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I. Introduction

Our physical appearance is the one personal characteristic which is obvious and accessible to others in almost all social interactions. And, according to folklore, our appearance telegraphs more information about us than we would care to reveal on a battery of personality inventories, intelligence tests, and character scales. From flame-colored hair through flat feet, few aspects of appearance fail to provide kernels of folk insight into another's nature.

How does our physical appearance influence our relationships with others? Oddly enough, most social scientists have shown a studied professional disinterest in this and related questions. Social psychologists, until recently, shared their indifference. The historical neglect of appearance variables within social psychology seems especially curious, since at least one dimension of appearance—physical attractiveness—has strong relevance to several traditional social psychological research interests. Aronson (1969) proposed one explanation for its neglect within the interpersonal attraction research area:

> It is difficult to be certain why the effects of physical beauty have not been studied more systematically. It may be that, at some level, we would hate to find evidence indicating that beautiful women are better liked than homely women—somehow this seems undemocratic. In a democracy we like to feel that with hard work and a good deal of motivation, a person can accomplish almost anything. But, alas, (most of us believe), hard work cannot make an ugly woman beautiful. Because of this suspicion perhaps most social psychologists implicitly prefer to believe that beauty is indeed only skin deep—and avoid the investigation of its social impact for fear they might learn otherwise [p. 160].

Social psychological disregard of appearance variables may be even more deep-seated than Aronson suggests; it may have its root in the philosophical biases and traditions which underly all of American psychology. In his 1964 presidential address to Division 8 of the APA, Lindzey (1965) analyzed the reasons for the neglect of "morphology," a term which he defined broadly "to refer not only to the physical, structural aspects of the organism but also to any externally observable objectively measurable attribute of the person . . . even esthetic attract ness [p. 344]." For the popular scientific belief that the study of m phology is an "unsanitary practice," Lindzey blamed: (*a*) the optimist environmentalist philosophy of American psychology which supplied logical antagonism toward any hint of "genetic determinism" (whic would be implied by the discovery of an intimate link between physical and psychological characteristics, given scientific acceptance of the proposition that physical characteristics are closely linked to genetic factors); (*b*) the spectacular failure of certain previously influential body–behavior formulations (e.g., Gall & Spurzheim, 1809), "coupled with the popularity of morphological variables among such diagnostic charlatans as palmists and physiognomists [p. 344]"; and (*c*) the close association between the study of morphological variables and the name and work of William Sheldon who proved to be unpopular perhaps because he was "singularly adept at ridiculing or parodying just those aspects of the scientific posture of psychologists that are most sensitively, rigidly and humorlessly maintained [p. 345]."

Whatever the reasons for the neglect of the past, the future development of morphological research requires some "agreement concerning those components or dimensions that can be employed most fruitfully to represent morphological variation . . . [Lindzey, p. 345]." In the remaining sections, we shall discuss recent social psychological evidence which suggests that "even" esthetic attractiveness may be a useful dimension for understanding certain social phenomena, and, perhaps, for illuminating some personality and developmental puzzles as well.

II. Physical Attractiveness and Heterosexual Attraction: The Lure of the Physically Attractive

Despite democratic notions of fairness and equal opportunity, and the taint of the morphological, those interested in the antecedents of opposite-sex attraction could not long ignore the demand to recognize the physical attractiveness variable. Insight into the potency of physical attractiveness initially emerged from experiments designed to test the hypothesis that men and women of similar levels of social desirability tend to "pair off" in courtship and marriage.

A. The Matching Hypothesis

The "matching hypothesis" was first suggested by the sociologist Erving Goffman, who said, "A proposal of marriage in our society tends to be a way in which a man sums up his social attributes and suggests

to a woman that hers are not so much better as to preclude a merger or a partnership in these matters [1952, p. 456]." The sum of a person's social attributes is presumably determined by his level of social skills, his intelligence, his access to such material resources as money and prestige, his physical attractiveness, and his possession of other socially valued characteristics.

The hypothesis of matching in social choice was initially tested by Walster, Aronson, Abrahams, and Rottmann (1966), who formally derived their prediction from Level of Aspiration Theory (cf. Lewin, Dembo, Festinger, & Sears, 1944). They reasoned that one's romantic aspirations are influenced by the same factors that influence one's level of aspiration in other areas—the desirability of the goal and the perceived probability of attaining it. While socially desirable people ought to be preferred by everyone, the perceived probability of obtaining their attention and esteem ought to vary with the person's own social desirability. Thus, for romantic liaisons people should select, and like best, those of their own social desirability level.

To test their hypothesis, Walster *et al.* conducted a "computer dance" for college freshmen, where purchase of a ticket ensured a date for the dance. It was impossible for the investigators to make a precise determination of the "sum" of each student's social attributes, but they reasoned that scores on personality, intelligence, social skill, and physical attractiveness measures would provide an index. (Each student's physical attractiveness level was quickly and roughly assessed at the box office as he or she purchased a ticket to the dance.)

All the men and women who signed up for the dance were paired on a random basis with but one restriction. The informal but apparently cardinal rule of dating, that the man be taller than the woman, was never violated. It was hypothesized that those students who obtained, by chance, dates of their own social desirability levels (whether high or low) would like each other more than those who received dates whose social desirability levels were inferior or superior to their own.

It was fortunate that the investigators suspected that a student's physical attractiveness level might be an important component of each student's social desirability. Questionnaires which were administered at the intermission of the dance to determine how well the partners had hit it off revealed that the only apparent determinant of how much each person liked his or her date, how much he or she wanted to see the partner again, and (it was determined later) how often the man actually did ask his partner for subsequent dates, was simply how physically attractive the partner was. The more physically attractive the date, the more he or she was liked. Every effort to find additional factors which might possibly predict attraction failed. Students with exceptional social skills and intelligence levels, for example, were not liked any better than those less fortunately endowed.

The apparently inordinate importance of physical attractiveness as a determinant of attraction, at least in blind date settings, has been substantiated by other investigators. Brislin and Lewis (1968) found a correlation of .89 between the perceived physical attractiveness of a computer dance date and a desire to date the partner again; Tesser and Brodie (1971) found a correlation of .69 between these two variables. In both studies the partner's *perception* of the physical attractiveness of the date (physical attractiveness was not independently assessed) correlated higher with the "desire to date again" response than did any of the other perceived characteristics of the partner, including perception of "similar interests," "character," etc.

Although Walster *et al.* failed to find support for the matching principle—everyone seemed to prefer the highly attractive man or woman—subsequent investigators argued that the computer dance situation was not an optimal setting for test of the hypothesis. The matching hypothesis as derived from Level of Aspiration Theory predicts that an individual will choose a date of approximately his own level of social desirability when making a *realistic*, as opposed to *idealistic*, social choice. Realistic choices, according to Level of Aspiration Theory, are influenced not only by the objective desirability of the choice alternative (as in idealistic choices), but also by the individual's perception of his probability of attaining the goal. An underlying assumption of the matching hypothesis, then, is that people of lesser social desirability feel that they are likely to meet with rejection when they attempt to contact a person of higher social desirability.

Berscheid, Dion, Walster, and Walster (1971) reasoned that the salience of the possibility of social rejection by one's choice, while ever-present in most informal dating situations, was minimized in the Walster *et al.* computer dance setting. Dates had been assigned, and those who by chance secured more attractive dates than themselves were assured not only of social contact, but of the fruits of social courtesy norms for the duration of the dance. In addition, those who had achieved their ideal goal of a physically attractive partner may have shown more interest in *retaining* it than they might have shown in trying to *attain* it initially.

Berscheid *et al.* conducted two experiments to determine if the matching principle would reveal itself when the individual was required to actively *choose* a dating partner (rather than evaluate one already secured) and to discover if matching was especially likely when the salience of possible rejection by the chosen date was emphasized. In

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both experiments, the physical attractiveness of each S was independently assessed by judges, the salience of possible rejection by the dating choice was varied, and the physical attractiveness level of the date S desired was examined.

The results of both experiments found support for the matching principle. As in Walster *et al.*, physically attractive dates were markedly preferred by everyone. *Within* this general trend, however, it was clear that men and women of lesser attractiveness did tend to choose less attractive dates than did highly attractive individuals.

Both experimental attempts to ascertain whether the degree of matching would vary with the probability of acceptance or rejection by the chosen date failed. Ss in these experiments appeared to operate on the matching principle equally whether the possibility of acceptance or rejection by the chosen person was salient. Thus, although a matching effect was found, there was no evidence of its presumed mediator—high probability of rejection by those of higher social desirabilities.

A recent study conducted by Huston (1973), however, does demonstrate that men do perceive their chances of social acceptance to be less with attractive women and, further, that their subjective probability of rejection may influence attempts to approach them. Huston's Ss were asked to choose a date from an array of women representing three levels of physical attractiveness. Half of the men were assured that each of the women had previously indicated that she would accept a date with him; to the remainder, it was left unclear whether their chosen date would accept or reject them. As well as making their choices, the latter group was asked to indicate the likelihood that each woman would accept them as a date.

Huston found the ubiquitous effect that, overall, the men generally preferred to date the most physically attractive women. This was most pronounced, however, when they were assured of acceptance by them. Ss who were not guaranteed acceptance believed that the highly physically attractive women would be significantly less likely to want them as a date than would either the moderately attractive or the unattractive women. In addition, each man's rating of his own physical attractiveness level was related to perceived chance of acceptance by each of the potential dates. Those men who believed themselves to be highly attractive estimated their chances of acceptance as better than did those who considered themselves relatively unattractive.

Although Huston found no evidence that self-ratings of physical attractiveness corresponded to the chosen date's physical attractiveness level, others have demonstrated a positive relationship. Stroebe, Insko, Thompson, and Layton (1971), for example, found that men and women

who believed themselves to be unattractive were more likely to consi dating unattractive others, and less likely to consider attractive othe than were people who had a more favorable opinion of their physic attractiveness.

These studies indicate that while physically attractive men and women are strongly preferred in heterosexual dating relationships, within this overall tendency, a person's own physical attractiveness level acts as a moderating influence on date selection. Further, there is suggestive evidence that differential probabilities of rejection associated with attractive and unattractive dates mediate the matching effect.

B. Matching, *Fait Accompli*

If it is true that men and women of equal levels of social desirability tend to pair off in courtship and marriage, and if it is also true that one's degree of physical attractiveness plays an extremely important role in determining both a man and a woman's social desirability level, then couples who have formed viable affectional relationships should appear to outside observers to be of approximately equal levels of physical attractiveness.

The question of *fait accompli* matching was addressed by Silverman (1971), who examined the degree of similarity in attractiveness exhibited by couples observed in naturalistic dating settings. Teams of observers (two males and two females each) went to such dating habitats as bars, social events, and theater lobbies where they could watch couples unobtrusively. The couples, according to Silverman, were predominantly in the 18- to 22-year range and were unmarried. Each observer rated the dating partner of the opposite sex on a 5-point scale, independently and without knowledge of the ratings made by the other observers.

Silverman and his associates found an extraordinarily high degree of similarity in physical attractiveness between the dating partners. While the distribution of attractiveness scores of the men and women ranged from 1 to 5 in intervals of .5, Silverman found that for 60% of the couples, partners were not separated by more than half a scale point. For 85% of the couples, they were not separated by more than one scale point, and no couple was disparate by more than 2.5 scale points.

In addition to rating the physical attractiveness level of the dating partners, the observers recorded whether the couples engaged in intimate touching (such as holding hands, walking arm-in-arm, etc.) during the period of observation. Silverman hypothesized that couples more similar in attractiveness would seem to be happier with each other as reflected by their degree of physical intimacy. The data revealed that 60% of the couples who were highly similar in physical attractiveness level were

engaged in intimate physical contact of some kind, as compared to 46% of the moderately similar couples and 22% of those in the lowest similarity group.

Silverman's evidence of *fait accompli* matching along the physical attractiveness dimension is not as unequivocal as one would like. Despite the fact that observers did not know how the other observers rated the attractiveness of the other member of the dating pair, they did, of course, see the dating partners. Thus, it is possible that a "halo" emanating from one dating partner and influencing perception of the other may have produced artifactually similar ratings of dating pairs. This possibility seems especially cogent, since Sigall and Landy (in press) have recently demonstrated that the favorability of the overall impression a man makes on outside observers is affected by the physical attractiveness level of a woman with whom he is romantically associated. Although knowledge of romantic association did not specifically appear to affect the rating of the man's physical attractiveness level, the pervasiveness of its effect along a number of other dimensions suggests that the *fait accompli* matching hypothesis might be best tested under conditions in which attractiveness judges are not aware of who is paired with whom.

