أحكام الصدق والجاذبية وعلاقتها بالمعالم الوجهية

عدنان عمر العتوم

تهدف الدراسة الحالية إلى التعرف على العلاقة بين معالم الوجه المادية وأحكام الصدق والجاذبية لدى عينة من طلبة جامعة اليرموك. لقد تم تصوير (٨٠) طالبة من الجامعة على شكل سلايدات وبطريقة تبرز معالم الوجه وبمقاسات ثابتة لجميع الطالبات, ثم تم قياس (١٩) خاصية من معالم الوجه بوحدة السنتيمترات . عرضت الصور على (١٩٩) طالبا وطالبة من الجامعة للحكم على مدى صدقهم وجاذبيتهم من خلال الصور الوجهية.

أشارت النتائج الى أن ارتفاع الوجه (من جهة الفم), انخفاض طول الجبهة, وزيادة عرض العينين ترتبطان بأحكام الصدق, وكذلك فأن انخفاض سماكة الشفة السفلى, انخفاض ارتفاع الابتسامة, انخفاض سماكة الشفة العليا, و انخفاض طول منتصف الوجه ترتبطان بأحكام الجاذبية.

The E.R.C Journal Eighth Year Issue No. 15 January 1999 pp. 9- 24

Judgments of Honesty-Attractiveness and Facial Features

Atoum ,A. Omar*

Abstract: The present study examined the correlation between physiognomic facial features measured from pictures of female students and judgments of honesty and attractiveness ratings. Eighty Slides pictures were made and shown to (199) students to collect judgments of honesty and attractiveness. Nineteen different physiognomic facial features were measured based on these slide pictures.

Results showed that increased width of face (mouth level), decreased height of upper head, and increased width of eyes correlated or predicted judgments of honesty. Also, decreased thickness of lower lip, decreased height of smile, decreased thickness of upper lip, and decreased length of Midface correlated or predicted judgments of attractiveness.

Introduction: During the daily course on interaction, people normally look for certain aspects of the individual such as physical features and nonverbal behaviors in order to determine our attitude and relation with that person. Studying facial features and facial expression may allow us to improve our understanding of how people judge certain personality traits during social interaction (Ekman, Friesen, & Ellsworth, 1992 : Lucker & Grabar, 1980).

The physiognomy of the face may have been disreputable and complex to some scientists, but some researchers have found it valuable in providing information about people and understand them in their environment (Caron, Caron, & Myers, 1982; Goldstein, 1983; Cunningham & Odom, 1986).

The notion of studying physiognomy features in humans and animals is not a new issue. Charles Darwin (1871) stressed the importance of physical features in social behavior

*Educational Psychology Department , Yarmouk University , Irbid , Jordan

and identified cultural differences in preference for different skin colors and amount of body, hair, and lips. People's faces capture our attention and are valued greatly in our attempts to read others or set the course of communication and interaction with others.

Aronolff, Barclay, & Stevenson (1988) examined facial features that defines a threatening facial display. They reported that the nonrepresentational features of angularity and diagonally in the visual stimulus appeared to have the ability to evoke the subjective responses that convey the meaning of threat. Features such as lines on forehead, vertical lines between eyebrows, triangular nose, diagonal cheek bone lines, pointed chin and beard, wide open mouth, and pointed ears distinguished between threatening and nonthreatening masks.

Facial features are important to children as well as adults. Meltzoff and Moore (1983) indicated that infants will mimic the facial expressions of adults just an hour or so after birth. This indicates that there is something special about the human face. Fantz (1963) suggested that children have innate response patterns which allows them to recognize human facial features.

Facial feature such as length and width of face, height of forehead and upper head, height and width of eyes and nose may play an important role in making judgments of personality traits such as honesty and attractiveness. Regardless of the cultural disagreement on the definition of attractiveness or honesty, people often face situations where they have to make such judgments about how honest or attractive an individual, and often have to rely on the obvious cues such as facial features only.

