For Children, Dynamic Cues and Stories are More Powerful Cues to Emotion than are Facial Expressions

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Abstract
This study explores whether dynamic cues (multi-dimensional cues including posture, movement, and vocal intonation) increase children’s association of a target emotion label with the stimulus. The power of the cues (still face, dynamic cues, and stories) varied with age and emotion for preschoolers (N=68, 36 to 68-months-old). The still face was never the strongest cue and the dynamic cue was significantly stronger than the still face for the emotions of sadness and disgust. Stories were the strongest cue for fear.

Introduction
Studies that have compared children’s understanding of different parts of their emotion scripts (e.g., facial expressions, stories describing the causes or consequences of emotions) have shown an advantage of stories of causes and consequences over facial expressions (Balcón & Carrera, 2007; Reichenbach & Masters, 1983).

The Study
Children (N = 68, 3 to 5 years) responded to six still facial expressions, six dynamic cues (multi-dimensional cues including posture, movement, and vocal intonation), and six stories (verbal descriptions of stereotypical emotion-eliciting events and behavioral responses) for target emotions (happiness, sadness, anger, fear, surprise, and disgust). This contradicts the traditional assumptions that facial expressions are easily recognizable cues to emotion (e.g., Ekman, 1972). This Story Superiority Effect has been shown only when still photographs of facial expressions were compared to other brief stories describing emotional events.

Hypotheses
• For the emotions in which still faces have been shown to be stronger cues to emotion than stories (happiness and anger), the hypothesis was that emotion recognition should be the most accurate in the dynamic condition.
• For the emotions in which stories have been shown to be stronger cues than still faces (fear and disgust), the hypothesis was that emotion recognition should be the most accurate in the story condition.
• However, we expected the dynamic condition to be stronger for children than the still face condition for all emotions.

Conditions
Still Facial Expression Dynamic Cue Condition Story Condition

Conclusion
In a repeated measures ANOVA, the mode x emotion interaction was significant: F(10,660) = 12.28, p < .001. For happiness and anger there were no significant differences between the modes, likely due to ceiling effects.
There was an age x emotion interaction, F(5, 330) = 4.96, p < .001. The older children’s performance (52 to 68 months-old; M = 47.72, SD = 5.54) for fear (p < .003), surprise (p < .001), and disgust (p < .003).

Discussion
The results from this study build upon the understanding of the development of children’s scripts of emotion.

• This information is helpful in determining how children interpret emotional cues in their social world and what children mean when they talk about emotions.
• With this kind of information, educational and parenting arenas can benefit and tailor their teaching to reinforce and expand on what a child already knows about an emotion.

References

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