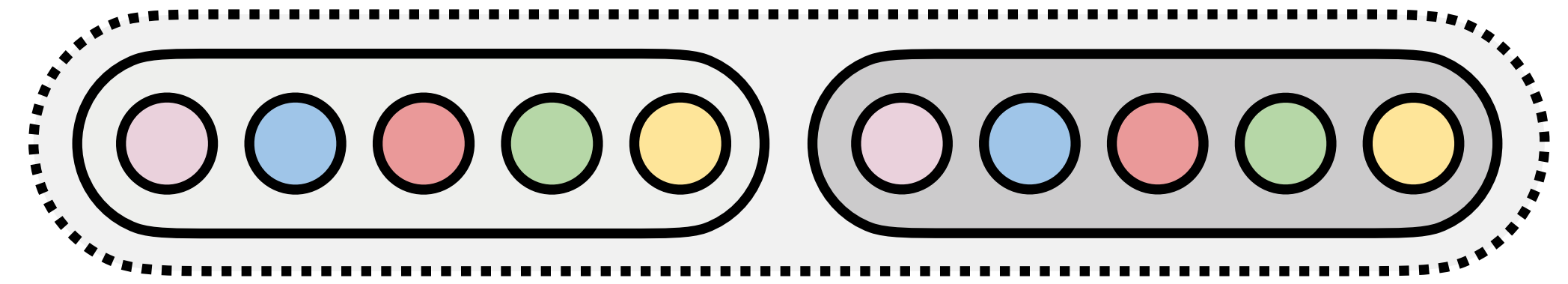


Methodology

Emotion Gap



$$emo^{gap} = (emo_{\mathcal{T}} - emo_{\mathcal{M}}^{mean}) \oplus (emo_{\mathcal{T}} - emo_{\mathcal{M}}^{max})$$

- To model the **resonances** and **dissonance** of dual emotion, propose Emotion Gap emo^{gap} .
- It's designed as the subtraction between $emo_{\mathcal{T}}$ & $emo_{\mathcal{M}}$, emo^{gap} is concatenated by difference of $emo_{\mathcal{T}}$ & $emo_{\mathcal{M}}^{mean}$ and difference $emo_{\mathcal{T}}$ & $emo_{\mathcal{M}}^{max}$.
 - $emo^{gap} = (emo_{\mathcal{T}} - emo_{\mathcal{M}}^{mean}) \oplus (emo_{\mathcal{T}} - emo_{\mathcal{M}}^{max})$
- By this means, it can measure the **differences** (i.e., dissonances) between the dual emotion.
- For emotions resonances, the values in the Emotion Gap vector are tiny (nearly zero).

Methodology

Dual Emotion Features

- Finally, Dual Emotion Features are **concatenated** by the Publisher Emotion, the Social Emotion and the Emotion Gap.

$$emo^{dual} = emo_{\mathcal{T}} \oplus emo_{\mathcal{M}} \oplus emo^{gap}$$