Judgment of honesty seems to be a difficult one and people vary in term of perception of honesty. Some people behave dishonest in some situation and not in others, and some are consistently honest or dishonest. Miner (1992) indicated that knowledge about traits of honest people are extremely not understood and have been hampered by great variation in social and cultural norms to whom we define dishonest behavior or individual.

Psychologists who worked on deception did not deal directly with identifying specific physiognomy facial features that correlate with judgments of honesty. However, recent psychological research focused on identifying the behavioral correlates of deception in order to understand the way people make deception judgments and how liars act during deception. Researchers showed several behaviors to be associated with deception judgments such as

avoiding eye contact, and increased smiling, blinking, head movements, self-touching, and speech pauses (Bond, Omar, Mahmoud, & Bonser, 1990 : Atoum, 1994). Also, cross cultural studies found that avoiding eye contact and negative statements, and increased head movements, self-touching, hand gestures, unfilled pauses were correlated with deception judgments among Jordanian and American subjects (Schminke, Mahmoud, Omar, & Bond , 1990 ; Bond, et al. 1990). Bond, Kahler, & Paolicelli (1985) indicated that deception judgments are stimulus- driven because those who inherit an honest looking demeanor succeed as liars since they would not be suspected of doing so.

Facial features are considered important in judgments of attractiveness. Those who are perceived as attractive are likely to get more attention and acceptance than others, and are likely to posses attractive facial features. Attractive people, whom they posses qualities that appeal to others, are normally perceived better than nonattractive ones. This justify why attractive stars endorse products intending to persuade us while they may know nothing about it nor they actually use it (Myers, 1987).

Cultural and temporal variation may exist in facial attractiveness. Langlois et al. (1987) reported that (71%) of infants stared longer at the attractive adult pictures than nonattractive pictures. They also reported that attractive faces are more curved, less angular, and more vertically symmetrical than nonattractive faces.

Several physical appearance factors seem to influence judgments of attractiveness positively such as being thin (Harris et al. 1982), increased smile (Muser et al. 1984), increased height (Gillis & Avis, 1980), and straight posture (Horvath, 1981). Brigham (1980) added other individual characteristics to influence judgments of attractiveness such as been sociable, popular, mentally healthy, persuasive, and fulfilled. Byrne (1970) indicated that physical appearance, including facial features, has been found as the central factor in attraction in consideration of partners for sexual activity and marriage.

Attractive people have been found to be less dishonest and guilty of accused crimes (afran, 1974), more talented (Landy and Sigall, 1974), more

likely to be smart and likable children (Stephan and Langlois, 1984), and more likely to be chosen in interactive social play (Smith, 1984).

Few attempts were made to determine the physiognomic facial features correlates to judgments of attractiveness. Nakdimen (1984) indicated that individuals who smile more receive more positive attractiveness ratings because those who smile show raised eyebrows which signal interest and submission. Also, Hess (1965) found that dilated pupils elicit increased ratings of attractiveness.

One of the factors that was correlated to attractiveness was facial structure. Carello et al. (1989) studied the relationship between facial geometric structure and attractiveness judgments. They reported that female attractiveness was correlated with facial archetype. Heidebrandt and Fitzagerald (1978) measured the size of different infants facial features and found that ratings of attractiveness or cuteness was positively correlated with larger eye height and width, larger forehead height, and larger cheeks. Also, found that larger nose width, ear height, and mouth height were negatively correlated with judgments of cuteness.

Cuninngham (1986) investigated the relationship between facial features and attraction responses of adult males. Measurement of the relative size of 24 facial features in a sample of photographs of 50 females were obtained and subjects rated these photographs for attractiveness. Results showed that large eyes, small nose, prominent cheekbones, narrow cheeks, high eyebrows, large pupil, large smile, and small chin were positively correlated with attraction judgments.

In a recent study by Chambers (1994), he investigated the relationship between perceived attractiveness, facial features, and self-consciousness among African American College students. Results showed that high self-consciousness students used more positive adjectives in descriptions of strong African facial features than low self-consciousness students.

