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発表の概要と成果（抄録を公開している URL がある場合、「概要・成果」を記載した上で、URL を末尾に記してください。また、抄録 PDF は別途ご提出ください。なお、抄録 PDF は Web 上には公開されません。）

【Position of this research】In our previous study, we used Naive Bayes to discriminate and quantify approval desire in tweets based on words. To correctly understand a sentence, it is important to consider not only words but also word relationships and grammar. In this study, we investigate whether Naive Bayes accuracy can be improved by considering relationships between words. We weight word according to the result of dependency analysis and compare the results without and with incorporating dependency analysis to examine the possibility of improving the accuracy of approval desire discrimination and quantification in tweets.

【Conclusion】Of the total of 904 tweets, 103 tweets were subject to weighting. In addition, 86 tweets were subject to emphasizing only, 13 tweets were subject to weakening only, and 4 tweets were subject to both emphasizing and weakening. By weighting, the correlation and determination coefficients increased slightly. Especially, using only the tweets subject to weighting, the correlation coefficients increased compared to the results without weighing. It implies that dependency analysis may have the effect of increasing accuracy for tweets whose ratings were determined by a narrow margin. Evaluators seem to become unsure of their ratings for some tweets, and evaluation of such tweets may change over time. In other words, tweets that have a close difference in the Naive Bayes classification may be difficult for humans to evaluate. By using the dependency analysis, it is possible to capture ambiguous evaluations, and it can become closer to the way that humans evaluate.

There are some limitations in this study. First, the weighted scores for some tweets could not be obtained due to lack of the words. Second, weighting could not be adopted when two or more words have an engaged target. Third, the dependency analysis we used could be improved. As for our future work, we will solve the problems involved with the above limitations. We will explore the weighting factors to optimize the adjustment for quantification of approval desire in tweets. Furthermore, we plan to improve the discrimination accuracy by applying more advanced machine learning methods other than Naive Bayes and using larger data sets for the experiment.

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