

Supplementary material

Dim. Param.	Dataset	Parameter Reduction									
		PCA [Output Dim.]					Pruning [Million Param.]				
		50	100	150	300	500	7.5M	15M	22.5M	45M	75M
50	7.5M	WS353 [ρ]	66.6	-	-	-	66.6	-	-	-	-
		MEN [ρ]	67.6	-	-	-	67.6	-	-	-	-
		wa-syn [%]	39.9	-	-	-	39.9	-	-	-	-
		wa-sem [%]	39.3	-	-	-	39.3	-	-	-	-
		qv-syn	8.7	-	-	-	8.7	-	-	-	-
		qv-sem	8.6	-	-	-	8.6	-	-	-	-
100	15M	WS353 [ρ]	69.1	69.6	-	-	66.7	69.6	-	-	-
		MEN [ρ]	70.3	70.4	-	-	69.6	70.4	-	-	-
		wa-syn [%]	40.6	53.6	-	-	42.1	53.6	-	-	-
		wa-sem [%]	43.7	55.3	-	-	44.7	55.3	-	-	-
		qv-syn	8.0	15.9	-	-	15.2	15.9	-	-	-
		qv-sem	7.8	15.1	-	-	14.6	15.1	-	-	-
150	22.5M	WS353 [ρ]	67.1	70.6	70.5	-	69.4	70.2	70.5	-	-
		MEN [ρ]	69.7	71.5	71.1	-	68.5	70.9	71.1	-	-
		wa-syn [%]	41.5	54.8	58.8	-	40.0	56.7	58.8	-	-
		wa-sem [%]	41.7	58.2	62.2	-	41.3	59.5	62.2	-	-
		qv-syn	7.7	15.2	21.6	-	19.2	21.4	21.6	-	-
		qv-sem	8.0	14.0	22.7	-	20.0	22.3	22.7	-	-
300	45M	WS353 [ρ]	66.9	71.1	71.5	70.5	61.4	66.8	69.3	70.5	-
		MEN [ρ]	68.5	71.2	71.9	71.3	66.5	70.0	70.8	71.3	-
		wa-syn [%]	41.7	54.0	60.0	62.3	29.2	50.9	58.6	62.3	-
		wa-sem [%]	37.6	53.9	61.5	67.2	29.1	51.2	61.5	67.2	-
		qv-syn	7.8	14.8	21.1	40.0	30.1	35.8	38.3	40.0	-
		qv-sem	7.9	13.8	18.7	40.7	31.5	36.7	39.1	40.7	-
500	75M	WS353 [ρ]	65.9	69.1	70.4	71.5	69.7	57.9	64.3	65.9	69.7
		MEN [ρ]	67.8	70.6	71.6	72.7	71.9	63.2	69.5	71.1	71.8
		wa-syn [%]	40.3	53.8	59.6	62.9	62.3	22.2	42.0	52.7	61.4
		wa-sem [%]	35.3	50.3	58.2	66.9	66.9	20.7	40.7	53.4	65.2
		qv-syn	7.8	15.1	21.1	35.3	61.4	40.6	49.0	53.9	60.2
		qv-sem	7.6	13.7	19.0	30.7	63.5	45.1	52.4	56.7	62.4

Table 2: Transformation: Cells show the performance of word vectors of different sizes (row) after projection for different numbers of first principal components (column).