

Generative story

$$p(f, a|e) = p(J|e) \prod_{j=1}^J p(a_j | a_1^{j-1}, f_1^{j-1}, J, e) \times \\ \times p(f_j | a_j, a_1^{j-1}, f_1^{j-1}, J, e)$$

1. Choose the length of the foreign sentence
2. Choose an alignment for each word (given lots of things)
3. Choose the word (given lots of things)