Most of the previous research reviewed above dealt with identifying some behavioral correlates to honesty and attractiveness judgments. However, no research dealt directly with facial features correlates to judgments of honesty and attractiveness except Cunningham (1986) study. Some studies attempted to study the correlation of certain body structure and judgments of honesty and attractiveness such as (Nakdimen, 1984; Hess, 1965; & Carello, 1989).

The Present Problem:

Judgments of honesty and attractiveness are often made by people during daily interaction. We often notice and judge others as either very honest or attractive or dishonest and unattractive. To make such judgments, especially with people we don't really know, we must rely on some channels or features such as the face, body posture, body weight, and general appearance features.

The present study aimed at exploring the relationship between certain facial features and judgments of honesty and attractiveness, and to identify what are the common facial features that predict other's judgments of honesty or attractiveness. The present study is not concerned with facial expressions of the subjects or how accurate the judgments made upon these subjects.

The results of this study may provide important information that will help in recognizing and identifying facial features that correlate or predict judgments of honesty and attractiveness during communication and interaction in various settings such as social activities, counseling, personnel selection, justice, and other situations where judgments of honesty and attractiveness are important in making such judgments about others. Furthermore, the lack of studies, especially in the Arabic literature, gives special importance to the present study.

Therefore, the present study will answer the following questions:

First : What are the correlation between facial features and judgments of honesty and attractiveness?

Second: What are the facials features predicting judgments of honesty and attractiveness?

Operational Definitions:

Honesty Judgments: A judgment from an individual that a target person appears honest or dishonest is based on the individual's own norms of honesty. For the purpose of the present study, it was measured by a judgment taken based on slide pictures of the face, using 11-point likert type scale.

Attractiveness Judgments: A judgment from an individual that a target person appears attractive or unattractive is based on the individual's own norms of beauty. For the purpose of the present study, it was measured by a judgment taken based on slide pictures of the face, using 11-point likert type scale.

Facial Features: physiognomic physical characteristics of the face as measured by (19) different physiognomic measurements in the face area using a micrometer accurate to (.05mm).

Population and Sample:

The population consisted of all students at Yarmouk University (Jordan) enrolling in the Spring semester for the academic year 1995-1996. The population was about (13780) students based on Registration Department records. The sample consisted of (199) students (132 females and 67 males),, which were chosen randomly from university requirement courses, where students represent all majors. University requirement courses were identified and one course was chosen randomly from each faculty. Table number (1) shows the distribution of sample based on gender, and majors.

Table (1)
Sample Distribution based on Gender and major

Sex	Art Majors	Scientific Majors	Total
Female	70	62	132
Males	37	30	67
Total	107	92	199

Study Instruments:

Photocopy Slides : A sample of (105) female target subjects from the B.A. level were photographed focusing on the face area and pictures were developed on slides. The photocopying was done in the Fine Department Laboratory at the university to ensure good quality pictures. To ensure the homogeneity of the pictures in terms of distant and size, the distant between the lens and the posing chair was fixed at (50 cm.), and the distant between the lens and the lighting was fixed at (80 cm.).

After the pictures were developed, they were shown to three psychologists to exclude any picture that showed abnormal expressions or unclear facial features. After completing this process, eighty target pictures were selected when at least two psychologists agreed on the quality of a picture. These (80) slide pictures were used in the present study.

Judgments of Honesty and Attractiveness List : A list was developed to elicit judgments on the level of honesty \ attractiveness appearance displayed by targets on the slide pictures. Subjects were requested to watch each silde picture and give a judgment on how honest or attractive each subject appear, providing the judges with (80) lines to make (80) judgments on each target subject. Each target picture was rated on an 11-point scale, where (11) represented very honest \ attractive and (1) represented dishonest \ unattractive. In the list, subjects were allowed to make (80) judgments for honesty and (80) judgments for attractiveness. The list was presented to three psychologists in order to ensure it's accuracy and clearness, and their comments were adopted in constructing the final shape of the list.

