DOCUMENT RESUME

ED 099 917 CS 500 912

AUTHOR McCain, Thomas A.; Divers, Lawrence
TITLE The Effect of Body Type and Camera Shot on Interpersonal Attraction and Source Credibility.
PUB DATE Nov 73
NOTE 27p.; Paper presented at the Annual Meeting of the Speech Communication Association (59th, New York City, November, 1973)

EDRS PRICE MF-$0.75 HC-$1.85 PLUS POSTAGE
DESCRIPTORS *Body Weight; College Students; *Credibility; Information Sources; *Interpersonal Relationship; *Production Techniques; Television; *Television Research; Video Equipment; Visual Perception
IDENTIFIERS *Camera Angles

ABSTRACT

In order to examine the effects of manipulating image size (i.e., relative size) and body type of speakers in a television context on source credibility and interpersonal attraction, a study was conducted at Illinois State University during the spring of 1973. Subjects were eighteen intact groups of students enrolled in speech communication class 110, with groups randomly assigned to the experimental conditions. Six individuals (three males and three females) representing three body types--endomorph, mesomorph, and ectomorph--each delivered a three-minute neutral message which was videotaped. One microphone was used, while cameras, placed side by side, took long, medium, and close-up shots. Subjects viewed these speeches and marked their responses on on-scan computer sheets. Results showed that ectomorphs were perceived as more attractive than endomorphs in all dimensions of interpersonal attraction and in dynamism, competence, and composure dimensions of source credibility. The overall implication of image size and body type interaction appears to be that shots which emphasize favored body types should be used. A list of references and thirteen tables of findings and post hoc analyses are included. (JM)

THE EFFECT OF BODY TYPE AND CAMERA SHOT ON INTERPERSONAL ATTRACTION AND SOURCE CREDIBILITY

by

Thomas A. McCain
The Ohio State University

and

Lawrence Divers
Blackhawk Community College

and

Members of a Seminar in Mediated Communication at
Illinois State University, Spring 1973

Lawrence Snyder
Joseph Chilberg
Adrienne Nescott
Shin Yuan Chang
Charles Miller
Paul Rowand
Ben Hur

Paper presented at
Speech Communication Association
New York, New York
November, 1973

Scholars in a multitude of disciplines have attempted to assess the impact of visual media on societies and individuals. These studies have by and large failed to aid in isolating the elements of the mediated communication process which would allow pinpointing specific media effects. Dexter's (1968) summary of known media effects is still applicable, "some people under some circumstances are affected in some ways (p. 12)." It is crucial that attention be paid to specific visual non-verbal properties of the communication transaction if we are to progress in our understanding of visual effects.

The importance of mediated visual variables was noted by Gerbner:

> . . . there are objective built in elements (camera angle, lighting, juxtaposition, contexts, relative size, etc.) which form part of the basis along which pictures are perceived. We are not always aware of the existence or nature of these more subtle elements. . . Manipulation of these elements can, therefore, lead to changes of perception (meaning) with relatively little awareness of manipulation (Tannenbaum and Fosdick, 1964, p. 253).

Limited research on mediated visual message variables shows promise in providing the answer to how and why effects may occur. The specific purpose of this investigation was to examine the effects of manipulating image size (i.e., relative size) and somatotype of speakers in a television context on source credibility and interpersonal attraction.

Image Size - Camera Shot

The selective use of close-ups, medium shots, or long shots has been a long used visual technique for directing an audience to a visual message. Russian film makers claimed "the principle function of the close-up in our cinema is--not only and not so much to 'show' or to 'present' as to 'signify', to 'give meaning', to 'designate'" (Eisenstein, 1965, 238.)

In television, long shots are used primarily for orientation or as cover shots. Medium shots and close-ups are recognized as the more important camera shots. According to Zettle (1961): "the size of the television screen is small. To show things clearly, you must show them relatively large within the frame of the screen" (p. 342). It is because of this that celebrities desire close-ups in their television appearances. Fairlie (1961) suggested that the close-up brings us visually closer to certain people than we might normally be in similar situations in real life. E. T. Hall (1966) suggested that the distance between human interactants is negatively related to their sensory and psychological involvement. The close-up may place us at an "intimate distance" and increase involvement with a source. Though Hall's postulates arise from an interpersonal context, our assumption is that receivers (television viewers) of mediated mass communication messages evaluate and respond to sources in the communication process utilizing interpersonal communication criteria. We agree with Schramm's (1971) conclusion that the "similarities between the process of mass and interpersonal communication are far greater than the differences" (p. 50).

Little empirical research has investigated the effects of image size or perceived distance between the camera and the source. McCain and Repensky (1972) investigated the effects of image size on the perceived interpersonal attraction of a comedy team, Edmonds and Curly, the professional comedians used as stimulus objects in the study, differed in physical characteristics. Three cameras were placed side by side and each was individually adjusted for a close-up, medium shot, or long shot. The manipulation of image size had opposite effects for each of the performers. These interactions indicated that the effect of image size depended on some particular characteristics of the comedians, though varying image size significantly affected their task and physical attractiveness. Curly was tall and athletic, while Edmonds was shorter and stocky.

