

WRIME: A New Dataset for Emotional Intensity Estimation with Subjective and Objective Annotations

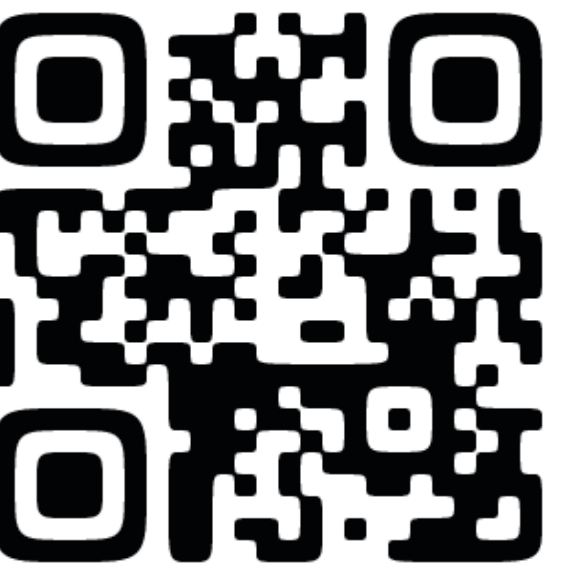
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We released a Japanese dataset for emotional intensity estimation <https://github.com/ids-cv/wrime>

- We annotated 17,000 Japanese SNS posts from 50 crowdsourced workers.
- Annotations follow Plutchik's 8-category emotion schema on a 4-point intensity scale. (0: No, 1: Weak, 2: Medium, 3: Strong)
- We provide both *subjective* (i.e. based on what the writer feels) and *objective* (i.e. based on what the readers think that the writer feels) annotations.

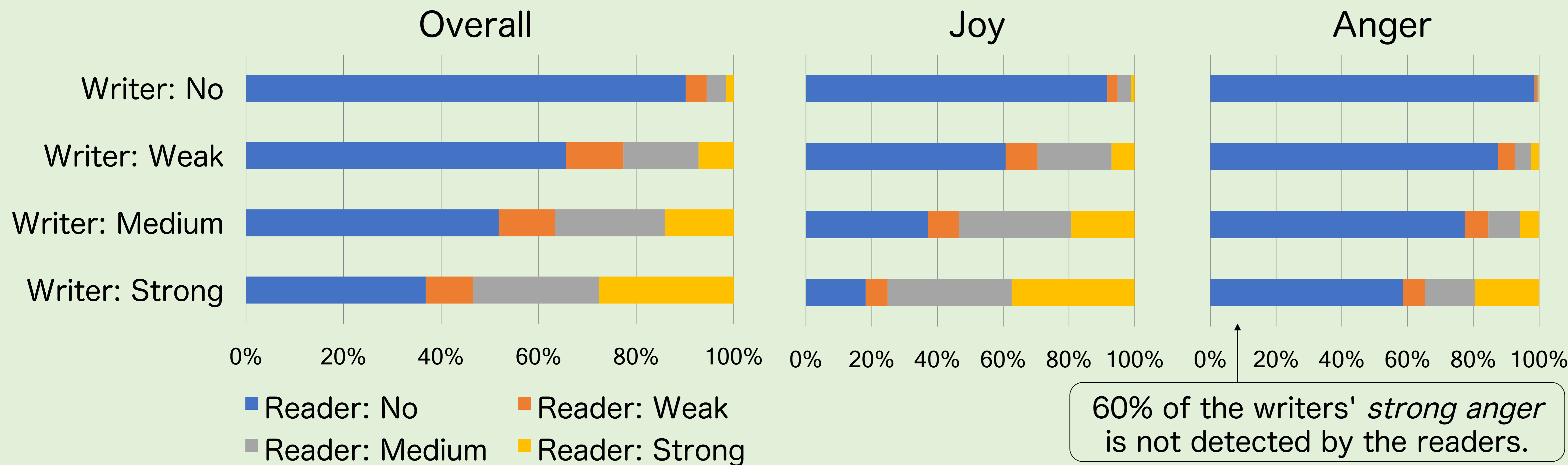
An expanded version (40,000 posts from 80 annotators) is available. →



The tire of my car was flat. I heard that it might be mischief.

