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## A double prime test of spreading activation in semantic priming

People read words better in context than in isolation. One explanation of this phenomena is that words are stored in an associative network. Activating one word automatically activates semantic associates; for example, reading "candle" automatically activates "wax". We tested automatic activation of semantic associates theory (termed spreading activation) with a semantic priming task. In a semantic priming task, the participant reads a briefly flashed target word that is followed by a mask. Because the target is presented quickly and masked, performance is not perfect. In previous research with this task, targets are read more accurately when preceded by a semantically related word than by an unrelated one; this result is the main line of support for spreading activation theory. In our test, participants decided if the target was one of two similar alternatives; for example "war" and "wax" may serve as alternatives. Targets were preceded by two primes, both were either related to the alternatives (e.g., "candle", "soldier") or neither were related to the alternatives (e.g., "phone", "table"). Spreading activation predicts better performance in the double-related prime condition because one of the words is always related to the target; hence one can spread activation to it. Across four experiments with 94 participants, we found no performance advantage in the double-related prime condition over the double-unrelated prime condition. We advocate, as an alternative to spreading activation, a post-lexical decision theory in which primes bias decisions about subsequent targets but do not affect their activation in memory.

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