Wurtzel and Dominick (1972) examined the effect of shot selection and different acting styles on evaluations of a dramatic production. Their results indicated that variation of image size can alter a receiver's attitude towards the presentation. Williams (1968) attempted to discover the effect of varied film shot on interest level. He concluded, contrary to speculation, that the static medium shot was just as effective as varied camera shots in providing high interest level.

Research clearly points to the conclusion that variance in image size can differentially affect a receiver's attitudes and perceptions of a mediated source.

Body Type--Somatotype

Research has shown that there is a correlation between the body type (somatotype) of an individual and his personality (Parnell, 1958). Research has also been conducted in the area of receiver perception of a source's personality in relation to somatotype (Wells and Seigel, 1961). Wilson (1968) found that a taller individual was assigned greater status. Studies conducted by Walker (1963) indicate that people form judgments about others in relation to their physique. Toomb and Divers (1972) found that mesomorphic and ectomorphic individuals were rated higher than endomorphic individuals on the sociability dimension of source credibility. Therefore, the somatotype of an individual in the mass media may also affect his perceived sociability.

Knapp (1972) from his survey of somatotypes literature states, ". . . clearly, the evidence shows we do associate personality and temperament traits with certain body builds. . .We must recognize these stereotypes as potential stimuli for communication responses." (p. 73).

Source Credibility

Source credibility can be defined as a multi-dimensional attitude of a receiver towards a source. Source credibility is not determined by some innate personality characteristics of a source, but is instead determined by the characteristics a receiver perceives a source to possess.

Source credibility research has shown the importance of this construct to communication. It has been a factor in assessing the effects of message variables such as evidence (McCroskey, 1969) and fear appeals (Miller and Hewgill, 1967). Terminal or derived credibility has been used as a dependent variable to assess the effects of using familiar or unfamiliar evidence (McCroskey, 1969)

and delivery style (McCroskey, 1972). Toomb and Divers (1972) used source credibility as a dependent measure in assessing the effects of somatotype on a receiver's evaluations. After critically analyzing the results of studies in source credibility, McCroskey (1972) proposed that the criteria utilized for framing perceptions of sources are determined by the receiver's relationship with the source, the amount of information held pertaining to the source, and probably to some degree the environment in which the perception is formed.

Interpersonal Attraction

Interpersonal attraction is a multi-dimensional construct. It concerns "judgements about whether we 'like' another person, whether we 'feel good' in his presence, etc."(McCroskey, Larsen, and Knapp, 1971, p. 38). Based upon research by Triandis (1964), and Kiesler and Goldberg (1968) among others, McCroskey and McCain (1972) proposed that attraction contained three dimensions: task, social, and physical. They constructed and tested a measuring instrument designed to tap these three dimensions of attraction. McCain and Repensky (1972) tested interpersonal attraction in a media context. They discovered the same three properties of attraction (task, social, and physical) operating in the mediated setting.

Source credibility and interpersonal attraction have been found to be affected by variance within communication messages. Although most research has focused on the effect of verbal messages on these constructs, examination of the non verbal properties of messages, specifically image size and body type, need to be more closely scrutinized in order to assess their influence in the communication process.

The above theory and research lead to the following experimental hypothesis:

1. Differing body types will produce differential receiver evaluations of a mediated source's interpersonal attractiveness.

2. Differing body types will produce differential receiver evaluations of a mediated source's derived credibility.

3. Variance in image size will produce differential receiver evaluations of a mediated source's interpersonal attractiveness.

4. Variance in image size will produce differential receiver evaluations of a mediated source's derived credibility.

We strongly suspected that body type and image size would significantly interact. We further suspected that the sex of the speaker would interact with the various body types. These hunches were based primarily on the speculation of previous researchers, so that testable hypotheses concerning these interactions was not deemed appropriate at this time.

Methodology

The following section will include a discussion of the procedures, measurement and statistical design employed for this investigation. Procedural considerations include the selection of the subjects and those factors relating to the administration of the research. The discussion of measurement concerns the selection of scales and the technique employed in measuring the variables set

forth in the theoretic hypothesis. The final part of this section deals with the selection and application of the statistical procedures utilized in testing the theoretic hypotheses.

Subjects

The subjects for this study were 18 intact groups of students enrolled in Speech-Communication 110, Spring, 1973 at Illinois State University, producing an N of 676. The classes were randomly assigned to the experimental conditions.

Procedure and Materials

The body types of the stimuli (independent variable) were those suggested by Sheldon (1954), namely, endomorph, mesomorph, and ectomorph. Talent representative of these were selected on the basis of the subjective opinion of the researchers. These six individuals (three males and three females) delivered a three-minute neutral message. These were video-taped on one-half inch Sony Video equipment. Cameras were placed side by side taking, long, medium, and close-up shots (independent variable). The talent used one microphone which put an identical audio signal on each of the three camera treatments.

The video-taped speeches were viewed by S's in their perspective classrooms. After viewing the tape, the S's were asked to fill out the experimental booklet by the experimentors. It contained a cover sheet, a credibility measure and an interpersonal attraction measure. Each subject was asked to (1) read the instructions contained on the cover sheet for marking the semantic differential scales and Likert-type scales and (2) mark their responses on op-scan computer sheets.

