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CS4395.001
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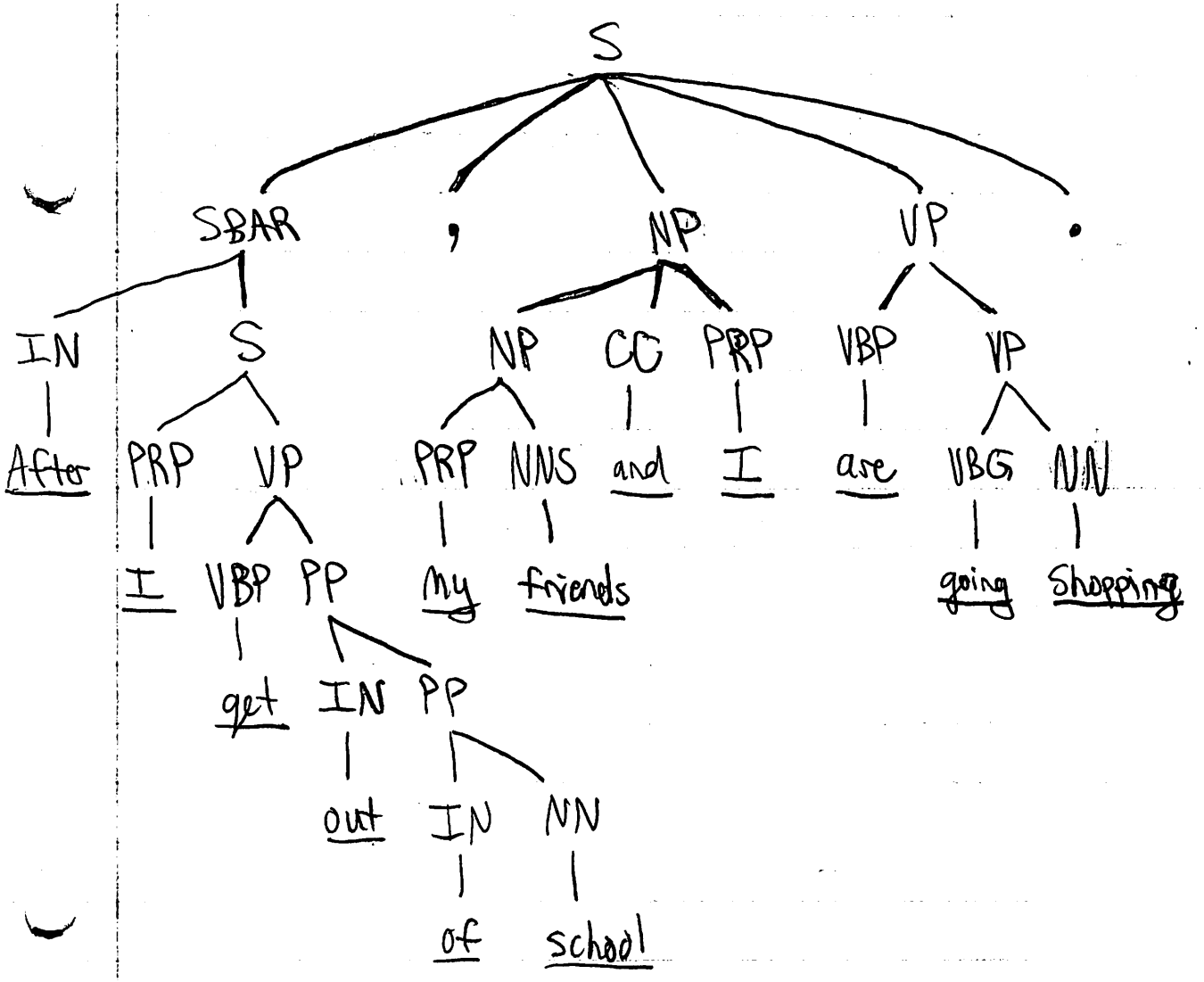
Sentence Parsing

1. Write a fairly complex sentence of at least 12 tokens:

"After I get out of school, my friends and I are going shopping."

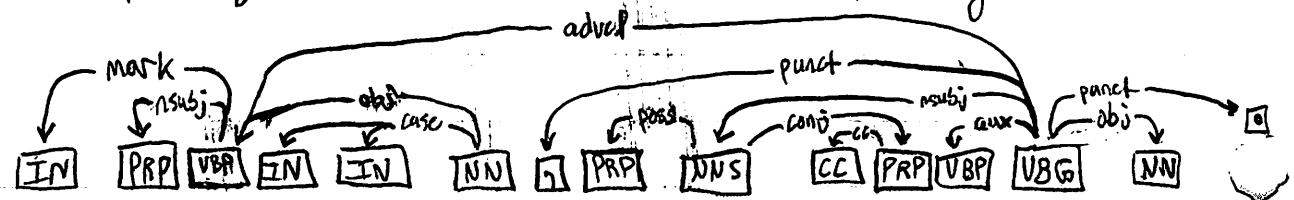
2. Draw a PSG Tree of the sentence, labeling POS, and define all phrase terms used:



Phrase Terms Used:

S: Declarative clause.
SBAR: Clause intro. by sub. conjunction.
NP: Noun Phrase.
VP: Verb phrase.
IN: A preposition.
CC: A coordinating conjunction.
PRP: Possessive pronoun.
VBP: Singular present verb.
NNS: Plural noun.
VBG: Present participle verb.
PP: Prepositional phrase.
NN: A singular/mass noun.

3. Draw Dependency Parse of the sentence, define all dependency relations:



After I get out of school, my friends and I are going shopping.

*Tool used: https://corenlp.run/

Dependency Relations Used:

advcl: Adverbial clause modifier.
cc: Coordination.
conj: Conjunction.
nsubj: Nominal subject.
aux: auxiliary
poss: Possession modifier.
punct: Punctuation.
obj: Object of...
mark: marker

4. Do SRL Parsing on the sentence:

	Frame 1				Frame 2			
After	I ARG2	get V	out of school ARG2	,	my friends and I ARG0	are	going V	shopping. ARG1

The numbered arguments in frame 1 (get) represent the passive actor arg1 (I) and the instrument of the action arg2 (getting out of school). Likewise, in frame 2 (going), the numbered arguments represent the logical agent arg0 (my friends and I) as well as the passive actor arg1 (shopping).

5. Discuss pros & cons of each parsing technique:

PSG parsing is good at organizing a sentence into phrases, and breaking down each phrase. It lacks structural ambiguity, however, as we'd talked about in class with the "I shot an elephant in my pajamas" example. Dependency Parsing is good at parsing free word order (effectively), meaning it can parse regardless of word order, which is relevant in other languages, like Latin. It also lacks structural ambiguity, and has trouble deciphering sentences with multiple meanings. SRL is good at finding the multiple meanings in sentences through its argument-style approach.