Existing Benchmarks

Context

Ella ... Lucas entered the cellar. The boots is in the cupboard, which is in the cellar. Lucas exited the cellar. Ella moved the boots to the pantry.

Theory of Mind

Where will Lucas look for the boots?

Mainly focus on surface-level LLM performance

Response

Lucas will look for the boots in the **cupboard**.

Precursory Inferences for Theory of Mind

Investigates the underlying reasoning of theory of mind in LLMs

Perception Inference

Perception to Belief Inference

Who are the perceivers in each scene?

Given the perceivers, where will Lucas look for the boots?

Information	Perceiver
Ella entered the cellar.	Ella
Lucas entered the cellar.	Ella, Lucas
The boots is in the cupboard.	Ella, Lucas
The cupboard is in the cellar.	Ella, Lucas
Lucas exited the cellar.	Ella, Lucas
Ella moved the boots to the pantry.	Ella

Perception-Augmented Theory of Mind Benchmarks