Measurement

The dependent variables measured in this study were mediated source credibility and mediated interpersonal attraction. The credibility scales used in this investigation to determine terminal credibility of sources were developed by McCroskey, Scott and Young (1971). These scales have been used repeatedly in experimental studies and have yielded consistent factor structures.

Scales developed by McCroskey and McCain (1972) were employed to measure interpersonal attraction. The scales were used to tap three dimensions of this construct: social attraction, physical attraction and task attraction. They have consistently factored into these dimensions in numerous studies.

Operational Definitions

The close-up shot was that shot in which the stimulus objects (talent) were revealed from the shoulders to the head.

The medium shot was that shot in which the stimulus objects (talent) were revealed from the waist to the head.

The long shot was that shot in which the stimulus objects (talent) were revealed from the ankle to head.

The ectomorph talent was that individual(s) who appeared to be "thin or skinny."

The mesomorph talent was the individual(s) who appeared to be "muscular or athletic."

The endomorph talent was the individual(s) who appeared to be "fat or plump."

Interpersonal attraction was operationalized as S's response to 15 Lickert-type scales designed to tap the physical, social, and task orientations to this construct.

The social or personal liking property was represented by: he (she) could be a friend of mine; I would like to have a friendly chat with him (her); we could never establish a personal friendship with each other; he (she) just wouldn't fit into my circle of friends; he (she) would be pleasant to be with.

Physical attraction based on dress and physical features was represented by: I think he (she) is quite handsome (pretty); he (she) is very sexy looking; I find him (her) very attractive physically; he (she) is somewhat ugly; he (she) is not very good looking.

The task attraction dimension or how easy or worthwhile working with someone might be was presented by: he (she) is a typical goof-off when assigned to a job to do; I have confidence in his (her) ability to get a job done; if I wanted to get things done I could probably depend on him (her); he (she) would be a poor problem solver; you could count on him (her) getting a job done.

Credibility was defined as a receiver's attitude toward the mediated source as measured by 19 semantic differential scales designed to tap five dimensions of this construct. The scales were drawn from media and peer credibility measures developed by McCroskey, Scott and Young (1971). The competence dimension was represented by expert-inexpert, qualified-unqualified, trained-untrained, and intelligent-unintelligent. The sociability dimension was represented by: friendly-unfriendly, cheerful-gloomy, and good-natured-irritable. The dynamism dimension was represented by meek-aggressive, verbal-quiet, talkative-silent, and bold-timid. The composure dimension was represented by composed-excitable, relaxed-tense, poised-nervous, and calm-anxious. The character dimension was represented by sympathetic-unsympathetic, sinful-virtuous, responsible-undependable, and unselfish-selfish.

Statistical Design

The data was analyzed through the application of the following statistical procedures. Principle components factor analysis with varimax rotation was utilized for testing the measuring instruments. The criterion for termination of factor extraction was an eigenvalue of 1.00. For a factor to be meaningful it was required that at least two items be loaded on the factor. To be loaded on any one factor an item had to have a loading of .60 or higher with no loading on another factor above .40.

The dimensions of interpersonal attraction and source credibility obtained from the factor analysis of the measuring instruments were rescored by summing across the items which met criteria on each independent factor. A 3 x 3 x 2 analysis of variance design was employed to test the hypothesis. Significant F's were required for further analysis. Student t tests were utilized for the purpose of cell comparisons and thus rejecting or failing to reject the null hypothesis of the study. The .05 level of confidence was used in reporting all findings. Homogeneity of variance was assumed, based on the number of randomly selected college freshmen and sophomores. The three-way analysis of variance was utilized in order to control for sex differences between the speakers.

RESULTS

The following section will include a summary of the findings of this research. The results from the factor analysis will first be reported. The results will then be reported on a hypothesis by hypothesis basis.

Factor Analysis

Factor analysis of attraction yielded a three-factor solution similar to McCroskey and McCain (1972). The labels of "physical attraction," "task attraction," and "social attraction" were assigned to the three factors. The three factors accounted for 52 per cent of the total variance. The factor loadings for each item are reported in Table 1.

Factor analysis of the credibility scales yielded a four-factor solution. The four factors were labeled "competence," "sociability," "dynamism," and "composure." The four factors accounted for 63 per cent of the total variance. The factor loadings for each item are reported in Table 2.

Analysis of Variance

Hypothesis I stated that differing body types would produce differential receiver evaluations of a mediated source's interpersonal attractiveness. Significant F ratios were obtained for all three dimensions of interpersonal attraction (Task, $F = 22.83$; Physical, $F = 50.94$; Social, $F = 8.13$) and are reported in Table 3. A significant interaction between body type and camera shot was found on the physical attraction dimension ($F = 2.97$) and will be discussed in relation to hypothesis III. Table 4 presents the mean scores for the ectomorphs (thin), mesomorphs (athletic) and endomorphs (fat) for the dimensions of attraction. The endomorphs were perceived less task attractive than both the ectomorphs ($t = 6.58$) and mesomorphs ($t = 4.89$). The ectomorphs were viewed as more socially attractive than the mesomorphs ($t = 2.33$) and the endomorphs ($t = 4.09$).

