

Communicator Physical Attractiveness and Persuasion

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In a field setting, physically attractive or unattractive male and female communicator-subjects delivered a persuasive message to target-subjects of each sex. Results indicated that attractive (vs. unattractive) communicators induced significantly greater persuasion on both a verbal and behavioral measure of target agreement. In addition, female targets indicated greater agreement than did male targets. Data gathered from communicator-subjects during an earlier laboratory session indicated that physically attractive and unattractive communicators differed with respect to several communication skills and other attributes relevant to communicator persuasiveness, including grade point average, Scholastic Aptitude Test scores, and several measures of self-evaluation. These findings suggest that attractive individuals may be more persuasive than unattractive persons partly because they possess characteristics that dispose them to be more effective communicators.

Experimental evidence regarding the effect of communicator physical attractiveness on persuasion is equivocal. Although two studies have demonstrated that attractiveness can significantly enhance a male communicator's persuasiveness with both male and female message recipients (Horai, Naccari, & Fatoullah, 1974; Snyder & Rothbart, 1971), the majority of published experiments have failed to obtain significant attractiveness effects or have obtained interactions between attractiveness and other variables (Chaiken, Eagly, Sejwacz, Gregory, & Christensen, 1978; Mills & Aronson, 1965; Blass, Alperstein, & Block, Note 1). For example, Mills and Aronson (1965), using a female communicator and male recipients, found no overall effect of communicator attractiveness on persuasion.

However, on a marginally significant basis, they did find that the communicator's expression of a desire to influence recipients enhanced her persuasiveness when she was attractive but not when she was unattractive. Blass, Alperstein, and Block (Note 1), who also studied a female communicating to male recipients, found that communicator attractiveness and race interacted to affect opinions. A white communicator was more persuasive if attractive than if unattractive, whereas a black communicator was more persuasive if unattractive. Finally, one experiment reported by Chaiken, Eagly, Sejwacz, Gregory, and Christensen (1978) indicated that the persuasive impact of attractive communicators depended both on the sexual composition of the communicator-recipient dyad and on whether recipients anticipated interacting with the communicator. Their second experiment, which employed the identical stimulus materials but utilized a somewhat different cover story, yielded no significant persuasion findings involving the attractiveness variable, however.

All of these experiments were conducted in laboratory settings and all employed experimental manipulations of communicator attractiveness. The majority of studies have

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used pictured communicators, varying appearance by means of photographs scaled for physical attractiveness (Chaiken et al., 1978; Horai et al., 1974; Snyder & Rothbart, 1971). Two experiments have utilized either live communicators (Mills & Aronson, 1965) or videotaped communicators (Blass et al., Note 1) whose appearance was varied by means of makeup, dress, and grooming.

The present research addressed two general concerns raised by previous empirical work. The first deals with the importance of the attractiveness cue outside the laboratory. The lack of consistent findings across previous experiments—particularly the paucity of attractiveness main effects and the occurrence of unpredicted and often theoretically ambiguous interactions (Chaiken et al., 1978; Blass et al., Note 1)—suggests that the persuasive impact of physical attractiveness may be far from robust. This concern is heightened by the possibility that the highly controlled settings of previous experiments made the attractiveness cue more salient than it would typically be in more naturalistic settings, and the context of these experiments may therefore have inflated the importance of this variable as a determinant of persuasion. In this regard, it is interesting to note that both experiments demonstrating an attractiveness main effect on opinion change (Horai, Naccari, & Fatoullah, 1974; Snyder & Rothbart, 1971) used photographic stimuli and employed relatively simple experimental procedures. In contrast, studies that have not demonstrated this main effect have used live or videotaped communicators (Mills & Aronson, 1965; Blass et al., Note 1) or have employed relatively more complex experimental procedures (Chaiken et al., 1978, Experiment 1).

Conversely, it might be that previous empirical findings underestimate the importance of the attractiveness variable in persuasion. The implicit demands of the laboratory may encourage subjects to adopt a highly logical mode of cognitive functioning. At the same time, such demands may discourage subjects from utilizing information such as physical attractiveness, which popular wisdom would

hold to be irrelevant. Thus, although attractiveness may well influence opinion change in naturalistic settings, the psychology laboratory may provide a particularly unsuitable setting for demonstrating such an effect.

