

Covert attention shift by Sequence-space synesthesia (SSS): a cognitive grammar approach

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Abstract

Some people experience sequences like numbers allocated to a specific part of space which is well-known as sequence space synesthesia. On the other hand, covert attention is orienting of attention without the head, eyes, or body movement is the (mental) moving of attention toward a stimulus. Here, We used previous findings in sequence space synesthesia by using an auditory number sequence numbers and covert spatial attention together with cognitive grammar theory including profiling to assess the possibility to shift covert attention towards a specific part of a bistable picture. Our participants were 14 years old adolescents learning English at the pre-intermediate level in a school in Tehran which went through within-subject experiment. Results showed shorter reaction time for a sentence with trajectory congruent with covert attended part of the bistable picture compared to the condition without such attentional shift by t value as -4.466 within 95% confidence interval.