Masked priming effects in semantic categorization are independent of category size.

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The question whether subliminal primes can activate their semantic meaning or not is still very alive today. Three different competing theories have tried to account for the often inconsistent research results: the semantic categorization hypothesis, the direct motor specification hypothesis and the category search model. The present study aimed to shed light on these different points of view by examining the role of category size in response congruency effects when novel primes are used. Three experiments were conducted and a transparent pattern of results emerged: significant priming effects were obtained across different tasks, irrespective of category size and irrespective of stimulus set size. The findings are discussed in terms of the three theoretical frameworks. It becomes clear that the present results provide strong evidence in favour of the semantic categorization hypothesis, which assumes semantic processing of subliminal primes.