

Solution to Problem 2

Direct Evaluation of NL Queries w.r.t. Triplestore

“Who stole a car in 1918 or 1920 in a borough of New York?”

↓ parser ↓

“Who (stole (a car) [(in (1918 or 1920), in (a (borough (located_in New_York))))])?”

↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓

$\lambda \dots (\lambda \dots (\lambda \dots \lambda \dots) [(\lambda \dots (\lambda \dots \lambda \dots \lambda \dots), \lambda \dots (\lambda \dots (\lambda \dots (\lambda \dots \lambda \dots))))])))$

↑

↑

↑

↑

TRIPLESTORE

Where $\lambda \dots$ are functions (which are the denotations of English words)

based on an efficient version of

Montague semantics

GraphQ 2014

Some functions are defined in terms of triplestore retrieval operations:

↑