Hypothesis II stated that differing body types would produce differential receiver evaluations of a mediated source's derived credibility. Significant F ratios were obtained for all four dimensions of credibility (competence, $F = 30.86$; sociability, $F = 6.28$; dynamism, $F = 20.95$; composure, $F = 42.43$) and are reported in Table 5. A significant interaction effect between body type and image size was found on the sociability dimension of source credibility ($F = 5.38$) and will be discussed in relation to hypothesis IV. Table 6 presents the mean scores for the three body types on the dimensions of source credibility. On the competence dimension, the endomorphs (fat) were perceived significantly

lower than both the ectomorph (thin) ($t = 6.95$) and the mesomorph (athletic) ($t = 6.51$). The ectomorph was evaluated significantly more dynamic than either the mesomorph ($t = 5.08$) or the endomorph ($t = 6.06$). On the composure dimension, the endomorph again was perceived significantly lower than both the ectomorph ($t = 8.93$) and the mesomorph ($t = 6.65$). The ectomorph was also viewed as more composed than the mesomorph ($t = 2.26$).

Hypothesis III stated that variance in image size will produce differential receiver evaluations of a mediated source's interpersonal attractiveness. Support for this hypothesis was found in one instance only. A significant interaction between image size and body type was discovered on the physical attraction dimension ($F = 2.97$). See Table 3. Table 7 presents the mean scores for close-ups, medium shots and long shots for the three body types on the physical attraction dimension. Consistent with hypothesis I, the ectomorph was perceived more physically attractive in all camera-shot conditions than the endomorph. The mesomorph was viewed as more physically attractive than the endomorph in the medium shot and long shot conditions. Of particular interest for hypothesis III is that the mesomorph (athletic) was viewed more physically attractive in the long shot than in the close-up. The mean score for the mesomorph in the medium shot was higher than the close-up as well, though not significantly greater. Hypothesis III received only minimal support.

Hypothesis IV stated that variance in image size would produce differential receiver evaluations of a mediated source's derived credibility. Support for this hypothesis was found in one instance, on the sociability dimension. A significant interaction between body type and image size was observed ($F = 5.38$, see Table 5). Table 8 presents the mean scores for close-ups, medium shots and long shots for the three body types on the sociability dimension. The endomorph (fat) was perceived significantly less sociable than the ectomorph (thin) and the mesomorph (athletic), further supporting hypothesis II. Of particular interest for hypothesis IV is that the medium shot was significantly better than the long shot for the skinny ectomorph while the opposite was true for the fatter endomorph. The long shot was significantly greater for the ectomorph than was the medium shot.

DISCUSSION AND CONCLUSIONS

Somatotype

The results of the main analysis revealed support for hypotheses I and II that body type influences a receiver's perception of a televised source. Ectomorphs were perceived more attractive than endomorphs in all dimensions of interpersonal attraction. This was also the case in dynamism, competence and composure dimensions of source credibility. Mesomorphs were perceived more favorably than endomorphs in physical and task attraction, and the competence and composure dimensions of source credibility. Ectomorphs were perceived more favorably than mesomorphs in physical attraction, social attraction, dynamism, and composure. From this it may be concluded that ectomorphs were most favorably perceived followed by mesomorphs.

Post Hoc analysis which controlled for the sex of the speaker lent further support for these hypotheses. A significant interaction between sex and body type was observed on the task attraction dimension ($F = 28.07$). A three-way

interaction between body type, image size, and sex was found on the physical attraction dimension (F = 6.24) and the social attraction dimension (F = 3.81). See Table 3. Sheffe's critical difference test was utilized in order to make cell comparisons of these interactions. The alpha level was set at .05 for all tests. For physical and task attraction male ectomorphs and mesomorphs were both perceived more physically and task attractive than an endomorphic male as is shown in Table 9. Furthermore, an ectomorphic male was seen as more task attractive than an endomorphic male. A female ectomorph was perceived more physically attractive than both a mesomorphic and endomorphic female. Interaction between sexes found the female mesomorph more physically and task attractive than the male mesomorph, while the female ectomorph was perceived more physically attractive than the ectomorphic male. The endomorphic female was seen as more task attractive than the endomorphic male. See Table 9. The data was consistent in demonstrating that the thin ectomorphs were perceived more attractive than the fatter endomorphs regardless of sex. But women were perceived more attractive than their male counterparts.

Post Hoc analysis of the significant interactions between body type and sex of the speaker for the four dimensions of credibility was also performed. A significant interaction between body type and sex of the speaker was observed on the competence (F = 56.42), dynamism (F = 63.04), composure (F = 104.16), and sociability (F = 3.85) dimensions of credibility.

Sheffe's tests were once again employed to make cell comparisons on these dimensions and are reported in Table 10. Several important inconsistencies in the trend observed in the attraction dimensions were noted. The thin ectomorphs were not consistently more credible than the mesomorphs or endomorphs.

The male ectomorph was perceived more dynamic, competent, and composed than both the male mesomorph and male endomorph. The male mesomorph was perceived more competent, composed, and sociable than the male endomorph. The male ectomorph was also seen as more sociable than the male endomorph. The reverse was true for the females. Both the female mesomorph and the female endomorph were perceived more dynamic and composed than the female ectomorph. The female mesomorph was also perceived more competent than the ectomorphic female. For sociability the reverse was found where both the female ectomorph and the female mesomorph were perceived more sociable than the female endomorph. While both the female mesomorph and female endomorph were perceived more dynamic, competent, and composed than the male mesomorph and male endomorph, the reverse was found for the ectomorphs. For sociability the male endomorph was perceived more sociable than the female endomorph.

