Social Psychological Face Perception: Why Appearance Matters

* Appearance matters because some facial qualities are so useful in guiding adaptive behaviour that even a trace of those qualities can create an impression.
* Specifically, the qualities revealed by facial cues that characterize low fitness, babies, emotion, and identity are overgeneralized to people whose facial appearance resembles the unfit (anomalous face overgeneralization), babies (babyface overgeneralization), a particular emotion (emotion face overgeneralization), or a particular identity (familiar face overgeneralization)
* ‘Don’t judge a book by its cover’
* Facial appearance predicts criminal justice decisions (Eberhardt, Davies, Purdie-Vaughns & Johnson, 2006), as well as congressional elections (Todorov, Mandisodza, Goren & Hall, 2005)
* The ecological approach to social perception, grounded n Gibson’s theory of object perception (Gibson, 1979), holds that people’s faces provide adaptive information about the social interactions the afford. Eg a ‘cute’ face of a baby elicits approach and protective responses (Berry & McArthur, 1986; Zebrowitz, 1997); angry face potentiates avoidance and defensive responses (Balaban, 1995; March, Ambady & Kleck, 2005). Although ecological theory assumes that our perceptions of faces will often be accurate, it also proposes that attunements to certain facial information can produce biased perceptions through overgeneralization effects (Zebrowitz, 1996, 1997; Zebrowitz & Montepare, 2006)
* The errors produced by these overgeneralizations are presumed to be less maladaptive than those that might result from failing to respond appropriately to persons who vary in fitness, age, emotion, or familiarity.
* Ecological theory intersects with evolutionary psychology theories (Zebrowitz & Montepare, 2006), and it has much in common with a long line of research on nonverbal communication that is also concerned with reactions to facial cues (DePaulo & Friedman, 1998)
* Dual process model differentiates mechanisms for the perception of identity versus the perception of emotion and other changeable facial qualities (Bruce & Young, 1986; Haxby, Hoffman, & Bobbini, 2002; but see Calder & Young, 2005)
* Another model predicts facial recognition from the position of faces in a mental face-space where faces are coded relative to an average face with distances between faces representing similarities in their appearance (Busey, 2001).
* Ecological theory adds to these models by emphasizing that face perception guides behaviour, expanding the domain of face perception to include perceived traits and social interaction opportunities, and predicting those perceptions from the overgeneralization of adaptive responses.
* The anomalous face overgeneralization hypothesis holds that the adaptive value of recognizing individuals with diseases or bad genes has prepared us to respond to facial qualities that can mark low fitness (Zebrowitz & Rhodes, 2005; Zebrowitz, Fellous, Mignault & Andreoletti, 2003).
* Also consisten with anomalous face overgeneralization, the specific facial qualities that influence attractiveness are ones that evolutionary psychologists have linked to fitness. These include averageness (a facial configuration close to the population mean), symmetry, sexual dimorphism, and youthfulness.
* The facial characteristics associated with fetal alcohol syndrome or minor facial anomalies signal lower intelligence and maladaptive social traits (Paulhus & Martin, 1986; Streissguth, Herman, & Smith, 1978). The level of attractiveness provides a valid cue to low, but not high, intelligence or health. An important caveat to this finding is that attractiveness is by no means a perfect predictor of these traits even in the range where it has some validity. Moreover, although people do show some accuracy when they use lower than average attractiveness to form impressions of health and intelligence, they also overgeneralize and use higher than average attractiveness to form these impressions, which is not valid (Zebrowitz & Rhodes, 2004)
* Research has shown that compared with average attractive faces, both high attractive faces and anomalous faces elicit more activation in the amygdala (Winston, O’Doherty, Kilner, Perrett & Dolan, 2007; Zhanf, Zebrowitz & Aharon, 2007), a region in the extended system that responds to emotionally salient stimuli (Fitzgeralg, Angstadt, Jelsone, Nathan & Phan, 2006)
* In summary, ecological approach argues tha anomalous face overgeneralization guides impressions of faces that vary in attractiveness. Faces that are less attractive, less average, less symmetrical, older, or less prototypical for their sex create impressions of lower social competence, social power, sexual responsiveness, intelligence, and/or poorer health as well as more negative social outcomes.
