

Face-ism Effect and Head Canting in One's Own and Others' Photographs

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The influence of face-ism (i.e., the attribution of positive characteristics to people in close-up shots) in photographs picturing oneself and others was assessed in 51 female and 28 male university students. Three different shots (portrait, half-figure, and whole figure) were taken of all subjects. After rating their own physical attractiveness, subjects were asked to assess attractiveness and rate each shot on an analog scale. The same procedure was used for the pictures of two individuals, chosen randomly from those previously tested (one male and one female) and with whom the subject was not familiar. Analyses with ANOVA revealed that unfamiliar male subjects received lower evaluations in attractiveness compared to self and unfamiliar female rating. As to pictures of nonfamiliar

individuals, there was a clear preference for short-distance shots (portrait), whereas for pictures portraying oneself there was a tendency to prefer medium-distance shots (half-figure, whole figure). Multiple regression analyses revealed a positive relationship between the general attractiveness evaluation of the subject and the rating of each shot for both one's own and others' photographs. Seventy-one percent of all subjects, independent of gender, exhibited head canting with a mean angle of 5.1°. This is much higher than that found in natural settings and media portraits and may be explained by the sense of embarrassment and discomfort usually experienced in a photographic setting.

Keywords: Face-ism, photography, shot type, head canting.

The phenomenon of face-ism is characterized by two aspects:

- A greater number of close-up shots, in comparison to distance shots—such as whole figures—that can be found in the media, for certain categories (e. g., men vs. women, white vs. black persons);
- The attribution of positive qualities such as attractiveness, ambitiousness, or dominance to people photographed in close shots such as portraits instead of whole figure.

Since all the previous literature concerning this phenomenon is based on the evaluation of pictures in which unfamiliar persons are represented, in this study we wanted to verify whether the same pattern occurs when self-posed photographs are rated.

The term “shot”—both in photography and cinematography—indicates a functional limitation of the field of exposure. The main shot types, with respect to humans, are

- *Close up*, when the frame includes only the face or certain details of the face;

- *Portrait*, when the shot includes the face or the face and shoulders;
- *Half-bust*, when the bottom border of the photo corresponds to the line just below the chest;
- *Half-figure*, when the person is cut off at the waist;
- *American shot*, when people are cut off at knee level;
- *Whole figure*, when the subject is fully pictured (Clarke, 1997).

Photography has been investigated in psychology mainly as an esthetic phenomenon (e. g., Beilin, 1991; Arn-

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heim, 1974), an exquisitely perceptive phenomenon (Wade, 1990), a tool for personality investigation (William & Solano, 1983), and a therapeutic method as part of the wider field of art therapy (Cosden & Reynolds, 1982; Weiser, 1988; Hubbard, Romero & Thomas, 1987). The activation of a perceptual schema during picture perception is responsible for the relevant effect of boundary extension (Gottesman & Intraub, 1999; Intraub, Bender, & Mangels, 1992; Intraub & Berkowits, 1996; Intraub & Bodamer, 1993; Intraub & Richardson, 1989). Here, viewers remember seeing more of a scene than was actually depicted in the photograph. A distortion toward an extension of picture boundaries occurs in subjects' recall and recognition of photographs.

Archer, Iritani, Kimes, and Barrios (1983) analyzed media photographs and demonstrated that visual displays portray men with higher facial prominence, compared to women. Facial prominence was measured using the face-ism index, which indicates the ratio between two variables:

- The *numerator*, that is the distance from the top of the head to the lower point of the chin;
- The *denominator*, that is the distance between the top of the head and the lowest part of the body depicted.

Thus, the face-ism index can range from zero (no face shown in the picture) to 1.00 (picture shows only the face, and no other part of the body is visible). Archer et al. (1983) also demonstrated that subjects represented in pictures with high facial prominence are rated—regardless of their gender—as more intelligent, ambitious, and physically attractive, in comparison to those pictured in more distant shots. This fact has also been confirmed by other studies (Copeland, 1989; Dodd, Harcar, Foerch, & Anderson, 1989; Schwarz & Kurz, 1989; Zuckerman, 1986). Zuckerman and Kieffer (1994) demonstrated that the same effect is present among white and black people: Because of race prejudice, the latter tend to be portrayed with more distant shots. Schwarz and Kurz (1989) have tried to explore the impact of facial prominence, having the subjects judge photographs of attractive or nonattractive people with the following shots: whole figure (index = 0.15) or half-figure (index = 0.60). The subjects, both male and female, judged all these high face-ism photographs as representing people that are more intelligent, independent, assertive, and ambitious, in comparison to those pictured in whole-figure photographs. Moreover, the subjects who had been classified a priori as more attractive were judged also more positively and considered to be more expressive emotionally. Finally, females were

considered more attractive compared to males, regardless of the judging subject's gender.

