Table 4: Comparison of publicly available word vectors on the Semantic-Syntactic Word Relation-

| | Dimensionality | words | | | |
|-----------------------|----------------|-------|----------|-----------|-------|
| | | | Semantic | Syntactic | Total |
| Collobert-Weston NNLM | 50 | 660M | 9.3 | 12.3 | 11.0 |
| Turian NNLM | 50 | 37M | 1.4 | 2.6 | 2.1 |
| Turian NNLM | 200 | 37M | 1.4 | 2.2 | 1.8 |

| Collobert-Weston NNLM | 50 | 660M | 9.3 | 12.3 | 11.0 | |
|-----------------------|-----|------|------|------|------|--|
| Turian NNLM | 50 | 37M | 1.4 | 2.6 | 2.1 | |
| Turian NNLM | 200 | 37M | 1.4 | 2.2 | 1.8 | |
| Mnih NNLM | 50 | 37M | 1.8 | 9.1 | 5.8 | |
| Mnih NNLM | 100 | 37M | 3.3 | 13.2 | 8.8 | |
| Mikolov RNNLM | 80 | 320M | 4.9 | 18.4 | 12.7 | |
| Mikolov RNNLM | 640 | 320M | 8.6 | 36.5 | 24.6 | |
| Huang NNLM | 50 | 990M | 13.3 | 11.6 | 12.3 | |
| | | | | | | |

6B

6B

6B

783M

783M

12.9

27.9

34.2

15.5

50.0

26.4

55.8

64.5

53.1

55.9

20.3

43.2

50.8

36.1

53.3

20

50

100

300

300

Our NNLM

Our NNLM

Our NNLM

Skip-gram

CBOW