

Discovered papers in relation to Glaeser et al

Dual Attitudes and Parallels to Narrative Comprehension

Evan Segaul

"a dual attitude model is proposed that describes attitudes that are implicit, automatic, and slow-changing along with attitudes that are explicitly thought about and subject to change with the environment. The paper then describes how attitudes may interact with one another, how people may end up with two (or multiple) conflicting attitudes, and how there is empirical evidence to support this theory."

Wilson, T. D., Lindsey, S., & Schooler, T. Y. (2000). A model of dual attitudes. *Psychological Review*, 107(1), 101–126.
<https://doi.org/10.1037/0033-295X.107.1.101>

Inference Usage in Conversation

Carlos Olea

"I was interested how the concept of inferences would extend to conversation. Ostensibly there would be even more to explore in the realm of conversation if anything because there are multiple actors making inferences, and for conversation to progress smoothly these inferences must be synchronized."

Deppermann, A. (2018). Inferential Practices in Social Interaction: A Conversation-Analytic Account, *Open Linguistics*, 4(1), 35-55. doi: <https://doi.org/10.1515/opli-2018-0003>

A Psychology-Inspired Approach to Automated Narrative Text Comprehension

Soumyajit Chakraborty

"this paper shows us a working computational model of the Graesser et al. paper, and that's why I have chosen it for my post.

Diakidov et al. have used the Knowledge Representation and Reasoning (KRR) approach to model the cognitive behavior mentioned in the Graesser et al. paper."

[1]Diakidoy, I. A., Kakas, A. C., Michael, L., & Miller, R. (2014, July). A Psychology-Inspired Approach to Automated Narrative Text Comprehension. In KR.

[2] Diakidoy, I. A., Kakas, A., Michael, L., & Miller, R. (2013, May). Narrative text comprehension: From psychology to ai. In Proceedings of the 11th International Symposium on Logical Formalizations of Commonsense Reasoning (Commonsense'13).

Causality is categorization

Ali Ozdagli

"Noordman et al. open the paper with the claim that READING IS A PATTERN-MATCHING PROCESS. As a reader, we intuitively resonate the text we are reading with the concepts we gained in the past. states that the way we conceptualize the input is affected by the way structured our knowledge. Namely, we perform a memory-based text processing for pattern matching."

[1] Noordman, Leo GM, and Wietske Vonk. "Memory-based processing in understanding causal information." Discourse Processes 26, no. 2-3 (1998): 191-212.

[2] Carnap, Rudolf. Philosophical foundations of physics. Vol. 966. New York: Basic Books, 1966.

[3] Rosch, Eleanor. "Principles of categorization." Concepts: core readings 189 (1999).

Knowledge-Inferences and Changing of Belief Structures - Kendeou et. al.

Neel Kurupassery

"One question that arises is whether activation can result in LTM changes during on-line reading. In Kendeou et. al. it is hypothesized that such changes are indeed possible, one example being epistemic beliefs when confronted with a refutation text structure--one that explains misconceptions and provides correct ideas [2]."

[2] Kendeou, Panayiota, Krista R. Muis, and Sandra Fulton. "Reader and text factors in reading comprehension processes." *Journal of Research in Reading* 34.4 (2011): 365-383.

Relation of Text Document Clustering

Caleb Vatra

"So instead of looking for pairs of documents that share exactly the same words, they look for pairs of documents that share semantic meaning elements. This helps to deal with the synonyms (e.g. car and auto) and hypernyms (e.g. car and transportation) that can occur in documents and pose a problem for more traditional clustering techniques.

The work of inference understanding as described by Graesser et al has some significant similarities to the field of document clustering. "

[1] A. Hotho, S. Staab and G. Stumme, "Ontologies improve text document clustering," *Third IEEE International Conference on Data Mining*, Melbourne, FL, USA, 2003, pp. 541-544, doi: 10.1109/ICDM.2003.1250972.

Examining the Influence of Higher-Level Skills (i.e. Inference) on Reading Comprehension in Children

Gabriela Gresenz

"The paper [1] by Cain et al., which cites Graesser et al. [2], aims to accomplish 3 goals: to determine 1) the relationship between "children's working memory capacity and their reading comprehension ability" [1, pg. 4], 2) the role of "higher level component skills in reading comprehension" [1, pg. 4] in children, and 3) whether WM is the link between higher level skills and reading comprehension in children."

Cain, Kate, et al. "Children's Reading Comprehension Ability: Concurrent Prediction by Working Memory, Verbal Ability, and Component Skills." *Journal of Educational Psychology*, vol. 96, no. 1, 2004, pp. 31–42., doi:10.1037/0022-0663.96.1.31.

Facilitating Knowledge-Based Inferences in Less-Skilled Readers

Bikram De

"It was found that integrating question into the texts rather than the traditional method of reading the whole text and then answering questions showed a marked improvement among the readers. These facts can greatly help educators in designing teaching materials in future."

[1] Hannon, Brenda, and Meredyth Daneman. "Facilitating knowledge-based inferences in less-skilled readers." *Contemporary Educational Psychology* 23.2 (1998): 149-172.

Is NLP Text Comprehension? Modern attention-based approaches to text-based problems

Derek Gloude

"I'm extremely fascinated by the modern shift towards simple structure at large scale and its ability to match or exceed more carefully crafted logical models after training. It feels to me like modelling neurons rather than trying to model the heuristics carried out by the brain's neurons, and I'm excited by the potential of such models especially as our computational capabilities continue to increase over time."

2. Brown, Tom B., et al. "Language models are few-shot learners." arXiv preprint arXiv:2005.14165 (2020).

Using Computational Models to generate Referential Inferences

James Raubenheimer

"In a 2016 paper, researchers at Cornell implemented two systems a entity-centric classifier and an end-to-end neural network and used those system to generate inferences based on CNN and Daily Mail article. In order to examine inference generation, the researchers tested whether the systems could determine the missing entity contained with in the news article summary bullet points."

Chen, Danqi & Bolton, Jason & Manning, Christopher. (2016). A Thorough Examination of the CNN/Daily Mail Reading Comprehension Task. 2358-2367. 10.18653/v1/P16-1223.