A further problem with Silverman's data is that no analyses were undertaken to determine whether the degree of matching observed was significantly above that which might be expected by chance. As Udry (1971) points out, "the frequency of distribution of individual ratings indicates that most individuals were rated between 2 and 4, with two out of three females and half of the men receiving ratings between 2.5 and 3.5. Under these circumstances, random matings would produce most similarly rated couples [p. 23]."

Murstein (1972), avoiding both these difficulties, examined the correspondence between the physical attractiveness levels of 99 couples who were engaged or going steady. The degree of matching exhibited by the dating couples was compared to that of a control group of couples which was formed by randomly pairing the physical attractiveness scores of the 99 men and women with each other. Photographs were taken of each of the dating couples, and ratings of the physical attractiveness of each member of each couple were made. According to Murstein, judges did not know which partner belonged to whom when they made their attractiveness judgments.

Murstein found evidence of matching along the physical attractiveness dimension; the physical attractiveness level of the engaged or steadily dating couples was significantly less discrepant than those of the artificially paired couples. Murstein concluded, "Individuals with equal market value for physical attractiveness are more likely to associate in an intimate relationship such as premarital engagement than individuals with disparate values [p. 11]."

C. Sex Differences in the Importance of Physical Attractiveness in Heterosexual Choice

The data provided by the preceding studies not only tend to support the matching hypothesis but indicate that physical attractiveness is of major significance for both sexes' dating choices. They also suggest that physical attractiveness may be of even more importance to men in making their dating choices than it is to women. Walster *et al.* (1966) devised a Self-Report Popularity index which included the questions "How popular are you with the opposite sex?" and "How many dates have you had in the last six months?" Physical attractiveness and popularity correlated .46 for women and .31 for men. Both coefficients are significantly different from each other, and both are significantly different from 0. Berscheid *et al.* (1971) also found a significant difference between men and women in the strength of correspondence between physical attractiveness and dating popularity. Physical attractiveness and number of dates within the past year correlated .61 for females; the correspondence for males was only .25.

These findings, which indicate that physical attractiveness is more strongly related to a woman's dating popularity than to a man's, are compatible with the results of several studies which have examined the factors college students report to be important in making dating choices (e.g., Coombs & Kenkel, 1966; Hewitt, 1958; Williamson, 1966; Vail & Staudt, 1950). Males, in comparison with females, consistently report that they place more importance on physical attractiveness in making dating choices. Whether these stated preferences are translated into action may be another matter. Byrne, Ervin, and Lamberth (1970) found that, although men reported that the physical attractiveness of their assigned date was a more important factor in determining their attraction for the date than women did, the date's physical attractiveness correlated .60 with the attraction responses of female Ss and only .39 for male Ss.

D. Summary

The investigators who went hunting for evidence of matching in social choice not only caught their quarry but found the imposing tracks of bigger game. If the "sum" of a person's social desirability in the dating and mating market were composed of a wide variety of components, each with its individual weight and unique mode of interaction with the other components, life would have been much more complex for the matching

researchers. The discovery that matching could be observed considering only the physical attractiveness component, as well as the repeated observance of large main effects in choice along the physical attractiveness dimension, provides consistent and convincing evidence that physical attractiveness is a factor which cannot be ignored in the prediction of date and mate selection.

III. Why Are the Physically Attractive Preferred?

To some people, the question of why physically attractive people are preferred to those of lesser attractiveness is naïve. To these individuals, the relationship between physical attractiveness and popularity, especially in the case of females and with respect to opposite-sex relationships, seems to be one of those God-given, and therefore self-evident, principles that needs no further scrutiny.

It might be noted, however, that the apparently overriding importance of physical attractiveness in adolescent dating situations could not have been anticipated from the results of studies in which young men and women have reported their perception of the factors which guide their personal date selections. While, as previously noted, men almost always rank physical attractiveness higher in importance than women do, it is by no means of major importance on all lists. In one of the first of such studies (Perrin, 1921), men stated that the physical attractiveness of others was a less important determinant of their attraction for them than were such characteristics as the person's "sincerity," "individuality," and "affectionate disposition."

Half a century has not changed the nature of these self-reports to any great extent. Tesser and Brodie (1971) asked male and female college students to rank the importance of "personality," "looks," "intelligence," and "character" as attributes of a date. The students indicated that a potential date's most important attribute was his or her "personality," followed by the date's "character," followed by "looks." "Intelligence" brought up the rear. Hudson and Henze (1969) found "dependable character" and "emotional stability" most highly valued (the highest ranking "good looks" received was only eleventh) and concluded from their comparison data that "the current college population has not departed significantly from values in mate selection held a generation ago [p. 772]." Miller and Rivenbark (1970) asked college men and women to judge the importance of physical attractiveness to them in each of eight interaction situations from "first meeting" through "marrying." Both men and women deemed physical attractiveness of only "moderate" importance in various settings. Comparing their results to those secured in the matching hypothesis studies, these investigators concluded that college students "are either not fully aware or not fully honest about how important physical attractiveness really is to them [p. 702]."

Thus, while the notion that a person's physical attractiveness is the sum total or even the principle component of what he or she has to offer in social interaction with the opposite sex does not seem strange to some, it is incongruent with our collective assertion that others generally win or lose our affections on the basis of nonappearance attributes. The extensive documentation of other factors as important antecedents of attraction (e.g., social support, esteem, common interests and attitudes) also failed to telegraph the importance of this appearance variable.

Why *should* physical attractiveness be such a commanding determinant of heterosexual attraction? A number of tentative hypotheses may be advanced.

A. Social Learning

One possible explanation for the importance of physical attractiveness as a determinant of heterosexual attraction may reside in the cultural norms applicable to sexual romantic behavior. It may be that our culture dictates that the only appropriate targets for dating relationships and for romantic involvement are people who are highly attractive physically. Few advertisements or popular movies and novels depict romantic protagonists of mundane levels of physical attractiveness. The principals are either of Lancelot and Guinevere quality, or else the plot revolves around the "pathetic" and unrequited love of a Quasimodo for an Esmerelda. Effectively conveyed in both instances is the cultural dictum that we are supposed to exhibit the responses of sexual attraction and romantic love only to physically attractive stimuli. Those who feel great romantic affection for a person at the low end of the attractiveness continuum frequently expect to be the subject of quizzical glances and even to be interrogated about their rationale for involvement.

B. The "Rating and Dating" Complex

Another possible explanation of the lure of physically attractive men and women in dating relationships was advanced by the sociologist Waller (1937), who asserted that there is a great deal of prestige value to be gained from association with an attractive person. Waller hypothesized that people may wish to interact with certain others, not for rewards intrinsic to the relationship, but for external rewards which may be obtained from one's "public." He also contended that college dating in the late 1920's functioned as a poor preparation for marriage because dating selection was made along "competitive-materialistic" dimensions which were irrelevant to harmonious marriage relationships.

According to Blood (1956), Waller's article on the "rating and dating

complex" left a deep impression upon the minds of American educators. Perhaps it is for this reason that a sigh of relief can be detected in Blood's announcement that "Waller's 'competitive-materialistic rating complex' is no longer applicable to college campuses [p. 37]." Unfortunately, he reached this happy conclusion from evidence that University of Michigan students "universally applauded" pleasantness, cheerfulness, sense of humor, good sportsmanship, and other sterling qualities in reporting their personal dating preferences. Evidence that the spectre of "competitive-materialism" has not yet vanished from the campus is provided by Rogers and Havens (1960), whose data "indicate that students follow prestige lines at all stages in the mate selection process . . . [p. 59]," in casual dating as well as in serious mate selection.

If it is true that the prestige value of another is a consideration in date selection, a recent study by Sigall and Landy (in press) suggests that the physically attractive have yet another advantage in the dating marketplace. Sigall and Landy's *Ss* saw a male stimulus person with a woman who was made to appear either extremely attractive or quite unattractive. The woman was presented as the man's girl friend to half of the *Ss*; to the remainder, it was made clear that the woman had no connection with the man, romantic or otherwise. *Ss* were asked to state their "overall impression" of the man, to indicate how well they thought they would personally like him, and to rate him on a number of personality scales.

Sigall and Landy found that, when the man appeared to have a good-looking girl friend, he elicited the most favorable overall impression from the outside observers; when his girl friend was homely, he was viewed most negatively overall. When, however, the man appeared to be unassociated with the woman, her attractiveness did not appear to influence the impression he made. Essentially similar results were found on the liking item.

Sigall and Landy concluded that it is not only better to be associated with a beautiful girl than not to be associated with her, but being associated with an unattractive girl tends to detract from the favorableness of the overall impressions a man makes. Thus, Sigall and Landy's results suggest that, if it is true that people often wish to associate with certain others for prestige reasons, the belief that association with a physically attractive person will enhance one's prestige may have some basis in fact.

C. The Physical Attractiveness Stereotype

Folk psychology has always contained a multitude of theorems which ostensibly permit the forecast of a person's character and personality simply from knowledge of his outward appearance. The line of

deduction advanced by most of these physiognomic theories is simply "What is beautiful is good . . . [Sappho, Fragments, No. 101]," and "physical beauty is a sign of an interior beauty, a spiritual and moral beauty . . . [Schiller, 1882]."

If the existence of such physiognomic theories reflects the personality and characterological inferences people generally make on the basis of appearance, then it is possible that people prefer to associate with physically attractive others for yet another reason. Despite such adages as "You can't judge a book by its cover," perhaps we tend to believe that physically attractive people are also highly intelligent, highly personable individuals who can better reward us in association than can unattractive people. If so, the potency of physical attractiveness as a determinant of attraction is not limited to opposite-sex dating and mating pairs, but is a factor to be reckoned with in like-sex attraction and perhaps attraction across disparate age groups as well. A number of investigators have attempted to determine if a physical attractiveness stereotype exists and, if so, to identify the content of this stereotype.

Dion, Berscheid, and Walster (1972) hypothesized that physically attractive stimulus persons, both male and female, are generally assumed to be more likely to possess socially desirable personality traits and are expected to lead more successful lives than are unattractive persons. To test these hypotheses, men and women were asked to examine three photographs and rate them along a number of dimensions. Half received photographs of women who varied in physical attractiveness; the remainder received pictures of men. *Ss* were told that their inferences would be scored for accuracy.

Dion *et al.* found that the expectations of men and women concerning the personality characteristics possessed by physically attractive people were virtually the same; the stereotype was not substantially different for male and female *Ss*. Moreover, this was true whether male or female stimulus persons were judged; the content of the physical attractiveness stereotype did not appear to differ by sex of the stimulus person. Attractive people of both sexes were expected to be more likely to possess almost every personality trait which had been determined to be "socially desirable" in a preliminary study. Physically attractive people, for example, were perceived to be more likely to be sexually warm and responsive, sensitive, kind, interesting, strong, poised, modest, sociable, and outgoing than persons of lesser physical attractiveness. They were also seen more likely to be "exciting dates," to be "nurturant" individuals, and to have "better character" than persons of lesser attractiveness.

The men and women were asked not only to estimate the personality

characteristics of people simply from their appearance, but to report what they believed fate held in store for each of the individuals depicted. Subjects predicted that, as well as possessing attractive personalities, the occupations of physically attractive individuals would be more prestigious, as husbands and wives they would be more competent, and they would have happier marriages than would the less attractive individuals. All in all, attractive people were expected to have better prospects for happy social and professional lives and were expected to lead more fulfilling lives in general than were the unattractive. On only one of the dimensions investigated were attractive people not seen to excel those of lesser attractiveness. Specifically, they were not expected to be better parents, and in fact their potential parental competence was rated somewhat lower (although not significantly so) than that of unattractive men and women.

The results of the portion of the Dion *et al.* study concerning the favorability of personality inferences made on the basis of appearance corroborate those obtained by Miller (1970a). Miller asked college men and women to record their impressions of a person depicted in a photograph (who had been previously determined to be of high, medium, or low physical attractiveness) on the Jackson and Minton (1963) Adjective Preference Scale which consists of 17 different dimensions (e.g., passive versus active, rigid versus flexible). Miller found significant effects for physical attractiveness on 15 of the 17 dimensions for both male and female judges. Although it was not independently determined which pole of each dimension was associated with social desirability, on an intuitive basis Miller concluded, "A consistent pattern emerges, that of the unattractive person being associated with the negative or undesirable pole of the adjective scales and the highly attractive person being judged significantly more positively [p. 242]."

In addition to the effect of physical attractiveness, Miller found that the sex of the stimulus person influenced Ss' perceptions, usually in a way that reflected sex-role stereotypy. Both female and male judges, for example, perceived female stimuli as more "submissive" than male stimuli, regardless of physical attractiveness level.

