

Post-edited text is processed as effectively as a translated one: a psycholinguistic investigation

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Post-editing of machine translation output constitutes a time- and resource-saving technique to produce a translated text. Although post-editing begins to be more frequently used, little research attention has been directed to establish whether readers of post-edited text process it as effectively as they would the one translated from scratch. As such, studies conducted recently (e.g. Sekino 2015) concentrate on measuring cognitive effort put into the process of post-editing vs. translating a source text. They showed that more cognitive effort is associated with post-editing than with translating texts. Additionally, based on eye-tracking data, translation process research (Carl 2013) found that the process of post-editing is different than that of translation. However, any effect that post-edited or translated target text might have on text comprehension has not been particularly investigated, except for studies focusing on target text quality evaluation (e.g. Fiederer and O'Brien 2009).

The present study attempts to establish whether the type of translated text (post-edited machine translation output vs. translated from scratch) facilitates or hinders comprehension. To answer this question we conducted a self-paced reading task with 73 participants. We recorded reaction times to reading sentences in three conditions (translated, post-edited and matched filler sentences as a baseline) and accuracy rates to comprehension questions. Reaction times were analysed with a repeated-measures ANOVA. Accuracy was compared with a t-test.

Data analysis shows that cognitive effort put into the processing of two types of text and the comprehension of the global sense are very similar across conditions. The results may indicate that post-edited text may convey ideas contained in the source as effectively as text properly translated from scratch does. The study opens the floor for a discussion whether the involvement of machine translation in the process of obtaining a final translation product influences the reception of the translated text. Specifically, it tries to answer the question whether post-editing may be used without the cost in the comprehension of target message.

Carl, M. 2013. "Can Human Translation Process Research help bridge the communication gap between translators, MT researchers and developers, and translation trainers?" (Tralogy II Webcast, 17 Jan. 2013). Paris: Centre national de la recherche scientifique. (http://webcast.in2p3.fr/videos-using_mt_postditing_for_translator_training) (date of access: 27 Mar. 2015).

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