This study tested the L1-and-L2 morphological congruency effect in L2 syntax processing (e.g., Hawkins & Liszka, 2003; Jiang et al., 2011, 2017; Scherag et al., 2004). Transitive verbs (kowas-u ‘break’) in Japanese have a derivational relation with potential verbs (kowas-eru), and a nonderivational relation with intransitive verbs (koware-ru). Korean shares a similar non(derivational) verbal feature with Japanese, but not Chinese. Three participant groups composed of native (L1) Japanese speakers, L1 Korean and L1 Chinese speakers learning L2 Japanese were examined using a cross-model priming experiment. Lexical decisions for visually-presented transitive verbs were performed under three phonetically-primed conditions: (1) derivative potential verbs, (2) nonderivative intransitive verbs, and (3) white noise as the control condition. For L1 Japanese, lexical decisions for transitive verbs primed by potential verbs were 65 ms faster (i.e., priming effects) than those for the same transitive verbs primed by the white noise condition. Likewise, lexical decisions for transitive verbs primed by intransitive verbs were 28 ms faster when compared to the control condition. Furthermore, lexical decisions under the potential-verb-primed condition indicated significantly greater priming effects (37 ms) than those under the intransitive-verb-primed condition. Thus, L1 Japanese speakers were sensitive to non(derivative) relations of verbs constantly throughout all trails. Similar to L1 Japanese, L1 Korean learning L2 Japanese also displayed a similar priming effect trend: 180 ms for the intransitive-verb-primed condition and 203 ms for the potential-verb-primed condition, and the 23 ms difference between these two effects was also significant. However, this difference in the processing between nonderivational and derivational relations diminished. Unlike L1 Koreans, while both conditions showed significant priming effects for L1 Chinese, no significant difference was observed between the priming effects of intransitive-verb-primed (109 ms) and potential-verb-primed conditions (140 ms). Accordingly, this study supported the L1-and-L2 morphological congruency effect in Japanese non(derivational) verbal relations. (297 words)
Figure 1. (Non)derivative relations of intransitive, transitive, potential forms in Japanese verbs

(i) Native (L1) Japanese speakers

(ii) L1 Korean speakers learning L2 Japanese

(iii) L1 Chinese speakers learning L2 Japanese

Figure 2: Processing of target Japanese transitive verbs primed by potential, intensive and white noise by L1 Japanese, and L1 Korean and L1 Chinese speakers learning L2 Japanese