

# Title: BILINGUAL LANGUAGE COACTIVATION – TRANSLATION EQUIVALENTS OR CONCEPTUAL OVERLAP?

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## Abstract

Considerable evidence of language coactivation has led the field of linguistics to the general consensus that bilingual language processing involves simultaneous activation of both the native (L1) and second (L2) system(s). In strong support of this is research demonstrating unconscious L1 translation activation during L2 language processing, typically evidenced by the influence of L1 wordform features on L2 processing. For example, the word ‘thing’ when translated to Chinese is the compound *dōngxi* 东西, the first character of which means ‘east’. For Mandarin-English bilinguals, the seemingly unrelated English words ‘thing’ and ‘east’ will prime one another, suggesting processing facilitation derived from their relationship in the contextually irrelevant L1. Typically, such priming effects have been attributed to the activation of – and overlap between – L1 form representations (i.e., phonology, orthography), but more recently an alternative account has been proposed – one in which second language learning supposedly lends itself to the “carrying over” of L1 relationships. In this account, novel L2 input (words) is initially mapped on to L1 semantic representations. Such a process results in an L2 language system largely resembling the native system. Priming between ‘thing’ and ‘east’ thus occurs because these English words harbour *Mandarin* relationships, omitting the necessity of translation-form activation. To explore whether priming in the L2 could result from L1 conceptual relationships (in the absence of L1 form overlap), we tested 28 Mandarin-English bilinguals in an ERP study. Critical primes and targets were unrelated in English but shared a nominal classifier in Mandarin (e.g., towel – snake, each of which use the nominal classifier *tiáo* 条). By pairing words that shared a classifier, we thus manipulated semantic relationships between stimuli that were present in the L1, but seemingly absent in English. Relative to unrelated controls, targets primed by words from the same classifier category elicited a smaller N400 ( $p < .001$ ) in the bilingual group, but not in a native English control group ( $N = 27$ ;  $p = .128$ ). These findings suggest that first language conceptual relationships influence L2 processing, and that L1 translation form activation may not be a necessary prerequisite for L1 priming in an L2 context.

