

**Note on the Construction of
Photobank of Emotional Expression of Young Asians (PEEYA)**

This photobank (PEEYA) is composed of young Asian adults' emotional faces. Rating tests were carried out to assess the typicality and attractiveness of the displayed emotional faces among the posers.

Rating on Typicality

Participants

Twenty-one undergraduates (seven males and fourteen females), age ranging from eighteen to twenty-two, from Hong Kong Shue Yan University participated in this experiment as raters.

Materials

Nine posers (four males and five females) were recruited for this photobank. Their age ranged from nineteen to twenty-one. Each of them were required to demonstrate six different emotional expressions including happiness, sadness, surprise, fear, disgust and anger. There was no specific order for demonstrating the expressions and were completely decided by the posers. During the preparation time, posers were suggested to think of their past experiences that involved the corresponding emotion. In order to ensure a high typicality across the expressions, the poser were provided with some emotional expressions adopted in the past studies (e.g., Ekman & Friesen, 1976; Wang et al, 2002) as references before displaying their own. They were given a mirror to examine the similarity between theirs and the shown ones. All the provided materials were served as aids for the posers who could freely calibrate their own expressions during the photo-taking process. All emotional expressions were recorded by a 12M digital camera. All photographs were then sized to about

480x518 pixels and were digitized as grayscale using Photoshop CS6. Total 54 emotional expressions (9 posers x 6 emotional expressions) were created.

Besides the emotional expressions, posers were also required to demonstrate a neutral face which was used for the rating test for attractiveness. These photos were also taken and processed in the same way as those with emotional expressions.

Procedure

Each participant was invited to sit around 60cm in front of a 15" LCD monitor in a laboratory. At the beginning of each trial, a fixation point located at the center of the monitor appeared for 1000ms, followed by presenting a photograph of an emotional expression. Below the photograph, there were six questions asking the participants about the typicality of the shown expressions in a 7-point Likert scale (i.e., 1 represents the least whereas 7 represents the most). Each question tagged on a different emotion. In other words, each photograph was checked its typicality of six different emotions. Participants were required to key in their answer to each question via the number pad on a standard keyboard. A new photograph would be shown after receiving six keystroke responses to the previous photograph. In order to for the participants to familiarize with the procedure, a practice session with 5 additional posers was commenced before the actual rating test. All responses were recorded by DirectRT.

Results

All rating scores of each participant were computed with repeated-measures analysis of variance (ANOVA) to assess whether there were significant differences between the rating scores of typicality among the sixty emotional faces. Among the four male posers, all six basic emotional expressions of the poser 'M1' matched with the intended emotions (e.g., an angry face was regarded as a typical angry face compared to other emotions). See Table 1.

Whereas only two to three types of emotional expressions presented by the each of the remaining male poser were significantly perceived as the corresponding emotion. Therefore, the whole set of photographs displaying the six basic emotions of poser M1 was selected.

Table 1. Mean and Standard Deviation, in bracket, of the Ratings on the Typicality and Attractiveness of the Displayed Expressions of Male Posers

Poser	ANGER	DISGUST	FEAR	HAPPINESS	SAD	SURPRISE
M1	6.05* (1.43)	5.20* (1.66)	4.29* (1.62)	5.48* (1.40)	5.38* (1.40)	6.05* (1.12)
M2	5.52* (1.66)	4.48 (1.50)	5.19 (1.60)	5.86* (0.79)	5.38 (1.63)	6.29* (0.78)
M3	3.81 (1.81)	4.19 (1.75)	4.10 (1.70)	5.43* (1.36)	5.33* (1.28)	5.19* (1.50)
M4	5.43* (1.43)	4.24* (1.70)	3.43 (1.66)	5.14 (1.31)	5.10 (1.64)	5.10 (1.48)

Note: * $p < 0.05$

Among the five female posers, the poser 'F1' demonstrated five out of six emotional expressions which matched well with the intended emotions. See Table 2. Meanwhile, emotional faces of the other four female posers obtained only three to four significant results. Therefore, the photographs of six basic emotions presented of poser F1 was also selected for the construction of this emotion photobank.

Table 2. Mean and Standard Deviation, in bracket, of the Ratings on the Typicality and Attractiveness of the Displayed Expressions of Female Posers (* $p < .05$)

Poser	ANGER	DISGUST	FEAR	HAPPINESS	SAD	SURPRISE
F1	5.48* (1.03)	5.29* (1.68)	3.71 (1.62)	5.57* (1.25)	5.52* (1.60)	6.33* (0.86)
F2	5.62* (1.50)	5.43* (1.47)	3.90 (1.81)	4.95* (1.53)	4.38 (1.72)	5.81* (1.21)
F3	4.67 (1.85)	4.81 (1.66)	4.90* (1.70)	5.95* (0.86)	5.29* (1.65)	5.95 (1.24)
F4	5.81* (1.36)	3.43 (1.47)	4.48 (1.66)	5.76* (0.83)	5.67* (1.24)	5.29 (1.49)
F5	2.76 (1.51)	3.52 (1.83)	3.81 (1.86)	4.62* (1.40)	5.86* (1.15)	5.57* (1.03)

Note. * $p < .05$

Rating on Attractiveness

Participants

Same twenty-one undergraduates in the rating of typicality were recruited for this rating test.

Materials

Neutral expression of the same nine posers in the rating test of typicality were adopted.

Procedure

Similar to the rating test of typicality, participants were invited to sit 60cm in front of a 15" LCD monitor. In the beginning of each trial, a fixation point was shown in the middle of the screen for 1000ms. Then one of the nine poser's neutral face was randomly presented to the participant who were required to judge the attractiveness of the shown photograph in a 7-point Likert scale. A new trial began after receiving the keystroke response from the participants. Response were recorded by DirectRT.

Results

There was no significant difference in the rating score among the the male posers and the female posers. See Table 3. It therefore suggested that the scores obtained in the rating test on typicality was less affected by the physical attractiveness of the poser.

Table 3. Mean and Standard Deviation, in bracket, of the Ratings on the Attractiveness of the Posers

Male posers	M1	M2	M3	M4	
Attractiveness score	3 (1.03)	2.75 (1.07)	3.7 (1.13)	3.35 (1.35)	
Female posers	F1	F2	F3	F4	F5
Attractiveness score	2.45 (0.83)	2.4 (1.19)	3.45 (0.94)	2.2 (0.83)	3.25 (0.77)

References

- Ekman, P., & Friesen, W. V. (1976). *Pictures of Facial Affect*. Palo Alto, CA: Consulting Psychologists Press.
- Wang, K., Hoosain, R., Lee, T. M. C., Meng, Y., Fu, J., & Yang, R. (2006). Perception of Six Basic Emotional Facial Expressions by the Chinese. *Cross-Cultural Psychology*, 37(6), 623-629.