

## Review Article

### **Facial Attractiveness: An Orthodontic Prospective**

**Renji K Paul<sup>1</sup>, Aravind S Raju<sup>2</sup>, P.C. Sunil<sup>3</sup>, Mamatha J<sup>4</sup>, Ebin T.M<sup>5</sup>, Jeny Emmanuel<sup>6</sup>**<sup>1</sup>Reader, <sup>2</sup>Senior Lecturer, <sup>3</sup>Professor, Department of Orthodontics, St. Gregorios Dental College, Kerala<sup>4</sup>Senior lecturer, Department Of Orthodontics, M.R. Ambedkar dental college, Karnataka<sup>5</sup>Senior Lecturer , Department of Pedodontics, St. Gregorios Dental college, Kerala.<sup>6</sup>Consultant Dental surgeon, Kerala**\*Corresponding author**

Dr. Aravind S Raju

Email: [aravindraju@rediffmail.com](mailto:aravindraju@rediffmail.com)

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**Abstract:** As the saying “beauty is the ease of the beholding” there are various studies which have shown that people prefer attractive faces over unattractive faces. This article reviews about the facial attractiveness with different methods and various studies over the years which enlightens about new proportions of the facial aspect during orthodontic diagnosis. It also throws light on various aspects of measurement taken for facial proportions.**Keywords:** Facial attractiveness , Orthodontics , proportions.

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#### **INTRODUCTION**

Humans prefer attractive faces over unattractive ones which exist from early infancy and divides further into age, gender and ethnicity[1-3]. The facial beauty either by the size or shape of isolated facial features (e.g., eyes or lips) when the ancient Greeks believed beauty was represented by a golden Proportion of 1:1.618 [4]. Furthermore, a sufficiently large increase in the distance between the eyes and mouth of an individual face can make the face look different.

Two types of alterations can be made to the spatial relations between facial features of any individual face. One may alter the vertical distance and other the horizontal distance[5]. Distance between the eyes and the mouth; this alteration results in a change in the ratio of this distance to the face length, which is measured by the distance between the hairline and the chin. The ratio is henceforth referred to as the length ratio[5]. The other alteration is distance between the pupils; this change alters the ratio between this distance and the face width, which is measured between the inner edges of the ears. This ratio referred to as the width ratio[5]. Clinical evaluation methods for facial attractiveness involve measurement of linear aspects, proportions, and angles. The esthetic line[6], the profile line [7], and the Holdaway line[8] are common clinical linear measurements.

#### **Theories of Facial attractiveness**

There are two theoretical perspectives: One based on the evolutionary principles and other based on

the information processing and cognitive averaging. Most evolutionary principles view preferences for attractive faces as the results of an evolved, domain specific module that identifies-for mate selection purposes- good genes, health and reproductive fitness[9]. In Contrast theoretical perspectives based on cognitive averaging view preferences for attractive faces as resulting from their similarity to facial prototypes – the categorical central tendencies of population of faces[10].

#### **Mixed-race people perceived as more attractive**

A study by Rhodes et al, however, appeared to suggest that people of mixed race have an advantage in that they are perceived as more attractive than people whose ancestral background falls more uniformly within a single racial group[11]. Specifically, their research showed that people of a mixed Asian and European background were rated as more attractive than Asians, Europeans, or even faces generated as morphs between these two groups. This research, however, was based on a small set of individuals.

There is a biological phenomenon that would predict that we would expect mixed-race people to be more attractive. This comes from the genetic process known as heterosis (or hybrid vigour). This is an idea, put forward by Darwin, that cross-breeding within species leads to offspring that are genetically fitter than their parents[12].

For heterosis to affect attractiveness, it is necessary that attractiveness be related to genetic

fitness. In fact, it is probably the best indicator of genetic fitness, as others, such as intelligence or height, would be affected by the environment to a greater degree than attractiveness. It has certainly been argued that attractiveness is related to genetic fitness and the fact that it is so important in mate selection is also further evidenced [13, 14]. There is even some recent evidence that genetic heterozygosity is predictive of attractiveness [15].

### **The Perceived Attractiveness of Adult Facial Prototypes**

In males, prominent cheek bones advertise social dominance; but large eyes and large smile indicate sociability. In females, a small nose and chin, but large lips and short eye-chin distance advertise sexual maturity. Large eyes and a large smile, as well as high eyebrows, indicate perceived sociability in females [16].

Size and shape of men and women's faces differ. When isolating features or pairs of features and placing them on a prototypical male or female face found that the jaw, brows and eyes, and chin all held information about the perceived gender of the face. In fact, every feature seemed to hold such information, except the nose [17].

### **Measurements taken into consideration :**

Unfortunately, ideal eye–mouth–eye angles were never obtained. Only the average female and average male eye–mouth–eye angles were assessed, so it is unknown whether eye–mouth–eye angle is truly a sexually dimorphic feature (i.e., angles greater than average are preferred for females while angles less than average preferred for males) [5].

While eye–mouth–eye angle provides information on the spatial relations between internal facial features, our measures assess the relation between the internal features and the external facial contour. Since faces are perceived holistically, it is important to consider the facial elements in the context of the whole face. It is possible for the length and width ratios to vary, while eye mouth–eye angle stays the same, and vice versa [5].

### **INTERNAL AND EXTERNAL FACIAL FEATURES**

The internal face advantage is driven by recognition of the eye region. Studies have shown that children are better in their recognition of eyes relative to their recognition of mouths and noses. Children as young as 4 years old are also better in their recognition of mouths relative to their recognition of noses.

Some studies cite an advantage in recognizing the external facial regions of adult faces among children younger than 14 years and an advantage in recognizing

the internal facial regions among children 14 years old and older.

### **a) Species:**

The ability to form discrete facial categories for different species begins during early infancy. Infants as young as 3 months are able to form exclusive categories for cat and dog faces based on the intact facial information. It has also been found that 4-month olds are able to form discrete categories of cats and dogs based on the head and face region.

### **b) Coding of face gender :**

Zhao et al. cited in [18] suggested that face gender is multichannel coded, based on their observation that adaptors with their strongest gender caricaturing (2.5) induced smaller gender after effects than adaptors with medium caricaturing (1.5).

### **CONCLUSION**

There are various aspects we can consider while evaluating the face. This article reviews not about the attractive or the unattractiveness of the human face it gives the inside depth about facial evaluation should be taken into consideration during an orthodontic treatment.

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