In sum, one concern of the experiment dealt with the importance of communicator attractiveness as a determinant of persuasion. To address this concern, the experiment utilized live, physically attractive and unattractive communicators who delivered a persuasive message to targets in a field setting. It was predicted that attractive communicators would be more persuasive than unattractive ones. No hypotheses were formed with respect to whether *attractiveness* might interact with *communicator* or *target sex* to affect opinions, although some previous findings (Chaiken et al., 1978, Experiment 1) suggest this possibility.

The second concern of the present research, one that presupposes that attractiveness does influence persuasion, deals with the explanation of attractiveness effects. In previous studies, the style in which the persuasive message is presented to subjects has remained constant across experimental conditions. In addition, excluding trait inferences that subjects make, the (typically hypothetical) communicators in these studies are equated on attributes other than attractiveness. Such standardization is of obvious value, since it allows one to conclude that observed differences in treatment are a product of the attractiveness cue rather than the result of some factor that is unintentionally confounded with the attractiveness manipulation. This type of design has been and should be used to evaluate a variety of explanations for the facilitating effect of attractiveness on persuasion, including psychological mechanisms such as credibility enhancement, identification (Kelman, 1961), social reinforcement, cognitive balance, and classical conditioning. However, such designs preclude from consideration the possibility that attractive and unattractive individuals are differentially persuasive because attractiveness is correlated with other attributes that affect communicator persuasiveness.

While little is currently known about actual differences between physically attractive and unattractive persons, researchers (Berscheid & Walster, 1974) have argued that because of differing socialization experiences (e.g., Clifford & Walster, 1973; Dion, 1972) attractiveness may be confounded with other attributes (e.g., intelligence, status, self-concept, personality). Consistent with this argument, Goldman and Lewis (1977) recently reported that attractive individuals may possess greater social skill than unattractive persons. The idea that attractiveness covaries naturally with other factors suggests that attractive individuals may be more persuasive than unattractive persons partly because they possess communication skills or other attributes that dispose them to be particularly effective communicators. To explore this possibility, the present study selected 17 different *communicator-subjects* to represent each of four possible combinations of communicator attractiveness and sex. Videotapes of these communicators delivering the persuasive message were examined to determine possible individual differences in communication skills. The skills measured in the experiment included those identified by previous research (speech rate, Miller, Maruyama, Beaver, & Valone, 1976; nonfluencies, McCroskey & Mehrley, 1969; vocal confidence, London, 1973; eye gaze, Mehrabian & Williams, 1969) or suggested by intuition (smiling) as correlates of communicator persuasiveness. To examine differences with respect to other attributes relevant to persuasiveness, communicator-subjects also completed the Rotter (1966) Internal-External Locus of Control Scale, rated themselves on a series of evaluative scales, and reported their grade point averages and Scholastic Aptitude Test (SAT) scores.

Method

Subjects and Overview of Design

A total of 110 male and female University of Massachusetts undergraduate psychology students participated for extra course credit as communicator-subjects. In a laboratory session immediately preceding their field participation, these individuals were trained to deliver a persuasive message, and

their final practice performances were videotaped. In addition, communicator-subjects completed a questionnaire and were photographed. In the field, each communicator delivered the persuasive message to 2 University of Massachusetts undergraduates of each sex. Subsequently, an independent group of judges ($n = 56$) rated communicator-subjects' photographs on physical attractiveness (15-point scale). Communicator-subjects were rank ordered according to their mean attractiveness ratings, and those in the top or bottom third of the distribution for their sex were selected for inclusion in the design. This procedure resulted in the analysis of data from 68 communicators (17 per sex/attractiveness level) and 272 target-subjects (2 male and 2 female targets per communicator). Mean attractiveness scores for the four communicator groups were 8.80 (male/attractive, 9.09 (female/attractive), 6.10 (male/unattractive), and 6.34 (female/unattractive).

Laboratory Procedure

Communicator-subjects were recruited for an experiment entitled "social influence" and were scheduled individually for their laboratory sessions. The (male) experimenter informed communicators that they would be trained to deliver a persuasive message and would then attempt to persuade students whom they would approach on campus. Communicators were told that "in order to explore correlates of communicator persuasiveness," they would complete a questionnaire, be photographed, and be videotaped delivering the persuasive message.

