

Syntactic Structure and Dependency Parsing

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Starting unit: words

Words combine into phrases

Phrases can combine into bigger phrases

Phrase structure organizes words into nested constituents

grammar and lexicon is sufficient to parse

Dependency structure

- shows which words depend on which other words

사람은 매우 복잡한 idea를 words를 더 큰 units로 구성해서 소통

듣는이는 무엇이 무엇을 modify 하는지 알아야

듣는이가 model 이라면 sentence structure 파악해야

Prepositional phrase attachment ambiguity 중의적 표현

San Jose cops [?] kill man with knife

Coordination scope ambiguity

[Shuttle veteran] and [longtime NASA executive Fred Gregory] appointed to board

Adjectival/Adverbial Modifier Ambiguity

Students get first hand job experience

Verb Phrase (VP) attachment ambiguity

Dependency Conditioning Preferences

1. Bilingual affinities
2. Dependency distance
3. Intervening material
4. Valency of heads

Projectivity

Methods of Dependency Parsing

1. Dynamic Programming
2. Graph algorithms
3. Constraint Satisfaction
4. Transition-based parsing