* Adults with babyfaces are perceived to have childlike traits – to be naive, submissive, weak, warm, and honest.
* Babyish features include larger eyes, higher eyebrows, smaller nose bridges, rounder and less angular faces, thicker lips, and lower vertical placement of features, which creates a higher forehead and a shorter chin
* Faces of any age that have one or more of these features are perceived as more babyfaced, warm, honest, as well as physically, socially, and intellectually weaker than faces with more mature features (Keating, 2002; Montepare & Zebrowitz, 1998; Zebrowitz, 1997)
* Berry et al found that more babyfaced students were in fact warmer and less aggressive (Berry, 1990a, 1991; Berry & Landry, 1997). However, other researchers using a representative, longitudinal sample found that only older adult women displayed personality traits consistent with impressions of babyfaced individuals (Zebrowitz, Collins & Dutta, 1998). In contrast, impressions of babyfaced boys were inaccurate. Compared with mature-faced boys, babyfaced boys were more negative, quarrelsome, assertive, and hostile and showed higher academic achievement, all of which contradict impressions of babyfaced individuals (Zebrowitz, Andreoletti, Collins, Lee, & Blumenthal, 1998; Zebrowitz, Collins et al, 1998). In addition, more babyfaced young men were more likely to earn military awards, contradicting impressions of their submissiveness and physical weakness (Collins & Zebrowitz, 1995). Moreover, in a sample of young men at risk for delinquency, more babyfaced men were more likely to be delinquent, and if delinquent, to commit more offenses (Zebrowitz, Andreoletti et al, 1998).
* Faces of babies elicited greater activation in the amygdala than did maturefaced adults, which is consistent with the greater emotional salience of babies.
* In summary, reactions to people with babyfaces are consistent with the babyface overgeneralization hypothesis. Faces are perceived to have more childlike traits when they have distinctive infantile features that even computer models identify. Although these results support a babyface overgeneralization effect, variations in the accuracy of impressions may be explained by self-fulfilling and self-defeating prophecy effects instigated by social expectancies fuelled by babyface overgeneralizations.
* When people display a facial expression of emotion, we make judgements not only about their affective state, but also about their behavioural tendencies and traits. Eg when people display happy faces we perceive them as having traits associated with high affiliation and high dominance. When they display angry faces we perceive them as having traits associated with low affiliation and high dominance. Facial expressions of sadness and fear elicit impressions of traits associated with moderate affiliation and low dominance (Montepare & Dobish, 2003; Zebrowitz, Kikuchi & Fellous, 2007)
* Darwin’s view that emotion expressions had evolutionarily adaptive value for social communication (Darwin, 1872) highlights the fact that facial expressions provide information not only about people’s affective states but also their potential behaviours (Ekman, 1997; Frijda, 1995; McArthur & Baron, 1983)
* In particular, displays of emotion may indicate approach, attach, or avoidance tendencies.
* Marsh et al (2005) argued that fear and anger expressions evolved to mimic babies’ faces and mature faces, respectively, because it is adaptive for those experiencing fear to elicit reactions paralleling those elicited by helpless babies and for those experiencing anger to elicit reactions paralleling those elicited by powerful adults. They found that faces expressing anger were judged as more maturefaced than those expressing fear
* In summary, the ecological approach argues that impressions created by faces that vary in emotion expression can be explained by the temporal extension of accurate associations between certain emotions and particular behaviours. Thus, emotion expressions give rise to trait impressions that match the behaviour expressed during that emotion. Moreover, a facial structure that resembles an emotion expression gives rise to trait impressions like those elicited by the emotion, an emotion overgeneralization effect.
* Mere exposure effect – more positive reactions to previously seen stimuli (Zajonc, 1968)
* Familiar face overgeneralization (FFO) hypothesis – utility of differentiating known individuals from strangers has produced a tendency for responses to strangers to vary as a function of their resemblance to known individuals (Zebrowitz, 1996; Zebrowitz & Collins, 1997).