More interestingly, and unlike Dion *et al.*, Miller found that the physical attractiveness of the stimuli interacted with the sex of the stimulus person in affecting how the person was perceived on a number of dimensions. Such interactions, between the physical attractiveness level and the sex of the stimulus person, may signal that future investigation will reveal that the physical attractiveness stereotype for women differs in substance from the physical attractiveness stereotype for men. These interactions might also, of course, merely indicate that the physical attractiveness stereotype differs in degree, rather than form, as a function of the sex of the stimulus person (cf. Campbell & Stanley, 1963, p. 29; Glass & Stanley, 1970, pp. 410–411). If the latter is the case, it may be most parsimonious to postulate a general physical attractiveness stereotype as evidenced by a physical attractiveness main effect than to focus on associated interaction effects. Although Miller did not attempt to ascertain whether the interactions he obtained reflected a change in form or degree, Byrne, London, and Reeves (1968, p. 266) have reported an interaction reflecting a change in form, and consequently evidence for sex-specific stereotypes. For male stimuli, attributed intelligence and morality *decreased* as a function of physical attractiveness while it *increased* for female stimuli.

Subsequent studies might focus directly upon whether or not the physical attractiveness stereotype does indeed differ in substance by sex of stimulus person. In this regard, Miller makes a provocative suggestion concerning the likely nature of such interactions. His examination of the effects of the sex of the stimulus person at each attractiveness level revealed that, while there were significant differences between the sexes on only seven variables at the high attractiveness level, there were 20 significant differences between male and female photographs at the moderate level and 18 at the low attractiveness level. Miller concludes, "It appears that as one departs from high physical attractiveness, the stimulus person's sex becomes the more influential impression determinant [p. 242]." These data suggest that the physical attractiveness stereotype is most strong at high levels of attractiveness. Miller speculates, therefore, that, as attractiveness level decreases, the number and strength of inferences that are typically made from a person's appearance may decrease, and other factors, such as the sex of the stimulus person and perhaps his behavior, may play a larger role.

The results of the stereotype studies suggest that a physical attractiveness stereotype exists and that its content is perfectly compatible with the "What is beautiful is good" thesis. Not only are physically attractive persons assumed to possess more socially desirable personalities than those of lesser attractiveness, but it is presumed that the beautiful attract the world's material benefits and happinesses as well. It is perhaps not surprising, then, that Miller (1970b) has found that persons low in physical attractiveness are perceived to be more external along Rotter's internal–external control dimension than those either high or moderately attractive in appearance. This suggests, according to Miller, that "physically attractive individuals are likely to be perceived as masters of their fate, as individuals who behave with a sense of purpose and out of their own volition, whereas unattractive individuals are more

likely to be seen as coerced and generally influenced by others or by environmental conditions [p. 108]." Apart from the other implications of the stereotype for interpersonal attraction and for social influence situations, this particular perception should affect the kinds of inferences people generally make about the motivations underlying the acts of attractive or unattractive persons (cf. Jones & Davis, 1965).

D. Physical Attractiveness and Other Determinants of Interpersonal Attraction

The underlying theme of interpersonal attraction research is that we like those who reward us, and the more they reward us the better we like them. It is clear that physically attractive people are probably perceived to be more capable of giving others the fruits of an exemplar personality. Other factors have documented reward value, however, and some investigators have been interested in the potency of these variables versus the potency of physical attractiveness in generating attraction.

1. Similarity

One reward which has received a great deal of attention in the attraction literature is attitude similarity. The relationship between the attitude similarity of a pair and their attraction for one another has been extensively explored by Byrne and his associates (1971). The positive relationship between similarity and attraction has appeared to be so stable that a precise linear function between them has been hypothesized. The extensive documentation of the reliable relationship between similarity and attraction, on the one hand, and evidence of the relationship between physical attractiveness and opposite-sex dating choice, on the other, has led a number of investigators to attempt to contrast the power of physical attractiveness and attitude similarity to produce esteem.

One of the first studies to examine the impact of both physical attractiveness and attitude similarity in a single setting was conducted by Byrne, London, and Reeves (1968). College students received an attitude questionnaire, ostensibly completed by a stranger, and were instructed "to form an opinion of the person on the basis of his or her attitudinal responses." The scales varied with respect to the similarity or dissimilarity of the stranger's attitudes to the S's own, and to each scale was attached a picture of either a physically attractive or unattractive male or female.

Byrne *et al.* found that both the stranger's physical attractiveness and his degree of attitude similarity affected the extent to which Ss were attracted to him. Physical attractiveness did not significantly interact with the Ss' sex, the strangers' sex, or degree of attitude similarity in producing liking for the stranger.

Byrne *et al.* also reported that, "In correlational terms, the proportion of similar attitudes correlates .50 ($p < .001$) with the attraction responses, while the physical attractiveness ratings correlate .15 ($p < .05$) with attraction [p. 265]." Although this finding has been subsequently cited by other investigators as suggesting that, when pitted against each other, attitude similarity may be a more potent a determinant of interpersonal attraction than physical attractiveness, a number of factors mitigate this conclusion. Among those intrinsic to the study are, first, that Ss were explicitly instructed to form their impressions on the basis of the stranger's attitudinal responses, perhaps implicitly implying that they should try to ignore the appearance of the stimulus person. Second, the pictures were only Xeroxed reproductions of yearbook photographs. Presumably the physical attractiveness level of the person was not as easily discernible, and did not have the impact it would have had, had colored photographs been used or, of course, if the stimulus person had been actually present.

The results of an experiment conducted by Byrne, Ervin, and Lamberth (1970), in which opposite-sex pairs actually went on a "coke" date, corroborate those of Byrne *et al.* (1968). The physical attractiveness level of each participant was assessed, and dates were assigned such that half of the Ss received a dating partner whose attitudes were similar to their own and half received attitudinally dissimilar dates. (Ss were informed of the existence of attitude similarity or dissimilarity with their partner prior to the date.) In this study, Byrne *et al.* did not attempt to ascertain the relative potency of physical attractiveness and similarity in producing attraction, but both the date's degree of attitude similarity and his or her physical attractiveness significantly affected how much he or she was actually liked.

Stroebe, Insko, Thompson, and Layton (1971) also investigated the effect of physical attractiveness and attitude similarity, along with sex of S, on attraction. As in Byrne *et al.* (1968), a stranger's attitudinal questionnaire, which varied along the similarity–dissimilarity dimension, was presented to Ss. Attached to the questionnaire was a picture of a person who had been previously determined to be of high, medium, or low physical attractiveness. Ss were asked to indicate their liking for the stimulus person, their preference for working with him, the likelihood that they would consider him for a date, and the likelihood that they would consider marrying him or her.

These investigators found, as expected, that both similarity and physical attractiveness significantly affected responses to all four de-

pendent variables. Ss liked more, preferred to work with, and were more likely to consider as a dating or marriage partner similar rather than dissimilar, and attractive rather than unattractive, others. On the working, dating, and marrying dependent variables, the effects of physical attractiveness were stronger for males than for females (although attractiveness did have a significant effect for females on all three of these dependent measures). Relative to females, males appeared to be less influenced by similarity when physical attractiveness was high and almost equally influenced by similarity when physical attractiveness was low.

Stroebe *et al.* also found that the relative impact of these two variables may depend upon the type of social interaction a person expects to have with another. Contrasting the impact of similarity and physical attractiveness on pairs of the dependent measures, Stroebe *et al.* found that similarity had a greater effect on marrying than on working, and a greater effect on liking than on dating; physical attractiveness had a greater effect on dating than on marrying, and on dating than on liking. The marrying versus dating and the dating versus liking effect for physical attractiveness was greater for males than for females.

Despite these research efforts which appear to demonstrate that both physical attractiveness and attitude similarity play their predicted and independent roles in generating heterosexual attraction, one cannot be confident that the precise manner in which these two variables operate in naturalistic situations has been determined. One major obstacle to extrapolation from these laboratory findings to naturalistic settings is the immediate presentation of large blocks of similarity–dissimilarity information, prior to interaction, in the former, and the gradual unfolding of such information in the latter. A gradual disclosure of similarities and dissimilarities may permit other variables to influence not only how much dissimilarity is revealed at any point in time, but the interpretation of what is disclosed. As Byrne *et al.* (1970, p. 158) point out, two interacting individuals may never get around to discussing areas of similarity (or, more likely, dissimilarity). Whether similarities or dissimilarities are revealed is undoubtedly influenced by other variables, including physical attractiveness which is omnipresent from the beginning of interaction.

Thus, the question arises of how independent are the two "independent" variables—perceived degree of attitude similarity and physical attractiveness. While Byrne, London, and Reeves (1968) were attentive to this point and reported a correlation of $-.04$ between the two variables in the context of their own study, other investigators have not examined how perception of the one factor may influence perception of the other.

Studies conducted in naturalistic dating situations, in which Ss are

asked to report both the degree of attraction they feel to the date with whom they were randomly paired and their perception of the date's characteristics, provide some support for the proposition that perceived similarity is positively associated with physical attractiveness. Tesser and Brodie (1971) asked their computer dance Ss to report the specific activities, and also the broad interests and attitudes, which they discovered they had in common with their dates. Both the number of specific activities and the number of common interests and attitudes correlated significantly with liking for the date (.46 and .56, respectively), as did the physical attractiveness level of the date (.69). A similar finding was reported by Brislin and Lewis (1968). Perceived physical attractiveness correlated .89 and perceived similarity of interests correlated .64 with a "desire to date" criterion. It seems probable, then, that physical attractiveness and perceived similarity are related to each other.

These data, which suggest that the two factors may go hand in hand, do not reveal the direction of influence; a similar person may be thought more physically attractive than a dissimilar person, and/or a physically attractive person may be perceived to be similar. The first hypothesis was supported by Walster (1971), who placed students in discussion groups with other students who represented a range of political views along the "radical–conservative" dimension. When asked to judge the physical attractiveness of the group members after the political discussions had taken place, students indicated that those who shared their political views were more attractive physically than those who didn't. There is also evidence to support the second hypothesis—that a physically attractive person may be perceived as similar (e.g., Cavior & Dokecki, 1972; Sappenfield & Balogh, 1970).

Thus, a mutual influence between physical attractiveness and attitude similarity seems likely, although the immediately visible nature of the one and the emergent quality of the other suggest that physical attractiveness may have more impact, at least for a time, than degree of attitude similarity. Since physical attractiveness is immediately perceived, and since association with physically attractive people may be desired on a variety of grounds, one might expect that care is taken to guide the discussion toward areas of potential agreement in interactions with physically attractive people. Such a process may explain the results of a study conducted by Levinger (1972). Levinger examined changes in pair attraction in courting couples and found no significant association between the partners' actual attitude similarity at the time of initial similarity assessment and the partners' affection for one another 12 months later. Unfortunately, perceived attitude similarity was not examined. It may be the case that other factors, such as desire for the

other's esteem, may affect the kinds of attitudes which are expressed in interaction and, thus, perception of similarity. This perception may, in turn, generate even more attraction.

2. Esteem

Another type of reward which produces attraction is esteem; people like those who like them. There is preliminary evidence that physical attractiveness level may mediate assumptions of liking. Berman and Brickman (1971) randomly assigned Ss to either a date who was attractive (as indicated by a photograph of a physically attractive person and an accompanying questionnaire the person had completed in a socially desirable manner) or an unattractive partner (unattractive photograph and a socially undesirable questionnaire). After receiving their matches, Ss were asked to send their date a special message in the form of 10 adjectives which would give the partner some feedback concerning what the S thought of him. Each S subsequently received an ambiguous message, allegedly from his match, and on the basis of this information made an estimate of how much his date liked him. Those Ss who received attractive dates perceived that their dates liked them significantly more than did Ss paired with the unattractive match. This was true despite the findings that (*a*) Ss in this study claimed that they required more favorable evidence from the attractive dates than from the unattractive, before making an attribution of liking; and (*b*) Huston (1973) found that, *before* interaction, Ss assumed that the acceptance of beautiful people would be harder to obtain than would the acceptance of unattractive people.

Thus, the positive covariation between physical attractiveness and attraction may be mediated, at least in part, by a series of processes in which (*a*) another's physical attractiveness influences the S's perception that he is accepted and the perception that the other is similar; (*b*) perceived acceptance affects assumed similarity and vice versa; and finally (*c*) perceived acceptance and similarity determine attraction. While the second and third links in this chain have been extensively investigated, the first, involving the relationship between physical attractiveness and attributed acceptance and similarity, is largely unexplored.

