

Public Abstract

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Title: Subliminal Priming As a Task-Characteristic Artifact

Many researchers have purportedly shown that a visual stimulus which is unable to be identified can affect behavior (termed subliminal priming). These findings imply that information (e.g., the meaning of a word) can be processed and affect behavior, even though that information is not available to consciousness. In a subliminal priming experiment, a clearly-visible target stimulus is preceded by a weakly-visible prime stimulus. In the first task, participants identify the target stimuli. If the identity of the primes affects identification of the targets, a priming effect is said to occur. Participants then attempt to identify the prime stimuli. If primes are unable to be identified, then the priming effect is considered subliminal. The logic of this experimental design relies on the assumption that primes are not more identifiable when the priming effect is measured than when the identifiability of primes is measured. If this assumption is violated, then a priming effect resulting from visible primes will incorrectly be considered subliminal. We show that the overall difficulty of the prime identification task leads to an underestimation of prime identifiability in the target identification task. When we control for this difference by making the target and prime identification tasks more comparable in their levels of difficulty, we find no evidence of subliminal priming. We conclude that previous demonstrations of subliminal priming have resulted from a failure to equate the difficulty of the prime and target identification tasks, and thus, prime identifiability in the two tasks.