Facial actions frequently involve multiple individual facial actions. How do facial actions combine to create emotionally meaningful expressions? Infants produce positive and negative facial expressions at a range of intensities. One possibility is that a given facial action can index the intensity of both positive (smiles) and negative (cry-face) expressions. Objective, automated measurements of facial action intensity were paired with continuous ratings of emotional valence to investigate this possibility. Degree of eye constriction (the Duchenne marker) and mouth opening were each uniquely associated with smile intensity and, independently, with cry-face intensity. Additionally, degree of eye constriction and mouth opening were each unique predictors of emotion valence ratings. Eye constriction and mouth opening function as indices of the intensity of both positive and negative infant facial emotions, suggesting parsimony in the early communication of emotion.