The aim of this experiment was to verify whether this phenomenon—better evaluation of pictures with high facial prominence—was also present when self-posed photographs were judged. The hypothesis was that if subjects have to rate their own photographs, their preference will go to more distant shots, for the following reasons:

- In a medium distance shot, body details and imperfections are less evident (taking into account that the one's own body image is often hypercritical).
- A close shot could be interpreted as a violation of personal space according to proxemic laws (Hall, 1974; Harper, Wiens, & Matarazzo, 1978), like the dimensional representations of various social distances.

In everyday life, individuals interact with liked others in closer spatial proximity than with disliked others (see Argyle, 1975, for a review). Closer spatial proximity, however, is associated with a visual orientation that excludes large parts of the body, focusing attention on the face. To the extent that depiction with a high degree of facial prominence resembles the visual orientation that we take in a face-to-face interaction, this similarity may mediate the predicted effect. Further, we wanted to estimate the role played by the judgment of physical attractiveness—with reference to oneself and to others—in the choice between three types of shots: portrait, half-figure, and whole figure. Finally, we wanted to investigate how the gender of the decoder (the person who expresses the ratings) interacts with the evaluation of photographs in which men and women are portrayed.

In a preliminary study we observed that subjects, when looking at their own photographs, often complained of being pictured with their heads slightly tilted. Since this was quite frequent, as experimenters, we became interested in the phenomenon and decided to study its frequency, the preferred tilting side, and the role of gender in tilting.

Head canting consists of tilting the head toward one side so that the line connecting the center of the forehead to the nose and the chin is not perpendicular to the horizontal line connecting the shoulders (Henley, 1973, 1977; Goffman, 1976, 1979). An example of head canting for one participant is reported in Figure 1. This behavior has been described as a gesture of submission (Key, 1975), an example of power differentiation (Henley, 1977), a demand for protection (Morris, 1977), a way to ingratiate oneself or to be reconciled by reducing one's overall height (Goffman, 1976, 1979).

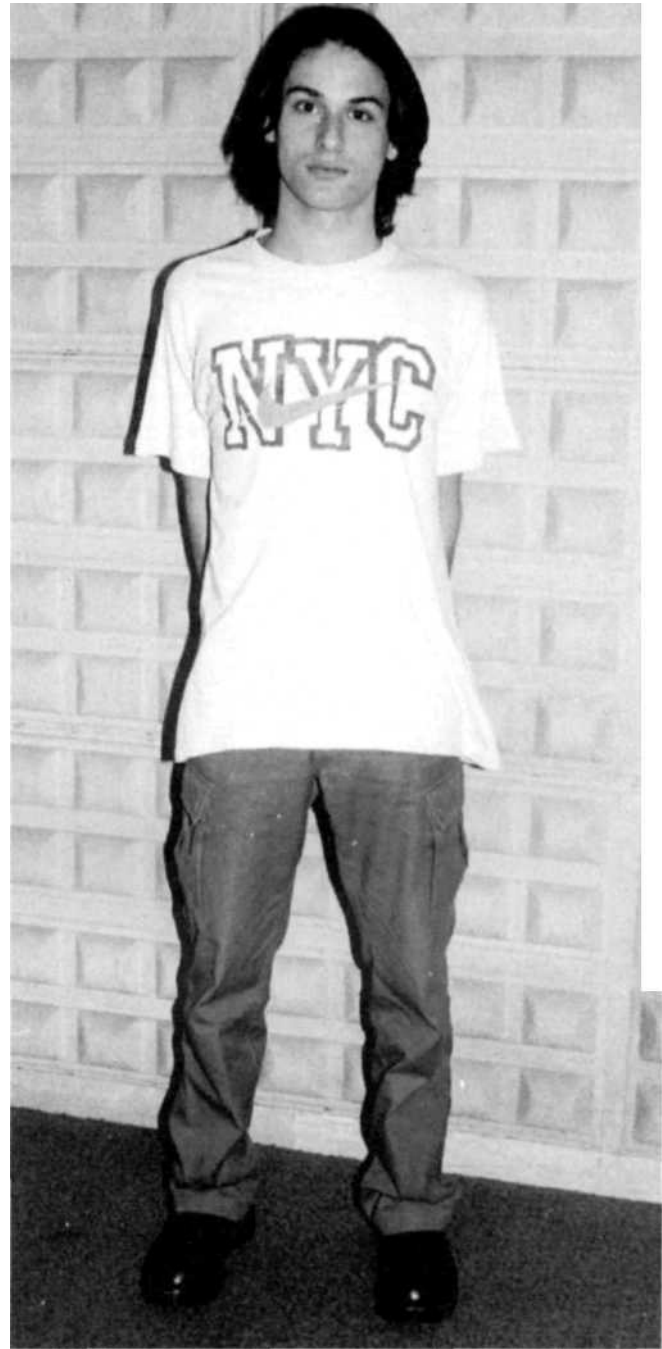
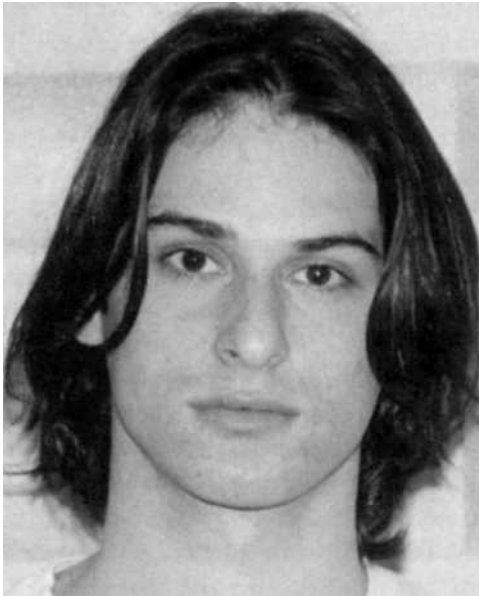


