ELSEVIER

Evolution and Human Behavior 25 (2004) 24–30

Evolution and Human Behavior

The relationship between shape symmetry and perceived skin condition in male facial attractiveness

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Received 24 September 2003

Abstract

Studies have shown that male faces high in symmetry are judged more attractive than faces low in symmetry even in images where visual cues to facial symmetry are reduced. These findings suggest that there are correlates of facial symmetry that influence male facial attractiveness independently of symmetry itself. Apparent healthiness of facial skin is one factor that may influence male facial attractiveness and covary with facial symmetry. Here, using real and composite male faces, we found that males with symmetric faces were perceived as having healthier facial skin than males with relatively asymmetric faces (Study 1), and that facial colour and texture cues were sufficient to maintain an attractiveness–symmetry relationship when the influence of facial shape was minimised (Study 2). These findings suggest that colour and texture cues contribute to the relationship between attractiveness and symmetry in real faces.

Keywords: Shape symmetry; Skin condition; Male facial attractiveness

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doi:10.1016/S1090-5138(03)00080-1

1. Introduction

As the face is thought to play a central role in human mate choice (Perrett et al., 1998), many studies have sought to identify visual cues that determine judgements of facial attractiveness. Facial symmetry has been the focus of much empirical research, as symmetry is thought to reflect an individual's heritable ability to maintain good health and preferences for symmetrical individuals are therefore potentially adaptive (Thornhill & Gangestad, 1999a; 1999b).

Studies of attractiveness using image manipulation techniques have reported preferences for faces that had been manipulated to be more symmetrical (Little, Burt, Penton-Voak, & Perrett, 2001; Perrett et al., 1999; Rhodes et al., 1998, Rhodes, Zebrowitz, et al., 2001). As facial symmetry alone was varied in these studies, many researchers have proposed that symmetry is an important visual cue for judgements of the attractiveness of real faces (Little et al., 2001; Perrett et al., 1999; Rhodes et al., 1998, Rhodes, Zebrowitz, et al., 2001). Although studies of facial attractiveness using real faces have reported positive relationships between symmetry and attractiveness (Grammer & Thornhill, 1994; Jones et al., 2001; Mealey, Bridgestock, & Townsend, 1999; Penton-Voak et al., 2001; Rhodes et al., 1999; Rhodes, Yoshikawa, et al., 2001; Scheib, Gangestad, & Thornhill, 1999), relationships between facial symmetry and attractiveness judgements of faces in which the visibility of cues to facial symmetry was reduced have also been reported (Penton-Voak et al., 2001; Scheib et al., 1999). These latter findings suggest that correlates of symmetry influence facial attractiveness independent of symmetry itself.

Scheib et al. (1999) reported positive associations among facial symmetry, attractiveness and a composite masculinity index derived from the shape of facial characteristics thought to be male sex-typical traits (cheekbone prominence and face length relative to lower face length). Given these findings, Scheib et al. (1999) proposed that masculinity of facial shape mediated the link between attractiveness and facial symmetry. However, Penton-Voak et al. (2001) disputed this link between facial masculinity and symmetry, finding that cheekbones were more prominent in a female sample than a male sample. Furthermore, a masculinity index derived from measurements of facial characteristics, first identified as being sexually dimorphic, was not associated with symmetry in male faces (Penton-Voak et al., 2001; but for a positive result, see Gangestad & Thornhill, 2003). Penton-Voak et al. (2001) were unable to ascertain what cues covary with symmetry in male faces but posited that apparent healthiness of facial skin might be one such characteristic. Indeed, visible skin condition and facial symmetry may be expected to covary as healthy-looking skin and symmetrical features are both potential cues to general health (Thornhill & Gangestad, 1999a; 1999b).

The link among apparent health of facial skin, symmetry and male facial attractiveness was investigated here in two studies. First, the relationship between male facial symmetry and perceived facial skin health was explored in real faces (Study 1). Image processing techniques were then used to investigate whether facial colour and texture cues were sufficient to maintain the attractiveness–symmetry relationship when the influence of facial shape was minimised (Study 2).