Supplemental Material

This supplemental material provides examples of the generated summaries and the latent discourse trees induced by our model. Figure 1 and Figure 2 show samples of *negative* reviews and relatively *long* reviews, respectively. We present them with comparisons of the reference and generated summaries by the supervised neural sequence-to-sequence model with attention mechanism (Seq-Seq-att).

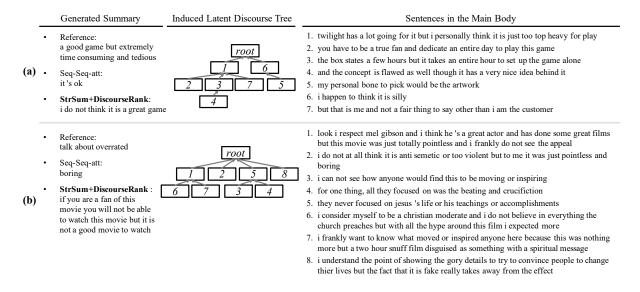


Figure 1: Examples of generated summaries and induced latent discourse trees for *negative* reviews. (a) shows a board game review. The induced tree shows that the 1st and 6th sentences present additional information about the generated summary. While the 1st to 4th indicate the *heaviness* of the game, the 5th and 6th criticize the *artwork*. The 2nd, 3rd, and 4th present the additional information about the parent. (b) presents a movie review. The 1st and 2nd sentences describe the whole evaluation, while 6th and 7th *strengthen* the opinion. The 3rd to 5th mention the boring points in *detail*. Although our model catches the negativeness, the summary is redundant probably because each sentence in the body is relatively long.

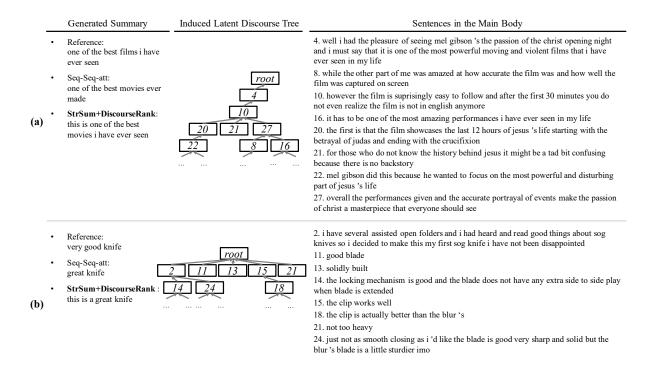


Figure 2: Examples of generated summaries and induced latent discourse trees for *long* reviews. (a) shows a movie review. The 4th sentence mentions the whole positiveness. The 10th describes that the contents are *easy to follow*, while the 20th to 22nd show the *detail* of the contents. The 27th mentions the *performance* and *accurate portrayal*, and the 8th and 16th *elaborate* on the latter and the former, respectively. (b) presents a pocket knife review. The 11th, 13th, 15th, and 21st sentences concisely describe the goodness in each *aspect*. The 14th, 24th, and 28th *elaborate* on the parents.