Figure 1
Example of portrait, half-figure, and whole figure for one participant whose head canted toward the right.

Mills (1984) studied smiling, head canting, and camera avoidance in subjects who had posed for a photograph and found that only smiling differentiates males from females, with females smiling more than males. Willson and Lloyd (1990) further explored these results and compared this behavior in students majoring in the arts with that in science students. The first group with

both males and females exhibited more smiles and head canting; the authors interpreted this as a higher level of self-esteem in science students. Their major was therefore a better indicator of these nonverbal behaviors than gender.

Halberstad and Saitta (1987) attempted to verify Henley's (1973, 1977) and Goffmann's (1976, 1979) theories and conducted a vast study articulated in three parts examining head canting, body canting, and smiling. In the first study, 1,106 portraits taken from the media were considered; in the second study they considered 1,257 persons in public areas; and, finally, in the third study, 96 advertisements were used to analyze how these behaviors were rated on scales related to personality traits. Head canting frequencies were as follows: 42% for females and 43.5% for males, in the first study; 37.7% for females and 39.1% for males, in the second study. Gender was not critical. The third study revealed that the absence of these behaviors was not critical in conveying a message of dominance; this type of behavior was more effective in communicating friendship and flirtatiousness.

In summary, the following hypotheses were tested:

- In photographs representing unfamiliar individuals face-ism effect should emerge as a better evaluation of closer shots in comparison to whole figures.
- In self-posed photographs the effect should be reversed, with a better evaluation of distance shots compared to portrait.
- The general physical attractiveness of the person portrayed should operate as a moderator variable of face-ism, that is, if the subject is evaluated as attractive, a better evaluation of closer shots should be emphasized; and if the portrayed person is rated as unattractive, distant shots should be preferred.
- An increase in head canting in photographic settings is expected compared to the frequencies reported by Halberstad and Saitta (1987) for natural settings, media, and advertisements, on the hypothesis that the formal photographic setting is experienced by participants with a sense of embarrassment and submission.

Subjects

Fifty-one female (mean age: 19.7 ± 1.93) and 28 male (mean age: 19.89 ± 1.93) students from the University of Bologna in Italy participated in this study. Subjects were attending an introductory psychology course and were not aware of the purposes and predictions of the experiment. All of the participants gave informed consent in order to allow their photographs to be seen and judged by others. An informal interview at the end of the experiment revealed that most of the subjects believed the aim

of the experiment was to explore esthetic judgment parameters among young people. One subject was discarded from head canting analysis because he exhibited in his photographs a back torsion that resulted in a three-quarter posture.

Method

All photographs were obtained using a Sony color video camera, Model DXC-1820P, connected to a video card in a Power Macintosh computer, model 6100/60 AV, on an Apple Multiple Screen 17" with a resolution of 832 x 624 pixels, a vertical refresh frequency of 75 Hz and a horizontal refresh frequency of 49.73 Hz. All pictures were digitalized and then visualized with the program Adobe Photoshop 3.0 for Macintosh. Picture dimensions were 20 x 26 cm.

Mean face-ism indexes were 0.88 ± 0.08 for portraits, 0.31 ± 0.03 for half-figures, and 0.15 ± 0.03 for whole figures.

Judgments were expressed on analog scales consisting of 10 cm lines with the following descriptors: "Extremely unattractive" on the left-hand side and "Extremely attractive" on the right-hand side. No numerical values were reported on the lines.

Procedure

After the subjects were told that the experiment concerned the evaluation of photographic images regarding themselves and some peers, they were brought into a room with strong lighting and asked to stand near a white wall. They were instructed not to move, to look at the lens, and to assume a neutral expression. Hands were placed together behind the back. After having zoomed and focused on the subject's face, the experimenter went into the adjoining room leaving the subject alone and, by means of the computer, a first photograph was taken. The same procedure was also used for the remaining shots—half-figure and whole figure. If the subjects had lowered eyelids or closed eyes on the photographs, these were repeated. An example of the three shots for one participant is reported in Figure 1.

Then, each subject was asked to sit in front of a computer. First, they were asked to express a judgment about their own physical attractiveness on an analog scale. Next, the three shots were displayed on the computer—one by one—in a random order. All subjects were then asked to assess the attractiveness of each one by

means of the analog scales. For every new judgment, the previous ones were hidden in order to avoid any possible influence. Presentation order of the three shots was randomized between subjects.

