

Finding Clear BLEU Losses

Missing bigram = all references contained it but not the hypothesis.

Superfluous bigram = the hypothesis contained it but none of the references.

Top missing bigrams:

19	, "	12	" said
12	of the	10	Free Europe
10	Radio Free	7	. "
6	L.J. Hooker	6	United States
6	in the	6	the United
6	the strike	...	

Top superfluous bigrams:

26	, ' '	18	' ' .
14	" said	12	, which
11	Svobodná Evropa	8	, when
8	the state	7	, who
7	J. Hooker	7	L. J.
7	company GM	...	

Four simple rules to improve BLEU by +0.2 to +0.5 on a particular test set:

' ' .	→	. "		L. J. Hooker	→	L.J. Hooker
' '	→	"		the U.S.	→	the United States