

Categorial grammar — zero-emission power to your MWE parser

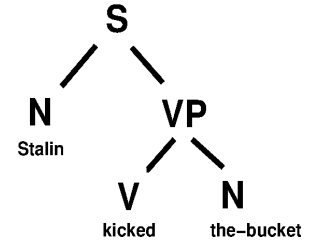
HYPOTHESIS: "Stalin kicked the bucket" is a well-formed Sentence (S)

Phrase Structure Grammar

$S \rightarrow N VP$
 $VP \rightarrow V N$

PSG Lexicon

Stalin : N
 the-bucket : N
 kicked : V



Categorial Grammar

Stalin : N
 the-bucket : N
 kicked : N\S/N

$$\frac{\frac{N \Rightarrow N \quad \frac{N \Rightarrow N \quad S \Rightarrow S}{N N \backslash S \Rightarrow S}}{N N \backslash S / N N} \Rightarrow S}{\text{Stalin} \quad \text{kicked} \quad \text{the-bucket}}$$

HYP02: "Stalin finally kicked the bucket"
HYP03: "kicked the bucket"

is a variant of the sentence above
is a constituent of the same sentence above

$$\frac{X^+ \quad \text{as before}}{N X N \backslash S / N N} \Rightarrow S^{\sigma L}$$

Stalin finally kicked the-bucket

$$\frac{\frac{N^- \quad \frac{N \Rightarrow N \quad S \Rightarrow S}{N \backslash S \Rightarrow S}}{N \backslash S / N N} \Rightarrow S}{\text{kicked} \quad \text{the-bucket}}$$