

Audiovisual temporal integration

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The last few years have seen a dramatic increase in cognitive neuroscience studies focusing on the temporal aspects of audiovisual perception. Increasingly, researchers interested in audiovisual temporal integration are moving from the study of highly-controllable stimuli with little ecological validity (such as ‘beeps’ and ‘flashes’) to the study of more ecologically valid, but also more complex, and often less controllable stimuli, such as speech, music, and object actions (e.g., Vatakis & Spence, 2006). Here, we will highlight the latest findings to have emerged from laboratory-based psychophysical research on the factors modulating audiovisual temporal perception (Spence & Squire, 2003; Vatakis & Spence, in press). In particular, we will highlight those factors having a dramatic influence of the temporal window for audiovisual integration (Spence, 2007). Finally, we will discuss the latest neuroimaging results highlighting the putative existence of temporotopic coding of audiovisual synchrony (asynchrony) perception in the human STS (Bergmann, Spence, Heinze, & Noesselt, 2007).

References

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