These differences may well be due to differences in the public speaking ability of the males and females who presented the stimulus message. It appears that their communication abilities, or lack of same, did not influence perception of their attractiveness, but did influence viewers evaluation of their relative credibility. For example, while the ectomorphic female was perceived more physically attractive than the male ectomorph the reverse was found on such measures as dynamism, composure, and competence. High scores on these measures appeared to be indicative of communication ability. Similar results were found for the male and female endomorphs. While the male endomorph was perceived more sociable than the female endomorph, the reverse was found on the same factors of dynamism, composure, and competence. This appears to add further support to

the notion that interpersonal attraction and source credibility operate independently of one another.

Camera Shot - Image Size

Support for hypotheses II and III were found in only two instances in the main analysis. The mesomorph (athletic) body type was perceived more physically attractive in the longer shots than in the close-up. In the sociability dimension of source credibility the medium shot was significantly greater than the long shot for the thin ectomorphs, while the opposite was the case for the endomorphs.

Post Hoc analysis which examined the effect of the speaker's sex on the receiver's evaluation of attraction and credibility in relation to image size lent further support to the image size hypotheses. On the dynamism dimension a significant interaction between sex and camera shot was discovered ($F = 6.11$); see Table 5.

Examination of the means revealed that males were perceived more dynamic in the close-up and medium shot than in the long shot as is seen in Table 11. In the long shot females were perceived more dynamic than the males. The same trend appeared on the social attraction dimension ($F = 7.39$ for shot/sex interaction, see Table 3). The long shot produced significantly lower scores than the close-up for the males as is seen in Table 11.

A three-way interaction on the social attraction dimension between sex, body type, and image size ($F = 3.81$, see Table 3) helps to explain this phenomena. Table 12 shows that the differences in the long shots were attributed solely to the endomorph female who was viewed significantly more socially attractive in the long shot than her male counterpart. A significant three-way interaction was also observed on the physical attraction dimension ($F = 6.24$, see Table 3).

Table 12 shows that while ectomorphs were perceived more physically attractive than endomorphs on all shot types it was found that in every case the significant differences could be attributed to the female talent used in this study. The same can be said for the mesomorph receiving greater physical attraction ratings on the medium and long shots. In both instances the female talent was perceived more physically attractive than the male talent. In this instance, what we call the breast effect, may have had a significant influence on the results obtained.

A significant three-way interaction was also obtained on the sociability dimension of credibility ($F = 6.37$, see Table 5). Both ectomorphs and mesomorphs were perceived more sociable than the endomorphs in the medium shot as is shown in Table 13. The ectomorphs were perceived more sociable in the medium shot than in the long shot. The reverse was found for the endomorphs.

These post hoc results tend to indicate that sex did have an effect on the hypotheses and could very well have been a confounding variable in this study. One important note of caution should be noted in interpreting what we have arbitrarily called sex of the speaker. Since only one person of each sex represented each body type, the differences are really personal attribute differences of single individuals. Facial expression, fluency of presentation and other

non-verbal variations between the males and females may well provide better explanations for differences between them than their gender differences.

Limitations

The post hoc analysis that controlled for the sex variable indicated that females were consistently rated higher than males. This indicates that the sex of the stimulus should be hypothesized for or controlled for when attempting to measure credibility or interpersonal attraction. This study has several other limitations. First, the S's involved were drawn entirely from the Illinois State undergraduate population. Second, the construction of the measurement booklet might have also hav. had a limiting effect. The Likert instrument was placed first, followed by the semantic differential scales. Perhaps the location of the instruments in the booklet should have received random placement.

The greatest potential limitations inherent in this study are in the area of pretesting. The quality of the delivery, facial attractiveness, and the somatotype of the stimuli should have been controlled for by means of a pretest. Finally, any general knowledge claims concerning the gross body types should be limited because of the limited number of stimuli representing each independent variable.

Implications

Results found that body type was perceived differentially by and large regardless of shot used. Apparently the thinner the body the more favorable the perception, which is in accord with previous findings (Toomb and Divers, 1972). Social norms associated with body type were found to be consistent. The thin look is considered fashionable, stylish, and attractive. Post hoc analysis by sex of subject show this to be the case for both females and males, with females perceived more favorably than males.

The interaction of body type with image size was not as strong as desired, yet did occur. Results show in all but one instance that image size interacts differentially with a specific body type. Specifically, long shots produce more physical attraction for mesomorphs than close shots. Post hoc analysis confirms this finding for females in long shots and medium shots. This suggests that a favorable predisposition of receivers to mesomorphs is enhanced as the body type is revealed. The long shot provides this information as well as a more linear perspective of the subject. This linear perspective may produce a psychological semblance of ectomorphism, especially since physical details are less obvious in long shots. In the sociability dimension endomorphs were found more credible in long shots opposed to medium shots. This again may be attributed to the informational effect of image size on the body type. Endomorphs, the least attractive and credible of body types, seem to be more favorably received if body information is low. Both the close-up and long shot provide less information than the medium shot when looking at a body type. In the same dimension of credibility, ectomorphs are perceived more favorably in medium shots than long shots. The shot that emphasizes the body type the most would be the medium shot, because it provides body detail where as the long and close shots are limited to revealing the body type in less detail.

