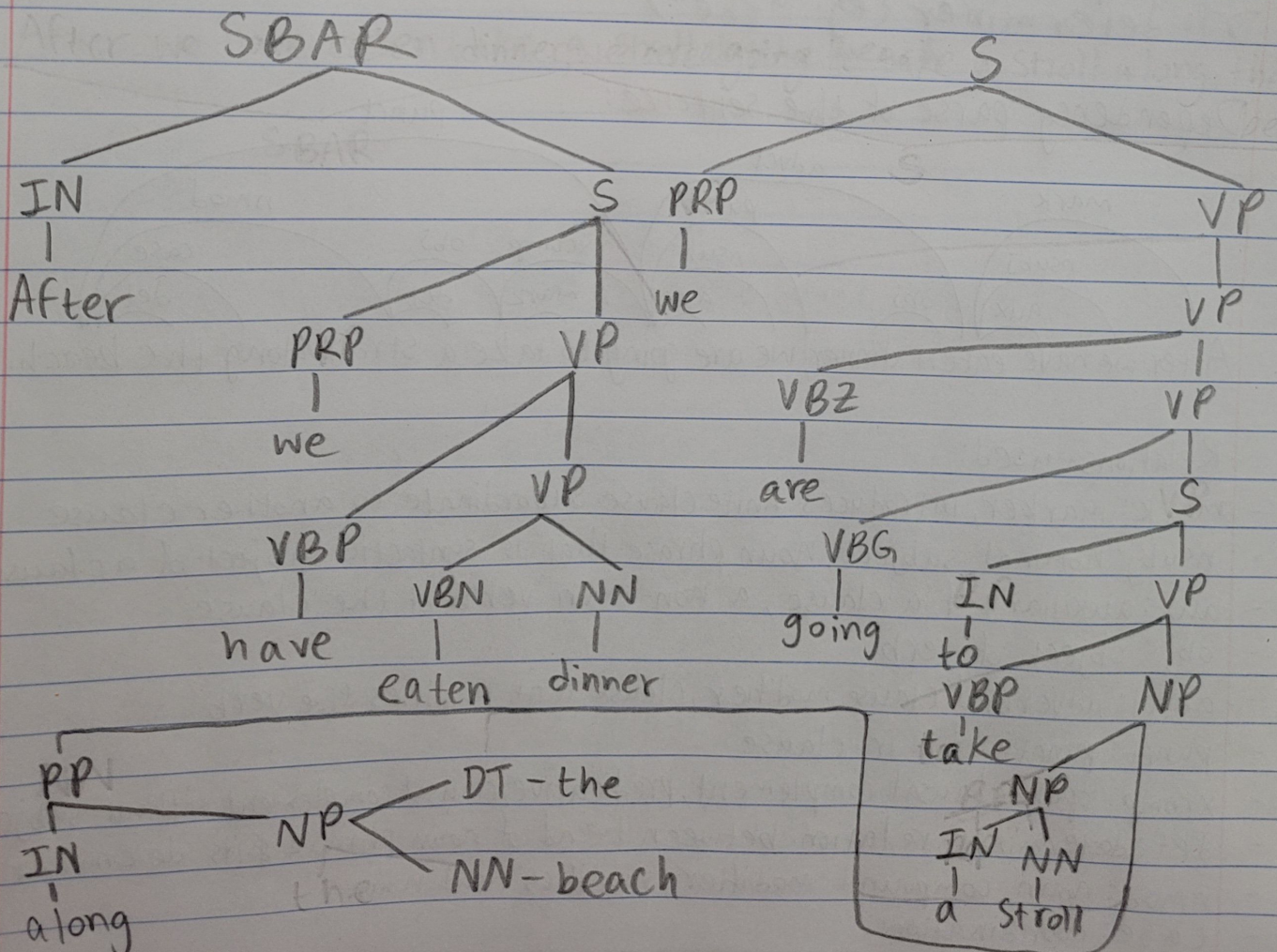


Bushra Rahman

Due 3/4/23

- "After we have eaten dinner, we are going to take a stroll along the beach."

