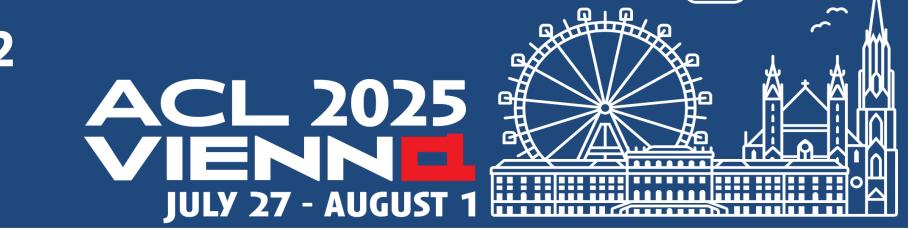
SHARE: Shared Memory-Aware Open-Domain Long-Term Dialogue Dataset Constructed from Movie Script

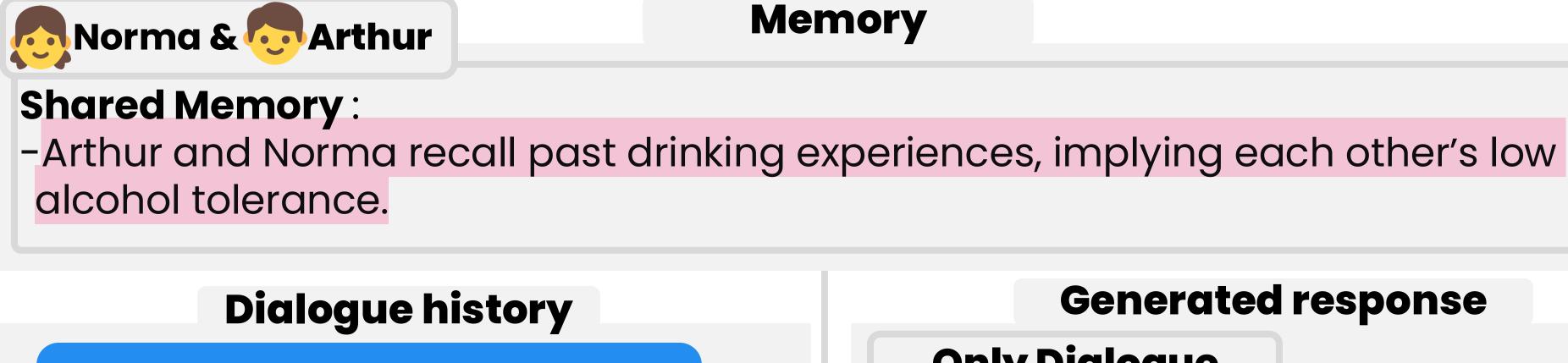


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Motivation

Shared memories can make long-term dialogue more natural, engaging and coherent!



Yeah, Keg party in our back yard.

Remember our rehearsal dinner?

Why are you holding my keys?

All this for a rehearsal dinner?

Deborah is so lucky.

Generated response Only Dialogue I don't know. Maybe it's • • because I'm the one who's getting married. With shared memory

Because I can hold my liquor better than you.

Statistics

	Dataset Statistics						
General	# of episodes	3,216					
General	# of sessions	17,679					
	# of shared memories	4,206					
Annotation	% of episodes with shared memory	61.57					

Dataset Construction: Collected 1,201 movie scripts from IMSDb, Daily Script, and SimplyScripts.

Contribution

SHARE: A long-term dialogue dataset from movie scripts with shared memories EPISODE : A long-term dialogue framework which summarizes persona, events and extracts shared memories.

Method

Memory A Persona: -A is in a romantic relationship with B. B Persona: -B is disrespectful towards A's curfew. & **&**

Shared Memory:

-A and B have been dating for over a year.

-B suggests to A that they should start seeing other people.

Dialogue History

Did you hear about the bash?

No I'm really grounded. When I got in late the other night, my father was waiting up for me.

If you don't want to go with me just say so. Say, 'B, I DON'T WANT TO BE WITH YOU' but don't use your dad as an excuse.

I'm not using him as an excuse.

Update



- A was grounded by her father due to arriving home late.

B

Persona:

- B is frustrated by A's reliance on her father.



Shared Memory:

Update!

- A and B were in a romantic relationship for over a year.
- A and B's relationship broke up due to A's perceived over-reliance on her father.
- B suggested to A that they should start seeing other people.

Selection



- -B is disrespectful towards A's curfew.
- -B suggests to A that they should start seeing other people.

Generation Selected Memories _ LLM Yes you are. You always do. It's why we broke up. LLaMA You always hide behind him.

Experiment

By effectively managing **shared memory**, conversations in long-term sessions become *more engaging* and *coherent*.

Method	Session 5			Session 6				
Llama 3.1-8B	Coh.	Eng.	Clo.	Ref.	Coh.	Eng.	Clo.	Ref.
SHARE(No Shared)	2.53.	<u>2.28.</u>	1.70.		2.59.	<u>2.35.</u>	1.67.	
SHARE + ACCUM	2.58 .	2.26.	<u>1.71.</u>	1.25.	2.59.	2.31.	<u>1.72.</u>	1.39.
SHARE + COMEDY	2.00.	1.30.	0.98.		2.06.	1.25.	1.00.	
SHARE + LLM-RSUM	<u>2.57.</u>	1.71.	1.15.		2.62 .	1.70.	1.26.	
SHARE+ EPISODE	2.55.	2.37 .	1.73 .	1.58 .	<u>2.60.</u>	2.36 .	1.75 .	1.76 .

Information Extraction

Persona:

- A is currently grounded by her father due to arriving home late.

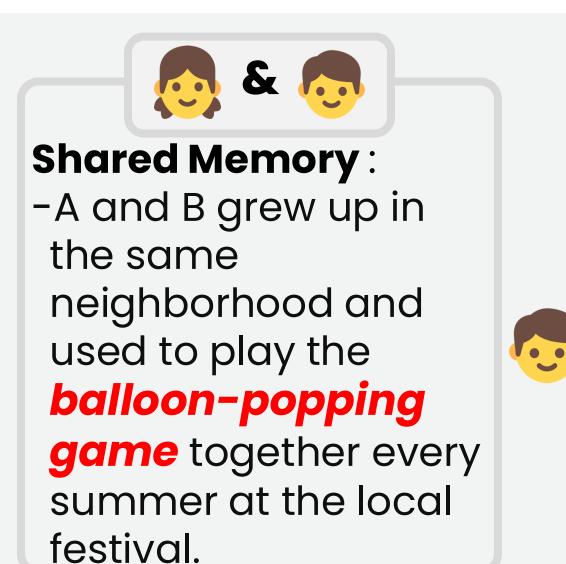
Persona:

B is frustrated by A's reliance on her father.

Shared Memory:

- A and B were in a relationship in the past which broke up due to A's perceived over-reliance on her father.

Case Study



Whoa. I didn't expect to see you here.

Yeah, I just got back in town. Figured I'd drop by the old place. The festival's this weekend, right?

Don't tell me... you're thinking about the balloon game?

