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superiority: The effects of gender, handedness
and mood

Method

Design

The study sought to investigate LVF superiority, and any influences on this perceptual asymmetry that presumably indicates a RH bias, through the use of a free-viewing chimeric faces task. The variables of interest were gender, handedness, and subjective mood state, and how these influenced the degree of LVF superiority displayed when judging chimeric faces. For handedness, participants were classed as either right-handed, ambilateral, or left-handed. Subjective mood state was obtained through self-report on a rating scale from 0-100. RH bias was to be measured through the presence of LVF superiority when judging the perceived 'happiness' of the chimeric faces. LVF superiority was indicated by the extent to which participants consistently judged chimeric faces with the smiling side on the left to be happier than those with the smiling side on the right. A mean score above the chance rate of 7 (out of a possible 14) presumably indicated an overall LVF superiority when judging the emotional content of faces.

Participants

Participants were 300 University of New South Wales students (90 males, 210 females) from the Psychology 1B course, who participated voluntarily on the basis of tutorial attendance. The mean age for males was 19.8 years, with a range of 18-29 years, while females ranged from 18-27 years of age, with a mean age of 19.1 years.

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Materials

The chimeric faces were presented on overheads (see Appendix A). Each

participant received two A4 sheets of paper. One, the Hand Usage Questionnaire (see

Appendix B), had the list of activities to determine handedness. The other, the

'Chimeric Faces' sheet (see Appendix C) contained the materials needed to obtain

age, gender, Handedness Score and Handedness Category, Mood Score and Chimeric

Faces Score.

Procedure

Participants first received and filled out the Hand Usage Questionnaire so as to

determine handedness, obtained by indicating whether one hand dominated in the

performance of a list of 13 tasks (which included writing, throwing and using

scissors). For each task, a right-handed dominance earned one point, being able to use

either hand scored two points, and the use of the left hand earning three points. The

total sum of these scores gave each participant a Handedness Score out of a possible

39. This score than determined their Handedness Category; right-handedness was

indicated by a score of 13-17, a score of 18-32 indicated the participant to be

ambilateral, while those scoring 33-39 were classified as left-handed. Next, the

'Chimeric Faces' sheets were distributed. Mood Scores were obtained through asking

participants to "rate your current mood as a score out of 100 where 0 – the saddest I

have ever been and 100 – the happiest I have ever been". The presence of LVF

superiority was indicated by a Chimeric Faces Score. This score was determined by

the participants being presented with fourteen pairs of chimeric faces, at which they

viewed each pair for five seconds to determine "1) whether the top or bottom face is

happiest", and "2) your rating of how happy the top and bottom faces appear", rated

on a scale from 1-7, with 1 indicating "very sad", and 7 suggesting "very happy". The chimeric faces were made up of either the smiling and neutral faces of the same person, or faces of two different people. All chimeric faces were either male or female; none involved any male-female pairings. Happy faces were paired with neutral faces because happiness is the most easily recognised emotion (Ladavas *et al.*, 1980), and so it was believed to be the most effective emotion in highlighting any hemispheric bias in emotional perception. Participants scored one point if they indicated the face with the smile on the left side to be happier, as this LVF bias was interpreted as a sign of differential RH involvement in the making of these judgments. Out of a possible score of fourteen, a mean score above seven (the chance rate) was believed to indicate LVF superiority in the perception of the emotional content of the chimeric faces. When looking specifically at only male or female chimeric faces, any score above the chance rate of 3.5 indicated LVF superiority.