## Reducing Translationese in Machine Translation without Synthetic Data

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In producing translations, humans are often confronted with the constraint posed by the intention to stay true to the original text, while at the same time being fluent in the target language. As a result, the translated text often contains characteristics of both, forming a new 'dialect' of the target language often named translationese (Gellerstam, 1986). Notably, Baker (1993) distinguishes three translation universals: simplification, normalization and explicitation. Additionally, Toury (1995) names the law of interference as an important characteristic of translationese. In short, they claim that translations tend to be more standardized and simpler than text that was originally written in some language.

Since machine translation (MT) systems are usually trained on human-translated data, they learn to imitate this 'dialect'. Because of this, they also display features of translationese, but these are exacerbated. For example, Toral (2019) finds that human translations that are based on MT output (post-edited MT) exhibit more translationese than fully human-translated texts. This is problematic, because while translationese is sometimes useful (e.g. in the case of explicitation), it is assumed to render translations 'foreign-sounding and clumsy of wording and structure' (Kunilovskaya and Lapshinova-Koltunski, 2019). Therefore, reducing translationese in MT could be an important step in improving MT quality.

Previous research has approached this problem by leveraging monolingual data in the target language originally written in that language and using it to generate synthetic data (e.g. Freitag et. al, 2019). However, this approach is rigid: there is no way in which a user can adjust their degree of *desired* translationese in MT output.

In this project, we propose a system for reducing translationese in neural MT in a more flexible manner, where the user can specify the 'degree of translationese'. More specifically, our project focuses on English-to-Dutch translations of literature, taking into account the automatic translation of novels. For the baseline system, we rescore MT output using translationese classification probability.