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Differential judgements about disfigurement: the role of location, age and gender in decisions made by observers☆

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Summary Psychological distress associated with disfiguring facial lesions is common. However, whilst the intrusive behaviour of observers is commonly reported, for example, staring, comments and questions, these factors which may influence the judgements of observers have not been well described. This is important as it may influence a subject's perception of how their appearance is viewed by the external world.

This study is the first to investigate age and gender differences when measuring the importance of location in judgements about facial disfigurement. Observers were asked to rank the impact of simulated lesions in different positions on the face of Caucasian subjects. Age and gender varied in both groups.

Our results show that lesions on the young and female subjects are ranked as having a greater impact than those on the old and male subjects. Lesions on central facial features have a higher impact than those located more peripherally. Both of these findings were not significantly influenced by observer age or gender.

These results are discussed in terms of culturally derived attributions about appearance. It is also suggested that there is a scope to use feedback on how disfigurement is viewed by others as a therapeutic tool in clinical settings.

Facial disfigurement can be congenital or can arise as a result of trauma or disease. It is associated with variable aesthetic, functional and psychological morbidity, with no evidence that the severity of a disfigurement predicts psychological distress.[1] Rather, the impact of a disfiguring

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lesion is related to its perceived visibility, the level of preoccupation and worry about negative evaluation from others and the number and variety of positive coping strategies that are used, particularly when meeting people for the first time.[2]

Prominent or exposed lesions on the body are experienced as most disfiguring, perceived as attracting the attention of others in social situations and likely to cause the greatest psychological morbidity.[2,3] However, although there are increasing data about the way in which a disfigurement is experienced, judgements made by observers are under reported.[4] In clinical practice, it is common for an individual with high distress about a lesion, which is perceived to be highly visible, to be dismissed by relatives and friends who report the lesion to be inconsequential. This suggests that the criteria being used to assess the 'degree of disfigurement' may be very different for those affected than for the observer. Moss[5] has suggested that distress results when comparisons are made with an ideal self based on an external standard, whilst Ong suggests that the internal standard ('how I looked before my accident') may be equally important. Observers, however, are likely to make judgements based on different or additional criteria, including ease of communication. Thus lesions which fall within the area of the face to which attention is preferentially directed are likely to be more immediately registered as different or disfiguring by observers. Facial-processing data largely supports this hypothesis. Global facial-scan patterns, although influenced by task, largely concentrate on the upper face, especially the eyes. More central facial fixation is seen when attempting speech recognition as it gives a base from which to move to both the eyes and mouth. Overall, facial features are preferentially selected for more detailed processing by gaze fixations based on the richness of the information available for a given task, that is, facial recognition, emotional recognition or speech interpretation.[6]

The age and gender of the observer might also be expected to influence the perception of facial lesions. There is evidence that children do not start to make hypothetical inferences about the temperament of adults and other children based on appearance until after age 7.[7] In adolescence, body image becomes more important, with physical appearance being a major determinant of sexual attractiveness. Judgements made on the basis of appearance influence social interactions and impact on the selection of a partner. Gender differences are clearly marked at this age, with adolescent females showing a much more differentiated body image and the tendency to value parts of their body negatively.[8] Disfiguring conditions such as acne, therefore, result in considerable morbidity in this age group.

Although studies, for example, Tebble et al.,[9] may assume that body-image concerns are less marked in older groups, increased spending on cosmetic procedures, particularly those designed to reduce the signs of ageing suggests that body-image issues remain important as people grow older. The objective perception of old age may be very different from the subjective experience of ageing, an idea that is supported by evidence that middle-aged people are more sensitive to the idea of ageing than people who are older and are actually experiencing it.[10]

The age and gender of the subject might also be expected to influence the observer's assessment of a facial lesion. Whilst there is a presumption that disfiguring conditions have more of an impact for women, the evidence from both the body image and visible-difference literature is equivocal.[11] Body-image problems have historically been much more prevalent in females,[12] but there is evidence of growing concern about appearance amongst men.[13] This greater investment in appearance amongst men increases the likelihood that the conditions that impact on appearance impact significantly for both genders.

This study examines the impact of facial lesions according to their location on the face and the gender and age of the subject. We predicted that lesions on central facial features, such as the nose and mouth, would be ranked as more disfiguring than those located peripherally. In order to test the hypothesis that age and gender also influence judgements about disfigurement, we varied the age and gender of the observers.

Methods

This study was carried out via a website which was advertised widely to different groups of people of variable age and gender. This was done both electronically, via email, and through leaflets and flyers to schools, universities, hospital outpatients and senior-citizen groups.

Observers gave informed consent for participation in the study and were then asked to provide their demographic details, including age group, ethnicity and occupational background. The observers were led through a succession of four web pages, each showing a different set of images. The images were presented in a random order which the observers were then asked to rank in the order of disfigurement.

To create the images, colour portrait photographs were taken, under standard lighting conditions in a photographic studio, of an unremarkable, non-disfigured Caucasian male and female subject from three different age groups (child, young adult and old adult). The subjects had a neutral facial expression, were without glasses and had no visible clothing or jewellery. The six subjects were selected from a larger pool of candidates and were classified as representative of their group on the basis of inter-rater agreement between the authors. Adobe Photoshop™ was then used to replicate each photograph 7 times and to add a single black dot in different places on the face (eye, nose, mouth, left cheek, right cheek, forehead and lateral face). The same positions were used for each series of images and were chosen because they covered the main aesthetic and structural units of the face (Figure 1). A black dot was used as a marker for a facial lesion rather than a real lesion so that standard lesion morphology could be easily reproduced across the series.

Set 1 was the young-male series (Figure 1) and set 2 was the young-female series. The order in which these first two sets were presented was randomised. Set 3 presented the six subjects with the black dot on their noses. Observers were asked to rank the images in the order of disfigurement. Finally, set 4 presented six images taken randomly