Procedures:

Participants reported to the slide projector showroom in groups of 20-30 students. Upon arrival, they were seated and informed that they were participating in a study aimed at measuring student's impressions toward some university student's personality traits. Participants were asked to watch each picture and make judgments on the appearance of their honesty and attractiveness. An example was shown to explain the process of completing the task. Eighty slide pictures were shown, and each picture was shown for (10) seconds then allowing (10) seconds between pictures as free time to record their judgments on the answer sheet. Participants were asked not to think a lot about their judgments and to give their first impression on each picture. After participants viewed and rated all eighty-slide pictures once for honesty and another for attractiveness, they were thanked and debriefed.

Procedures for Facial Features Measurements: To measure the size of all Facial Features required, a model was adopted from Cuningham (1986) which allows measurements of (24) different Facial Features. Because of technical difficulties, only (19) Facial Features were measured as indicated in Figure (1).

Table (3)

Correlation's Between Judgments of Attractiveness and Facial Features

Facial Features	Males Only	Females Only	Total Sample
Length of face	.08	.09	.06
Width of Face	.05	.12	.11
Width of Face(Mouth)	.06	.13	.12
Height of Forehead	-.03	.11	.09
Height of Upper Head	-.10	-.14	-.13
Height of Eyebrows	.01	.06	-.05
Height of Eyes	-.03	-.02	-.03
Width of Eyes	.07	.10	.10
Width of Iris	-.14	.04	-.06
Distance Between Pupils	-.08	-.05	-.06
Nostril Width	-.11	-.07	-.08
Nose Tip Width	-.10	-.10	-.10
Length of Nose	-.13	-.03	-.05
Midface Length	-.20*	-.09	-.11
Thickness of Upper Lip	-.19	-.21*	-.20*
Thickness of Lower Lip	-.24*	-.23*	-.24*
Height of Smile	-.27*	-.21*	-.22*
Width of Smile	-.18	-.11	-.12
Length of Chin	-.03	.02	.01

*P = 0.05

Height of eyebrows, decreased height of upper head, and decreased height of smile. This means that honest individuals are perceived to have wide or round faces with shorter upper head and smiles. These characteristics are may be considered as an inherited demeanor that would protect these individuals from suspicious of lying (Bond, Kahler, & Paolicelli 1985).

The results of table (3) showed some negative correlation between judgments of attractiveness and thickness of upper lip (for females and total sample only), thickness of lower lip, height of smile, and Midface length (for males only). These results indicated that students that were judged to be

highly attractive showed a decreased in thickness of upper and lower lip, a decreased in height of smile, and a decreased length of Midface length (for males only). These results are consisted with some of the well known attractive norms such as small lips and shorter and wide smiles (Cuninngham, 1986), thin lips, and shorter upper head (Heidebrandt and Fitzagerald, 1978). Features of both honesty and attractiveness are also consistent with previous findings on features of babyfaced individuals since these traits are judged to have round faces and fine features in the face (Cuninngham ,1986; Mcarther and Berry, 1987).

Second: To answer the second question regarding the facial features predicting judgments of honesty and attractiveness, analysis of Multiple Regression was performed using the facial features as the independent variables and the judgments of honesty and attractiveness for the whole sample as the dependent variables, as shown in tables (4) and (5).

Table (4)
Multiple Regression analysis on Facial Features Predicting Honesty Judgments

Facial Features	B	R Square	Multiple R	F value	P Value
Height of Eyebrows	30.56	.062	.249	5.14	.02
Constant	-8.38				
Height of Eyebrows	31.23	.114	.338	4.97	.01
Height of Smile	-81.10				
Constant	-2.94				

The results in table (4) showed that height of eyebrows predicted judgments of honesty and explained (6.2%) of the variance , followed by height of the smile and explained (5.2%) of the variance. Both facial features explained (11.4%) of the variance resulted from judgments of honesty.
Results suggest that increased height of eyebrows and decreased height of the smile had the highest abilities in predicting high levels of honesty among college students. These two facial features could be considered as indicators or characteristics of honesty judgments in social interaction situations.

