When Two Become One: Temporally Dynamic Integration of the Face and Voice

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Abstract: In everyday interactions, people have to deal with the sight of a face and sound of a voice at the same time. How the perceptual system brings this information together remains unclear. In 2 studies, we investigated how facial and vocal cues are integrated during social categorization by recording participants' hand movements (via the x, y coordinates of the computer mouse) en route to "male" and "female" responses on the screen. Participants were presented with male and female faces that were accompanied by a same-sex voice morphed to be either sex-typical or sex-atypical. Before settling into ultimate sex categorizations of the face, the simultaneous processing of a sex-atypical voice led the hand to be continuously attracted to the opposite sex-category response. This is evidence that ongoing results from voice perception continuously influence face perception across processing. Thus, social categorization involves dynamic updates of gradual integration of the face and voice.