

# Factors in NMT

- Source word factors easy to incorporate:
  - Concatenate embeddings of the various factors.
  - POS tags, morph. features, source dependency labels help  $en \leftrightarrow de$  and  $en \rightarrow ro$  (Sennrich and Haddow, 2016).

- Target word factors:

- Interleave for morphology: (Tamchyna et al., 2017)

Src	there are a million different kinds of pizza .
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Baseline (BPE)	existují miliony druhů piz@@ zy .
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Interleave	VB3P existovat NNIP1 milion NNIP2 druh NNFS2 pizza Z: .
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- Interleave for syntax: (Nadejde et al., 2017)

Src BPE	Obama receives Net+ an+ yahu in the capital of USA
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Tgt	NP Obama ((S[dcI]\NP)/PP)/NP receives NP Net+ an+ yahu PP/NP in NP/N the N cap
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- Multiple decoders, each predicting own sequence.