The development of emotion recognition during childhood

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Sensitivity to facial and vocal emotion is fundamental to children’s social competence. Previous research has focused on children’s facial emotion recognition, and few studies have investigated non-linguistic vocal emotion processing in childhood. We compared facial and vocal emotion recognition and processing biases in 4- to 11-year-olds and adults. Eighty-eight 4- to 11-year-olds and 21 adults participated. Participants viewed/listened to faces and voices (angry, happy, and sad) at three intensity levels (50%, 75%, and 100%). Non-linguistic tones were used. For each modality, participants completed an emotion identification task. Accuracy and bias for each emotion and modality were compared across 4- to 5-, 6- to 9- and 10- to 11-year-olds and adults. The results showed that children’s emotion recognition improved with age; preschoolers were less accurate than other groups. Facial emotion recognition reached adult levels by 11 years, whereas vocal emotion recognition continued to develop in late childhood. Response bias decreased with age. For both modalities, sadness recognition was delayed across development relative to anger and happiness. The results demonstrate that developmental trajectories of emotion processing differ as a function of emotion type and stimulus modality. In addition, vocal emotion processing showed a more protracted developmental trajectory, compared to facial emotion processing. The results have important implications for programmes aiming to improve children’s socio-emotional competence.