

Supplementary material of the paper "Strategies for Multiword Expression Analysis and Dependency Parsing"

1 Regular expressions to match regular MWEs

In this section, we provide the set of regular expressions to match regular MWEs in the gold data.

1.1 For nominal MWEs

- '(D)?(A)*N(A(CA)?)(P(\+D)?(D)?(A)*N(A(CA)?)((C)?P(\+D)?(D)?(A)*N(A)*))?)',
- 'N(N)+'
- '(N|ET)(ET)+'

1.2 For verbs

'V P(\+D)?(D)?N'

1.3 For prepositions

'P(\+D)?(D)?(A)*N(P(\+D)?(D)?(A)*N(A(CA)?)((C)?P(\+D)?(D)?(A)*N(A)*))?)P(\+D)?'

1.4 For adverbs

'P(\+D)?(D)?(A)*N(P(\+D)?(D)?(A)*N(A)*)?'

2 Systematic tuning of MWE-specific features

In table 1, we provide all results obtained during the tuning of the MWE-specific features for each MWE+ parsing architecture.

				ALL INCLUDED REPRESENTATION		STRUCTURED REPRESENTATION				FLAT REPRESENTATION				
ARCHI	MWE feats	swi. irreg	swi. reg	LAS	UAS	LAS	UAS	MWE irreg	MWEP irreg	LAS	UAS	MWE	MWEP	
ARCHI	baseline	-	-	-	84.47	89.31	87.00	89.31	83.6	80.6	84.19	88.11	73.5	70.7
		-	-	+	84.60	89.39	87.07	89.39	83.2	79.9	84.37	88.31	73.7	70.5
JOINT		-	+	-	84.56	89.42	87.08	89.42	84.1	81.2	84.19	88.18	73.1	70.1
		-	+	+	84.62	89.41	87.07	89.41	83.4	81.1	84.31	88.23	74.1	71.3
		+	-	-	84.98	89.51	87.17	89.51	84.7	81.8	84.79	88.51	77.0	74.0
		+	-	+	85.11	89.59	87.27	89.59	85.3	82.3	85.02	88.68	77.8	74.6
		+	+	-	85.09	89.56	87.27	89.56	84.8	81.7	84.88	88.56	77.2	74.2
		+	+	+	85.29	89.72	87.45	89.72	85.4	82.6	85.15	88.79	77.6	74.5
JOINT-IRREG		-	-	-	84.67	89.38	86.99	89.38	83.5	80.3	84.49	87.99	78.3	75.9
		-	-	+	84.62	89.35	86.97	89.35	83.9	80.5	84.45	87.95	78.6	76.1
		-	+	-	84.77	89.43	87.07	89.43	83.4	80.9	84.60	88.06	78.4	76.3
		-	+	+	84.74	89.37	87.04	89.37	83.4	81.1	84.54	87.98	78.3	76.3
		+	-	-	84.93	89.58	87.25	89.58	85.5	82.2	84.74	88.17	79.3	76.8
		+	-	+	84.85	89.45	87.17	89.45	85.3	81.9	84.66	88.05	79.2	76.6
		+	+	-	84.94	89.55	87.25	89.55	85.0	82.1	84.74	88.13	79.2	76.9
		+	+	+	85.07	89.75	87.42	89.75	85.0	81.6	84.88	88.32	79.0	76.5
JOINT-REG		-	NA	-	84.19	89.09	86.71	89.09	84.2	80.8	83.98	88.03	73.3	70.3
		-	NA	+	84.29	89.21	86.79	89.21	84.1	80.7	84.13	88.20	73.5	70.3
		+	NA	-	84.57	89.14	86.76	89.14	84.1	80.7	84.48	88.28	76.2	73.4
		+	NA	+	84.71	89.28	86.94	89.28	84.1	80.7	84.58	88.34	76.3	73.2
PIPE LINE		-	NA	-	84.55	89.23	86.85	89.23	84.1	80.7	84.48	87.94	78.8	76.3
		+	NA	-	84.59	89.25	86.90	89.25	84.1	80.7	84.49	87.92	78.8	76.3
		+	NA	+	84.55	89.28	86.88	89.28	84.1	80.7	84.46	87.95	78.8	76.3
		-	NA	+	84.68	89.36	86.98	89.36	84.2	80.8	84.60	88.06	78.8	76.3

Table 1: Tuning the parameters for the four MWE+parsing architectures on the dev set.