Voluntary language switching while typing

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A longstanding issue in psycholinguistic research on bilingualism concerns the nature of language control, which is the process used to select words in the appropriate language and to minimize cross-language interference during bilingual language processing. This is a necessity for bilinguals, since words from the non-target language are also activated during language processing, and sometimes even selected by mistake. The most common paradigm to investigate language control is the language switching paradigm, in which participants typically name pictures in mixed language blocks. While the majority of production-based language switching studies have relied on vocal responses, we set out to investigate if switching languages, relative to staying in the same language across trials, would still be costly with typed responses. The results of this study, with 79 German-English bilinguals, showed language switch costs. Interestingly, these switch costs were larger for the second (L2) than the first (L1) language, which could be due to the overall better L2 than L1 performance. Another interesting aspect was that this asymmetrical switch cost pattern was not just found for the first key stroke, but larger L2 than L1 switch costs were also found for the second key stroke. These findings indicate that language control is implemented in the context of typing. Furthermore, the control processes implemented during lexical selection seem to spill over into the following stages of typing, as not only the first but also the second keystrokes were affected by language switching.