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Attention decreases auditory N1 latency

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Attention related changes can be observed even approximately 100 ms after stimulus onset, in the time window of the N1 event-related potential. Previous studies on attentional N1 deflection mainly reported amplitude enhancement as a function of attention. It seems plausible that in cases where attentional demands are high, stimulus detection gets faster. According to this assumption attention effects are not only reflected in the enhancement of the N1 amplitude, but also in the decrease of the N1 latency. We tested this hypothesis using soft tones (20 dB SL) with different rise times in attended and unattended conditions. We found that the latency of the N1 decreases for all the tones in the attended condition compared to the unattended condition. As the stimuli did not differ in any physical attributes, we interpret the differences between the attended and unattended conditions as an effect of attention.