The results in table (5) showed that thickness of lower lip predicted

judgments of attractiveness and explained (5.4%) of the variance, followed by height of the smile and explained (4.4%) of the variance. Both facial features explained (9.8%) of the variance resulted from judgments of attractiveness.

Table (5)
Multiple Regression analysis on Facial Features Predicting Attractiveness Judgments

Facial Features	B	R Square	Multiple R	F value	P Value
Thickness of lower lip	-45.02	.054	.233	4.48	.04
Constant	35.17				
Thickness of Lower lip	30.45	.098	.313	4.15	.05
Height of Smile	-111.76				
Constant	-12.81				

The results above showed that decreased thickness of lower lip and decreased height of the smile had the highest abilities in predicting high levels of attractiveness among Jordanian college students. These two facial features could be considered as indicators or characteristics of attractiveness judgments in social or interaction situations.

Also, to give a better understanding of the relationship between facial features correlates of honesty and attractiveness judgments, all facial features that correlated or predicted these judgments were summed-up according to their level of significance as shown in table (6).

Table (6)
Summary of Facial Features Correlates to Judgments of Honesty and attractiveness

Honesty	Attractiveness
Increased Height of Eyebrows	Decreased Thickness of Lower Lip
Decreased Height of Smile	Decreased Height of Smile
Increased Width of Face (Mouth Level)	Decreased Thickness of Upper Lip
Decreased Height of Upper Head	Decreased length of Midface
Increased Width of Eyes	

The summary shown in table (6) showed that the following facial features as correlates to judgments of honesty: increased height of eyebrows, decreased height of smile, increased width of face (mouth level), decreased height of upper head, and increased width of eyes. Also, it showed the following facial features as correlated to judgments of attractiveness: decreased thickness of lower lip, decreased height of smile, decreased thickness of upper lip, and decreased length of Midface.

Examining previous facial features that were produced by the correlations and the multiple regression analysis for both judgments of honesty and attractiveness, one can notice that they are consistent with the notion presented early that round and fine facial features are typical of honest and attractive individuals as they were typical of babyfaced individual (Cuninngham (1986; Mcarther and Berry, 1987; Atoum, 1997). To support this notion, a correlation between judgments of attractiveness and honesty was calculated and showed a positive correlation (0.77) indicating that those who were judged to be honest were most likely judged to be attractive, and therefore, facial features of both attractive and honest individuals may be similar as shown in table (6).

The present study acknowledged that these findings are considered primary and in need of further research to validate physiognomic facial features correlates of these judgments. However, the present findings may provide important information to help specialists in areas such as social services, counselors, and justice personnel to understand judgments of honesty and attractiveness and to identify facial features that are associated with such judgments. For an example, workers in customs have usually sets of nonverbal behaviors that they use in identifying travelers violations. The present findings could add more valid cues in making such judgments.

References:

1-Aronoff, J., Barclay, A., & Stevenson, L. (1988). The recognitionof threatening facial stimuli. **Journal of Personality andSocial Psychology, 54(4),** 647-655.

2-Atoum, A. O. (1994). Strategies used in lie detection amongYarmouk University Students. **Abhath Al-Yarmouk Journal (In Arabic), 10(4)**, 195-215.

3-Atoum, A. O. (1997). Facial Features and judgments of bayfacedand aggression.(under Press**). Abhath Al-Yarmouk Journal(In Arabic).**

4-Bond, C., Kahler, K. & Paolicelli, L. (1985). Themiscommunication of deception: An adoptive prospective. **Journal of Experimental Social Psychology, 21**, 331-345.

5-Bond, C., Omar(Atoum), A., Mahmoud, A., & Bonser, R. (1990).Lie detection across cultures. **Journal of NonverbalBehaviors, 4(3),** 189-204.

6-Brigham, L. (1980). Limiting conditions of the Physicalattractiveness stereotype. **Journal of Research inPersonality, 14**, 365-375.

