

**The role of temporal processing and feedback in visual attention and awareness**  
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The mammalian visual system includes numerous brain areas that are profusely interconnected. With few exceptions, these connections are reciprocal. Anatomical feedback connections in general outnumber feedforward connections, leading to widespread speculation that feedback connections play a critical role in visual awareness. However, temporal processing evidence from physiological experiments suggests that feedback plays a modulatory role, rather than a driving role. I will discuss theoretical constraints on the significance of feedback's anatomical numerical advantage, and describe theoretical limits on feedback's potential physiological impact. These restrictions confine the potential role of feedback in visual awareness and rule out some extant models of visual awareness that require a fundamental role of feedback. I will propose that the central role of feedback is to maintain visuospatial attention, rather than visual awareness. These conclusions highlight the critical need for experiments and models of visual awareness that control for the effects of attention.