After this introduction subjects completed the first part of a questionnaire on which they indicated their sex, age, grade point average, SAT scores, and agreement (7-point scale) with the position advocated in the persuasive message. Subjects completed the remaining three sections of the questionnaire in one of six possible orders. One section consisted of the 23-item (plus fillers) Internal-External Locus of Control Scale (Rotter, 1966). In a second section, subjects described themselves on 7-point bipolar adjective scales. Positive poles of the 17 scales used were *intelligent, interesting, assertive, confident, likable, knowledgeable, competent, sincere, physically attractive, modest, moral, persuasive, trustworthy, warm, attractive, friendly, and sensitive*. Finally, a third section asked subjects to "speculate about their future" by responding on 7-point scales to the following items: *to have an excellent (vs. poor) job, have a happy (vs. drab) family life, be regarded as a successful (vs. unsuccessful) person, be a contented (vs. discontented) person, be well-off financially (vs. in bad financial straits), be enjoying life (vs. depressed about things), be famous for something (vs. a very ordinary person), be a highly (vs. only moderately) educated person, be a confident (vs. a worried) person.*

Subjects next received a script containing the persuasive message as well as all procedural details pertaining to their field participation. To standardize communicator-subjects' training as much as possible,

the following procedure was employed. The experimenter twice went through the field procedure with each subject, once playing the role of communicator and once playing that of target-subject. Communicator-subjects were then allotted 10 minutes to practice the script on their own. Afterwards, the experimenter again went through the script twice with the communicator-subject, both times playing the role of target-subject.

Next, communicator-subjects were asked to deliver the persuasive message "just as you would to a real target-subject." This performance was delivered to an experimental assistant (male) and was videotaped. Subsequently the videotapes were scored by two independent judges (blind to the experimental hypotheses). Exposed only to the audio component of the videotape, each judge rated the communicator's vocal confidence (5-point scale). Using a digital stop-clock, judges recorded the time that the communicator gazed directly at his or her target (experimental assistant) and, to assess speech rate (seconds per word), recorded the time each communicator took to deliver the 111-word persuasive message. A smiling index (possible range 0 to 5) was obtained by having judges record the presence (1) or absence (0) of smiling in each of five segments of the message. Judges also counted the number of nonfluencies (vocal pauses within sentences, repetitions, "umms," "ers," stuttering, etc.) made during delivery of the message. Finally, judges rated the communicator's physical attractiveness (5-point scale) while exposed only to the video component of the tape. For each of the above measures, the two judges' ratings were averaged to obtain a score for each communicator-subject. Interrater reliability coefficients were speech rate, $r = .99$; vocal confidence, $r = .79$; gaze, $r = .99$; smiling, $r = .83$; nonfluencies, $r = .90$; physical attractiveness, $r = .67$.

Just prior to leaving the laboratory for the field, communicators were photographed in a standard pose. The $3\frac{1}{2} \times 5$ inch black and white photographs showing a head and shoulder view of each communicator were subsequently scaled for physical attractiveness by an independent group of judges (see above).

Field Procedure

Each communicator was randomly assigned to one of five campus locations and was then taken to that location by the experimenter. To prevent communicators from selecting their own target-subjects, each communicator was required to approach every passer-by until he or she had completed the entire field procedure with 2 university students of each sex. This rule was subject to the following constraints: (a) sex of person approached was required to alternate, (b) only persons walking alone were to be approached, and (3) an approach could not be initiated while the communicator was occupied with another target-subject.

The communicator introduced himself or herself to the target-subject and requested that the target

complete an opinion survey. If the target agreed, the communicator stated that he or she was in a campus group favoring the proposition that "the University should stop serving meat at breakfast and lunch at all dining commons," and the communicator supported this position with two brief arguments. After restating the position, the communicator gave the target a confidential questionnaire to complete. On this questionnaire, targets indicated their agreement (7-point scale) with the message's overall position and rated the communicator's friendliness, knowledgeability, and attractiveness (15-point scales). Targets also indicated their sex and age and responded to some filler items designed to make the questionnaire appear to be an opinion survey. Afterwards, targets placed the completed questionnaire in a box provided by the communicator. The communicator next stated that he or she was also circulating a petition demanding that "the University stop serving meat at breakfast and lunch at all dining commons," and asked the target to sign it. After the target had signed (or refused to sign), he or she was thanked for participating in the survey.

Throughout the entire field procedure, the experimenter stood nearby and monitored all communicator-target interactions. Data from 6 (of the initial 110) communicators were excluded from consideration because they deviated greatly from the experimental script (4) or informed one or more of their targets that they were participating in an experiment (2). The experimenter also recorded the total number of approaches required by each communicator in order to complete the field procedure successfully with two male and two female targets.

Results and Discussion

Data provided by target-subjects were analyzed by four-way multivariate and univariate analyses of variance with 2 levels each of communicator sex, attractiveness, and target sex, and 17 levels of communicator (nested within communicator sex and attractiveness). Data from communicator-subjects were analyzed by two-way multivariate and univariate analyses of variance with 2 levels each of communicator sex and attractiveness.

