should be tagged RP.
PP: Prepositional Phrase. A phrase that contains a preposition.

Dependency Parse:



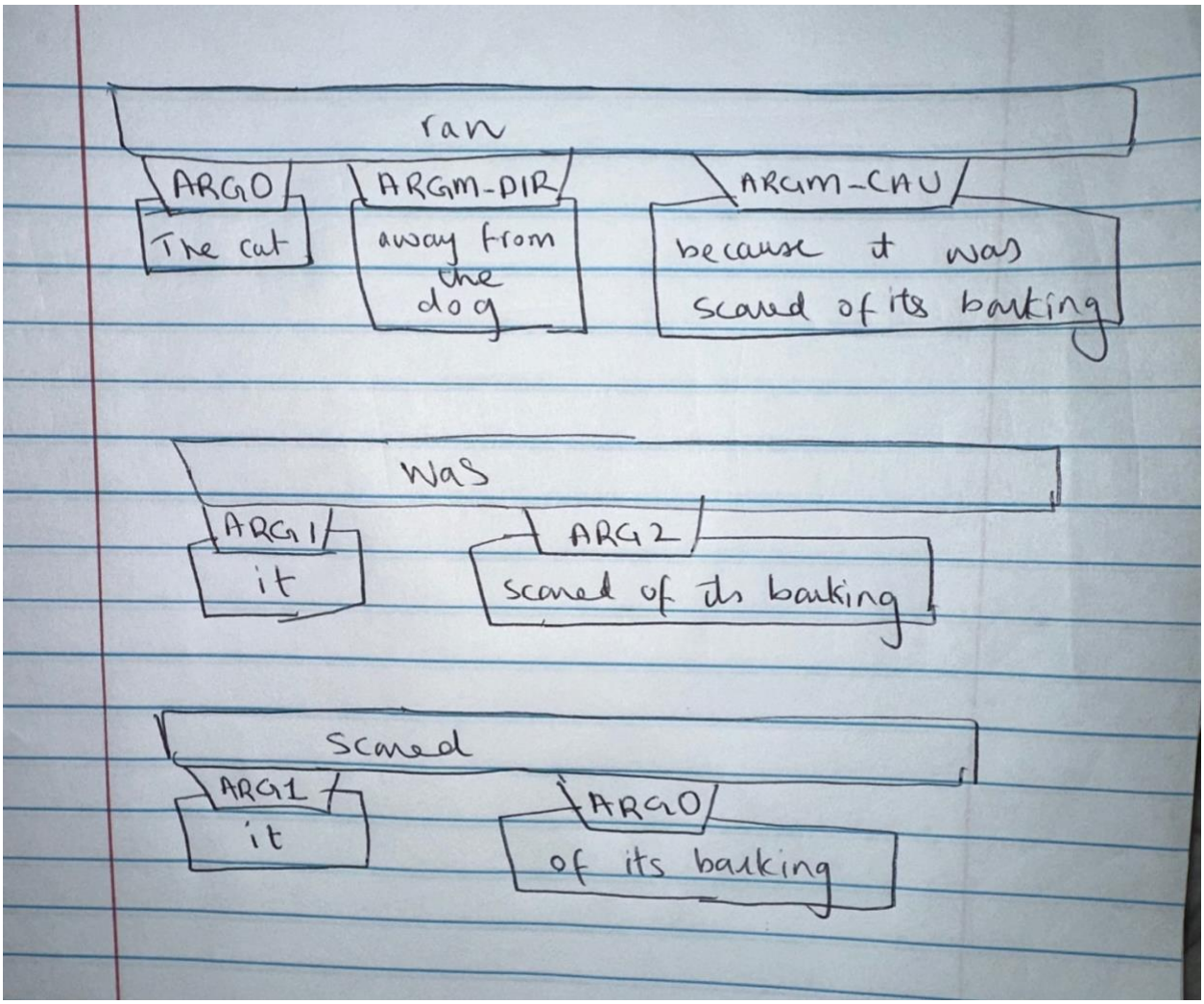
Dependency Relations:

NSUBJ: nominal subject. A nominal subject is a noun phrase which is the syntactic subject of a clause. The governor of this relation might not always be a verb: when the verb is a copular verb, the root of the clause is the complement of the copular verb, which can be an adjective or noun.

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

ADVCL: adverbial clause modifier. An adverbial clause modifier of a VP or S is a clause modifying the verb (temporal clause, consequence, conditional clause, purpose clause, etc.).

SRL Parse:



1) Predicate: “ran”

   ARG0: “The cat”
   Argument 0 is the agent of the sentence, the one doing the action. In this case, the “cat” is doing the action of running away (“ran”).

   ARGM-DIR: “away from the dog”
   ARGM-DIR is the where to/from modifier. This modifier provides information about the motion along a path. In this case, the modifier is telling us where the cat went (away from the dog) when it ran(verb) away.

   ARGM-CAU: “because it was scared of its barking”

ARGM-CAU is the causation modifier. This modifier provides information about the reason for the action. In this case, the reason that the cat ran (verb) away was because it was scared of the dog's barking.

2) Predicate: "was"

   ARG1: "it"
   Argument 1 is usually the passive element in the sentence. In this case, "it" (the cat) is the passive element as it was(verb) scared.

   ARG2: "scared of its barking"
   Argument 2 is often the instrument of the action. In this case, "scared of its barking" is the instrument due to which the cat was(verb) scared.

3) Predicate: "scared"

   ARG1: "it"
   Argument 1 is usually the passive element in the sentence. In this case, "it" (the cat) is the passive element as it is scared(verb) due to the dog's barking.

   ARG0: "of its barking"
   Argument 0 is the agent of the sentence, the one doing the action. In this case, the dog's barking made the cat "scared"(verb).

Pros/Cons:

The PSG tree is really good at parsing the structure of a sentence. It gives a very detailed parse of the sentence and provides a lot of information. However, it is very dense and says little about the actual semantics of the sentence. A PSG tree is beneficial for theoretical practices when a lot of information is required.

The dependency parse is similar to the PSG tree in that gives knowledge about the structure of the sentence. In contrast, it is a lot simpler than a PSG tree and easier to understand. It includes the relationship and dependencies of the tokens but doesn't go into detail like the PSG tree does. It can be good for computational use.

The SRL parse is good because it determines the semantics of the sentence. It doesn't go into detail about the structure of the sentence but instead focuses on the relationship of the words relative to the predicate. If there is more than one predicate, then it describes the relationship of the words/tokens with each predicate. However, it doesn't give information about the parts of speech or the clauses and their structures. SRL parsing can be good when trying to extract the meaning and semantic of the sentence, rather than its organization.