E. Summary

The finding that the physically attractive are strongly preferred in heterosexual dating situations is less startling when evidence concerning the perception of physically attractive people is examined. Not only may it be the case that the physically attractive are preferred simply for their esthetic appeal (Josselin de Jong, 1952), but our culture undoubtedly

provides norms which dictate that the physically attractive are the most appropriate targets for sexual and romantic involvement. Further, one may increase one's own prestige and the favorableness of the impression which one makes on others by association with a physically attractive person of the opposite sex. Additionally, it is clear that a physical attractiveness stereotype exists; individuals tend to assume that physically attractive people possess ideal personalities, will gain occupational success, and will lead happier lives than the unattractive. It is also possible, although more evidence needs to be gathered on these issues, that people assume that the physically attractive person will like them more and is more similar to themselves than an unattractive person.

IV. Who Is Physically Attractive?

Who are the beneficiaries of the cultural norms regulating sexual and romantic behavior? What physical characteristics entitle a person to the legacy of the physical attractiveness stereotype? The question of who is physically attractive, and why, is one that has fascinated novelists, poets, and street-corner pundits for centuries. Unfortunately, the popularity of the question is not reflected in the definitiveness of available answers.

A. Characteristics of Attractive Stimuli

It has been said that "Except for some arbitrary beauty-contest conventions about 'ideal' female dimensions, we know less about attractive stimuli for man than we do about those for fish [Hochberg, 1964]." Although the topic has received scientific attention, authors of serious treatises are frequently reduced to gaping at the dazzling variety of characteristics which men, in sundry societies and historical times, have valued in the appearance of others. A few intrepid analysts (e.g., Bain, 1868) have attempted to order the chaos and to advance theories of beauty in man, but without conspicuous success.

The matter is not without import. Preliminary to considering the consequences to the human race of mate selection on the basis of physical attractiveness, Charles Darwin observed:

> No excuse is needed for treating this subject in some detail; for, as the German philosopher Schopenhauer remarks, "The final aim of all love intrigues, be they comic or tragic, is really of more importance than all other ends in human life. What it all turns upon is nothing less than the composition of the next generation. . . . It is not the weal or woe of any one individual, but that of the human race to come, which is here at stake [1871, p. 323]" [1952, p. 578].

From his personal survey of the beauty standards of various tribes and societies throughout the world, Darwin concluded, "It is certainly not true that there is in the mind of man any universal standard of beauty with respect to the human body [p. 577]." Thus he reasoned that the effect of sexual selection on the basis of physical attractiveness, while of consequence to a single society, would be attenuated for the human race as a whole.

With the advent of twentieth century communications technology, the emergence of the "global village," and the apparent imperialism of Western standards of attractiveness, the conclusion Darwin reached in the late 1800's may be increasingly less justified in the years to come. Geneticists may thus wish to revive interest in the issue of the consequences of selection on the basis of beauty, particularly since many of the factors which Darwin posited as checks to the consequences of selection on the basis of physical attractiveness are no longer operative (e.g., betrothals in infancy, female infanticide). The consequences of matching along the physical attractiveness dimension, an effect observed within the overall tendency to prefer the physically attractive, are also a mystery, although a matter of current interest to some (cf. Vandenberg, 1972).

Identification of the physical characteristics considered attractive in Western culture, or in any other, seems a hopeless task. A "piecemeal" analysis (such as that devised by Finck [1891], who began his dissertation with the "Evolution of the Great Toe" and slowly proceeded upward) is not likely to be fruitful. It is the total Gestalt which is important, as Murstein has effectively argued (1971, p. 14).

Despite the probability that people respond to characteristics in combination, to the complete configuration, one individual characteristic which may account for a fair portion of attractiveness variance, particularly in men, is height. This factor has been neglected by those studies in which facial portraits of a stimulus person's attractiveness have been used for evaluation and those in which full-body photographs have been used, but no guides to height judgments have been provided. If it is true that height is an important component of the attractiveness of men, one might expect that judges' ratings, made in the absence of knowledge of height of the stimuli, would show lower validity (and, in some instances may partially account for the low male correlations between attractiveness and other variables, such as popularity).

Testimony that height is a valued characteristic for men in our society comes from a variety of sources. Feldman (1971), for example, presents a good deal of anecdotal evidence to support his contention that "American society is a society with a heightist premise: To be tall is to be good and to be short is to be stigmatized [p. 1]." Feldman cites two surveys reported in the *Wall Street Journal* which indicate that the short man is penalized along economic dimensions. In one, a survey of recent University of Pittsburgh graduates revealed that the taller students (6'2" and over) received an average starting salary 12.4% higher than those who were under 6 feet in height. In the other, as part of an eastern Michigan university marketing survey, 140 recruiters were asked to make a hypothetical hiring choice for a sales job between two equally qualified applicants, one 6'1" tall and the other 5 feet. Seventy-two percent "hired" the tall man, 27% expressed no preference, and 1% chose the short one.

Experimental evidence that height is valued is also provided by the fascinating results of a study conducted by Wilson (1968). Wilson introduced a "Mr. England" to a series of classes of college students. With each introduction England's status changed: To one group he was "Mr. England, a student from Cambridge"; to a second, he was "Mr. England, a demonstrator in psychology from Cambridge"; to the third group, "Mr. England, a lecturer in psychology from Cambridge"; to another, "Dr. England, senior lecturer from Cambridge"; and finally, "Professor England from Cambridge."

After England had departed, the students were asked to estimate his height to the nearest one-half inch, "since the class would need some data on which to practice statistical tests." The results indicated that, as Mr. England climbed the academic ladder of success, he gained a full 5 inches in the eyes of the students. The course director, whose height the students also estimated, remained the same in perceived height. These results support those of Dannenmaier and Thumin (1964), who also found a significant relationship between authority status and perceptual distortion of size, and of Koulack and Tuthill (1972), who found that, as social distance (as determined by the Bogardus Social Distance Scale) decreased, perceived height increased.

Feldman notes that height appears to be an important aspect of the American political scene: "It is not by chance that every American president elected since at least 1900 has been the taller of the two major political candidates [p. 2]." A number of investigators would agree. They have found evidence that a politician's height is related to the attraction others feel for him (e.g., Kassarjian, 1963; Ward, 1967; Berkowitz, Nebel, & Reitman, 1971).

Finally, as Feldman points out, short men may have special dating and courtship problems. It is exceedingly curious that, despite the voluminous literature on the determinants of date and mate selection, no investigation has focused upon the fact that a cardinal principle of date selection is that the man must be as tall or taller than the woman. So

accepted is this rule that even those who revere the virtues of random assignment do not dare to trespass it in the assignment of dating partners (e.g., Walster *et al.*, 1966; Byrne *et al.*, 1970). Thus, it is clear that short men and tall women have a restricted "field of eligibles" within which to find a satisfactory date or mate. This unfortunate consequence is reflected in the differential concern adolescents appear to have about their height. According to Stolz and Stolz (1951), when adolescent boys are worried about their stature, they are disturbed by their shortness; when girls are worried about their stature, they worry about their tallness.

As well as height, other body-type characteristics may account for attractiveness variance. One factor which might profitably be the subject of investigation is Sheldon's body-type classification. The extent to which differential levels of physical attractiveness are consistently associated with each type of physique, and the degree to which the operation of the physical attractiveness stereotype can explain the low but significant correlations between body-type and temperament, have not received attention (cf. Anastasi, 1958). Preliminary evidence that high ratings of physical attractiveness may be associated with mesomorphy and low ratings with ectomorphy and endomorphy might serve as a point of departure (Cavior, 1970; Staffieri, 1967).

B. Socioeconomic Status

The question of who is physically attractive raises the issue of the possible relationship between physical attractiveness and socioeconomic status. It seems reasonable to suppose that socioeconomic level should be positively related to physical attractiveness, not simply on the basis of differences in accouterments such as hair style and dress, but even in more basic qualities related to nutritional and medical care differences. Elder's (1969) finding that middle-class girls were judged more attractive than girls from the working class with respect to physique, sex appeal, grooming, and overall appearance is consistent with this view, as are a variety of data presented by Sorokin (1959).

Other lines of deduction also point to a positive relationship between physical attractiveness level and socioeconomic class. Some investigators have found a relationship between a woman's physical attractiveness and her upward class mobility (e.g., Illsley, 1955; Elder, 1969). Elder found that mobile women from the middle and working classes, defined in terms of whether their husband's social rank exceeded their premarital social rank, were rated significantly higher in adolescence on attractiveness of physique, sex appeal, and overall appearance than nonmobile women of similar class origin. He also concluded that attractiveness had a direct influence on the likelihood of marriage to a man of higher status and was relatively independent of educational attainment and its determinants.

Biologists such as Trivers (personal communication, 1972) have pointed out that the effect of physically attractive lower-class girls being differentially and upwardly mobile, acting over time, would tend to bring about a genetic difference in physical attractiveness between socioeconomic classes. The question of whether other variables are genetically linked to the morphological is of interest in the context of the possibility of genetically determined morphological differences between the classes.

C. Consensus among Judges

While an answer to the question of who is physically attractive is neither available currently nor foreseeable on the immediate horizon, physical attractiveness research has not been inhibited to any great extent. Researchers, without exception, have used the "truth by consensus" method to determine the physical attractiveness level of a stimulus person. If a significant number of "judges" designate a person as physically attractive, then that person is defined as physically attractive. Whether it was the dimple on the chin which the judges were responding to, whether more redheads than brunettes were classified as attractive, is not typically a matter of concern.

Physical attractiveness ratings of stimuli, usually photographic and often facial, generally have been obtained from both male and female judges. When certain of the stimuli are to be selected as representative of a particular attractiveness level, judges are frequently asked to sort a pile of photographs into a forced normal distribution along the attractiveness continuum (e.g., Byrne *et al.*, 1968; Miller, 1970a). Both the mean and the standard deviation obtained for each photograph are taken into consideration in the selection of representative stimuli; those stimuli to which judges exhibit the most consistent responses are selected.

The results suggest that it may be unwarranted to despair at the idea of analyzing human beauty. Despite the frequently heard assertion that individual differences in criteria for physical attractiveness are impossibly vast, and that beauty is entirely in the eye of the beholder, people typically show a good deal of agreement in their evaluations of others.

Even when judges are not forced to distribute their ratings along the attractiveness continuum, a fairly wide range of physical attractiveness ratings is obtained and there is a good deal of consensus among judges, both male and female. A study conducted by Kopera, Maier, and Johnson (1971) is typical. Preliminary to the test of their hypotheses,

introductory psychology college students between the ages of 18 and 22 rated the facial photographs of 84 Caucasian female seniors, none of whom was wearing eyeglasses. (Researchers consistently eliminate the "eyeglass factor," perhaps reflecting Dorothy Parker's belief that visual aids automatically relegate one to the low end of the attractiveness continuum.) Each photograph was projected on a screen for 10 seconds, and Ss were asked to rate each picture on a 7-point scale of attractiveness. Kopera *et al.*'s analyses "demonstrated that there were no significant differences between males and females on the ratings they gave to the same pictures [male–female $r = .93$], but the different pictures were given consistently different ratings [p. 317]." These findings may come as a surprise to those observers who have assumed that men and women never agree as to who is esthetically or sexually attractive.

Other investigators have also reported the absence of significant sex of judge effects and fairly high reliability in evaluating the attractiveness of stimuli. Murstein (1972), for example, found a correlation of .80 between panels comprised of either male or female judges, and an inter-panel reliability coefficient of .91 when sex of judge was disregarded. Berscheid *et al.* (1971) report an average inter-judge correlation of .70, similarly disregarding judge's sex. A good deal of consensus is also exhibited by younger judges. Cavior and Dokecki (1971) found correlations ranging from .82 to .98 between peer attractiveness rankings made by panels of fifth and eleventh grade boys and girls. Reliabilities obtained in naturalistic situations, in which individuals are rated in the flesh rather than as depicted in photographs, are lower than those obtained in laboratory settings using photographic stimuli, but are still respectably high considering the complexity of the stimuli and the severely restricted time in which judges are typically required to make their ratings (e.g., Berscheid *et al.*, 1971; Walster *et al.*, 1966).

In virtually all studies, the judges selected were of the same age, education, and approximate socioeconomic status as the judged stimulus persons. In most, of course, college students have judged the attractiveness of college student stimuli. There are two exceptions. The first is a study conducted by Iliffe (1960) in Great Britain. Several thousand readers of a national daily newspaper ranked for "prettiness" 12 photographs of women's faces, taken in uniform conditions and selected "to provide as great a range as possible of types (i.e., in shape of face, colouring, slope of eyes, etc.) [p. 268]." The photographs, further, represented a narrow range of attractiveness levels and included "none which could be called . . . either 'very beautiful' or 'plain' [p. 273]." Iliffe found that attractiveness preferences remained strikingly constant regardless of the age grouping, geographical region, or the socioeconomic class of the respondent.

