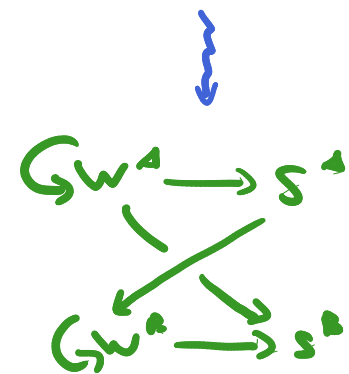
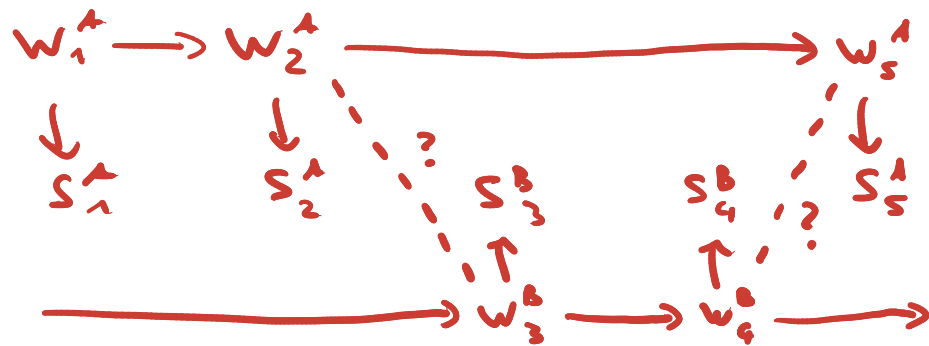


MODELS TAKING MULTI-SPEAKER INTERACTION SERIOUSLY?



APPROACHES TAKING INTO ACCOUNT DIFFERENCES IN CAUSAL STRUCTURE?

ASSOCIATION \rightarrow PREDICTION



MECHANISM \rightarrow

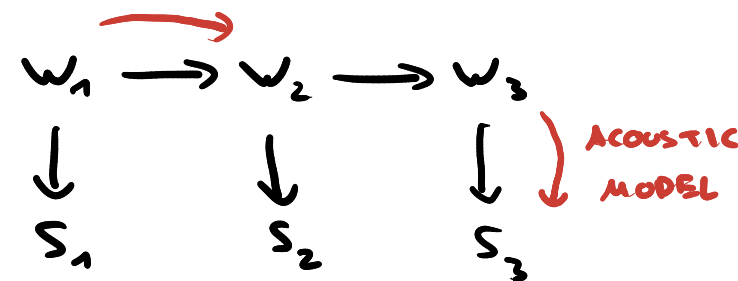
INTERVENTION/
COUNTERFACTUAL

READ SPEECH



ANTI-CAUSAL

LANGUAGE MODEL



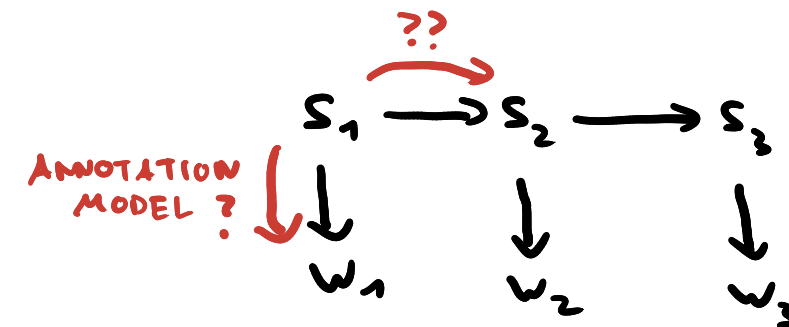
"STANDARD" HMM

w : WRITTEN SIGNAL, s : SPOKEN SIGNAL
(BOTH OBSERVED)

SPONTANEOUS SPEECH



CAUSAL



???