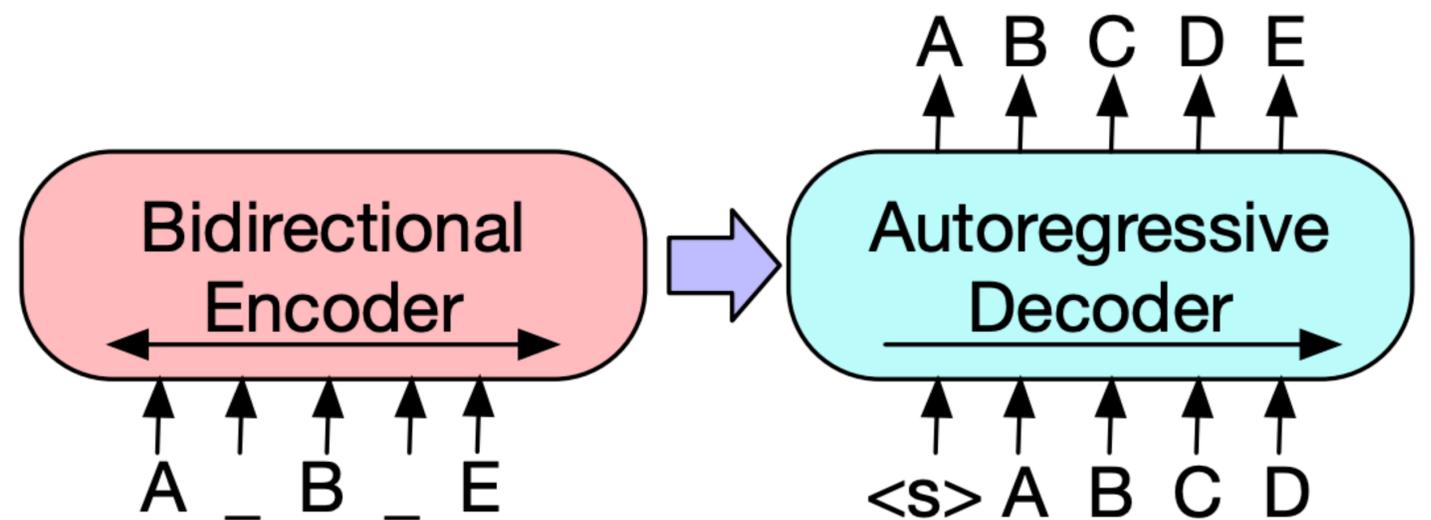
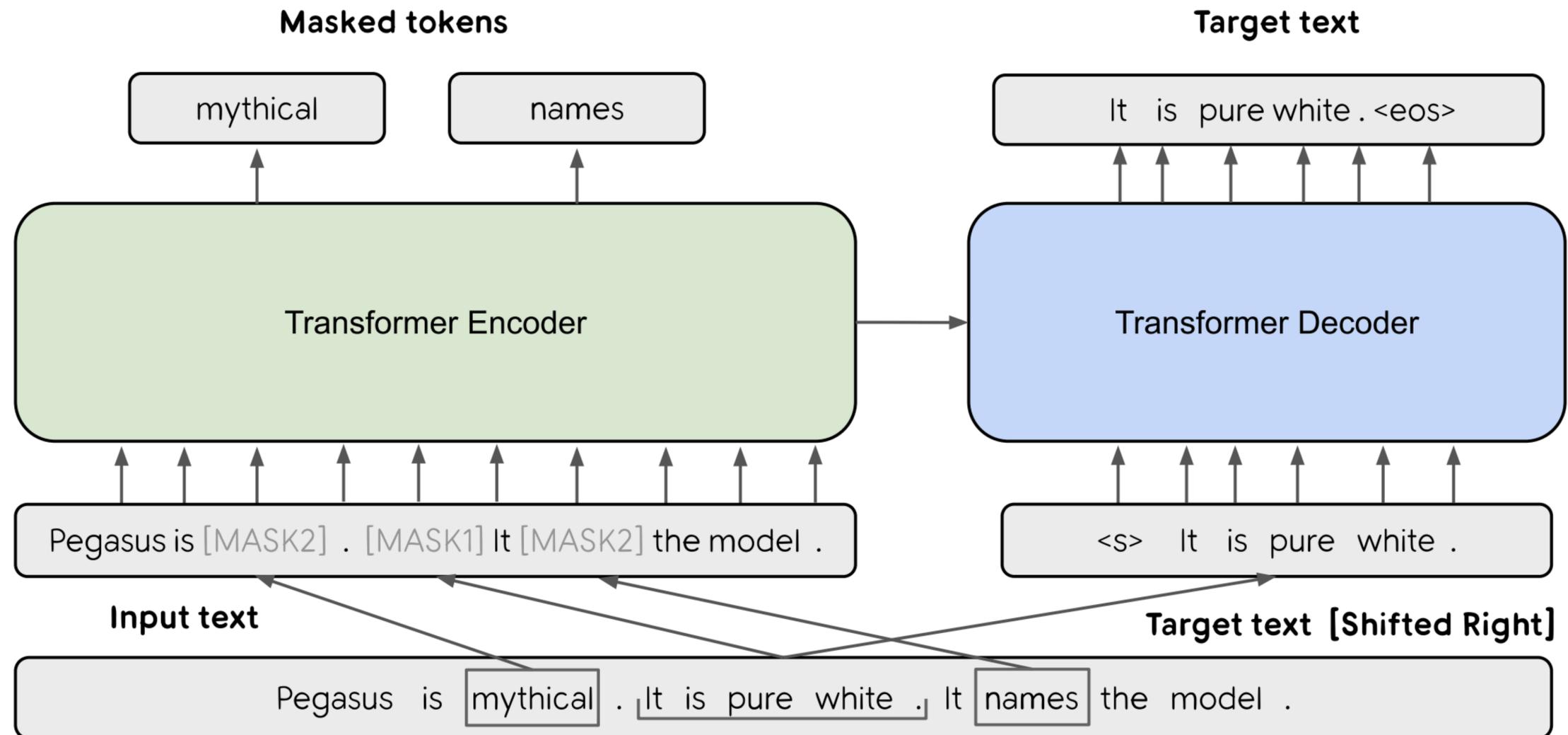