In the next phase, the photographs of two other persons—a male and a female—were chosen among those previously tested, and the subjects were asked whether they knew the person in the picture. If the subject happened to know the person depicted, a different one was selected so that judgments would be based only on physical appearance and not be influenced by previous acquaintance. Each subject was asked to follow the experimental procedure once again regarding the pictures of these two unfamiliar persons.

In summary, the three shots were first presented and the subject was asked to give a global attractiveness judgment on the person in the pictures; then each individual shot was evaluated.

At the end of the experiment, an informal interview was used to explore the ideas that subjects had about the aims of the study and the criteria followed for expressing their choices.

Data Reduction

All the analog scales were quantified by calculating the distance (in cm) between the left end of the scale and each mark reported by the participants.

Head canting was quantified by measuring the angle formed by the perpendicular to the bottom edge of the photograph passing through the middle of the chin with the line resulting from the conjunction of this point with the median one of the lips and the *nasion*, the middle point between the two eyebrows.

Tukey HSD was used as post-hoc test.

Results

Below the term decoder indicates the subject evaluating the picture, while encoder indicates the subject depicted on the photograph.

General Physical Attractiveness Judgments Without Reference to a Specific Type of Shot

The global physical attractiveness data, either of oneself or of unfamiliar subjects, were run through a two-way ANOVA with Decoder Gender and Encoder Type—with three levels: self, unfamiliar male, and un-

familiar female—as factors. Figure 1 reports the three condition mean ratings as a function of the gender of the decoder. Even though evaluations expressed by males were always more favorable, Decoder Gender was not significant, whereas Encoder Type was: $F(2, 154) = 4.42, p < .01$, with the following mean values: self: 5.87, unfamiliar males: 5.27, and unfamiliar females: 5.79. Post-hoc analysis proved that this significant effect was explained by the more negative evaluation given to unfamiliar male subjects compared to that given to oneself ($p < .01$) and to unfamiliar females ($p < .03$)—independent of the gender of the decoder. The difference between self-judgment and that of unfamiliar females was not significant.

Preferences for the Three Shots

The data described here refer to the evaluations on the analog scales of each single shot concerning the subject and two other persons, a male and a female. They were analyzed by means of a three-way ANOVA $2 \times 3 \times 3$. Independent variables were Decoder Gender, Shot Type (three levels: portrait, half-figure, and whole figure); each of these were subdivided into three more levels, depending on the type of Encoder: self, unfamiliar male, and unfamiliar female.

Beginning with the main effect for Decoder Gender, the results exhibited a tendency for better evaluation in males (mean = 5.49) than females (mean = 5.12): $F(1, 77) = 2.97, p < .08$. Analysis of the interaction between Decoder Gender and Shot type (see Figure 2) showed that this tendency is mainly explained by the difference between males and females in portrait evaluation: $F(1, 77) = 4.41, p < .04$, while Decoder Gender was not significant in half-figure and whole figure judgment.

The Shot type main effect was highly significant: $F(2, 154) = 6.92, p < .001$. Whole figures were less preferred (5.06) compared with half-figures (post-hoc: $p < .001$), which gathered more positive judgments (5.52), and portraits (5.30, $p < .05$). The latter shots did not differ significantly ($p < .08$). Regarding Encoder Type, the main effect was significant: $F(2, 154) = 6.37, p < .002$, and post-hoc analyses showed that photographs representing females (mean = 5.69) were evaluated more positively than those portraying males ($p < .002$, mean = 5.08) and those depicting oneself ($p < .006$, mean = 5.14).

The interaction Shot Type x Encoder Type resulted in significant values: $F(2, 154) = 5.57, p < .001$. In Figure 2 all interactions are reported, also those of gender differences. The first graph refers to the condition in which subjects had to judge their shots, the second refers to