All research dealing with image size points to the interaction of image size with other independent variables (Wurtzel and Dominick, 1971; Wakshlag, 1973;

McCain and Repensky, 1972). It appears that image size effects are dependent on other visual message variables which together produce differential perceptions.

The overall implication of image size and body type interaction appears to be: use shots that emphasize favored body types and de-emphasize less favored body types. For the most part body type will function as the predominate influence, yet selective use of image size may help increase the attractiveness and credibility of a given body type.

The present study along with previous research provides further evidence for theory building in visual message variables. If the image size emphasizes the positive or de-emphasizes the negative information of the interacting independent variable, it will tend to be received more favorably.

Continued research on visually mediated message variables is needed to further discern their effects in the mediated communication process as well as information for visual message construction.

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TABLE 1

ROTATED FACTOR MATRIX FOR
MEDIATED INTERPERSONAL ATTRACTION SCALES

N = 675	Physical Attraction	Task Attraction	Social Attraction
Physical Attraction			
1. I find her (him) very attractive physically	-.80*	-.10	-.14
2. He (she) is very sexy looking	-.78*	.07	-.11
3. She (he) is not very good looking	-.71*	-.06	-.24
4. I think he (she) is quite handsome (pretty)	.66*	.08	.28
5. She (he) is somewhat ugly	.63*	.19	.33
Task Attraction			
1. You could count on her (him) getting a job done	-.03	.82*	.10
2. He (she) would be a poor problem solver	.07	.72*	.15
3. If I wanted to get things done I could probably depend on her	.02	.69*	.14
4. She (he) is a typical goof-off when assigned a job to do	-.03	-.67*	.15
5. I have confidence in her (his) ability to get the job done	-.19	-.60*	-.15
Social Attraction			
1. He (she) just wouldn't fit into my circle of friends	.24	.03	.71*
2. We could never establish a personal friendship with each other	.05	.05	.70*
3. I would like to have a friendly chat with her (him)	.21	.18	.64*
4. I think he (she) could be a friend of mine	-.22	-.16	-.56
5. It would be pleasant to be with him (her)	.23	-.02	.52
Proportion of total Variance	29%	15%	8%

*met rotation criteria

TABLE 2

ROTATED FACTOR MATRIX FOR
DIMENSIONS OF MEDIATED SOURCE CREDIBILITY

Scale	Factor			
	Competence	Sociability	Dynamism	Composure
Responsible-Undependable	.74*	.10	.19	.25
Qualified-Unqualified	.71*	.08	.23	.33
Untrained-Trained	-.64*	.01	-.24	-.30
Intelligent-Unintelligent	.63*	.20	.26	.20
Expert-Inexpert**	.60*	.00	.34	.40
Sinful-Venturous	-.55	-.13	.21	.13
Good Natured-Irritable	.09	.80*	-.08	.15
Cheerful-Gloomy	.00	.72*	.27	.11
Unfriendly-Friendly	-.02	-.69*	-.10	.00
Unsympathetic-Unsympathetic	.08	.62*	-.06	-.12
Unselfish-Selfish	.27	.52	-.25	-.08
Verbal-Quiet	.19	.02	.83*	.17
Bold-Timid	.09	.00	.82*	.21
Meek-Aggressive	-.13	.05	-.81*	-.13
Talkative-Silent	.17	.07	.77*	.18
Calm-Anxious	.20	-.01	.12	.85*
Relaxed-Tense	.12	.15	.32	.80*
Poised-Nervous	.21	.06	.35	.80*
Composed-Excitable	.36	-.18	.04	.67*
Proportion of Total Variance	33%	13%	10%	7%

* met rotation criteria

** was not used in subsequent analysis

TABLE 3

SUMMARY TABLE FOR ANALYSIS OF VARIANCE FOR
THREE DIMENSIONS OF INTERPERSONAL ATTRACTION

TASK ATTRACTION

Source	DF	Sum of Squares	M/S	F
Body	2.	1168.1755	584.08765	22.83 *
Shot	2.	115.05270	57.526352	2.24
Sex	1.	961.01758	961.01758	-37.556*
Body/Shot	4.	63.630783	15.907696	- .622
Body/Sex	2.	1436.8054	718.40259	-28.07 *
Shot/Sex	2.	72.511856	36.255920	- 1.42
Body/Shot/Sex	4.	20.113617	5.0284042	- .20
ERROR	658.	16837.410	25.589760	
TOTAL	675.	20722.438		

PHYSICAL ATTRACTION

Source	DF	Sum of Squares	M/S	F
Body	2.	2981.9768	1490.9883	50.94*
Shot	2.	74.413315	37.206650	1.27
Sex	1.	636.05859	636.05859	21.73*
Body/Shot	4.	347.41406	86.853516	2.97*
Body/Sex	2.	736.01099	368.00537	12.57*
Shot/Sex	2.	173.02885	86.514420	2.96
Body/Shot/Sex	4.	730.15601	182.53900	6.24*
ERROR	658.	19257.781	29.267136	
TOTAL	675.	25031.688		

