A Corpus for Suggestion Mining of German Peer Feedback

From Insight …
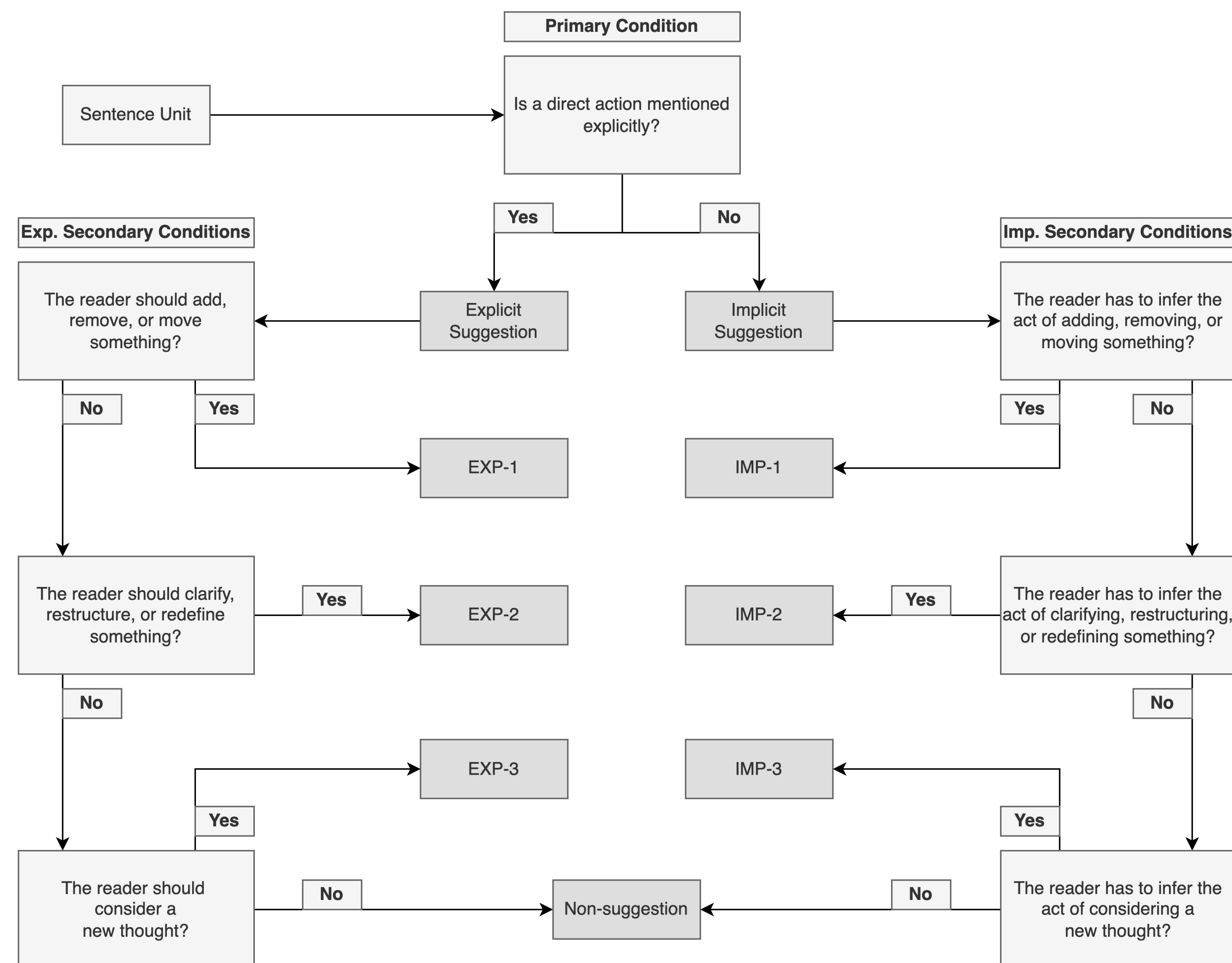
Peer Feedback →

What is helpful feedback?

Including suggestions on how to improve ones work!

Primary Condition

Sentence Unit → Is a direct action mentioned explicitly?

Yes → Explicit Suggestion
No → Implicit Suggestion

Exp. Secondary Conditions

The reader should add, remove, or move something?
- No
- Yes → EXP-1

The reader should clarify, restructure, or redefine something?
- Yes → EXP-2
- No → EXP-3

The reader should consider a new thought?
- No → Non-suggestion
- Yes

Imp. Secondary Conditions

The reader has to infer the act of adding, removing, or moving something?
- Yes → IMP-1
- No

The reader has to infer the act of clarifying, restructuring, or redefining something?
- Yes → IMP-2
- No

The reader has to infer the act of considering a new thought?
- No → Non-suggestion
- Yes → IMP-3

… to Impact

Number of documents	617
Number of sentences	7,488
Number of tokens	747,680
Number of words	108,496
Avg. no. of sentences per document	12.14
Avg. no. of words per document	175.84
Avg. no. of words per sentence	14.49
Avg. no. of tokens per word	6.89

PLM	Architecture	Details	Corpora	Accuracy	Weighted F1-Score
German BERT (bert-base-german-cased)	BERT	12-layer, 768-hidden states, 12-attention heads, 110M parameters	German Wikipedia, OpenLegalData, News Articles	66.36%	65.88%
German BERT large (gbert-large)	BERT	24-layer, 1024 hidden states, 16 attention heads, 335M parameters	German OSCAR corpus, OPUS project, German Wikipedia, OpenLegal-Data	**73.56%**	**73.07%**
distilbert-base-german-cased	DistilBERT	6-layer, 768-hidden, 12-heads, 66M parameters	Wikipedia, EU Book-shop corpus, Open Subtitles, Common-Crawl, ParaCrawl, News Crawl	62.08%	60.13%
xlm-mlm-ende-1024	XLM	6-layer, 1024-hidden, 8-heads	English and German Wikipedia	50.60%	46.88%

	Precision	Recall	F1
EXP-1	75%	78%	77%
EXP-2	64%	77%	70%
EXP-3	69%	67%	68%
IMP-1	52%	46%	49%
IMP-2	78%	74%	76%
IMP-3	59%	58%	58%
ILLU	74%	68%	71%
JUST	60%	67%	64%
SUMM	56%	45%	50%
APPR	96%	94%	95%