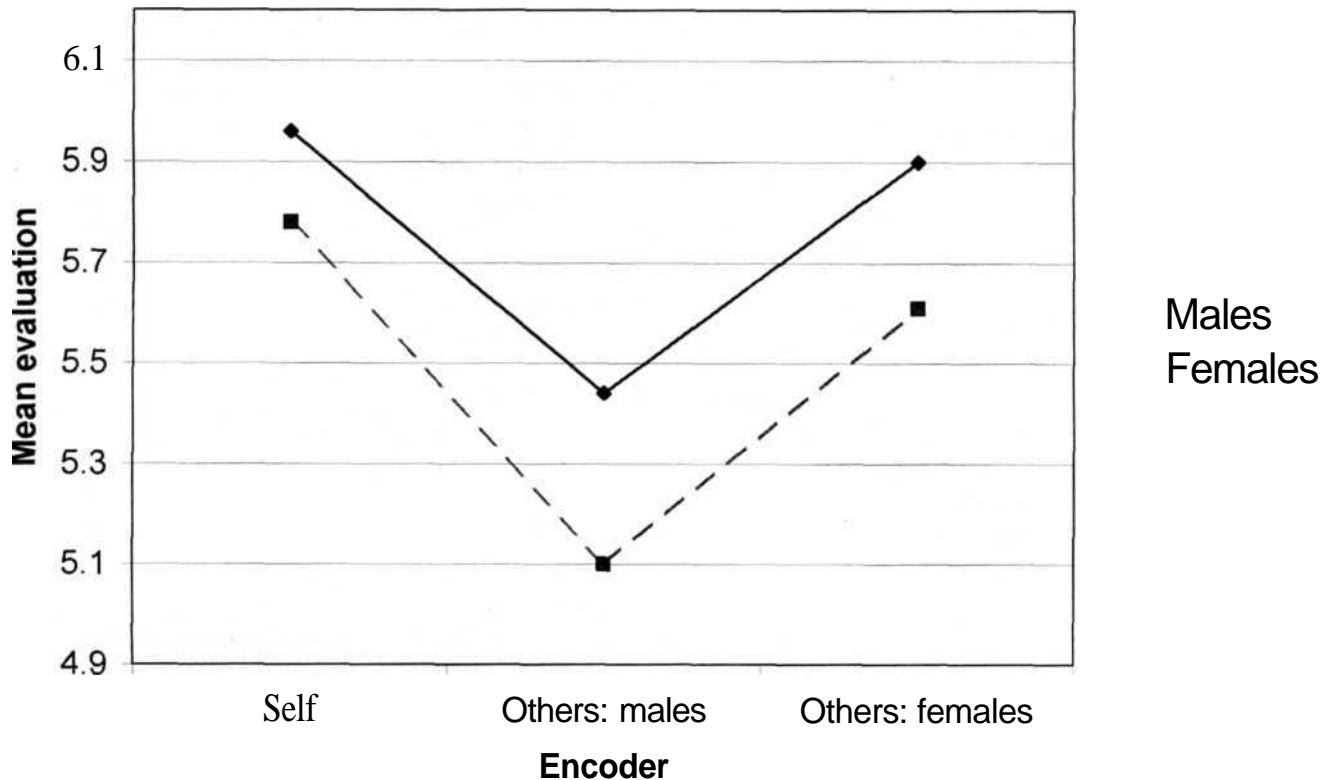


Figure 2

Means related to the evaluation of one's own and others' physical attractiveness for male and female participants.

the condition in which subjects had to evaluate an unfamiliar male, and the third refers to the judgment of unfamiliar females. More detailed analyses by means of planned comparison evidenced the following significant effects:

- The decoder gender influence on shot evaluation was critical only when self-posed photographs were considered: $F(1, 77) = 5.26, p < .002$, where males gave more positive evaluations than females.
- In the evaluation of self-posed shots, portrait differed significantly from half-figure and whole figure, which were perceived as more pleasant and positive: $F(1, 77) = 3.78, p < .05$.
- In the evaluation of unfamiliar people, both male and female, the opposite trend was observed: Portrait and half-figure shots were perceived as best from an esthetic point of view, and they differed significantly when compared with whole figure, which was rated negatively: $F(1, 77) = 13.20, p < .001$, for males and $F(1, 77) = 21.76, p < .001$, for females.
- In the evaluation of other persons, portrait and half-figure did not differ significantly.

Influence of General Physical Attractiveness on the Evaluation of Different Shots

Two multiple regression analyses were run in order to determine how the judgment of general physical attractiveness affected the rating of the different shots. The first multiple regression concerned self-posed photographs, while the second concerned the evaluation of others' picture. In the first case, the self global physical attractiveness judgment had been inserted as independent variable and the attractiveness judgments regarding the three own shots as dependent variables. The results showed significant betas for the three Shot types ($p = .54$ for portrait, $p = .49$ for half-figure, and $P = .46$ for whole figure). The three regression indexes were not significantly different from each other. The significant regression indexes found in the case of judgments referred to other persons were: $p = .81$ between global aesthetic evaluation and portrait, $P = .73$ in the comparison with half-figure and $p = .62$ for the whole figure. The regression index for portrait was significantly higher than that relative to whole figure ($p < .01$).