SOCIAL ATTRACTION

Source	DF	Sum of Squares	M/S	F
Body	2.	199.76624	99.883118	8.13*
Shot	2.	26.671753	13.335876	1.09
Sex	1.	30.901581	30.901581	2.51
Body/Shot	4.	48.411652	12.102913	.99
Body/Sex	2.	17.663910	8.8319550	.72
Shot/Sex	2.	181.61482	90.807404	7.39
Body/Shot/Sex	4.	187.40475	46.851181	3.81*
ERROR	658.	8088.1406	12.292006	
TOTAL	675.	8749.5625		

* Indicates F significant at .05.

TABLE 4

MEANS FOR BODY TYPE ON
DIMENSIONS OF INTERPERSONAL ATTRACTION*

	Ecto Morph	Mes Morph	Endo Morph
Task Attraction	24.0a	23.14b	20.84a,b
Physical Attraction**	19.14	17.38	14.01
Social Attraction	12.58c,d	11.81c	11.23d

*means with same subscripts are significantly different from each other $p > .05$.

**a significant interaction effect superceded testing the main effects on physical attraction.

TABLE 5

SUMMARY TABLE FOR ANALYSIS OF VARIANCE
FOR FOUR DIMENSIONS OF SOURCE CREDIBILITY

COMPETENCE

Source	DF	Sum of Squares	M/S	F
Body type	2.	1026.9431	513.47144	30.86*
Image size	2.	99.142731	49.571365	2.98
Sex of speaker	1.	599.61499	599.61499	36.03*
Body/Image	4.	81.461594	20.365387	1.22
Body/Sex	2.	1877.6724	938.83618	56.42*
Image/Sex	2.	11.544583	5.7722912	.35
Body/Image/Sex	4.	72.875763	18.218933	1.10
ERROR	658.	10947.258	16.637161	
TOTAL	675.	14711.438		

SOCIABILITY

Source	DF	Sum of Squares	M/S	F
Body	2.	172.99536	86.497681	6.28*
Shot	2.	7.9202738	3.9601364	.30
Sex	1.	142.28061	142.28061	10.80*
Body/Shot	4.	283.29810	70.824524	5.38*
Body/Sex	2.	105.51604	52.758011	3.85*
Shot/Sex	2.	82.474457	41.737228	3.05
Body/Shot/Sex	4.	349.12622	87.281555	6.37*
ERROR	658.	8667.3125	13.172207	
TOTAL	675.	9881.4375		

DYNAMISM

Source	DF	Sum of Squares	M/S	F
Body	2.	1000.5630	500.28149	20.95*
Shot	2.	26.369339	13.184669	.55
Sex	1.	355.51172	355.51172	14.89*
Body/Shot	4.	92.678253	23.169556	.97
Body/Sex	2.	3010.9402	1505.4700	63.04*
Shot/Sex	2.	291.93799	145.96899	6.11*
Body/Shot/Sex	4.	111.33951	27.834869	1.17
ERROR	658.	15716.004	23.884491	
TOTAL	675.	20433.625		

TABLE 5 (cont.)

SUMMARY TABLE FOR ANALYSIS OF VARIANCE
FOR FOUR DIMENSIONS OF SOURCE CREDIBILITY

COMPOSURE

Source	DF	Sum of Squares	M/S	F
Body	2.	2076.3184	1038.1592	42.43*
Shot	2.	2.2080135	1.1040068	.05
Sex	1.	929.72256	929.72266	37.99*
Body/Shot	4.	115.83633	28.959076	1.18
Body/Sex	2.	5097.5859	2548.7930	104.16*
Shot/Sex	2.	13.858949	6.9294739	.28
Body/Shot/Sex	4.	178.72394	44.680984	1.83
ERROR	658.	16100.180	24.478353	
TOTAL	675.	24337.063		

*Indicates F significant at .05.

TABLE 6

MEANS FOR BODY TYPE ON DIMENSIONS OF SOURCE CREDIBILITY *

	Ecto Morph	Meso Morph	Endo Morph
Competence	19.58 a	19.40 b	16.86 a, b
Sociability**	17.59	16.88	16.34
Dynamism	18.70 c, d	16.37 c	15.86 d
Composure	18.54 e	17.48 e	14.36 e

* Means with same subscripts are significantly different from each other, p.<.05.
** A significant interaction effect superceded testing the main effects on sociability.

TABLE 7

MEANS FOR BODY TYPE AND IMAGE SIZE ON PHYSICAL ATTRACTION*

	Ecto Morph	Meso Morph	Endo Morph
Close-up	19.04 a, b	15.54 a, g	14.53 b
Medium-Shot	19.33 c	17.95 d	13.73 c, d
Long-Shot	19.05 e	18.65 f, g	13.77 e, f

*Means with same subscripts are significantly different from each other, p.<.05. using Sheffe's critical difference test.