Check on Experimental Design

The attractive communicator-subjects of the present study were clearly perceived as more physically attractive than their unattractive counterparts. An analysis of attractiveness ratings made by photograph judges revealed only an attractiveness main effect ($p < .0001$), as did an analysis of attractive-

Table 1

Mean Target Agreement and Proportion of Targets Signing Petition as a Function of Communicator Attractiveness, Communicator Sex, and Target Sex

Variable	Attractive communicator				Unattractive communicator			
	Male		Female		Male		Female	
	Male target	Female target	Male target	Female target	Male target	Female target	Male target	Female target
Target agreement	4.50	3.32	4.24	3.53	4.91	4.00	4.53	4.03
Petition signing	.29	.53	.35	.47	.35	.38	.24	.29

Note. On the agreement measure, lower numbers indicate greater agreement with the position advocated in the persuasive message. Cell $n = 34$.

ness ratings made by videotape judges' ($p < .001$). Further, targets-subjects perceived physically attractive (vs. unattractive) communicators as more attractive ($p < .05$). It should also be noted that communicator-subjects did not differ significantly as a function of attractiveness or sex with respect to their age or opinions on the persuasive message topic.

Field Data

The five target-subject variables (agreement, petition signing, perceptions of communicator friendliness, knowledgeability, and attractiveness) were first submitted to a four-way multivariate analysis of variance and were then analyzed on a univariate basis.¹ The multivariate analysis yielded significant effects due to communicator sex, $F(5, 60) = 2.96$, $p < .02$, and target sex, $F(5, 60) = 3.16$, $p < .02$, and a marginal effect due to communicator attractiveness, $F(5, 60) = 1.74$, $p < .14$.² The univariate analyses revealed that the communicator-sex, target-sex, and communicator-attractiveness main effects attained significance on one (attractiveness), two (agreement, petition signing), and three (agreement, petition signing, attractiveness) of the five target variables, respectively. The remainder of this section presents the results of these more informative univariate analyses.

Persuasion measures. Analysis of targets' agreement with the communicator's overall position (see Table 1) revealed main effects

due to communicator attractiveness and target sex. Attractive communicators elicited greater agreement from targets than did unattractive communicators ($M = 3.89$ vs. $M = 4.37$), $F(1, 64) = 4.23$, $p < .05$, and female targets expressed greater agreement than male targets ($M = 3.72$ vs. $M = 4.54$), $F(1, 64) = 11.22$, $p < .005$. No other effects were significant on this measure. Dunnett's test (cf. Myers, 1972) indicated that all experimental groups (in the Communicator Sex \times Communicator Attractiveness \times Target Sex design) differed significantly from an opinion-only group of pilot subjects³ in the direction of greater

¹ Following Lunney (1970) and the advice of an anonymous reviewer, the dichotomous petition-signing measure (coded 0,1) was included in the multivariate analysis and was also treated by univariate analysis of variance. The latter analysis yielded main effects due to communicator attractiveness, $F(1, 64) = 3.95$, $p < .06$, and target sex, $F(1, 64) = 5.07$, $p < .05$. These univariate results parallel those presented in the text, which are based on a more conventional treatment of dichotomous data.

² Since the nested communicator factor accounted for no significant effects in the four-way analysis, it was ignored in a subsequent three-way multivariate analysis on the five field measures. The three-way analysis, which employs an error term with greater degrees of freedom than the error terms utilized in the four-way hierarchical design analysis, yielded comparable findings: significant effects due to communicator sex, $F(5, 260) = 3.80$, $p < .005$, and target sex, $F(5, 260) = 2.93$, $p < .02$, and a marginal effect due to communicator attractiveness, $F(5, 260) = 1.83$, $p < .11$.

³ Pilot subjects ($n = 18$) were approached by the experimenter at various campus locations and were

agreement with the position advocated in the message ($p < .05$ or smaller).

The proportion of targets in each experimental condition who signed the communicator's petition was computed (see Table 1), and z tests were performed on the arcsin transformations of these proportions (cf. Langer & Abelson, 1972). Paralleling the agreement results, this analysis revealed that a greater proportion of targets signed the petition when the communicator was attractive ($p = .41$) rather than unattractive ($p = .32$), $z = 1.56$, $p < .06$, one-tailed, and a greater proportion of female (vs. male) targets signed ($p = .42$ vs. $p = .31$), $z = 1.91$, $p < .06$, two-tailed. No other effects were significant on petition signing.

