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Dissociation of Thematic, Taxonomic, and Integrative Relations

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Abstract: Word pairs may be connected by several possible relations including integrative (denoting a subclass of the head noun; INSTRUCTION – BOOK, a type of book), thematic (related to a common event or theme; EDITOR – BOOK), and taxonomic (shared features and category membership; ARTICLE – BOOK). Prior studies have found greater lexical priming for thematic than taxonomic items, however that may have been partially attributable to greater association strengths for the thematic items. Using participant ratings and computational measures (LSA, Google), we assessed the similarity, co-occurrence, and familiarity of 180 non-associated items representing these three relational constructs and compared the magnitude of lexical priming across short (100 ms) and long (2000 ms) prime-target presentation delays (SOAs). Although priming effects did not reliably differ among the relations at either SOA, regression analyses revealed different factors influencing response times for the integrative targets than for the thematic and taxonomic relations.