Can you see what I hear? Detecting changes in multimodal setting

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The phenomenon of inattentional blindness has been known for decades. Once the attention has been directed elsewhere, people tend to miss important changes in the environment even when they still visually fixate the place where the change occurs. As the previous research has focused almost entirely on the visual modality, this study extends the paradigm by pairing visual with auditory stimuli. New visual and auditory stimuli were created to investigate the phenomenon of inattention in visual (blindness), auditory (deafness) and paired (multimodal) modality. The goal of the study was to investigate to what extent paired visual and auditory stimuli change the perception. The results show that inattentional blindness and inattentional deafness occur in about every third participants where the attention is engaged by a difficult (auditory) counting task. Most significantly, the results demonstrate that inattentional blindness is significantly reduced when the change has been presented visually and auditory. One possible reason for the drastic reduction of inattentional changes in a multimodal context is that attention of the various sensory modalities is processed separately. If this assumption applies, then we can assume that the capacity of attention multiples in different modalities.