Appendix

In this appendix, we present statistics regarding the languages considered in the study, including the number of available bible translations, and the sizes of the bilingual and morphological dictionaries.

Language	# of Bibles	Dict. size	UniMorph size
Arabic	1	67K	144K
Armenian*	3	19K	346K
Bulgarian	3	23K	58K
Czech	6	71K	140K
Danish	3	35K	29K
Estonian	1	60K	39K
Finnish*	3	99K	2.5M
German*	25	200K	194K
Greek*	4	45K	197K
Hebrew	1	19K	14K
Hungarian*	5	77K	552K
Icelandic	1	41K	82K
Latin*	2	18K	526K
Latvian	2	12K	145K
Lithuanian	2	19K	36K
Macedonian	2	31K	178K
Northern Sami	1	4K	65K
Norwegian Nynorsk	1	2K	21K
Norwegian Bokmål	5	46K	25K
Polish*	4	87K	211K
Romanian	2	36K	85K
Russian*	6	153K	502K
Serbo-Croatian*	2	47K	880K
Swedish	3	65K	89K
Turkish*	3	40K	279K
Zulu	1	3K	50K
Average	3.5	51K	284K

Table 1: Bible and Dictionary Statistics for each language; languages marked with a ∗ were used to form consensus when hypothesizing case.

Case	Heuristic
NOM	Dep = "nsubj"
ACC	Dep = "obj"
DAT	Dep = "iobj"
GEN	head ="of"
COM	head = "with" and SRL contains "COM"
INST	head = "with" and SRL does not contain "COM"
AT+ABL	head = "from" and SRL contains "DIR"
TRANS	head = "from" and SRL does not contain "DIR"
ON+ESS	head = "on" and SRL contains "LOC"
IN+ESS	head = "in" and SRL contains "LOC"
AT+ESS	head = "at" and SRL contains "LOC"
AT+ALL	head = "to" and SRL contains "LOC"

Table 2: Heuristics used to translate parses into case.