



Multisensory Integration and Crossmodal Attention Effects in the Human Brain

John J. McDonald, et al. Science **292**, 1791 (2001);

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Re In e: McDonald e al. do not challenge our finding (1) that crossmodal tactile-visual interactions can affect unimodal visual areas of the human brain in a spatially specific manner. Instead, they raise a terminological issue and an empirical issue, both relating mainly to the timing of the stimuli used. The terminological issue is whether the effect we observed should be labeled as reflecting spatial attention or crossmodal integration; we think that both terms may be appropriate. We disagree with the specific suggestion by Mc-Donald ei al. that crossmodal integration is found only with temporally synchronous stimulation and attentional effects only with asynchronies of 100 ms or more.

In psychology and neuroscience, spatial attention refers to spatially selective internal processing of stimulus information. It is now conventional to distinguish between two forms of spatial attention: endogenous attention, which can be directed voluntarily, and exogenous attention, which is captured automatically by salient stimulus events (2, 3). Our study (1) concerned strictly the latter. A common way to study exogenous spatial attention is to measure how a spatially nonpredictive cue event T 65.two spawo