A second exception is provided by Cross and Cross (1971), who examined the effect of age, sex, and race on the perception of facial beauty. Judges were black and white, male and female, and of four age levels: 7 years, 12 years, 17 years, and adult. Evaluations were made of facial photographs of males and females, blacks and whites, of three age levels: second graders, high school seniors, and adults.

There were no effects due to the age of the judge, nor were there any interactions between the age of the judge and any of the other independent variables, providing further evidence that standards of facial physical attractiveness do not differ by age. Cross and Cross did find, however, sex differences and race differences, and interactions between these two variables, in the perception of beauty. Females appeared to rate all but adult male faces higher than did males; blacks gave higher ratings than whites, with white males comparatively downrating females and white females downrating males; female faces were found more attractive than male; white faces were judged more attractive than black ones. And, consistent with the speculation that we have a female- and youth-oriented culture in the perception of beauty, female faces and adolescent faces received higher ratings than the other sex and age groups.

Cross and Cross also reported, "The most popular face in the sample was chosen as best of its group of 6 by 207 judges but there was no face that was never chosen, and even the least popular face was picked as *best* of its group [of six portraits similar in age, sex, and race] by four subjects [p. 438]." Thus, although people appear to show a great deal of agreement overall in what they find attractive in the appearance of others, the poetic hope that anyone can be found beautiful by someone seems also to be substantiated by the available data.

D. Factors That May Influence Ratings

Despite a generally high degree of agreement about who is attractive or unattractive, there are undoubtedly individual differences in preference for persons of one appearance or another. Many of these may correspond to the personality, background, and experiential variables of the individual making the evaluation (e.g., Wiggins, Wiggins, & Conger, 1968), others may correspond to the relationship between the judge and the stimulus, and still others to the situation in which the judgment is made.

In all the studies previously cited as demonstrating consensus, the persons rated for physical attractiveness were strangers to the judges. As one might expect, people who have had a history of interaction with the person judged may perceive his physical attractiveness level somewhat differently than would those who do not know him.

Data on the effect of "knowing" versus "not knowing" the stimuli to be rated is provided by Cavior (1970). Fifth- and eleventh-grade boys and girls were asked to rate the physical attractiveness of their classmates who were depicted in photographs. Each photograph also received a physical attractiveness rating from student judges who were of the same age level as the stimulus person but who attended a different school and did not know the child depicted. The former group of judges were designated as "Knowers," the latter as "Non-Knowers." Seventy percent of the fifth-grade Knowers had attended the same school together, in the same class, since the first grade, and none had been in the class less than nine months; most of the eleventh-grade Knowers had also known each other for many years, and none of them had been in the class for less than nine months.

Cavior found that, while judgments of physical attractiveness were highly reliable for all groups of judges (whether Knower or Non-Knower and whether male or female), there was greater agreement among Non-Knowers than among Knowers. In addition, Knowers, whether male or female and whether judging males or females, appeared to use the "handsome" and "pretty" categories significantly more, and the "ugly" categories significantly less, than did the Non-Knowers.

Reminiscent of Miller (1970a), Cavior hypothesized that the Knowing variable would have the greatest influence on judgments of the physical attractiveness of "average-looking" stimuli (as defined by strangers), compared to those at either extreme. Tests of this hypothesis revealed that, indeed, the largest discrepancies in evaluations of physical attractiveness between the Knowers and the Non-Knowers were for the stimuli of average attractiveness. The difference obtained between stimuli of average attractiveness and stimuli in the combined "most" and "least" attractive groups was significant for both the fifth graders and the eleventh graders. Thus, Cavior's data suggest that, whatever factors emerge in interaction to influence perception of another's physical attractiveness, they have significantly greater effect on the perceived attractiveness of people who would be regarded by strangers to be average in attractiveness.

For Cavior's Ss, knowing the stimulus person appeared to increase his physical attractiveness. There are undoubtedly, however, instances in which a person's perceived physical attractiveness may undergo a rapid decline as a result of interaction with him. The study previously mentioned (Walster, 1971), in which students found those whose political orientation was less similar to their own more physically unattractive than those whose attitudes were similar, may be illustrative.

In addition to the relationship which may exist between the judge and the person to be evaluated, the situation in which the ratings are made may also affect evaluations of physical attractiveness. Kopera, Maier, and Johnson (1971) speculated that low ratings of the attractiveness of others may reflect "good taste" in the eyes of other people. On this basis they hypothesized that an individual will rate others as less attractive when his ratings are made in a group interaction situation than when they are made privately. Kopera *et al.* found support for this hypothesis only for stimuli of moderate or low physical attractiveness; the group setting did not lower evaluations of people who were high in physical attractiveness. Further, simply rating a person of moderate or low attractiveness a second time, whether the setting was public or private, decreased his physical attractiveness rating.

E. External and Self-Ratings of Physical Attractiveness

Do we see ourselves as others see us where our level of physical attractiveness is concerned? "Through a glass, darkly," seems to be the answer. While there is, as one would expect, a significant correspondence between an individual's self-report of his physical attractiveness level and the opinion of external judges, the relationship is a good deal less than perfect. Murstein (1972), for example, found that the correlation between self-evaluations and external ratings of attractiveness was .33 for men and .24 for women. Stroebe *et al.* (1971) also found that self-ratings of attractiveness and the experimenter's ratings of S's attractiveness correlated significantly, but trivially (.17). Huston (1972), too, concluded on the basis of his own data that subjective and objective operationalizations of physical attractiveness should not be used interchangeably in the absence of evidence of substantial covariation.

The studies above were conducted with young adults. The correspondence between self-ratings and external ratings might be even worse for younger Ss. Cavior (1970) found that, among fifth-grade girls, three-fourths ranked themselves as the *least* physically attractive girl in their class! According to Cavior, interviews with the girls indicated that their responses were not due to modesty. He suggests that the girls, who were attractive by other's standards, were emphasizing deficiencies in their appearance that the judges did not. He also suggests that the judges may have been using relative judgments, while the girls may have been using more absolute standards of attractiveness.

Cavior also found that for most fifth- and eleventh-grade boys and girls there was no significant relationship between Ss' estimates of where their classmates would rank them in attractiveness with the other members of their class and the physical attractiveness rankings their classmates actually made, although the correlations were always positive. A

child's ranking of his own physical attractiveness level correlated higher with the rankings of judges who did *not* know him than it did with his classmates' rankings.

F. Summary

There exists no compendium of physical characteristics, or configurations of characteristics, which people find attractive in others, even within a single society. It appears, however, that the culture transmits effectively, and fairly uniformly, criteria for labeling others as physically "attractive" or "unattractive." The extent to which these criteria are intimately related at either the genotypical or phenotypical level to other personal characteristics, such as intelligence, health, and socioeconomic status, is not known.

Perception of the physical attractiveness level of another appears to be influenceable by the affective and experiential relationship between the evaluator and the person whose physical attractiveness level is to be judged, as well as by factors unique to the evaluator and the setting in which evaluations are made, although none of these factors have been the subject of much study. As is the case with other perceptual phenomena, ambiguous stimuli, in this case people of "average" attractiveness levels, may prove to be most susceptible to such influences. The person himself appears to be a poor judge of his own attractiveness level, but why errors are made in favorable or unfavorable directions has not been investigated.

V. The Impact of Physical Attractiveness upon the Individual

Those who are especially determined to retain the democratic belief that physical attractiveness is a peripheral characteristic which has little impact upon our lives usually base their argument upon two assumptions: (*a*) People of different attractiveness levels are not treated differentially; we do not typically judge books by their covers. (*b*) Even if we do, individual differences in physical attractiveness criteria are so vast that differential treatment could have no consistent effect upon any one individual.

The existence of a physical attractiveness stereotype undermines the first assumption. The second is made suspect by the evidence of a high degree of agreement in placing others along the physical attractiveness dimension.

In evaluating the ways in which an individual's level of physical attractiveness might affect his life, it may be profitable to consider whether the physical attractiveness stereotype is true; whether physically

attractive men and women are indeed kinder, more sexually warm and responsive, happier and more successful than unattractive individuals. Many stereotypes do have "kernels of truth," due at least in part to their "self-fulfilling" nature, and the physical attractiveness stereotype may not be different in this respect. It is possible, for example, that physically attractive men and women do have happier marriages than those less attractive. Perhaps they use their wider range of opportunities for interaction with the opposite sex to choose a mate who will be compatible along such dimensions as similarity of interests, values, and background, or any of the factors which appear to lead to marital stability. Given a wider range of choice and more experience in interacting with the opposite sex, it seems logical that wiser marital choices could be made.

Or, to take another example, perhaps physically attractive men and women are in fact more sexually warm and responsive than those of lesser attractiveness. Kaats and Davis (1970) report that highly attractive college women say that they have been in love more often and have had more noncoital petting sexual experience than girls of either medium or low physical attractiveness. They were also more likely to have had sexual intercourse than those of medium attractiveness. If practice in sexual relationships is a prerequisite to sexual responsiveness, as many of the "sex manuals" assume, then it may very well be that physically attractive women are indeed more sexually warm than unattractive women, not because of innate differences, but because of differential experiences and treatment by others.

The evidence bearing on the question of the truth of the stereotype is sketchy. Nevertheless, one can discern the emerging outline of the impact which an individual's physical attractiveness level may have upon his life.

A. Developmental Studies

Whether or not the physical attractiveness stereotype is likely to have a grain of truth to it is to some extent dependent upon the age at which the stereotype is formed and the age at which people begin to be treated differentially according to their external appearance.

1. Popularity

Two lines of research provide indirect evidence that morphological characteristics may play an early role in the degree to which a child is accepted by his peers. First, it has been demonstrated that children of kindergarten age can distinguish differences along at least one dimension of physical attractiveness, that of body build. Furthermore, children in this age group have already begun to express an aversion for

certain body types, particularly those characterized by chubbiness (e.g., Lerner & Gellert, 1969; Gellert, Girgus, & Cohen, 1971). There is initial evidence, then, that certain appearance factors have at least rudimentary evaluative connotations even at the preschool level.

Second, a number of studies have examined the relationship between a young child's actual social behaviors and the degree to which he is accepted by his peers. Although various social behaviors do appear to be related to a child's popularity, most of the obtained correlations are of a low magnitude (cf. Moore, 1967; Hartup, 1970). This pattern of results suggest that nonbehavioral variables, such as physical attractiveness, may account for part of the variance associated with a child's acceptance by others.

Direct evidence that a child's physical attractiveness is associated with his popularity is provided by Dion and Berscheid (1972). Sociometric data obtained from nursery school children were examined to see if at this point in a child's life his physical attractiveness already bears relationship to his social standing among his peers. This early developmental level was selected for investigation because it is the stage at which both the self-concept and peer-group relationships are developing. Further, available evidence suggests that there is a positive relationship between the quality of early social behavior in peer groups and adult social adjustment (Roff, 1960, 1961). Thus, if physical attractiveness is related to a child's popularity at the preschool level, one might expect that both the child's self-concept and his early social relationships would be affected, and the stage for increasing fulfillment of the stereotype would be set.

Sociometric data were obtained by means of a version of the McCandless and Marshall (1957) technique in which photographs of each child's classmates are mounted on a large board and children are asked to point to those whom they especially like and dislike, and to indicate also those who typically exhibit certain social behaviors, such as "fighting a lot." Each photograph was rated for attractiveness by male and female adult judges who were unacquainted with the Ss. The use of adult judges may represent a particularly stringent test of the hypothesis that evidence of the operation of the physical attractiveness stereotype can be discerned at this early developmental level, although there is no reason to believe that children's own ratings of physical attractiveness would have differed markedly from those of adults had they been able to perform this difficult judgmental task (cf. Cross & Cross, 1971).

Examination of the nursery's popularity data indicated that, as might

be expected from the content of the physical attractiveness stereotype, the unattractive boys were liked reliably less by the other nursery school children than were their more attractive counterparts. Because the ability to discriminate and differentially evaluate the physical attractiveness of one's peers should increase with increasing socialization into the cultural system, an age effect was expected. (For instructional purposes, the younger children [4.4 to 5.4 years] had been partitioned into two separate classes and the older children [5.5 to 6.10 years] into two other classes; data analyses preserved this distinction.) Unattractive boys, however, were significantly less popular regardless of age.