7-Carello, C., Grosofsky, A., Shaw, R., Pittenger, J., & Kark., L. (1989). Attractiveness of facial profile is a function of distance from archetype. **Ecological Psychology, 1(3),** 227-251.

8-Caron, R., Caron, A., & Myers, R. (1982). Abstraction ofinvariant face expression in infancy. **Child Development,53**, 1008-1015.

9-Chambers, J. (1994). Perceived attractiveness, facial features, andAfrican Self consciousness. **Journal of Black Psychology,20(3),** 305-324.

10-Chminke, C., Mahmoud, A., Omar(Atoum), A., & Bond, C.(1990). **Jordanian and American Deception**. Paperpresented at the 37th Annual Convention of Southwestern Psychological Association, Dallas, TX.

11-Cunningham, M. (1986). Measuring the physical in physical attractiveness. **Journal of Personality and Social Psychology, 50(5),** 925-935.

12-Cunningham, M., Odom, R. (1986). Differential salience of facial features in children's perception of affective expression. **Child Development, 57**, 136-142.

13-Darwin, C. (1871). **The Descent of Man and Selection in Relationto Sex**. London: John Murray. 14-Efran, M. (1974). The effect of physical appearance on thejudgment of guilt. **Journal of Research in Personality, 8**, 45-54.

15-Ekman, P., Friesen, W., & Ellsworth, P. (1972). **Emotion In The Human Face**. New York, Pregamon.

16-Fantz, R. (1963). Pattern vision in new-born infants. **Science,140**, 296-297.

17-Gillis, J. & Avis, W. (1980). The male-taller norm in mateselection. **Personality and Social Psychology Bulletin, 6,** 396-401.

18-Goldstein, A. (1983). Behavioral scientists' fascination withfaces. **Journal of Nonverbal Behavior, 7,** 223-254.

19-Hilderbradt, K. & Fitzgerald, H. (1978). Adults' responses toinfants varying in perceived cuteness. **Behavioral Processes,3,** 159-172.

20-Horvath, T. (1981). Physical attractiveness. **Archives of SexualBehavior, 10**, 21-24.

21-Landy, D. & Sigall, H. (1974). Beauty is talent. **Journal of Personality and Social Psychology, 50,** 299-304.

22-Langlois, J. et al. (1987). Infant preferences for attractivefaces. **Developmental Psychology, 23**, 263-369.

23-Lucker, G., & Graber, L. (1980). Physiognomic features andfacial appearance judgments in children. **Journal ofPsychology, 104**, 261-268.

24-McArther, L. and Berry, D. (1987). Cross-cultural agreement in perception of Babyfaced adults. **Cross-Cultural Psychology,18(2),**165-192.

25-Meltzoff, A. & Moore, M. (1983). The origins of imitation ininfancy.Paradigm, Phenomena, and theories. **Advances inInfancy Research, 2,** 265-301.

26-Miner, J. (1992). **Industrial Organizational Psychology**. McGraw Hill Inc., New York.

27-Museser, K., Grau, B., Sussman, S., & Rosen, W. (1984). You're only as pretty as a determinant of physical attractiveness. **Journal of Personality and Social Psychology, 46,** 469-478.

28-Myers, D. (1987). **Social Psychology,** (2nd ed.), New York:McGraw-Hill.

29-Nakdimen, K. (1984). The physiognomic basis of sexualstereotyping. **American Journal of Psychiatry, 14,**499-503.

30-Smith, G. (1984). The relationship between attractiveness and social participation. **Paper presented at the Southwestern Conference on Human Development, Athens.**

31-Stephan, C. & Langlois, J. (1984). Baby beautiful: Adultcontribution of infant competencies as a function ofattractiveness. **Child Development, 55**, 576-585.

ورد البحث للمجلة في ٨/ ١٩٩٧/٤ أعيد البحث بعد تعديله في ١٩٩٧/٩/٣ أجيز البحث للنشر في١٩٩٧/١٢/٣