

The main equation

- **Given:** French (foreign) sentence f ,
- **Find:** English translation e :

$$e^* = \operatorname{argmax}_{e \in E} p(e|f) = \operatorname{argmax}_{e \in E} \frac{p(f|e)p(e)}{p(f)} =$$

1993 Brown et al., “The mathematics of statistical machine translation”