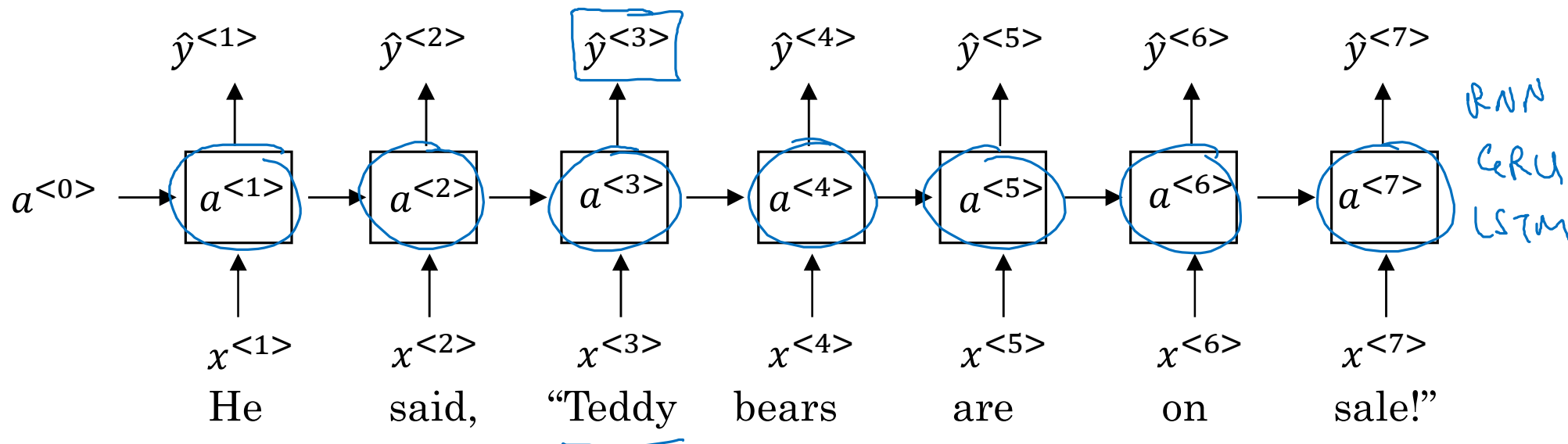# Recurrent Neural Networks

Bidirectional RNN

Getting information from the future

He said, "Teddy bears are on sale!"

He said, "Teddy Roosevelt was a great President!"

RNN
GRU
LSTM

Bidirectional RNN (BRNN)

$$\hat{y}^{(t)} = g(W_y[\overrightarrow{a}^{(t)}, \overleftarrow{a}^{(t)}] + b_y)$$

Acyclic graph

He said "Teddy Roosoult ...."

BRNN w/ LSTM