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Theory of mind in language, minds, and machines: a multidisciplinary approach

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Theory of Mind in Language, Minds, and Machines

A Multidisciplinary Approach

1. Storytelling, pretend play, and similar activities are effective ways to engage children's cognitive skills as using language in such contexts is relevant to children. (This dissertation)
2. We have too high expectations of language models as we expect them to be bias-free, and too low expectations as we still know little about how they compress their training data. (This dissertation)
3. Improved training and evaluation regimes of language models should involve a deliberate choice for some form of storytelling or narration. (This dissertation)
4. The danger of anthropomorphism in artificial intelligence is not our tendency to ascribe human characteristics to non-human objects, but the pretension that human consciousness, experience and understanding are the measures of all things. (This dissertation)
5. Children employ the full spectrum of character perspective representation as found in classic stylistic theory. (This dissertation)
6. Linguistic competence predicts the mental complexity of story characters, aligning with and complementing experimental work on Theory of Mind and language. (This dissertation)
7. In the context of child development, multidisciplinary approaches combining domain knowledge, information extraction tools, and language models present an exciting new line of research.
8. The focus in computational linguistics should be as much on language acquisition, use, and understanding, as on engineering applications.
9. Experimental work in psychology (and artificial intelligence) is still struggling with a behaviourist legacy, as hypotheses about psychological events are evaluated in terms of behavioural criteria.
10. In primary education, we should allocate more time to activities that engage children and stimulate their imagination but have no immediate quantifiable outcomes.
11. Good science is not necessarily about truth, but about what works at a given time and place.
12. Philosophy is never far away, whether we like it or not.

Bram van Dijk

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