# BART

- ▶ Sequence-to-sequence BERT variant: permute/make/delete tokens, then predict full sequence autoregressively
- ▶ For downstream tasks: feed document into both encoder + decoder, use decoder hidden state as output
- ▶ Treat summarization as a sequence-to-sequence task with this model



# PEGASUS



- ▶ Mask out “gap sentences” and generate them from the context
- ▶ Strong results, a bit better than BART

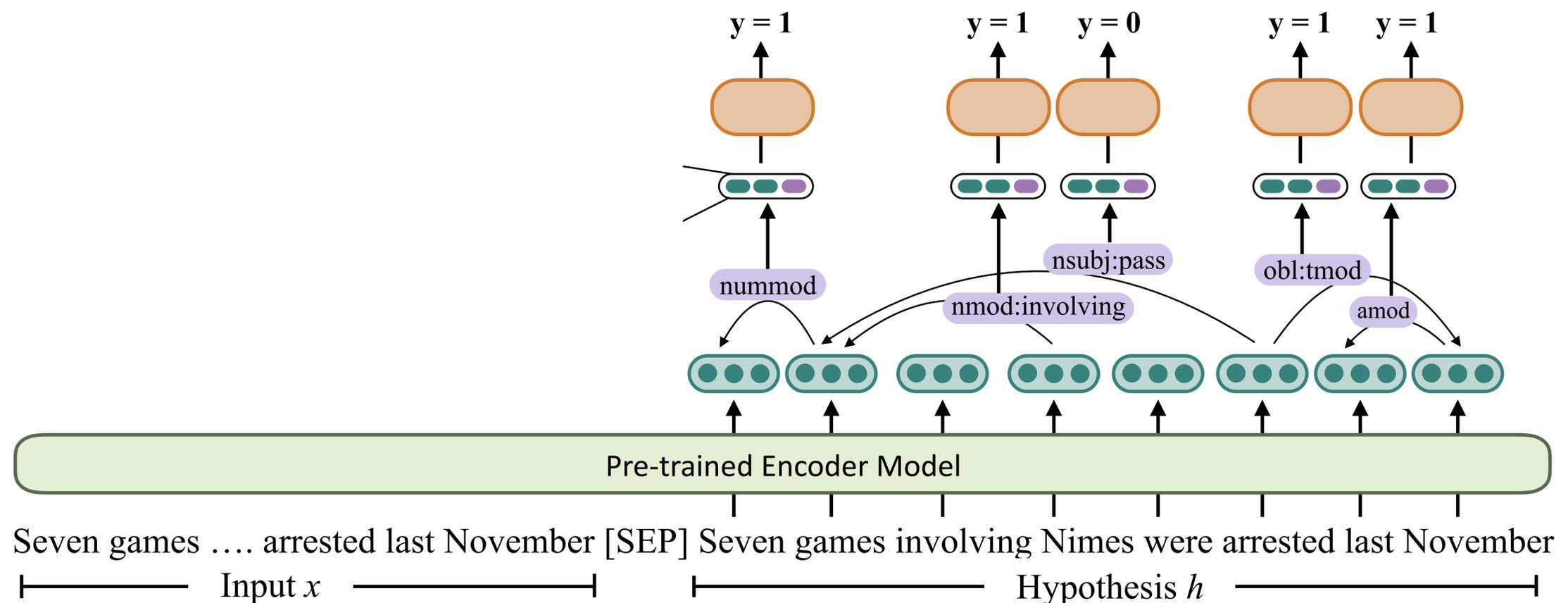
# BART Summaries

Source Document (abbreviated)	BART Summary
<p>The researchers examined three types of coral in reefs off the coast of Fiji ... The researchers found when fish were plentiful, they would eat algae and seaweed off the corals, which appeared to leave them more resistant to the bacterium <i>Vibrio coralliilyticus</i>, a bacterium associated with bleaching. The researchers suggested the algae, like warming temperatures, might render the corals' chemical defenses less effective, and the fish were protecting the coral by removing the algae.</p>	<p>Fisheries off the coast of Fiji are protecting coral reefs from the effects of global warming, according to a study in the journal <i>Science</i>.</p>
<p>Sacoolas, who has immunity as a diplomat's wife, was involved in a traffic collision ... Prime Minister Johnson was questioned about the case while speaking to the press at a hospital in Watford. He said, "I hope that Anne Sacoolas will come back ... if we can't resolve it then of course I will be raising it myself personally with the White House."</p>	<p>Boris Johnson has said he will raise the issue of US diplomat Anne Sacoolas' diplomatic immunity with the White House.</p>

- ▶ These look great! But they're not always factual

# Factuality via Entailment

- ▶ Attempt to classify individual dependency arcs in generated output as entailed/not entailed by the input



“Seven games involving Nimes were **investigated** after Conrad was arrested last November”

# Factuality via QA

