

Preset SE, Normalization, Scope_Expansion
verb rule [subj] and new rule for all other verbs: [obja,objd,objc,obji,s,objp-*,subj]

1	Standard	1.1 Baseline_window4_both	1.2 Baseline_one_rule
F_SE	100	100	100
Precision Shifter	64.88	42.13	30.59
Recall Shifter	58.58	55.97	44.4
F-Score Shifter	61.57	48.08	36.23

Compare different rule configurations for transitive and intransitive verbs

Only 1 verb rule: [obja,objd,objc,obji,s,objp-*]

2	Standard		
F_SE	100		
Precision Shifter	64.95	3.38	
Recall Shifter	51.87	-6.71	
F-Score Shifter	57.68	-3.89	(compared to best config)

Only 1 verb rule: [obja,objd,objc,obji,s,objp-*,subj]

3	Standard		
F_SE	100		
Precision Shifter	62.6	1.03	
Recall Shifter	59.33	0.75	
F-Score Shifter	60.92	-0.65	(compared to best config)

Rule for intransitive verbs: [subj] and for all others: [obja]

4	Standard		
F_SE	100		
Precision Shifter	73.62	12.05	
Recall Shifter	44.78	-13.8	
F-Score Shifter	55.68	-5.89	(compared to best config)

Only 1 verb rule: [obja]

4.5	Standard		
F_SE	100		
Precision Shifter	75.66	14.09	
Recall Shifter	42.91	-15.67	
F-Score Shifter	54.76	-6.81	(compared to best config)

Keep best rules, change other parameters

No Scope Expansion

5	Standard		
F_SE	100		
Precision Shifter	66.67	1.79	
Recall Shifter	50	-8.58	
F-Score Shifter	57.14	-4.43	(compared to best config)

With orientation lookup

6	Standard		
F_SE	100		
Precision Shifter	69.86	4.98	
Recall Shifter	54.48	-4.1	
F-Score Shifter	61.26	-0.31	(compared to best config)

No Normalization

7	Standard		
F_SE	100		
Precision Shifter	66.92	2.04	
Recall Shifter	32.46	-26.12	
F-Score Shifter	43.72	-17.85	(compared to best config)

Turn off parts of normalization

No conjunction normalization

7.01	Standard		
F_SE	100		
Precision Shifter	64.46	-0.42	
Recall Shifter	58.21	-0.37	
F-Score Shifter	61.18	-0.39	(compared to best config)

No active-passive normalization

7.02	Standard		
F_SE	100		
Precision Shifter	63.22	-1.66	
Recall Shifter	57.09	-1.49	
F-Score Shifter	60	-1.57	(compared to best config)

Lexicon based evaluation

Lexicon_standard: Lexicon, Normalisierung, POS lookup

8	10.0 Standard	10.1 Baseline_window4_both	10.2 Baseline_one_rule
F_SE	64.31	64.31	64.31
Precision Shifter	47.06	25.96	21.83
Recall Shifter	35.82	35.45	30.22
F-Score Shifter	40.68	29.97	25.35

Lexicon_no_POS: Lexicon, Normalization, No POS lookup

9	11.0 Standard
F_SE	64.39
Precision Shifter	46.83
Recall Shifter	35.82
F-Score Shifter	40.59

POS-lookup yields slight improvement

Lexicon_extended: germanlex_extended, Normalization, POS lookup

10	12.0 Standard	12.1 Baseline_window	12.2 Baseline_one_rule
F_SE	85.01	85.01	85.01
Precision Shifter	64.38	31.96	24.88
Recall Shifter	52.61	49.25	39.18
F-Score Shifter	54.34	47.06	30.43

Extending germanlex yields huge SE-improvements

Better precision here probably overfitting. Ambiguity is a problem.

Baseline window evaluation – find the best n

Preset-SE, Normalization, right side of shifter

N=1	F-Score Shifter:	14.10
N=2	F-Score Shifter:	30.53
N=3	F-Score Shifter:	35.29
N=4	F-Score Shifter:	35.56
N=5	F-Score Shifter:	34.56
N=6	F-Score Shifter:	33.89

Preset-SE, Normalization, left side of shifter

N=1	F-Score Shifter:	20.83
N=2	F-Score Shifter:	30.20
N=3	F-Score Shifter:	30.06
N=4	F-Score Shifter:	30.86
N=5	F-Score Shifter:	30.57
N=6	F-Score Shifter:	30.07

Both directions

N=1	F-Score Shifter:	29.19
N=2	F-Score Shifter:	46.15
N=3	F-Score Shifter:	47.46
N=4	F-Score Shifter:	48.08
N=5	F-Score Shifter:	48.06
N=6	F-Score Shifter:	47.82
N=7	F-Score Shifter:	47.51

Baseline rule evaluation – find the best setup

BaselineRule classic – one shifter one SE

11	Standard
F_SE	100
Precision Shifter	30.59
Recall Shifter	44.4
F-Score Shifter	36.23

BaselineRule classic – one shifter many SE

11.1	Standard
F_SE	97.75
Precision Shifter	32.98
Recall Shifter	44.78
F-Score Shifter	35.50

many false positive SE marked

BaselineRule classic –with clause case

11.2	Standard
F_SE	100
Precision Shifter	30.99
Recall Shifter	44.4
F-Score Shifter	36.50

Only negation in shifterLex

Negation only

12	Standard
F_SE	100
Precision Shifter	66.67
Recall Shifter	9.7
F-Score Shifter	16.94