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Title: Attentive Tree-structured Network for Monotonicity Reasoning

Abstract: Many state-of-art neural models designed for monotonicity reasoning perform poorly on downward inference. To address this shortcoming, we developed an attentive treestructured neural network. It consists of a treebased long-short-term-memory network (Tree-LSTM) with soft attention. It is designed to model the syntactic parse tree information from the sentence pair of a reasoning task. A self-attentive aggregator is used for aligning the representations of the premise and the hypothesis. We present our model and evaluate it using the Monotonicity Entailment Dataset (MED). We show and attempt to explain that our model outperforms existing models on MED.