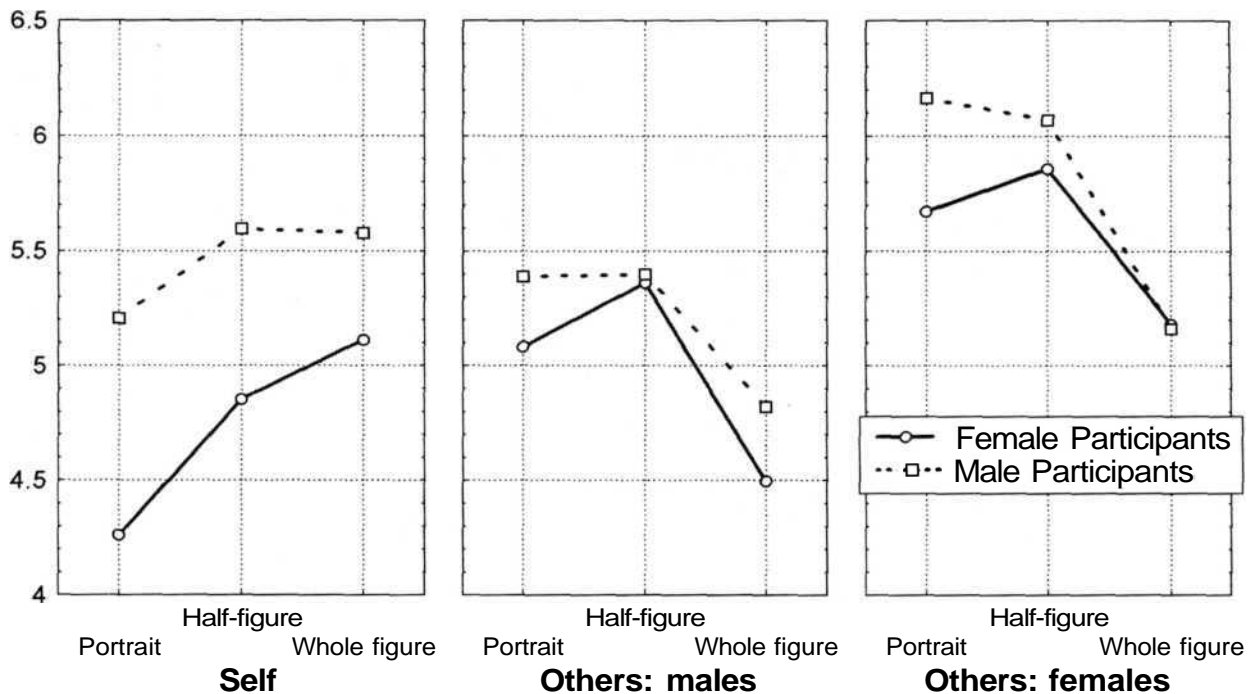


Figure 3

Representation of the triplex interaction between Encoder Type, Shot Type, and Decoder Gender. Mean attractiveness ratings are indicated on the ordinate.

Head Canting Analysis

Analyses of 78 subjects revealed that 21 of them (27%) tilted their head to the right with a mean angle of 5.1° , 34 (44%) tilted the head toward the left, with a mean angle of 4.16° , and the remaining 23 (29%) kept their head perpendicular to the shoulder axis. Thus, a total of 71% of the sample showed this behavior (see Figure 3). After having categorized the subjects into three classes (right canting, no canting, left canting), we analyzed the data with a 3×1 ANOVA that considered this nominal variable as the between-subject factor and the angle shifting to the vertical axis of the photograph as the dependent variable. The interaction that resulted was significant: $F(2, 75) = 32.70, p < .001$, and post-hoc analyses showed that it was related to head canting in both directions ($p < .001$), while the side itself was not critical (right vs. left): $F(1, 75) = 2.16, p < .14$. No significant differences were found between males and females: $F(1, 72) = 1.20, p < .28$.

The influence of head canting on global physical attractiveness and pleasantness rating in one's own photographs was verified by a three-way ANOVA with Participant Gender and Head Canting (dichotomous: canting vs. upright) as between-subject factors, and Attractiveness Target (4 levels: global, portrait, half-figure, whole

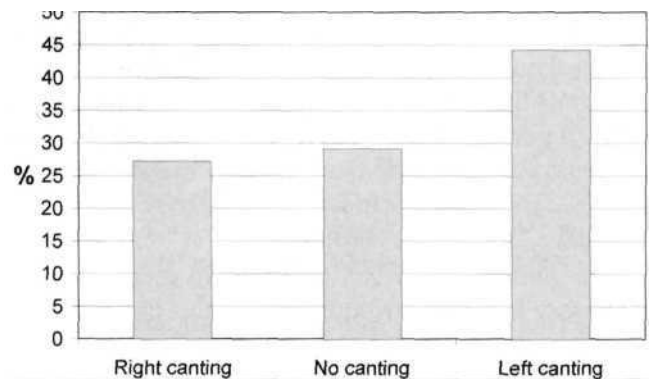


Figure 4

Percentages of head canting in the overall sample.

figure) as within-subject factor. The Head Canting main effect was significant: $F(1, 75) = 4.79, p < .03$. Attractiveness ratings were higher with canting (mean: 5.54) than with upright position (mean: 4.88). The interaction between Head Canting and Attractiveness Target was not significant. The positive bias introduced by canting exerted its influence on both the global and the three-shot rating.

Discussion

The findings reported support the hypothesis that the face-ism effect is relevant only in the evaluation of others' photographs, while with one's own pictures the trend is reversed, with a positive evaluation of distant shots such as whole figure instead of portrait. Regarding general physical attractiveness, as found in Schwarz and Kurz' results (1989), unfamiliar male subjects were evaluated more negatively than oneself and unfamiliar females, independent of the gender of the decoder. This judgment disparity could be explained by the fact that female targets generally look more attractive because women devote greater attention to such features as clothing, hairstyle, and grooming. Multiple regression analysis also evidenced a positive correlation between the general attractiveness judgment and the evaluation of all the shots both for one's own and others' photographs. In the latter case the correlation was higher for portrait compared to whole figure showing the leading role of close-up shot in determining the attractiveness rating of an unfamiliar person.