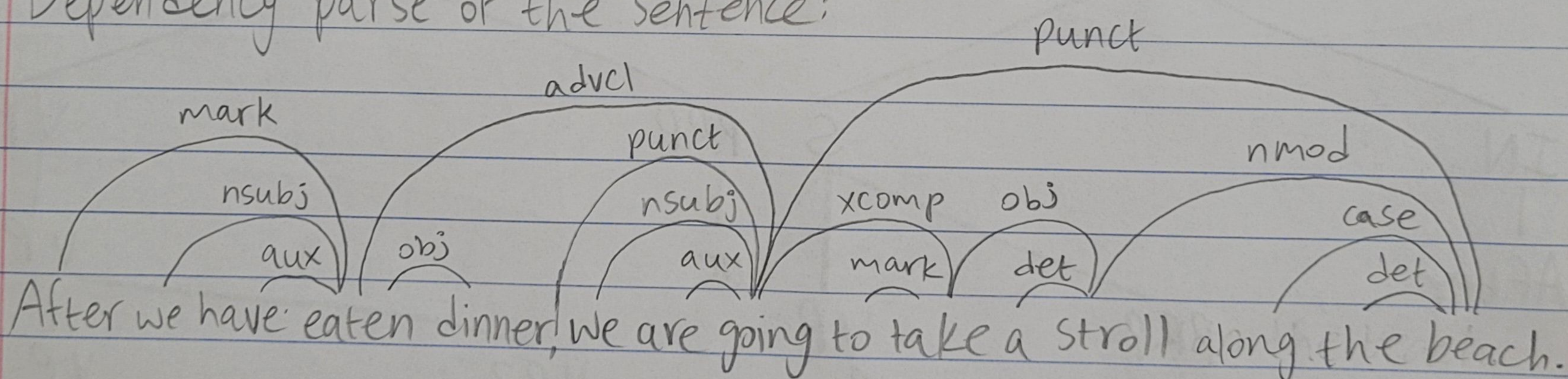
2. PSG tree of the sentence:



Tags used:

- SBAR: clause w/ subordinating conjunction (eg. "after")
- S: simple declarative clause
- IN: Preposition (eg. a, to, in) or subordinating conjunction
- PRP: personal pronoun (eg. "we")
- VP: verb phrase
- VBP: verb, non-3rd person singular present (eg. "have")
- VBN: verb, past participle (eg. "eaten")
- VBZ: verb, 3rd person singular present (eg. "are")
- NN: noun, singular
- VBG: verb, gerund or present participle (eg. "going")
- NP: noun phrase
- PP: prepositional phrase
- DT: determiner (eg. "the")

3. Dependency parse of the sentence:



Relations used:

- mark: marker, introduces finite clause subordinate to another clause
- nsubj: nominal subject, noun phrase that is syntactic subject of a clause
- aux: auxiliary of a clause, a non-main verb of the clause
- obj: object of verb
- advcl: adverbial clause modifier, clause that modifies the verb
- punct: punctuation in clause
- xcomp: open clausal complement, predicative/clausal complement without subject
- det: determiner, relation between head of noun phrase & its determiner
- nmod: noun compound modifier, modifies head noun
- case: coordination

4. SRL parse of the sentence:

- verb: have
 - predicate: have eaten dinner
 - arguments: none (ARG0)
 - modifiers: none
- verb: eaten
 - predicate: have eaten dinner
 - arguments: we (ARG0), dinner (ARG1)
 - modifiers: none
- verb: are
 - predicate: we are going
 - arguments: none (ARG0)
 - modifiers: none
- verb: going
 - predicate: going to take a stroll along the beach
 - arguments: none
 - modifiers: none
- verb: take
 - predicate: a stroll along the beach
 - arguments: we (ARG0), a stroll along the beach (ARG1)
 - modifiers: none

5. PSG parsing visualizes sentences in hierarchical format & is trained on millions of sentences, giving it assured accuracy. However, it is noticeably more complex than the dependency parse, which uses fewer nodes. Finally, the SRL parse is even shallower & gets closest to the semantics & logic of the sentence. For the sentence used here, it seems that all 3 parses worked well in identifying the structural dependencies & parts of speech of each part of the sentence.