It should be noted that communicators approached an average of 6.04 individuals in their efforts to deliver the persuasive message to the requisite number of targets. An analysis of the number of approaches that each communicator made yielded no significant effects. Thus male and female and attractive and unattractive communicators were equally successful in gaining the audience of targets.⁴

Other measures. In addition to the significant attractiveness effect on targets' attractiveness ratings, attractive communicators were perceived as somewhat friendlier than unattractive ones ($p = .07$). Finally, targets (unlike either videotape or photograph judges) rated female (vs. male) communicators as more attractive ($p < .001$). No other effects were significant on these measures, and no effects were obtained on targets' ratings of communicator knowledgeability.

The field data generally substantiate the physical attractiveness-persuasion relationship. On both a verbal and behavioral mea-

sure, target-subjects expressed significantly greater agreement with attractive, rather than unattractive, communicators. Although the study was not designed to evaluate possible psychological mechanisms underlying this effect, the fact that targets' perceptions of communicator knowledgeability were unaffected by attractiveness suggests that attractiveness effects in persuasion are not typically mediated by differential perceptions of credibility (also see Norman, 1976; Snyder & Rothbart, 1971). On the other hand, the finding that targets' perceptions of communicator friendliness were marginally affected by attractiveness is consistent with psychological mechanisms such as identification (Kelman, 1961), social reinforcement, cognitive balance, and classical conditioning.

Target sex also had a significant impact on persuasion. Females expressed greater agreement with the communicator's message than did males. While not anticipated, this finding is consistent with two hypotheses recently proposed by Eagly (1978). One hypothesis is that heightened female influenceability may be observed when the message topic is biased against the expertise or interests of women. In view of pilot-subjects' ratings (see Footnote 3), it seems unlikely that the sexes were differentially expert on the meat topic. However, while this study did not assess involvement with the issue, recent findings obtained by Eagly (Note 2) indicate that males may be more interested in or involved with the meat question, perhaps because they are greater consumers of beef than are females. Since greater involvement typically decreases persuasion (e.g., Miller, 1965; Sherif & Hovland, 1961), the present findings are consistent with the idea that male targets' greater involvement with the message topic made them less willing than females to yield to the persuasive message. Eagly's second hypothesis suggests that heightened female influenceability may be observed in situations characterized by the communicator's physical presence

asked to indicate their agreement (7-point scale) with a variety of opinion statements and to judge whether males or females were more expert with respect to each opinion issue (7-point scale). The meat topic was chosen because pilot subjects disagreed strongly with the position advocated in the persuasive message ($M = 6.50$) and considered males and females equally expert on the issue ($M = 4.08$). Further, male and female pilot subjects did not differ significantly with respect to either their agreement or their expertise ratings, $t(16) < 1.0$, on this issue.

⁴ Of the 411 individuals approached by the study's 68 communicators, 139 (34%) refused the communicators' initial requests that they "complete an opinion survey."

and surveillance, and may be a product of females' greater concern with maintaining social harmony and insuring smooth interpersonal relations. The fact that a sex difference occurred in this experiment where communicators presented their messages to targets during face-to-face encounters is also compatible with this hypothesis.

As Eagly (1978) has noted, differences in interpersonal orientation as an explanation of sex differences in influenceability imply that the greater persuasibility of women may represent surface agreement rather than genuine belief change. Yet, if this explanation is entertained, the meaning of the experiment's persuasion measures and of the observed attractiveness effects is called into question. Did the greater "persuasion" induced by attractive (vs. unattractive) communicators represent genuine belief change or mere compliance? Although a compliance interpretation cannot be completely ruled out, at least two aspects of the field data favor the idea that communicator attractiveness did actually effect genuine changes in targets' opinions. First, unlike the petition-signing measure, communicators did not see targets' verbal agreement responses. Targets were told that their opinions were confidential, and targets themselves inserted their completed questionnaires in a ballot box provided by the communicator. Yet this measure, which should have been less susceptible to compliance pressures, showed an attractiveness effect of the same (and slightly higher) magnitude as that shown on petition signing. Second, a compliance interpretation suggests that attractive (vs. unattractive) communicators should have been more successful in inducing compliance with their initial requests than potential targets "complete an opinion survey." However, analysis on the number of approaches made by each communicator revealed no attractiveness effect ($p > .65$).