The findings for the little girls were more complex. The very young unattractive girl was significantly more popular than her attractive peer; with age, however, she declined in popularity, while her attractive peer increased such that the older attractive girls were significantly more popular than the older unattractive girls. While there are a number of possible interpretations of this finding, one which suggests itself is that the social value of attractiveness for females increases with age as children begin to absorb cultural stereotypes. Another is that different behaviors are exhibited by attractive and unattractive females, and they are valued differently by the two age groups. No data relevant to these issues are available.

Examination of the children's perceptions of the social behaviors typically engaged in by their classmates revealed that, while effects for physical attractiveness were not found on all the dimensions investigated, when they did emerge they were consistent with the adult physical attractiveness stereotype. The children believed, for example, that aggressive, antisocial behavior was more characteristic of the unattractive boys than the attractive; unattractive male nursery school children were perceived as fighting a lot, hitting and yelling at the teacher, and saying angry things.

Attractive children, regardless of sex, were also perceived to be more independent than unattractive children; they seemed to their peers to be not afraid of anything, to be likely to enjoy doing things alone, and as not needing help from anyone. This last result suggests that attractive preschoolers are perceived to have a desire to be self-sufficient and to be capable of accomplishing what they wish. This finding is compatible with Miller's (1970b): Adults high or moderate in attractiveness are perceived by peers to be less "external" in locus of control than unattractive persons.

When the children were asked to nominate "someone who scares you," both the younger and older children chose their unattractive class-

mates, both male and female. At the same time, however, children perceived that the unattractive girls were "frightened" themselves; when asked to nominate "someone who's afraid of lots of things," children nominated unattractive females significantly more often than either unattractive male peers or attractive female peers.

These results suggest that the physical attractiveness of children at this early developmental level, as judged by adults, is related to a child's popularity with his classmates and to perception of some of the child's social behaviors. There are, of course, a number of possible explanations for this relationship. It is possible, for example, that the preschoolers have already learned the physical attractiveness stereotype and differentially attend to, and/or interpret, behaviors exhibited by peers who differ in attractiveness. Perhaps an attractive boy who pushes another is seen as brave, while the unattractive boy who performs the same act is seen by his classmates as naughty; in the same vein, the attractive male child may be given more latitude to exhibit negative behavior before other children decide that his actions are "bad." Such an explanation presupposes not only that preschoolers have learned the stereotype associated with physical attractiveness, but that they can differentiate between their peers on the attractiveness dimension. (Cavior and Lombardi [in press] very recently found that, while the interrater reliability of five-year-olds who ranked the physical attractiveness of a limited number of pictures of teenagers was low, statistical significance was reached with six-year-olds. The six-year-old rankings did not significantly correspond to those made of the teenagers by adult judges, but it is possible that the correspondence would have been better had young children been used as stimuli.) Another possible explanation, of course, is that the children's report of behavioral differences in attractive and unattractive peers reflects, not perceptual distortions to fit a stereotype, but what actually occurs in the classroom.

While the relative contribution of these two mediating processes to the observed relationship can be resolved only by future research, the implications of either process are important. First, if the Dion and Berscheid results derive from stereotyping along the attractiveness dimension at this early age, they indicate that the physical attractiveness level of an individual is an important factor to consider in social perception and social development long before adolescence occurs. Whether or not children perceive true behavior differences in peers who differ in attractiveness, they doubtless act on their perceptions. The reception a child is accorded by his peers may affect the modes of social interaction he develops, as well as his self-concept, and these behavioral patterns may lead to further stereotyping in a self-fulfilling manner.

If the present results reflect actual behavioral differences—if, for example, unattractive nursery school boys are indeed more aggressive and hostile than the physically attractive boys—then the question of the genesis of these differences must be confronted. Are they the result of the process described above in which a child becomes his "looking-glass self"? Do they reflect social class differences in the inculcation of socially pleasing behaviors? (In this connection, it might be noted that the nursery school children were homogeneous with respect to the socioeconomic status of their parents, who were largely professionals and in other upper-middle-class occupations.) Or are they the result of differential treatment at the hands of such socializing adults as parents, teachers, and babysitters?

Whatever the process, or processes, responsible for the relationship between physical attractiveness and popularity observed in the nursery, the relationship between these two variables is maintained through grammar school and high school (cf. Cavior, 1970) and, as has been noted previously, into young adulthood.

2. *Socialization*

Several of the processes which may be hypothesized to mediate the relationship between physical attractiveness and popularity in children, as well as the perception of social behaviors, presuppose that adults display differential treatment toward attractive and unattractive children even in circumstances in which their behavior is identical. Dion (1972) examined the tenability of this assumption in a situation integral to the socialization process—that in which the child has committed a transgression and the socializing adult must evaluate the child's behavior and act upon that evaluation.

Dion reasoned that, if adults hold a physical attractiveness stereotype for children very similar to that which they hold for other adults, if they assume that attractive children typically engage in more socially desirable behaviors than do unattractive children, then the information that an attractive child has committed a transgression should contradict the stereotype. When the transgression has been relatively mild, it may be assimilated into the stereotype and be considered as less serious than the same offense committed by an unattractive child. When an attractive child commits a severe transgression, however, it may be more difficult for the adult to distort its undesirability. Dion hypothesized that, in the case of severe transgression, consistency with the physical attractiveness stereotype may be achieved by viewing the harmful act of an attractive child to be a result of a temporary bad mood; a severe transgression committed by an unattractive child, however, may be seen as evidence of a

chronic antisocial predisposition. Following this line of reasoning, it was further hypothesized that the adult would recommend more punishment for the unattractive child's transgression than for that committed by an attractive child.

To test these hypotheses, written information describing either a mild or severe transgression ostensibly committed by a seven-year-old was presented to female college students, a particularly appropriate S sample, since women of approximately this age usually constitute the primary socializing influence in the home and in the elementary school. The behavior descriptions, both mild and severe, were alleged to have been randomly selected from teachers' daily journal reports in which various types of classroom and playground disturbances were routinely described. Accompanying each transgression description was "rudimentary" background information: the child's name, his age, and his photograph. Pictures of both male and female children differing in physical attractiveness were used in order to assess the generality of the predicted effects across sex.

Dion found support for the hypothesis that unattractive children are perceived to possess an antisocial nature. The women were asked to give, in their own words, their personal estimates of how the child usually behaved on a typical day. These free descriptions were categorized by judges as being predominantly "prosocial," "mixed prosocial and antisocial," and predominantly "antisocial." Dion found that, when the transgression ostensibly committed by the child was very mild in nature, no differences in perception of the act emerged as a function of attractiveness. When the transgression was severe, the women attributed significantly more antisocial chronic behavioral dispositions to unattractive boys and girls than to attractive children. For example, when the severe transgression was attributed to an attractive child, one of the women said:

> She appears to be a perfectly charming little girl, well-mannered, basically unselfish. It seems that she can adapt well among children her age and make a good impression . . . she plays well with everyone, but like anyone else, a bad day can occur. Her cruelty . . . need not be taken too seriously.

When the same act was committed by a physically unattractive child, another woman inferred:

> I think the child would be quite bratty and would be a problem to teachers . . . she would probably try to pick a fight with other children her own age . . . she would be a brat at home . . . all in all, she would be a real problem.

When directly asked to estimate the probability that the child would commit a similar transgression in the future, the women predicted equal probabilities of transgression for the attractive and unattractive children when the original transgression had been *slight*. When the original transgression had been *severe*, however, the women predicted significantly higher probabilities for the unattractive children. The women also showed a slight, but nonsignificant tendency to see unattractive children as having transgressed in a similar fashion in the past.

No support was found for the proposition that beliefs concerning the intensity of the punishment which should be administered for the transgression would differ depending upon the attractiveness level of the child. Regardless of the crime, the women generally thought that the transgression should be discussed with the child; physical punishment, withdrawal of love, and other alternatives were eminently unpopular. Nevertheless, one wonders whether a child who is perceived to be a chronic troublemaker, and likely to commit the same transgression in the future, would not be "reasoned with" more swiftly than would the attractive child, and whether the discussion would not proceed along somewhat different lines.

Overall, Dion's results suggest that the socializing adult may be particularly expectant of future transgressions on the part of the unattractive child. Thus, in cases in which the identity of the culprit is in question, suspicion may settle on the shoulders of the unattractive child. This is true for yet another reason; Harari and McDavid (1969) found that the unpopular child is more likely to be "finked" upon by his peers. In terms of assignment of responsibility for a wrong-doing, an additional finding by Dion is relevant. Unattractive children were seen to be more "dishonest," as a general personality trait, than were attractive children who had also transgressed. Thus, the unattractive child may be at a disadvantage in protesting his innocence when blame is fixed.

3. *Education*

Further evidence that children of different attractiveness levels may receive different socializations comes from a study conducted by Clifford and Walster (1973). Fifth-grade school teachers were asked to examine the information contained on a student's report card and to give their professional evaluations of the student's I.Q., his parent's attitudes toward school, the pupil's social status with his peers, and their estimate of the student's future educational accomplishments.

The teachers, each of whom represented one of 400 different schools in the state of Missouri, all received the same report card to evaluate. This report contained a good deal of information about the student. It

itemized the student's absences during the school year and his grades (for six grade periods) in the content areas of reading, language, arithmetic, social studies, science, art, music, and physical education, and it reported his grades in the three personal trait areas of "healthful living," "personal development" and "work habits and attitudes." In addition, a picture of the student, either one of six attractive boys and girls or one of six unattractive boys and girls, was pasted in one corner of the report.

It was predicted that the child's physical attractiveness level would have a strong impact on the teacher's expectations of the child's intellectual potential despite the fact that they all received the same information regarding the child's past accomplishments. It did. The more attractive the child, whether male or female, and whether the evaluating teacher was male or female, the higher the educational potential the teacher assumed the child to have. Specifically, the more attractive girl or boy was assumed to have a higher I.Q., was expected to attain more education, and was assumed to have parents more interested in his education than was the less favored child. Teachers also assumed that the attractive students enjoyed better social relationships with their peers than did the unattractive children.

The results of an experiment conducted by Landy and Sigall (in press) are consistent with those of Clifford and Walster. Male college students evaluated the quality of an essay ostensibly written by an attractive or unattractive female coed; others evaluated the essay without knowledge of the author's appearance. The "objective" quality of the work was also varied. Landy and Sigall found that the writer's ability and her work were evaluated most favorably when she was attractive, intermediately when her appearance was unknown, and least favorably when she was unattractive. They also found that the impact of the writer's attractiveness was most pronounced when the quality of her work was objectively poor.

Evidence of a positive relationship between physical attractiveness and perceptions of intellectual potential takes on special significance when viewed in the light of the findings which demonstrate that there is a positive relationship between a teacher's attitude toward a student and the student's subsequent performance (e.g., Palardy, 1969; Rist, 1970; Rosenthal & Jacobson, 1968). Taken together, both sets of findings effectively confound the question of the relationship between beauty and brains, an issue of interest to several investigators (e.g., Holmes & Hatch, 1938; Sorokin, 1959). Educational accomplishment is frequently used as an indicant of intelligence, but it is clear that the unattractive child may be disadvantaged in the classroom by teacher expectations. The matter is further complicated by the fact that data presented in the previous

section (e.g., Dion & Berscheid, 1972) suggest that the early experiences of the unattractive child in the classroom, and particularly with his classmates, might be a good deal less pleasant than those of attractive children. Simply on the basis of his lesser popularity with his peers, one might expect that the unattractive child would not develop the fondness for school that the attractive child might. An aversion to the classroom is detrimental to educational accomplishment and even to performance on standard intelligence tests.

Similarly, it might prove to be extremely difficult to determine what actual effect differential teacher expectations have upon a child's educational opportunities in naturalistic situations. While this is true for a number of reasons, two might be specifically noted. It is entirely possible that differences in appearance, as reflected along a dimension of physical attractiveness, are related to genetic factors which correspond to differences in intelligence. Attractiveness differences may also correspond to socioeconomic class differences which may be related to the cultural experiences the child enjoys in the home which are facilitative of educational accomplishment. Thus, findings which indicate that unattractive children have a lower educational accomplishment record than attractive students do not qualify as evidence that the unattractive child has been unfairly disadvantaged by teacher expectation. Nor, of course, can evidence that differences in educational accomplishment *favor* the unattractive (as indicated by Holmes & Hatch, 1938) be considered firm evidence that the unattractive do not suffer from adverse teacher expectation which may be translated into impatience and lack of attention. It is clear that determination of whether the physically unattractive are disadvantaged in the educational system is a methodologically complex problem in light of probable covariations in native intelligence and the cultural quality of group homes; regression effects and other nuisances may hinder causal inferences made on the basis of "experiments of nature" where randomization is forever impossible (cf. Meehl, 1970). At the very least, however, the stage may be seen to be set for lower educational opportunity on the part of the unattractive; if there does indeed exist a positive relationship between physical attractiveness and raw intelligence, the unattractive child may be doubly disadvantaged.

