AN EVALUATION OF THE PROCESS-DISSOCIATION PROCEDURE BY CONTRASTING PERFORMANCE BETWEEN INCLUSION/EXCLUSION AND INCLUSION-LABELING TASKS

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Current research on human memory suggests a need to differentiate conscious from unconscious memory for a better understanding of memory. A prerequisite for this memory differentiation is to provide a pure measure of each type of memory, without being contaminated by the other. Jacoby and associates (Jacoby, 1991; Jacoby, Toth, & Yonelina, 1993) proposed the process-dissociation procedure that separates memory in a test by contrasting performance between inclusion and exclusion conditions. The procedure was developed based on assumptions that are believed to be untenable. Jacoby (1998) argued that prevention of assumption violation could be achieved by encouraging direct retrieval, whereas conditions encouraging generate-recognize strategy would cause assumption violation and paradoxical results. In the present study, we empirically examined these assumptions by contrasting performance between inclusion/exclusion and inclusion-labeling tasks and between direct-retrieval and generate-recognize strategies in four stem-completion experiments in which level of processing (LoP) was varied. Results showed that the estimate of conscious memory was better in deep than in shallow processing of words, independent of task and strategy. On the contrary, effects of LoP on the estimate of automatic memory (including unconscious memory and the baseline probability) varied with task and strategy. These results are discussed with respect to the assumptions underlying the process-dissociation procedure.

Key words: Process-dissociation procedure, Conscious memory, Unconscious memory, Level of processing