

MIND MODELLING

GUESSME!

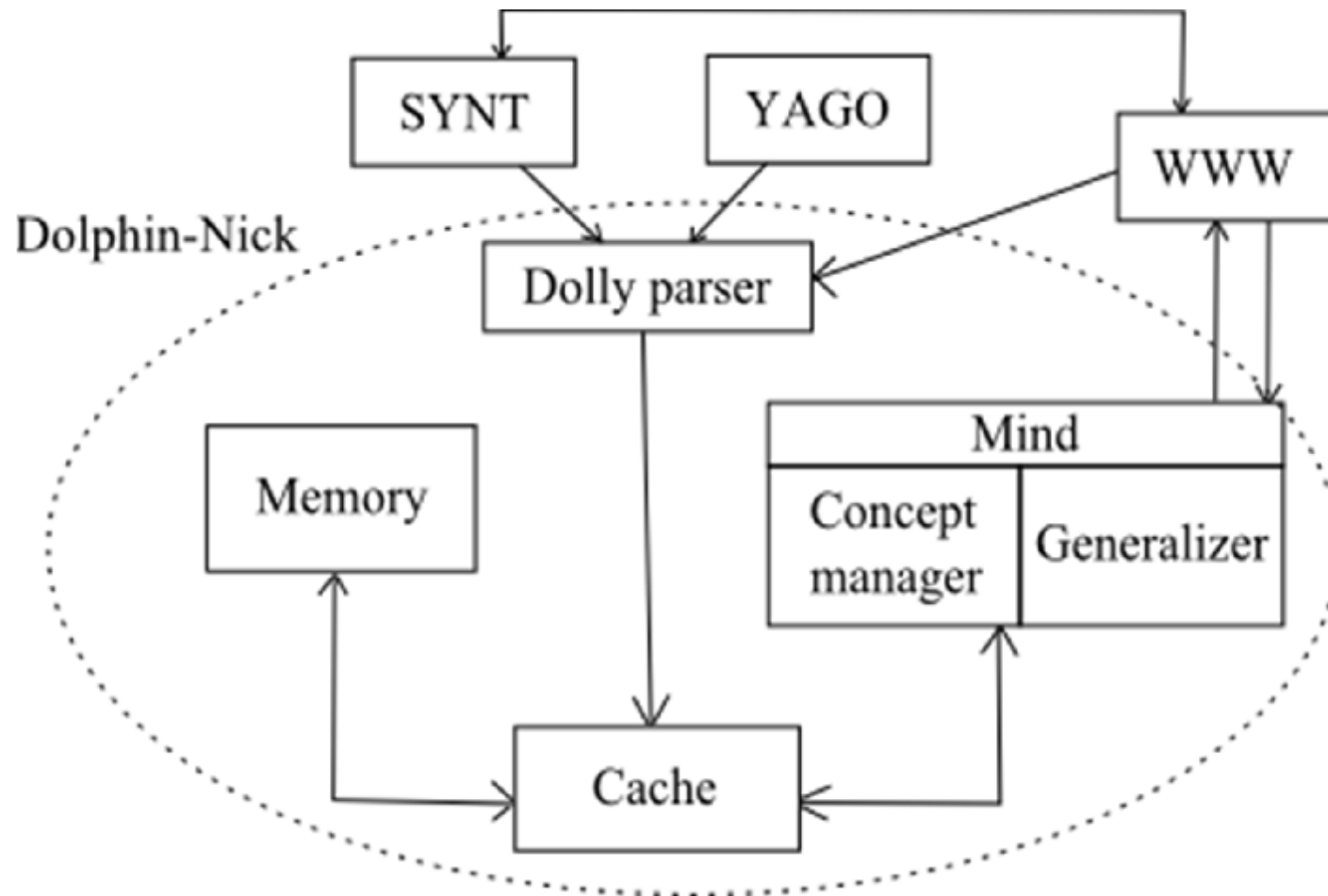
Motivation

- Present technologies are far away from NL understanding
 - Watson: in fact a set of search technologies excluding NL meaning from it focus. Most probably is not based on a theory of NL meaning extraction.
 - True Knowledge: uses simple answers with further information provided via [www](#) links
 - Aura: really interesting, but closed domain and need of hard work in the process of data acquisition
- Generally, there is a lack in data acquisition.

GuessME!

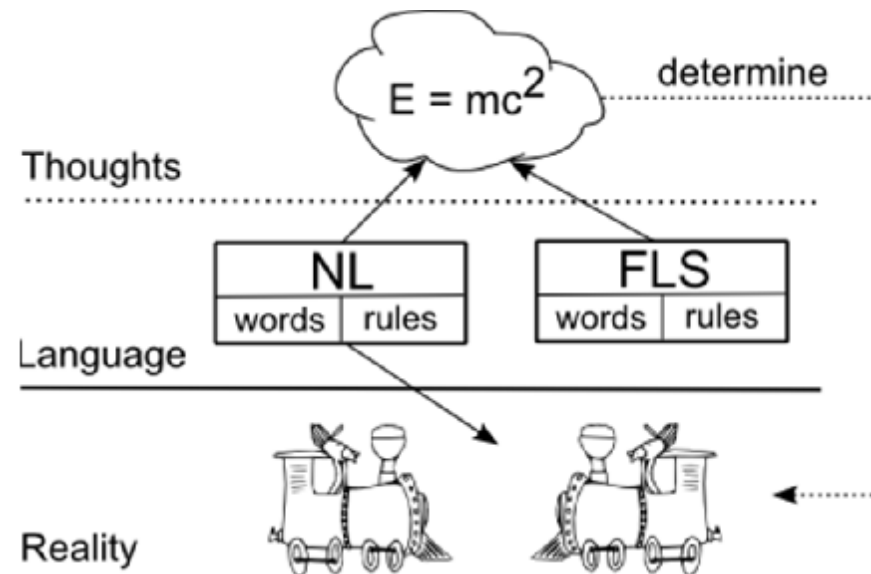
- Attempt to simulate human data acquisition
- GuessME! will use dialog method to inspect facts
- When new word is introduced a set of question arise:
 - Is it life or lifeless?
 - What color is it?
 - Has is it smell?
 - What is it used for?
- Besides dialog method, GuessME! will be capable of using ontologies (YAGO) to deepen its knowledge.