TABLE 8

MEANS FOR BODY TYPE AND IMAGE SIZE ON SOCIABILITY DIMENSION OF CREDIBILITY*

	Ecto Morph	Meso Morph	Endo Morph
Close-up	17.76	16.40	16.32
Medium-Shot	18.52 a, c	17.22 b	15.51 a, b, d
Long-Shot	16.50 c	17.01	17.19 d

*Means with same subscripts are significantly different from each other p <.05 using Sheffe's critical difference test.

TABLE 9

POST HOC ANALYSIS OF BODY TYPE AND SEX OF SPEAKER MEAN SCORES FOR SIGNIFICANT INTERACTIONS FOR DIMENSIONS OF MEDIATED ATTRACTION*

PHYSICAL ATTRACTION

	Ectomorph	Mesomorph	Endomorph
Male	16.87a,c	16.39b,d	14.33a,b
Female	21.41c.e	18.37d,e	13.68e

TASK ATTRACTION

	Ectomorph	Mesomorph	Endomorph
Male	24.70a	21.76a,b	17.85a,c
Female	23.29	24.60b	23.79c

*Means with same subscripts are significantly different from each other $p < .05$ using Scheffe's critical difference test.

TABLE 10

POST HOC ANALYSIS OF BODY TYPE AND SEX OF SPEAKER MEAN SCORES FOR SIGNIFICANT INTERACTIONS OF DIMENSIONS OF SOURCE CREDIBILITY*

DYNAMISM

	Ecto	Meso	Endo
Male	20.95a,b,c	14.62a,b,d	13.17a,g
Female	16.45c,e,f	18.11d,e	18.56f,g

COMPETENCE

	Ecto	Meso	Endo
Male	20.75a,b	18.36a,c	13.88a,d
Female	18.41b,e,f	20.45c,e	19.83d,f

COMPOSURE

	Ecto	Meso	Endo
Male	21.06a,b	15.62a,c	10.14a,d
Female	16.02b,e,f	19.33c,e	18.57d,f

SOCIABILITY

	Ecto	Meso	Endo
Male	17.75	17.09	17.40c
Female	17.43a	16.82b	15.29a,b,c

*means with same subscripts are significantly different from each other p. $<$.05 using Sheffe's critical difference test.

TABLE 11

POST HOC ANALYSIS OF CAMERA SHOT AND SEX OF SPEAKER
MEAN SCORES FOR SIGNIFICANT DIMENSIONS
OF MEDIATED ATTRACTION AND SOURCE CREDIBILITY

SOCIAL ATTRACTION

	Camera Shots		
	Close-Up	Medium Shot	Long Shot
Male	12.49a	11.76	10.72a,b
Female	11.70	12.07	12.50b

Dynamism

	Camera Shots		
	Close-Up	Medium Shot	Long Shot
Male	16.93a	16.73b	15.08a,b,c
Female	17.09	17.67	18.36c

*Means with same subscripts are significantly different from each other $p. < .05$ using Sheffe's critical difference test.

TABLE 12

POST HOC ANALYSIS OF CAMERA SHOT, BODY TYPE AND SEX OF SPEAKER MEAN SCORES FOR SIGNIFICANT INTERACTIONS FOR DIMENSIONS OF ATTRACTION*

PHYSICAL ATTRACTION

Male	Ecto	Meso	Endo
Close-Up	16.82	16.73	14.61
Middle	16.59	15.67	15.64
Long Shot	17.21a	16.77b	12.76a,b
Female	**Ecto**	**Meso**	**Endo**
Close-Up	21.26a,b	14.34a,g,h	14.45b
Middle	22.08c	20.24d,g	11.82c,d
Long Shot	20.89e	20.52f,h	14.77e,f

Males and Females differed significantly, according to the following:

F Ecto Close-Up > M Ecto Close-Up
F Ecto Middle Shot > M Ecto Middle Shot
F Meso Middle Shot > M Meso Middle Shot
F Meso Long Shot > M Meso Long Shot
M Endo Middle Shot > F Endo Middle Shot

SOCIAL ATTRACTION

Male	Ecto	Meso	Endo
Close-Up	12.85	12.56	12.06
Middle	12.15	11.14	12.00
Long Shot	11.44	11.21	9.52
Female	**Ecto**	**Meso**	**Endo**
Close-Up	13.24	10.53	11.33
Middle	13.22	12.74	10.75
Long Shot	12.58	12.68	12.23

F Endo Long Shot > M Endo Long Shot

*Means with same subscripts are significantly different from each other p. < .05 using Sheffe's critical difference test.

TABLE 13

POST HOC ANALYSIS OF CAMERA SHOT, BODY TYPE AND SEX OF SPEAKER MEAN SCORES FOR SOCIABILITY DIMENSION OF SOURCE CREDIBILITY*

MALE

	Ecto	Meso	Endo
Close-Up	17.35	17.26	17.15
Middle	18.35	17.90	17.70
Long Shot	17.58	16.02	17.24

FEMALE

	Ecto	Meso	Endo
Close-Up	18.15a	15.53	15.48a
Middle	18.69b,e	16.52c	13.31b,c,f
Long Shot	15.41d,e	18.00d	17.13f

M Endo Middle > F Endo Middle Shot

*Means with same subscripts are significantly different from each other $p. < .05$ using Scheffe's critical difference test.