

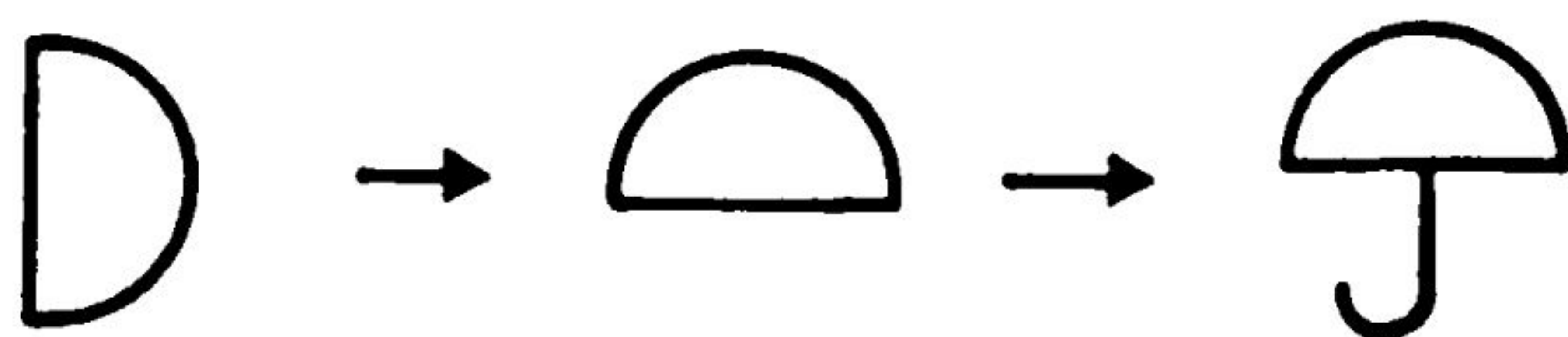
Artificial Phantasia: What the Virtual Mind Cannot Imagine

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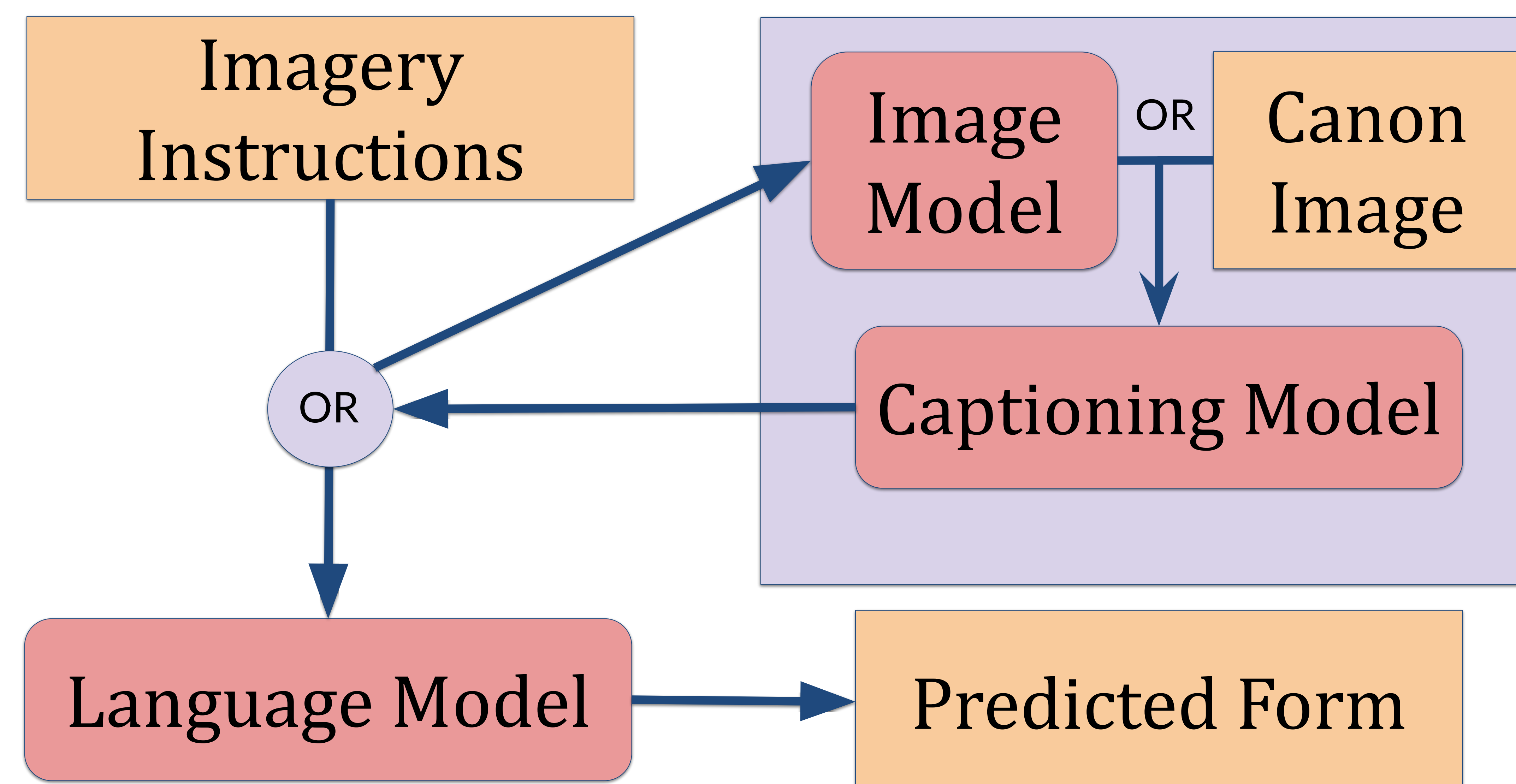


Task Paradigm



Canonical Form: Umbrella

Phantasia Model



Phantasia Metric[□]

Model	No Image	Gen Image	Feed Image
Gemma2 2b	8.33%	0%	58.33%
Gemma2 9b	0%	0%	66.67%
Llama 3.2	0%	0%	25%
Phi4	0%	0%	50%
Mistral	0%	0%	25%

Future Work

Bigger models (OpenAI GPT 4.5?)
Fine-tune language models on task
Fine-tune image-gen model on task
More mental imagery tasks

[□] (Sum of canonical answers) / (Total queries) × 100