

EWIC 2010 Keynote lecture

**Attention and Temporal Perception**

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The law of prior entry was one of E. B. Titchener's seven fundamental laws of attention. According to Titchener (1908, p. 251): "the object of attention comes to consciousness more quickly than the objects which we are not attending to." Although researchers have been studying prior entry for more than a century now, progress in understanding the effect has been hindered by the many methodological confounds present in early research. As a consequence, it is unclear whether the behavioural effects reported in the majority of published studies in this area should be attributed to attention, decisional response biases, and/or, in the case of exogenous spatial cuing studies of the prior-entry effect, to sensory facilitation effects instead. I will review the literature on the prior-entry effect, highlight the confounds present in previous research and summarize the current consensus. Recent research has now provided compelling psychophysical and electrophysiological evidence to support the claim that attending to a sensory modality, spatial location, or stimulus feature/attribute can all give rise to a relative speeding-up of the time of arrival of attended, as compared to relatively less attended (or unattended) stimuli. I will also highlight the differing effects that attention may have on the temporal perception of pairs of stimuli (either facilitating segregation or else enhancing multisensory integration) as a function of whether they are related (e.g., through the unity assumption) versus treated as separate perceptual events. Key questions for future research will also be outlined.