Individual Differences Between Communicator-Subjects

A second focus of the experiment was to investigate whether the greater persuasiveness of physically attractive communicators might

be understood in terms of differences between attractive and unattractive individuals on dimensions relevant to communicator persuasiveness. The individual difference measures obtained during communicators' laboratory participation were first submitted to a two-way (Attractiveness \times Sex) multivariate analysis of variance and were then analyzed on a univariate basis. The multivariate analysis yielded only an attractiveness main effect, $F(36, 29) = 9.52$, $p < .001$. However, the univariate analyses revealed that this effect attained significance or marginal significance on only a small proportion of variables. The remainder of this section presents the findings of these univariate tests.

Communication skills. Analyses on the communication skills measured in this study revealed that compared to unattractive communicators, attractive communicators were significantly more fluent speakers ($p < .05$) and had a marginally faster rate of speech ($p = .07$). Attractive and unattractive communicators did not differ with respect to vocal confidence, gaze, or smiling. The only other effects on these variables were due to communicator sex. Male (vs. female) communicators spoke faster ($p < .05$) and smiled less ($p < .001$) while delivering the message.

Other attributes. Phares (1965) found that students who were more internal (vs. external) in their locus-of-control orientation (Rotter, 1966) were more successful in influencing other students' attitudes. And Miller (1970) has shown that attractive (vs. unattractive) persons are perceived by others as being more internal. In the present study, an analysis of communicators' locus-of-control scores yielded no significant effects. It should also be noted that locus of control was not significantly associated with an index of communicator persuasiveness (sum of targets' agreement scores), $r = -.15$, $p < .20$, although the direction of the relationship is consistent with Phares' (1965) results.

On communicator-subjects' self-reported SAT scores, both an attractiveness main effect ($p < .05$) and a Communicator Attractiveness \times Communicator Sex interaction ($p < .05$) were obtained. Overall, attractive communicators reported higher SAT scores

than did unattractive ones. However, this difference was most evident for female (vs. male) subjects. Attractive (vs. unattractive) communicators also reported marginally higher grade point averages ($p = .11$).

Although attractive communicators tended to regard both themselves and their future more positively than unattractive communicators did on many (but not all) of the self-descriptive items, the attractiveness main effect reached significance or marginal significance on only a very few scales. Physically attractive (vs. unattractive) communicators tended to regard themselves as more persuasive ($p < .025$), attractive ($p < .10$), and interesting ($p < .10$), and were somewhat more optimistic about obtaining an excellent job ($p < .10$). These analyses also revealed that female (vs. male) communicators viewed themselves as more moral (vs. immoral; $p < .01$) and indicated more optimism with respect to obtaining an excellent job ($p < .05$) and being a successful person ($p < .05$). Finally, a Communicator Sex \times Communicator Attractiveness interaction was obtained on communicators' speculations regarding their future contentedness ($p < .05$). Attractive females and unattractive males speculated that they would be more contented than discontented whereas unattractive females and attractive males speculated that they would be more discontented.

These results indicate that attractive and unattractive individuals do differ on dimensions other than physical appearance. Attractive communicators were more fluent speakers and faster speakers than their unattractive counterparts. Further, attractive communicators tended to report higher scores on two indices of educational accomplishment (grade point average, SAT scores) and described themselves somewhat more favorably along several dimensions (persuasiveness, attractiveness, interestingness, optimism about getting an excellent job) that may tap aspects of self-concept.

The remaining question is whether the differential persuasiveness of physically attractive and unattractive communicators can be understood in terms of the observed differences with respect to communication skills,

educational accomplishment, and components of self-concept. Correlations between communicators' scores on these measures and their persuasive effectiveness were generally low and nonsignificant ($ps = .07$ or higher). Although the relationship between communicators' attractiveness scores and persuasive effectiveness was low to begin with ($r = .20$, $p = .05$), it did attenuate somewhat when the influence of these individual difference measures was removed ($r = .14$, $p = .14$). These results suggest that while the observed individual differences do not provide a full explanation for the observed effect of attractiveness on persuasion, they may have contributed at least partially to this effect. In any case, it would seem premature to discount such individual difference variables as correlates of communicator persuasiveness or, by extension, to discount the role of these variables in understanding the attractiveness-persuasion relationship. Research has demonstrated that both fluent speech (McCroskey & Mehrley, 1969) and speech rate (Miller et al., 1976) relate positively to persuasion. And although little is known concerning the psychology of the persuasive communicator (in contrast to the psychology of the message recipient), it seems reasonable that factors such as self-concept and educational achievement, a frequently used indicant of intelligence, should contribute to one's effectiveness as a social influence agent.