As regards the rating of different typology of shots, in the evaluation of unfamiliar persons there was a clear increase in preference, with the face-ism index approaching 1. The whole figure was evaluated negatively, whereas the half-figure and the portrait received more positive evaluations. When judging self-posed photographs, the trend was inverted: There was a tendency to judge half-figure and whole figure more positively compared to portrait. Furthermore, in the evaluation of self-posed photographs, male subjects gave higher and more polarized judgments than females (cf. Jackson, Sullivan, & Rostker, 1988; Cash, 1990).

Previous literature on the positive correlation between face-ism and attribution of positive factors to pictures had always considered photographs and pictures taken from the media without taking into account the distinction between self-posed pictures and those of others. The present research showed that this variable is critical in the formulation of esthetic judgments. In the case of unfamiliar subjects, the impact of face-ism was relevant and, according to Schwarz and Kurz (1989), was not modulated by the person's attractiveness.

The literature uses the theory of personal distance to explain the bias induced by face-ism effect (see Argyle, 1975). According to this theory, individuals interact with shorter distance with people they consider to be attractive, compared to those considered unattractive. In a close interaction situation the viewing angle excludes

most of the body and focuses on the face, framing it in a sort of close-up. In an inverted process, when portrait or half-figure is observed, positive values would be attributed to the person, regardless of his/her attractiveness. In the light of this theory the more negative evaluation of one's own portrait could be interpreted as an intrusion—an invasion on personal space.

Previous studies have shown that greater face-ism is associated with a higher evaluation of certain traits such as intelligence, ambition, and dominance (Archer et al., 1983; Zuckerman, 1986; Zuckerman & Kieffer, 1994). It would thus be reasonable to state that, with photographs of ourselves, shot choice depends on our own self-esteem and whether or not we believe we possess those traits.

We were strongly impressed by the frequency of head canting (2 out of 3 subjects) and the lack of literature focusing clearly on its functions. The data of the present research are in line with those of Mills (1994) and Halberstadt and Saitta (1987), who did not find any gender difference in the frequency of this behavior. Goffman's thesis (Goffman, 1976, 1979), which considered head canting as a typical female behavior, was not confirmed. Seventy-one percent is much higher a frequency, compared to Halberstadt and Saitta's data (1987). They report, in fact, a presence of this phenomenon in the media of about 43% and, in natural settings, of about 38%. According to Kendon and Ferber (1973), Key (1975), and Morris (1977), who support the idea that this behavior is linked to expressions of shyness, submission, and insecurity, it could be suggested that high frequency results from the discomfort and uneasiness normally experienced in front of a camera. Further research is necessary, however, to ascertain whether the increase in frequency comes from the photographic setting or from the social interaction between the photographer and the sitter. The global physical attractiveness and pleasantness for the three shot types received higher evaluations when a subject was depicted with head canting, confirming the results obtained by Otta, Lira, Delevati, Cesar, and Pires (1994), who found that a person was judged as more handsome when the head was tilted than when upright.

The results of this kind of research play an important role, first of all with respect to the increasing tendency to rely on images to convey informative messages, and also in connection with its implications in politics and advertising. One aspect to be considered in future research is the role of age in the evaluation of self-posed and others' pictures. It is reasonable to assume that when there are body modifications that are perceived as esthetically unpleasant, there might be a stronger ten-

dency to choose more distant shots, in which the smaller details of the face are less evident.

