Machine Translation

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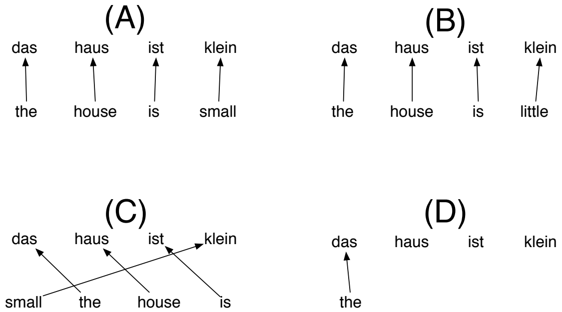
WORD-BASED MODELS

Adapted from material by Philipp Koehn

Example

das		Haus		ist		klein	
e	$t(e\|f)$	*e*	$t(e\|f)$	*e*	$t(e\|f)$	*e*	$t(e\|f)$
the	0.7	house	0.8	is	0.8	small	0.4
that	0.15	building	0.16	's	0.16	little	0.4
which	0.075	home	0.02	exists	0.02	short	0.1
who	0.05	household	0.015	has	0.015	minor	0.06
this	0.025	shell	0.005	are	0.005	petty	0.04

$$p(\mathbf{e}, a|\mathbf{f}) = \frac{\epsilon}{(l_f+1)^{l_e}} \prod_{j=1}^{l_e} t(e_j|f_{a(j)})$$



Example

Example

A)

$$\frac{1.0}{(4+1)^4} .7 \cdot .8 \cdot .8 \cdot .4$$

Example

B)

Example

B)

$$\frac{1.0}{(4+1)^4}.7 \cdot .8 \cdot .8 \cdot .4 = 0.000287 \tag{1}$$

Example

C)

Example

C)

$$\frac{1.0}{(4+1)^4}.7 \cdot .8 \cdot .8 \cdot .4 = 0.000287 \tag{1}$$

Example

D)

Example

D)

$$\frac{1.0}{(4+1)} .7 \cdot .8 \cdot .8 \cdot .4 = 0.14 \tag{1}$$