B. Personal Characteristics

If it is true that children of different physical attractiveness levels receive differing socializations, and if it is also true that differential treatment is consistent across a variety of situations—following a negative stereotype for the unattractive child and a positive set for treatment of attractive children—then the physical attractiveness level of a person

should affect his life in a number of ways. One might expect, for example, that attractive people might differ from the unattractive in their perceptions of themselves and their life situations, and in certain personality characteristics as well.

1. Self-Concept

If an individual's self-concept is largely a function of the kind of treatment he receives from others, particularly that of his socializing agents, the evidence discussed in the preceding section suggests that unattractive children may develop less positive concepts than attractive children. Further, certain aspects of the self-concept may be more severely affected than others.

One important component of the self-concept is the individual's "sex-role identity," or the extent to which he regards himself as masculine or feminine. The strength of an individual's sex-role identity is presumed to be a function of the discrepancy between the individual's inventory of actual sex-type attributes and the ideal attributes prescribed by the culture. According to Kagan (1964), several physical appearance attributes are "sex-typed" in that they define the concepts of "maleness" and "femaleness" in our society: "For the child 8 to 10 years of age, it appears that an attractive face is a primary sex-type attribute for girls; and a tall, muscular physique primary for boys . . . [p. 139]." Thus, one might speculate that, to the extent that appearance characteristics associated with physical attractiveness are essential to the development of strong sex-role identity, the self-concepts of unattractive men and women should differ along the masculinity–femininity dimension.

No investigation has been directly addressed to an examination of possible differences in sex-role identity, or to other differences in self-concept which may exist between the attractive and unattractive, whether adults or children. Several investigators, however, have examined the relationship between an individual's reported satisfaction with his bodily characteristics, his "body-image," and his satisfaction with his personality and other nonphysical characteristics, his "self-image." Secord and Jourard (1953), for example, found a significant relationship, for both men and women, between the degree to which a person felt satisfied with his physical characteristics and the extent to which he was satisfied with his nonphysical characteristics.

Is there a positive relationship between the degree to which an individual reports himself to be satisfied with his appearance and his physical attractiveness level as assessed by outside observers? As in the case of the relationship between external and self-ratings of physical attractiveness level, the correspondence appears to be minimal. Berscheid

et al. (1971) found no significant relationship between the physical attractiveness of men and women as judged by outside observers and the "body-image" of men and women as measured by the Secord and Jourard Body-Cathexis Scale. Nor was physical attractiveness level related to overall satisfaction with nonphysical characteristics for either sex. Observers' judgments of a woman's physical attractiveness level were related to certain individual Self-Cathexis items, however. Attractive women, for example, reported themselves to be significantly more satisfied with their degree of self-consciousness and significantly more dissatisfied with their degree of self-understanding than unattractive women.

Kaats and Davis (1970), however, found a correspondence between the externally evaluated physical attractiveness level of a woman and the favorableness of her self-description. Attractive women responded significantly more favorably than women who had been judged to be of either medium or low attractiveness when they were asked to report the extent to which they believed themselves to be physically attractive, a good date, feminine, self-confident, possessive of an engaging personality, and a likeable person.

Overall, this peripheral evidence suggests that differences in self-concept between the attractive and unattractive may not be easily discernible when an omnibus self-satisfaction measure is used and the person's young adult attractiveness level is assessed. It may be more profitable to examine the relationship between specific components of the self-concept and physical attractiveness level, particularly in the adolescent years.

2. Personality

Although differences in the socialization experiences of attractive and unattractive individuals, along with possible differences in self-concept, portend that the attractive and unattractive may develop different personalities, there exists, again, no direct evidence on this topic. Certain personality dimensions seem especially ripe for investigation. Among them is the question of whether physically attractive people use their greater social power and prestige to manipulate others. Investigation of the correspondence between physical attractiveness and scores on the Christie and Geis Machiavellianism scale (1970) would be of particular interest. The correspondence between physical attractiveness and the psychopathic deviate scale of the MMPI might also be illuminating. Although there is no direct evidence of a positive relationship between physical attractiveness and manipulative tendency, Singer (1964) interpreted several lines of evidence he gathered as indicating that attractive

female first-borns may be especially likely to exploit their physical assets to obtain high grades from their college professors. Presumably, most of the professors were male and, therefore, exploitable.

While virtually no studies have examined the correspondence between physical attractiveness level and personality differences, a number of investigations, largely initiated by Sheldon and his associates, have examined the relationship between differences in physique and personality differences. Several of these investigators (e.g., Hood, 1963) have concluded that the physique–personality relationship is probably of very small magnitude. It is difficult to know what this conclusion forecasts for studies that examine physical attractiveness–personality relationships. While there may be a correspondence between type of physique and evaluation of physique along a physical attractiveness dimension, the correspondence can be expected to be crude. Further, type of physique should interact with the person's sex when physical attractiveness is the dependent variable, since height and muscularity are probably positively associated with physical attractiveness in males, but negatively related for females. As was previously noted, evaluation of the correspondence between general body-build type and physical attractiveness level may be interesting if only to evaluate the supposition that social stereotypes may account for many of the significant, although small, correlations between physique and personality which have been found. At the very least, future investigators should find a relationship between physical attractiveness and "introversion–extroversion" and other personality traits which are generally associated with gregariousness.

3. *Happiness*

It is clear that physically attractive men and women are believed to lead happier and more fulfilling lives than those of lesser attractiveness. Preliminary evidence certainly suggests that attractive individuals may have greater access to the raw materials from which a happy life could be devised. In terms of acceptance by peers and by adults, in terms of opportunities to interact with members of the opposite sex and to select a compatible mate or to find one at all, in terms of the increased opportunities which operation of the stereotype should provide in employment interview situations and in education situations, it is clear that attractive people *ought* to feel happier than the unattractive. And, the Kaats and Davis (1970) finding that attractive women give more favorable descriptions of themselves suggests that perhaps they do feel more subjective happiness than the unattractive.

But the Bluebird of Happiness is an elusive fowl whose habits have not been fully identified. It seems clear that one's personal feelings of

satisfaction with one's lot do not show a one-to-one correspondence with the objective goodness of that lot. That happiness may follow "adaptation" rules (cf. Crespi, 1942; Helson, 1964) seems reasonable. Such an assumption is implicit in Thibaut and Kelley's (1965) theoretical statement that an individual's happiness with any given relationship is a function of the outcomes he receives in that relationship as compared to all the outcomes he has known in other relationships. Presumably, then, individuals who have never known anything but exceptionally high rewards in social interaction are not likely to experience great subjective happiness when they contract additional highly rewarding relationships. Thus, it is not a foregone conclusion that attractive people should be happier than unattractive. The differential expectations and past experiences of physically attractive and unattractive individuals, relative to their current state, may be critical for an understanding of the relationship between attractiveness and happiness.

There is almost no evidence available concerning the possible relationship between physical attractiveness and happiness. A notable exception is provided by Kirkpatrick and Cotton (1951), who examined the relationship between a woman's level of physical attractiveness and her marital adjustment. These authors reasoned that a case could be made for either a positive or a negative relationship between physical attractiveness and marital adjustment:

> One could assert that attractive women are relatively free from inferior feelings, they tend to have success in the courtship process, they set the prevailing cultural norms and stereotypes, and finally they may cause their bemused husbands to put up with traits which in less attractive women would cause marital discord. On the other hand, it could be argued that attractive women might be less happily married because of the distinction between the mate-finding process and the mate-satisfying process. Attractive women might capture mates but frustrate them because of childishness, superficiality, and general absence of concern for the more solid virtues [p. 81].

From their data, Kirkpatrick and Cotton concluded: "The evidence indicated rather consistently and clearly that, for the women subjects described by student cooperators, attractiveness ratings tended to be associated favorably with reported marital adjustment. This relationship might be reversed if these women, averaging about 30 years of age, staked too long their life adjustment upon fading charms [p. 86]."

Despite Kirkpatrick and Cotton's interesting conclusion and friendly warning to attractive women, the methodology of their study seems flawed when viewed from the vantage point of knowledge of the content of the physical attractiveness stereotype. The data were obtained, not by

independently assessing the physical attractiveness level of the spouses and by obtaining personal reports of their marital satisfaction, but, rather, from students who were asked to report on the physical attractiveness of couples known to them who appeared to be maritally well adjusted or poorly adjusted. Thus, this study appears to be more an examination of the social perception of the relationship between physical attractiveness and marital adjustment than an investigation of the actual correspondence between these two variables. When viewed in the context of a study in social perception, another finding by Kirkpatrick and Cotton is of interest. Their data suggested that, as viewed by outsiders, the degree of equality of the spouses' attractiveness levels was associated with a rating of good pair adjustment.

Another study which presents some peripheral evidence on the question of whether physical attractiveness corresponds to happiness was conducted by Berscheid, Walster, and R. Campbell (1972), who examined interview data collected by David Campbell (1965). Campbell tracked down and interviewed men and women who had attended the University of Minnesota 20 years earlier. The respondents were in their late 40's and early 50's at the time of the interview, and Campbell obtained a good deal of information about their current financial status and their self-perceived happiness.

Photographs of 204 out of 240 of Campbell's respondents were ferreted out of old college yearbooks. Then, men and women who were of the current age of the Ss and who had also been enrolled at a university during the years 1933 to 1936 were asked to make physical attractiveness ratings of these photographs. These judges were presumably familiar with the beauty standard prevalent 20 years ago, but to refresh their memories they were asked to thumb through some yearbooks of the period before making their ratings of the stimulus men and women. Since the photographs which were secured ranged from large graduation pictures to blow-ups of a small head in the very last row of an enormous glee club, it came as no surprise that the intercorrelations of the judges' ratings averaged only .39. For this reason, it was also not surprising that the relationships observed between physical attractiveness and other variables were of low magnitude.

Nevertheless, the physical attractiveness of each woman in her early 20's bore faint and marginally significant, but consistent, relationships to some of her life experiences 20 years later. The data yielded a relationship between her physical attractiveness and the interviewer's rating of her marital and general life adjustment, as well as her own self-reported current "marital satisfaction" and her perceived (in retrospect) happiness during her youthful college days.

Thus, the component of the physical attractiveness stereotype which posits a relationship between the physical attractiveness of a woman at college age and her later happiness in life appears correct. It is wrong, however, about the direction of the relationship. In each of the instances in which a relationship between attractiveness and satisfaction was found, the more attractive a woman was judged to be from her college photographs, the less happy and the less well-adjusted to her current life she was. No such relationship between physical attractiveness and happiness was observed for men. Attractive men were significantly more likely to report that they were happy in their college days than were unattractive men. There was also suggestive evidence that they were currently richer than unattractive men.

The finding that women who were attractive in college seemed to be, in their 40's, less happy than those who were less attractive in their younger days is consistent with the notion that happiness depends upon the result of the comparison of one's current state with outcomes previously enjoyed; the less attractive woman may have a less demanding comparison level to contend with than does the attractive person.

C. Moderating Factors

1. Ugly Swans and Beautiful Ducklings

Although consistent application of the physical attractiveness stereotype across a wide variety of situations should cause an individual's physical attractiveness level to have a significant effect upon his life, its total impact might be expected to be attenuated considerably if people typically undergo a number of reversals of their physical attractiveness level in their lifetime. It may be the case that the beautiful little girl or boy is not necessarily a beautiful adolescent, who, in turn, may not develop into the beautiful adult. Clearly, information on the stability of each individual's physical attractiveness level over his developmental history is necessary before one can arrive at an estimate of the influence physical attractiveness level may have upon the life of an individual.

Although no information on the stability of an individual's physical attractiveness level is available, the maturational process, particularly the transition period from childhood to adulthood, might be expected to precipitate severe reversals. As outlined by Schonfeld (1969), the adolescent typically experiences considerable and rapid changes in height, weight, and skin, as well as changes in both primary and secondary sexual characteristics. To what extent some of the "storm and stress" and confusion of adolescence can be attributed simply to these changes in appearance, changes which may be ascribed directly to

changes in physical attractiveness level (and to the concomitant changes in the manner in which the individual is treated by his peers and others), would be interesting to determine. Certainly the child who has always been considered physically attractive by others, and who for genetic reasons experiences a rapid change in physical attractiveness level, must cope at this time with changes in self-concept and changes in mode of social interaction.