Conclusions and Implications

The present research indicates that physical attractiveness can significantly enhance communicator persuasiveness. A number of aspects of the findings and the experimental design are worth noting, since they suggest that the attractiveness-persuasion relationship may be fairly general. First, the attractiveness effect on persuasion was obtained on both a verbal and behavioral measure, and attractiveness did not interact with either communicator or target sex to affect agreement. Second, the design featured multiple-stimulus persons at every level of communicator attractiveness and sex, and this nested communicator factor accounted for no significant effects in the

analyses of variance. Third, communicator-subjects were not judged to be extreme in physical attractiveness. Thus, the persuasion results were obtained using attractive and unattractive communicators who are probably quite representative of those whom individuals might encounter in their everyday lives. Last, the findings were obtained in a field setting where the salience of information about physical attractiveness should approximate its salience in genuine interpersonal situations and where any implicit experimental demands on the subject to overutilize or underutilize attractiveness information should be minimal.

Despite the study's apparent success in demonstrating the attractiveness-persuasion relationship, a number of issues remain unresolved and require further investigation. First, the interpersonal-orientation explanation of the observed sex differences in persuasibility raises the possibility that the enhanced persuasion induced by attractive communicators may have represented heightened compliance rather than genuine belief change. While the field data seem more compatible with a belief-change interpretation, compliance cannot be completely eliminated as an explanation. Research that manipulated communicator presence and/or surveillance in conjunction with physical attractiveness would be quite useful in resolving this issue. A second issue concerns the psychological mechanisms underlying the attractiveness-persuasion relationship. The results of this experiment as well as those of some previous studies (Norman, 1976; Snyder & Rothbart, 1971) suggest that credibility enhancement does not typically mediate the attractiveness-persuasion relationship. However, mechanisms such as identification (Kelman, 1961), social reinforcement, cognitive balance, classical conditioning, and perhaps others remain possible and require further evaluation.

Finally, there is the question of why most previous experiments have failed to demonstrate the attractiveness effects on persuasion observed here. One answer is suggested by the fact that the attractiveness effects obtained in this study, while statistically reliable, were not very strong. If, as the magnitude of these

effects imply, the persuasive impact of attractiveness is not particularly robust, the failure of previous efforts to document such a relationship becomes more understandable. One obvious implication of this explanation is that while physical attractiveness can be a significant determinant of persuasion, it may not be a particularly important determinant. A second possible explanation stems from the laboratory nature of previous research. As suggested earlier, the implicit demands of the psychology laboratory may often lead subjects to adopt highly logical modes of cognitive functioning and, as a consequence, to underutilize attractiveness information in forming their opinions. The ecological validity of the laboratory for studying the attractiveness-persuasion relationship requires further investigation, perhaps through research that explicitly incorporates social-influence setting (field vs. laboratory) as a feature of its experimental design.

Individual Differences Between Attractive and Unattractive Communicators

The experiment also revealed differences between attractive and unattractive communicator-subjects with respect to characteristics relevant to persuasive effectiveness (communication skills, educational accomplishment, components of self-concept). These results provide preliminary evidence that in genuine interpersonal situations, attractive individuals may be more persuasive than unattractive persons because they possess characteristics or skills that dispose them to be particularly effective communicators. In this regard, it should be noted that in a recent investigation of manipulative social influence among children, Dion and Stein (1978) found that attractive and unattractive children were both differentially successful and employed markedly different interaction styles in attempting to influence peers.

Previous investigators have studied physical attractiveness in isolation from, rather than together with, its concomitant variables. The present findings and those of Dion and Stein (1978) underscore the utility of the latter

approach. Future research should address itself to a more systematic investigation of individual differences between the physically attractive and unattractive with respect to variables relevant to social influence. For example, research on the physical attractiveness stereotype indicates that attractive (vs. unattractive) individuals are perceived by others as more likable, friendly, interesting, and poised (cf. Berscheid & Walster, 1974). Such attributes would seem of obvious advantage to someone wishing to influence others. Further research might attempt to assess whether physically attractive people actually behave in a more likable, friendly, interesting, and poised fashion with others—either because they possess these traits or, as Snyder, Tanke, and Berscheid (1977) have recently argued, because the stereotype-based expectations of others tend to elicit and maintain such behaviors—and whether such behaviors can help to explain their greater effectiveness as agents of social influence. In addition to furthering our understanding of the relationship between attractiveness and social influence, such research would provide valuable information regarding the validity of the physical attractiveness stereotype and would also increase our knowledge about communicator characteristics and behavioral styles and their role in social influence.

