Relaxed -constraint decoding for Moses

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Motivation

- Moses -constraint decoder does not allow target phrases containing “alien” words
- Depending on the position of the first such word, Moses does not even return best hypo!
- Still, this might be interesting for re-scoring of externally produced translations
Challenges

- “alien” target phrase words need to be modeled using $\varepsilon$ translation options
  - not covering any source words
  - producing exactly one target word
- decoder needs to be adapted accordingly
Challenges, cont’d

- some hypos might be expanded to same stack
- notion of “best” hypo changes as we have to consider correct target phrase size!
- no guarantees wrt. stack size after decoding as not all source words might be covered
Status

- \( \varepsilon \) translation options implemented
- constraint decoding works for test sentences
- code is still a mess and needs cleanup :)
- GitHub branch coming soon...