

# Keys

Queries

	BOS	VIS	PRP	MEM	TXT	ACT	STP
BOS	✓	✓	✓	✓	✓	✗	✗
VIS	✓	✓	✓	✓	✓	✗	✗
PRP	✓	✓	✓	✓	✓	✗	✗
MEM	✓	✓	✓	✓	✓	✗	✗
TXT	✓	✓	✓	✓	✓	✗	✗
ACT	✓	✓	✓	✓	✓	✓	✓
STP	✓	✓	✓	✓	✓	✓	✓

## Without guard

$$M_t = f(\text{actions})$$

Memory tends to overfit  
on actions from data

MEMORY cannot read ACTIONS

## With guard (ours)

$$M_t = f(o_t, \text{text}, M_{t-1})$$

Memory encodes observations  
and instruction