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References

- Archer, D., Iritani, B., Kimes, D.D., & Barrios, M. (1983). Face-ism: Five studies of sex differences in facial prominence. *Journal of Personality and Social Psychology, 45*, 725-735.
- Argyle, M. (1975). *Bodily communication*. London: Methuen.
- Arnheim, R. (1969). On the nature of photography. *Critical Inquiry, 1*, 149-161. Reprinted in R. Arnheim (1986). *New essays on the psychology of art*. Berkeley: University of California Press.
- Beilin, H. (1991). Developmental aesthetics and the psychology of photography. In Roger M. Downs, L.S. Liben, & D.S. Palemo (Eds.), *Vision of aesthetics, environment and development: The legacy of Joachim F. Wohlwill* (pp. 45-86). Hillsdale: Erlbaum.
- Belkaoui, A., & Belkaoui J. (1976). A comparative analysis of roles portrayed by women in print advertisement. *Journal of Marketing Research, 8*, 168-172.
- Cash, T.F. (1990). The psychology of physical appearance: Aesthetics, attributes, and images. In T.F. Cash & T. Pruzinsky (Eds.), *Body images, development, deviance, and change* (pp. 51-79). New York: Guilford.
- Clarke, G. (1997). *The photograph*. Oxford: Oxford University Press.
- Copeland, G.A. (1989). Face-ism and prime-time television. *Journal of Broadcasting and Electronic Media, 33*, 209-214.
- Cosden, C., & Reynolds, D. (1982). Photography as therapy. *Arts in Psychotherapy, 9*, 19-23.
- Dodd, D.K., Harcar, V, Foerch, B.J., & Anderson, H.T. (1989). Face-ism and facial expressions of women in magazine photos. *Psychological Record, 39*, 325-331.
- Goffmann, E. (1976). Gender advertisements. *Studies in the Anthropology of Visual Communication, 3*, 69-154.
- Goffman, E. (1979). *Gender advertisements*. New York: Harper & Row.
- Gottesman, C.V., & Intraub, H. (1999). Wide-angle memories of close-up scenes: A demonstration of boundary extension. *Behavior Research Methods, Instruments and Computers, 31*, 86-93.
- Halberstadt, A.G., & Saitta, M.B. (1987). Gender, nonverbal behavior, and perceived dominance: A test of the theory. *Journal of Personality and Social Psychology, 53*, 257-272.
- Hall, E.T. (1974). *Handbook for proxemic research*. Washington: Society for the Anthropology of Visual Communication.
- Hall, J.A. (1990). *Nonverbal sex differences: Accuracy of communication and expressive style*. Baltimore: Johns Hopkins University Press.
- Harper, G.R., Wiens, A.N., & Matarazzo, J.D. (1978). *Nonverbal communication*. New York: Wiley.
- Henley, N.M. (1973). Status and sex: Some touching observations. *Bulletin of the Psychonomic Society, 2*, 91-93.
- Henley, N.M. (1977). *Body politics: Power, sex, and nonverbal communication*. Englewood Cliffs, NJ: Prentice-Hall.
- Henry, W.P., & Solano, C.H. (1983). Photographic style and personality: Developing a coding system for photographs. *Journal of Psychology, 115*, 79-87.
- Hubbard, J.T., Romero, D.H., & Thomas, S.B. (1987). A guide to photography in educational and counseling settings. *Perspectives in Psychiatric Care, 24*, 20-24.
- Intraub, H., Bender, R.S., & Mangels, J.A. (1992). Looking at pictures but remembering scenes. *Journal of Experimental Psychology, Learning, Memory, and Cognition, 18*, 180-191.
- Intraub, H., & Berkowits, D. (1996). Beyond the edges of a picture. *American Journal of Psychology, 109*, 581-598.
- Intraub, H., & Bodamer, J.L. (1993). Boundary extension: Fundamental aspect of pictorial representation or encoding artefact? *Journal of Experimental Psychology: Learning, Memory, and Cognition, 19*, 1387-1397.
- Intraub, H., & Richardson, M. (1989). Wide-angle memories of close-up scenes. *Journal of Experimental Psychology: Learning, Memory, and Cognition, 15*, 179-187.
- Jackson, L.A., Sullivan, L.A., & Rostker, R. (1988). Gender, gender role and body image. *Sex Roles, 19*, 429-443.
- Kendon, A., & Ferber, A. (1973). A description of some human greetings. In R.P. Michael & J.H. Cook (Eds.), *Comparative ecology and behavior in primates* (pp. 591-668). New York: Academic Press.
- Key, M.R. (1975). *Male/female language*. Metuchen, NJ: Scarecrow Press.
- Mills, J. (1984). Self-posed behaviors of female and males in photographs. *Sex Roles, 10*, 633-637.
- Morris, D. (1977). *Manwatching: A fieldguide to human behavior*. New York: Abrams.
- Otta, E., Lira, B.B., Delevati, N.M., Cesar, O.P., & Pires, C.S. (1994). The effect of smiling and of head tilting on person perception. *Journal of Psychology, 128*, 323-331.
- Schwarz, N., & Kurz, E. (1989). What's in a picture? The impact of face-ism on trait attribution. *European Journal of Social Psychology, 19*, 311-316.
- Wade, N. (1990). *Visual allusions. Pictures of perception*. Hillsdale, NJ: Erlbaum.
- Weiser, J. (1988). Phototherapy: Using snapshots and photo-interactions in therapy with youth. In C.E. Schaefer (Ed.), *Innovative interventions in child and adolescent therapy. Wiley series on personality processes* (pp. 339-376). New York: Wiley.
- William, H.P., & Solano, C.H. (1983). Photographic style and personality. Developing a coding system for photographs. *Journal of Personality, 115*, 79-87.
- Willson, A., & Lloyd, B. (1990). Gender vs. power: Self-posed behavior revisited. *Sex roles, 23*, 91-98.
- Zuckerman, M. (1986). On the meaning and implications of facial prominence. *Journal of Nonverbal Behavior, 10*, 215-229.
- Zuckerman, M., & Kieffer, S. (1994). Race differences in face-ism: Does facial prominence imply dominance? *Journal of Personality and Social Psychology, 66*, 86-92.