GuessME!



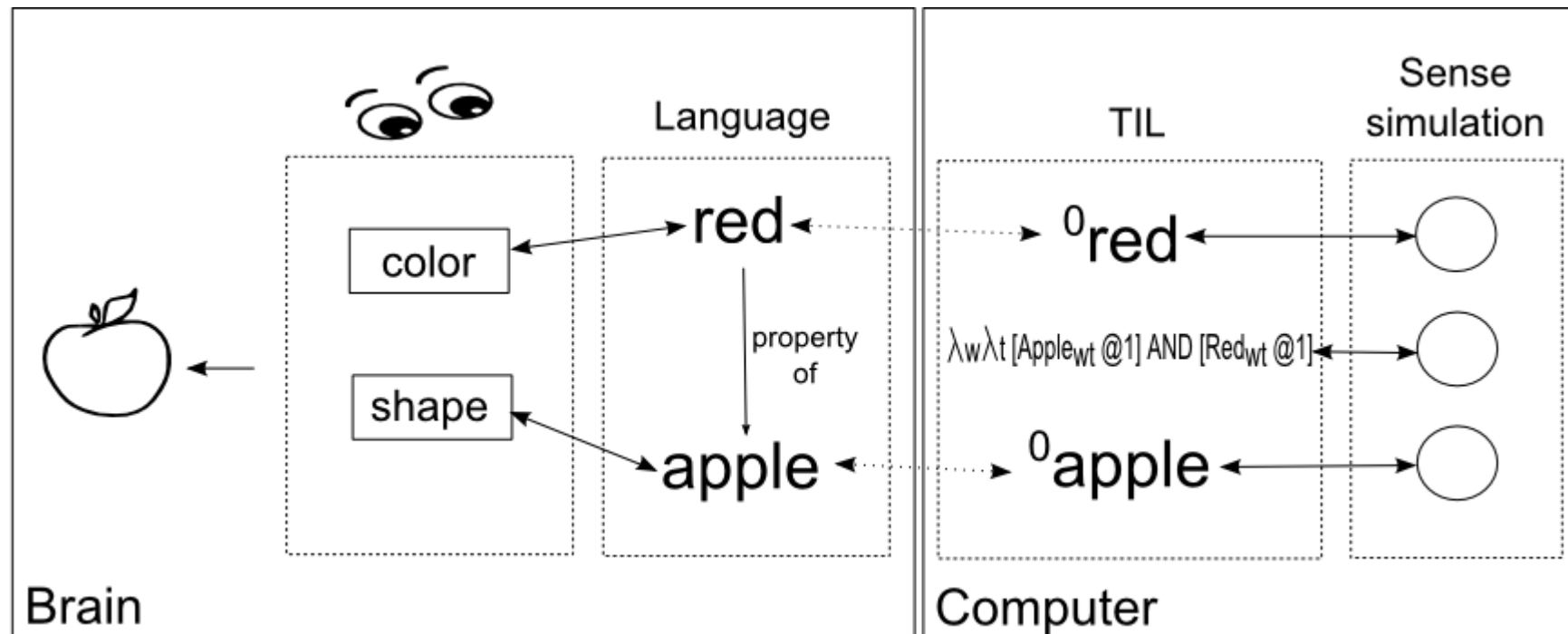
Theory of three layers

- GuessME! fulfills theory of three layers (TTL)
- (TTL) based on theory of incompleteness
- There is “something” more expressive than Language



GuessME!

- GuessME! will be able to process facts and understand them thanks TIL



GuessME!

- Aimed on data acquisition and its proving
 - Thanks TIL possible worlds, it is possible to store the same data with different meaning (let us say something is red or not)
 - While in world w_1 it can hold that fact f_1 is true
 - In world w_2 same f_1 can be false
 - Based on such information, the system is able to create it's own attitude to the fact

GuessME!

- A game:
 - User or Computer tries to guess the object in the mind of the opponent
 - From the computer's view, most important is the set of questions that is used
 - So called Starting set formulates the basic overview of the object
 - According this approximation, similar data from KB is obtained
 - Based on them, new Qs are proposed
 - When it is impossible to guess the object in given time, computer losses and asks for an answer.
 - With other user the game is repeated, but the guesser is the user now, so missing information can be obtained

Tasks with GuessME!

- In a phase of designing
- Needs Dolphin Nick KB support (under development)
- Identify set of questions (for data acquisition)
- A tool for translating English sentences to TIL (based on FreeLing tools)