

Dynamic audiovisuals increase spectator attention, inhibit conscious processing

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Placing electrodes on a subject. Credit: Neuro-Com (UAB) and Neuroscience Unit (UPO).

According to a study conducted by the UAB and the UPO, scene

changes diminish a spectator's blink rate, producing an increase in attention. The results of the study demonstrate that dynamic and chaotic audiovisual editing causes more activity in the visual processing areas, while continuous and orderly editing produces more cognitive processing activity.

Scene changes inhibit a spectator's blink rate, thus increasing their attention. They also produce a flow of brain activity from the occipital lobe toward the [frontal lobe](#). The study, by researchers from the Universitat Autònoma de Barcelona and the Pablo de Olavide University, Sevilla, recently published in the journal *Neuroscience*, deals with what happens after the scene changes as measured by frequency in blinking, electric activity in the brain and functional connectivity associated with the brain.

The research also concluded that editing style influences a spectator's perception. Scene changes presented in a dynamic and chaotic style, such as video clips, produce more activity in the visual processing areas when compared to more continuous and orderly scene changes.

After analysing brain synchronisation associated with scene changes, the researchers concluded that the active [brain](#) networks are more intense after a scene change than before. From the point of view of synchronisation, there is no difference associated with the editing style.

Previous studies conducted by the same team demonstrated that the editing style affected the blink rate of spectators. In this new paper, the researchers conducted a detailed analysis of what occurs in the immediate second after a [scene](#) changes according to the editing [style](#).

More information: Celia Andreu-Sánchez et al. Chaotic and Fast Audiovisuals Increase Attentional Scope but Decrease Conscious Processing, *Neuroscience* (2018). [DOI:](#)

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