

Conditional Entropy to Capture Syntagmatic Relation

$$H(X_{meat} / X_{eats}) = \sum_{u \in \{0,1\}} [p(X_{eats} = u) H(X_{meat} | X_{eats} = u)]$$

$$H(X_{meat} | X_{meat}) = ?$$

Which is smaller? $H(X_{meat} | X_{the})$ or $H(X_{meat} | X_{eats})$?

For which word w , does $H(X_{meat} | X_w)$ reach its minimum (i.e., 0)?

For which word w , does $H(X_{meat} | X_w)$ reach its maximum, $H(X_{meat})$?