Reference Notes

1. Blass, T., Alperstein, L., & Block, S. H. Effects of communicator's race and beauty and of receiver's objectivity-subjectivity on attitude change. In C. Ward (Chair), *Attitude change*. Symposium presented at the meeting of the American Psychological Association, New Orleans, 1974.
2. Eagly, A. H. Personal communication, January 5, 1979.

References

- Berscheid, E., & Walster, E. Physical attractiveness. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 7). New York: Academic Press, 1974.
- Chaiken, S., Eagly, A. H., Sejwacz, D., Gregory, W. L., & Christensen, D. Communicator physical at-

- tractiveness as a determinant of opinion change. *JSAS Catalog of Selected Documents in Psychology*, 1978, 8. (Ms. No. 1639)
- Clifford, M. M., & Walster, E. The effect of physical attractiveness on teacher expectation. *Sociology of Education*, 1973, 46 (Spring), 248-258.
- Dion, K. K. Physical attractiveness and evaluations of children's transgressions. *Journal of Personality and Social Psychology*, 1972, 24, 207-213.
- Dion, K. K., & Stein, S. Physical attractiveness and interpersonal influence. *Journal of Experimental Social Psychology*, 1978, 14, 97-108.
- Eagly, A. H. Sex differences in influenceability. *Psychological Bulletin*, 1978, 85, 86-116.
- Goldman, W., & Lewis, P. Beautiful is good: Evidence that the physically attractive are more socially skillful. *Journal of Experimental Social Psychology*, 1977, 13, 125-130.
- Horai, J., Naccari, N., & Fatoullah, E. The effects of expertise and physical attractiveness upon opinion agreement and liking. *Sociometry*, 1974, 37, 601-606.
- Kelman, H. C. Processes of opinion change. *Public Opinion Quarterly*, 1961, 25, 57-78.
- Langer, E. J., & Abelson, R. P. The semantics of asking a favor: How to succeed in getting help without really dying. *Journal of Personality and Social Psychology*, 1972, 24, 26-32.
- London, H. *Psychology of the persuader*. Morristown, N.J.: General Learning Press, 1973.
- Lunney, G. H. Using the analysis of variance with a dichotomous dependent variable: An empirical study. *Journal of Educational Measurement*, 1970, 7, 263-269.
- McCroskey, J. C., & Mehrley, R. J. The effects of disorganization and nonfluency on attitude change and source credibility. *Speech Monographs*, 1969, 36, 13-21.
- Mehrabian, A., & Williams, M. Nonverbal concomitants of perceived and intended persuasiveness. *Journal of Personality and Social Psychology*, 1969, 13, 37-58.
- Miller, A. G. Social perception of internal-external control. *Perceptual and Motor Skills*, 1970, 30, 103-109.
- Miller, N. Involvement and dogmatism as inhibitors of attitude change. *Journal of Experimental Social Psychology*, 1965, 1, 121-132.
- Miller, N., Maruyama, G., Beaver, R. J., & Valone, K. Speed of speech and persuasion. *Journal of Personality and Social Psychology*, 1976, 34, 615-624.
- Mills, J., & Aronson, E. Opinion change as a function of the communicator's attractiveness and desire to influence. *Journal of Personality and Social Psychology*, 1965, 1, 173-177.
- Myers, J. L. *Fundamentals of experimental design* (2nd ed.). Boston: Allyn & Bacon, 1972.
- Norman, R. When what is said is important: A comparison of expert and attractive sources. *Journal of Experimental Social Psychology*, 1976, 12, 294-300.

- Phares, E. J. Internal-external control as a determinant of amount of social influence exerted. *Journal of Personality and Social Psychology*, 1965, 2, 642-647.
- Rotter, J. B. Generalized expectancies for internal versus external control of reinforcement. *Psychological Monographs*, 1966, 80(1, Whole No. 609).
- Sherif, M., & Hovland, C. I. *Social judgment*. New Haven, Conn.: Yale University Press, 1961.
- Snyder, M., & Rothbart, M. Communicator attractiveness and opinion change. *Canadian Journal of Behavioral Science*, 1971, 3, 377-387.
- Snyder, M., Tanke, E. D., & Berscheid, E. Social perception and interpersonal behavior: On the self-fulfilling nature of social stereotypes. *Journal of Personality and Social Psychology*, 1977, 35, 656-666.

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