Semantic Processing in Chinese: Category Effects, Task Effects and Age Effects

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Abstract : The present study aimed to elucidate the nature of semantic processing in Chinese. Language and cognition related to the issue of aging are examined from the perspective of picture naming and category fluency tasks. Twenty Chinese-speaking adults (ranging from 25 to 45 years old) and twenty Chinese-speaking seniors (ranging from 65 to 75 years old) in Taiwan participated in this study. Each of them individually completed two tasks: a picture naming task and a category fluency task. Instruments for the naming task were sixty black-and-white pictures: thirty-five object and twenty-five action pictures. Category fluency task also consisted of two semantic categories – objects (or nouns) and actions (or verbs). Participants were asked to report as many items within a category as possible in one minute. Scores of action fluency and of object fluency were a summation of correct responses in these two categories. Category effects (actions vs. objects) and age effects were examined in these tasks. Objects were further divided into two major types: living objects and non-living objects. Actions were also categorized into two major types: action verbs and process verbs. Reaction time to each picture/question was additionally calculated and analyzed. Results of the category fluency task indicated that the content of information in Chinese seniors was comparatively deteriorated, thus producing smaller number of semantic-lexical items. Significant group difference was also found in the results of reaction time. Category Effect was significant for both Chinese adults and seniors in the semantic fluency task. Findings in the present study helped characterize the nature of semantic processing in Chinese-speaking adults and seniors and contributed to the issue of language and aging.
Keywords : semantic processing, aging, Chinese, category effects