

Response congruency effects in masked primed lexical decision

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Response congruency effects occur when responses to a target stimulus are faster and/or more accurate if the correct response to that target is the same as (what would be) the correct response to a preceding prime stimulus (relative to the situation where the correct response to the prime and target differs). Prior research has failed to establish a congruency effect in masked primed lexical decision. The present experimental data show such an effect and furthermore, which conditions can trigger congruency effects.

Computational models of lexical access are challenged by these findings. The activation-based Spatial Coding Model and the probability-based Bayesian Reader are reviewed briefly. Neither model accommodates the empirical data. However, replacing the homogeneous inhibition in the lexical component of the Spatial Coding model with selective inhibition enables the model to account for the response congruency effect while also providing an excellent account of other masked form priming data.