	Joy	Sadness	Anticipation	Surprise	Anger	Fear	Disgust	Trust
Writer	0	3	0	1	3	0	0	0
Reader A	0	3	0	3	1	2	1	0
Reader B	0	2	0	2	0	0	0	0
Reader C	0	2	0	2	0	1	1	0

Annotation: readers tend to underestimate the writers' emotions



Experiments

Evaluation of mean absolute error

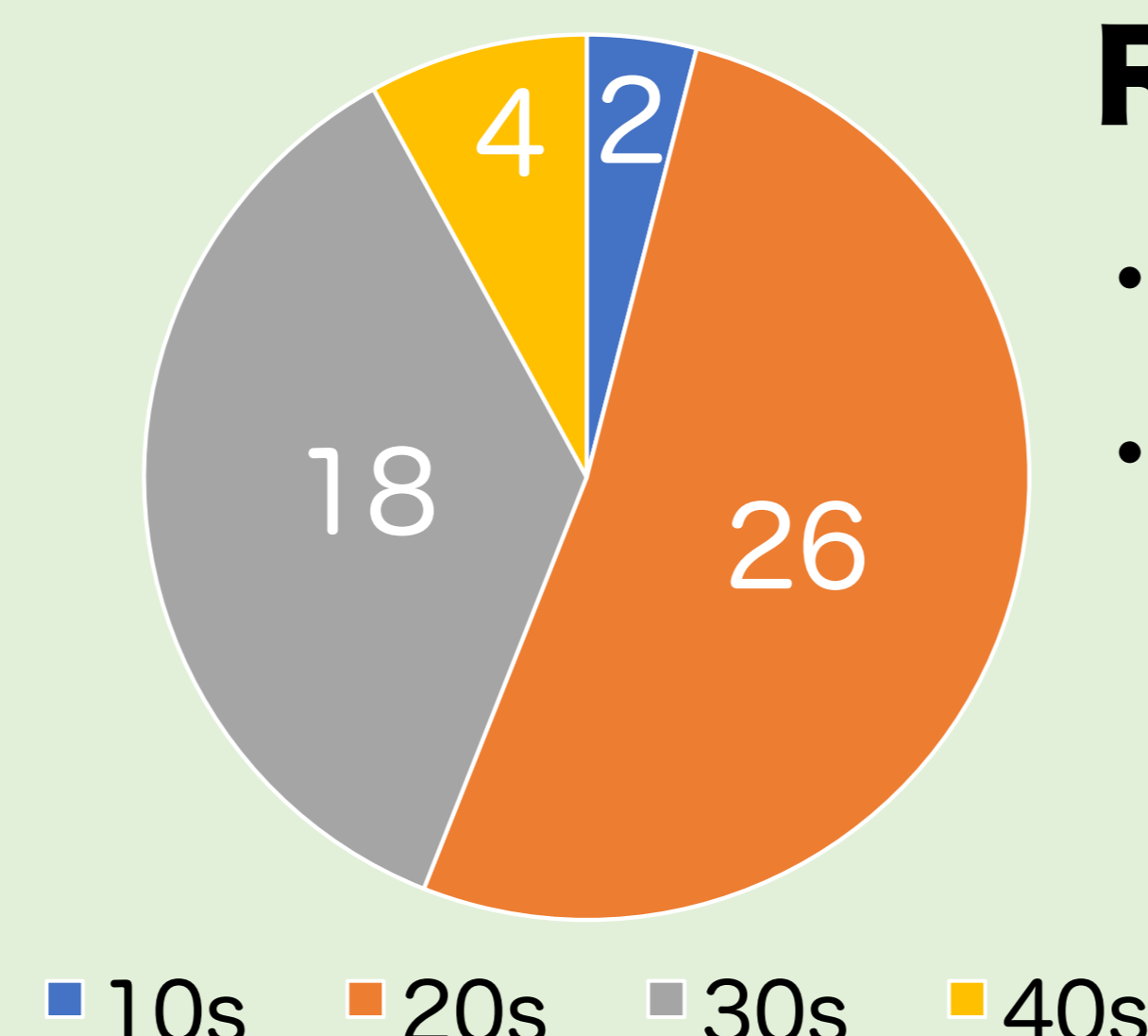
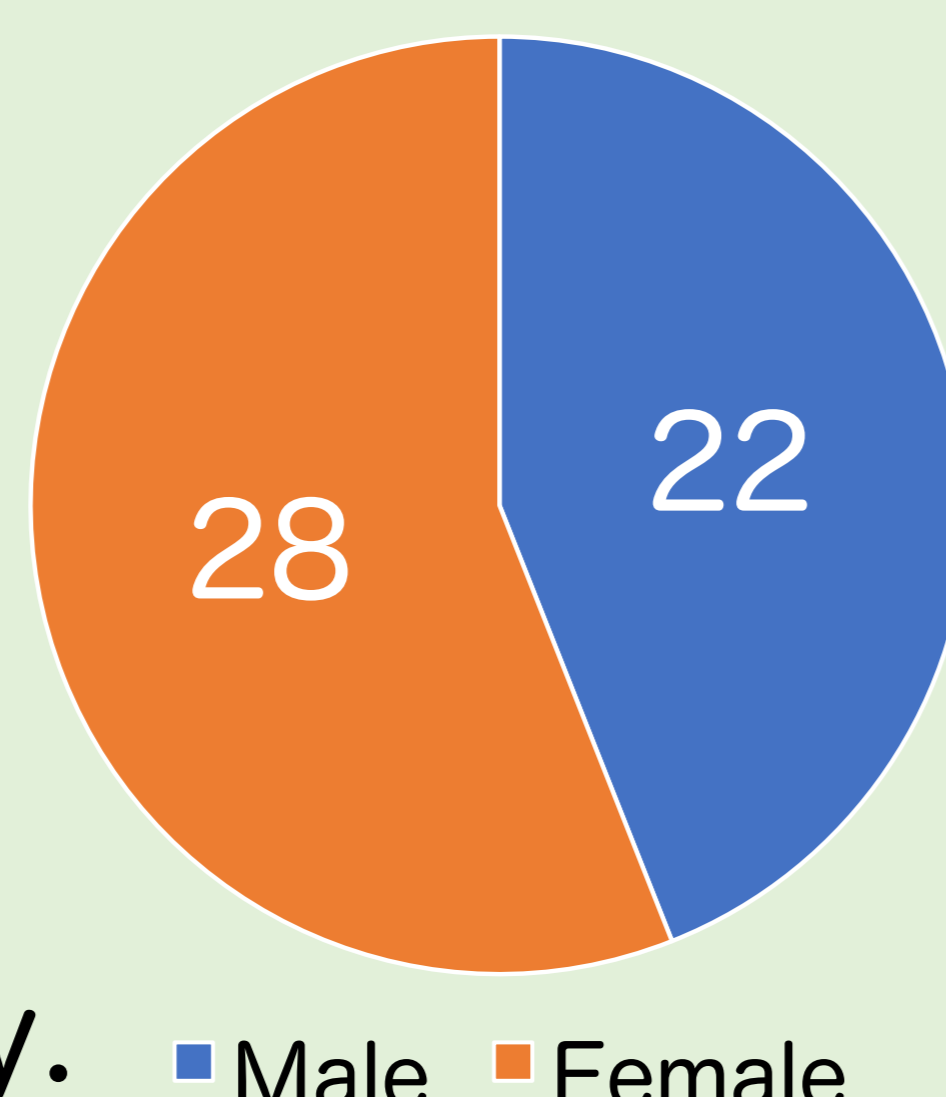
	Writer	Reader
Modal Class	0.578	0.395
Writer BERT	0.553	0.377
Reader BERT	0.519	0.317

- Train: 15,000 Dev: 1,000 Test: 1,000
- Even when estimating the writers' subjective emotional intensity, the error is smaller when training with the readers' objective labels.

Details of emotional intensity annotation

Writers' Subjective Labels

- 50 writers from *Lancers*.
- They copy and paste their own past SNS posts.
- Then labeled the posts with the subjective emotional intensity.



Readers' Objective Labels

- 3 readers from *Lancers*.
- Readers include two women (30s) and one woman (40s).

Inter-Annotator Agreement

	Kappa
Reader - Reader	0.55 ~ 0.59
Writer - Reader	0.44 ~ 0.47
Writer - Avg. Readers	0.52

Lancers is a Japanese crowdsourcing service. <https://www.lancers.jp/>