Some theorists have formulated some general hypotheses concerning the factors which might be associated with increases in physical attractiveness level at the adolescent level. Kagan (1964) speculated, "Since physical attributes (attractive face and figure for girls; bodily hair, height, and size for boys) are essential sex-typed qualities, one might expect that children who have early pubertal growth spurts and develop secondary sex characteristics early will be more popular, more confident, and initiate heterosexual behavior earlier and with more frequency than children who mature late [p. 152]." Kagan also cited evidence from longitudinal studies conducted by Jones and Mussen (Jones, 1957; Jones & Mussen, 1958; Mussen & Jones, 1957, 1958) which supports this hypothesis. Schonfeld, too, noted that, especially with boys, the late-maturing "are more likely than their early-maturing peers to encounter a generally unfavorable socio-psychological environment resulting in an adverse effect on their personality adaptations [1969, p. 44]."

It is safe to assume that an attractive face and figure are strongly associated with the physical attractiveness level of girls. If one also assumes that bodily hair, height, and size are important determinants of the physical attractiveness level of boys, then we might expect late-maturing boys and girls to experience a fairly dramatic reversal in physical attractiveness level in late adolescence. These individuals' self-concept and early modes of social interaction may develop, however, during a period at which their physical attractiveness level is comparatively low, during early adolescence when they failed to exhibit the valued sex-type qualities. Thus, we might expect these "late-bloomers" to have self-concept and social interaction modes more characteristic of persons of low attractiveness levels than those of the heightened attractiveness level which they should enjoy after puberty.

There is some evidence that, although delayed adolescence is encountered in both sexes, the results are more detrimental to boys than to girls (Kagan, 1964). One might speculate, then, that studies that examine the relationship between physical attractiveness level and various personality and self-esteem characteristics in the ubiquitous college sophomore might be able to make more precise predictions if the time of onset of adolescence were determined. Especially for males, self-esteem and personality might correspond more closely to the physical attractiveness level experienced by the person as an adolescent than as a young adult.

In addition to the changes in appearance which adolescence frequently produces, life often springs other surprises. Rapid weight gains or losses, dental surgery, and physical illnesses are among the variables often associated with dramatic reversals in appearance and, possibly, in physical attractiveness level. What corresponding changes are wrought in self-esteem and personality as a result have been the focus of only anecdotal comment. While prosperity may be easier to adjust to than misfortune, even in cases in which there has been a rapid increase in physical attractiveness the individual may experience a certain amount of confusion in coping with the new kinds of treatment and reactions he obtains from other people and with the differential attributions made to his behavior and to his underlying personality predispositions. Certainly, one could also expect that those who have experienced dramatic reversals in their appearance, whether positive or negative, would experience some doubts about their self-identity. In this context, it is curious that, while there exist many institutions and organizations devoted to bringing about positive increases in physical attractiveness level as rapidly as possible (e.g., TOPS, Weight Watchers), few appear to address the issue of adjustment to such changes.

One of the most frequent causes of dramatic improvement in physical appearance is cosmetic surgery. Unfortunately, the evidence concerning the consequences of such surgery is, again, only anecdotal. In addition, those people who voluntarily present themselves at a cosmetic surgeon's office are probably not a random sample of the population of individuals who possess that particular defect.

An exception to the plethora of anecdotal information is an experiment performed by Kurtzberg, Safar, and Cavior (1968). These investigators note that, historically, a relationship has been postulated between physical disfigurement and social deviance. They also note that, while the role of plastic surgery in the rehabilitation process has been the subject of at least cursory research effort, control groups of disfigured Ss who have not been operated upon have not been used to substantiate the often-reached conclusion that surgery produces improved self-concepts and better social relations. Such a control group is particularly important, since plastic surgeons usually screen their patients extremely carefully to select the well-adjusted for surgery and to eliminate "neurotics."

To test their hypothesis that plastic surgery would reduce prison recidivism, increase job success, and improve psychological adjustment, Kurtzberg *et al.* surgically and psychologically screened disfigured inmates of the New York City jail system and then assigned them to one

of four experimental groups by rotational order: Surgery Alone, Surgery and Social and Vocational Services, Social and Vocational Services without Surgery, and a No-Treatment Control Group. A further classification of Heroin Addiction versus No Heroin Addiction was made for analyses. The disfigurements of these prisoners ranged from knife and burn scars to lop-ears, needle tracks from drug usage, and tattoos.

Data from follow-ups on all inmates conducted one year following their release from prison (experimental *Ss* received surgery immediately upon release) revealed that the recidivism rate of nonaddicts receiving surgery was significantly less (36% less) than that of disfigured nonaddict control *Ss*. Nonaddict *Ss* receiving only social and vocational services, but not surgery, recidivated at a rate 33% *higher* than control *Ss*. This group also appeared to show poorer social relations and a tendency to become further alienated from society during the one-year follow-up period.

Despite this dramatic finding with nonaddict *Ss*, Kurtzberg *et al.* found that plastic surgery did not benefit the heroin addicts. They report also that, with regard to specific disfigurements, "plastic surgery appeared to help those with facial disfigurements to a greater extent than those with disfigurements on their bodies [p. 650]." Kurtzberg *et al.* concluded that, although the cost of plastic surgery in the rehabilitation of adult offenders is relatively high, it "can be considered negligible if the offender is helped to remain out of prison for even one year [p. 649]."

One change in appearance which is inevitable for all, at least if we succeed in avoiding the alternative, is that which aging produces. In a culture such as ours, in which the factors associated with physical attractiveness are also those that are characteristic of youth, it seems inevitable that most individuals should experience a decline in their physical attractiveness level with advancing years. One might also speculate that the decline is greatest for those who have the most to lose—the "beautiful people." While aging beauties may face problems similar to those confronted by many adolescents, theirs may be even more severe, since they have tasted the fruits of physical attractiveness and may be particularly aware of how much they have lost (cf. Campbell, 1967). Clare Booth Luce (1971) provides an exceptionally vivid picture of the devastating consequences of such a decline in one international beauty:

> She was the reigning beauty of the hour. . . . I will not try to describe her looks because I would . . . be driven to clichés like "ethereal," "heavenly," or "devine". . . . She was then in her early thirties and at the very peak of her near perfection. She had just divorced a very rich husband. . . . After this first meeting my paragon of beauty went abroad and married a handsome foreigner. . . . It was ten years before I met her again. . . . She was still very beautiful. . . . Soon after she returned to Europe where she married her third husband, who was neither as rich as her first nor as handsome as her second. . . . As time went by I lost track of her. Somewhere along the grapevine I heard that, disillusioned with love and life, she had become a recluse. And then a few years ago in Paris, on a chance walk in the gardens of the Tuileries, I encountered her. She was sitting alone on a bench. . . . I recognized her at once despite what the years had done to her. . . . A ruin, yes, but a lovely ruin, like the Acropolis by moonlight. We talked for a bit, and I invited her to a dinner I was giving. She shivered and shook her head. "I never go anywhere anymore," she said. "I can't bear to show this battered old face in public. I can't even bear to look at it anymore in my own mirror!" [pp. 92, 193].

One can see that the changes described appear to be very similar to those cited by Kagan as typical of boys who experience delayed adolescence: chiefly, withdrawal from social interaction and decreased self-esteem.

2. *Familiarity*

G. B. Shaw observed, "Beauty is all very well, but who ever looks at it when it has been in the house three days." How much impact one's physical attractiveness level will have upon one's life is also dependent upon the extent to which increasing familiarity with a person, with children especially, lessens the influence of the physical attractiveness stereotype on the treatment of that person. A "first-impression" format has been used in almost all investigations of the relationship between physical attractiveness and other variables. It is possible that physical attractiveness is an important variable only in initial stages of interaction and that its influence decreases rapidly with the weight of additional information about the person.

Although there is no research directly addressed to the question of how the stereotype stands up against contradictory information obtained in social interaction with another, it is clear that, even if the stereotype influences only initial interactions, it probably will have some enduring impact upon the individual. Many of a person's interactions, several of which have great consequence, are of a "one-time-only" or of a "few-time" nature. Included in these are exposures to the physical appearance of political candidates, job applicants, and defendants in jury trials. Further, it has been repeatedly demonstrated that an individual's first impressions of another affect his subsequent interactions with him (e.g., Daily, 1952; Newcomb, 1947) and that one's expectations influence one's behavior (e.g., Brock, Edelman, Edwards, & Schuck, 1965; Zajonc & Brickman, 1969).

If it is true that one's physical attractiveness level has greatest influence in first impression situations, one might speculate that one's physical attractiveness level should be most strongly associated with self-esteem and other personality characteristics in the case of people who have typically experienced a great many "one-time-only" interactions (because their jobs require it, for example, or because their family was extremely mobile when they were children). A person's physical attractiveness level should have less impact if the individual continues to reside in the same small town in which he was born and raised, or if he interacts occupationally with the same set of individuals over the years; the child who is a product of our urban mobile society, who attends a different grammar school each year and sometimes two or more in the same year, who encounters a different set of neighborhood playmates at regular intervals, who lives in a large urban area in which one frequently experiences contact with strangers, should be more influenced by his physical attractiveness level.

In fact, one might go so far as to speculate that the apparent increase in the importance of physical attractiveness as evidenced by the proliferation of cosmetic and bodily-hygiene products, its emphasis in the media and in advertisements, is not only a result of our affluent society, but a consequence of the fact that we are all experiencing more one-time and few-time social contacts than ever before in the history of man. The invention of the television–telephone threatens to further attack the bastions of visual anonymity and to increase the influence of appearance.

One might also speculate that, while many employers try to fill their one-time or few-time contact jobs, such as airline stewardess and receptionist, with only highly physically attractive people (some airlines even advertising their success in this endeavor), it is possible that only those of high physical attractiveness levels would want the jobs in the first place; those of lower physical attractiveness levels, who are not accorded the instantaneous respect, esteem, and attributions of sincerity and altruism that the attractive are, might find such positions much less enjoyable. In this context, one might further speculate that the physically attractive might actively prefer one-time to long-time interpersonal contacts and are more likely, for this reason as well as others, to exhibit behaviors characteristic of the Don Juan syndrome.

VI. Concluding Comments

Physical attractiveness is, in many ways, a homely variable. Psychologists cannot be given credit for the discovery of a hitherto unknown factor which may have important consequences for an individual's life

opportunities, for his personality, and for his modes of interaction with other people. It appears, in fact, that social scientists have taken longer to recognize the social significance of physical appearance than have laymen; the accumulating evidence that physical attractiveness is an important variable to take into account if one is plotting the course and consequences of social interaction may be more startling to social scientists than to those who were never exposed to the strong "environmentalist" tradition of psychology, who did not take at face value beliefs of equal opportunity, and who were not aware that an interest in physical appearance variables relegated one to the dustbin of social science.

The physical attractiveness variable is unpretentious for at least two other reasons. First, it is unlikely that it will be found to be orthogonal to other dimensions, principally intelligence, socioeconomic status, and perhaps genetically determined behavioral predispositions associated with morphological characteristics. Assessment of the degree of variance accounted for by the physical attractiveness factor alone in social situations and life opportunities and events, or untangling the complex skein of causal inference these factors present, is likely to prove to be a herculean task, at least with present methodological tools and knowledge. This is particularly true, since preliminary evidence suggests that all confounds may run in the same direction along a "goodness" dimension. Second, it seems highly unlikely that physical attractiveness will ever form the core concept of a psychological theory, even a much needed social perceptual theory, which will illuminate the way to useful and interesting predictions about social relationships.

Humble though the physical attractiveness variable may be, it demands respect. While physical attractiveness is immediately apparent in most social interactions, the other variables with which it may positively confound are not. Most people do not have their I.Q.'s tattooed on their foreheads, nor are their diplomas of educational accomplishment displayed prominently about their persons; an individual's financial status is a private matter between himself, his banker, and the Better Business Bureau; and we would not know how to interpret the structure of his genes even if he could present them to us for inspection. An individual's physical attractiveness level, however, may act as the symbol and harbinger of these less visible characteristics. If people do use physical attractiveness level to judge socioeconomic status, they do not appear to be aware of it (cf. Centers, 1949). But whether or not physical attractiveness reflects socioeconomic status and all that is associated with it, it is apparent that "Beauty is a greater recommendation than any letter of introduction," as Aristotle put it, at least for initial stages of interaction.

Further, while the physical attractiveness variable may itself prove

to be theoretically arid, its virtual omnipresence in social interaction and its history of accounting for at least some portion of the variance in a wide variety of situations and with sundry dependent variables, suggests that it has the power to modify, perhaps even to overturn, some well-documented social psychological principles. This is particularly likely to be true when the social interactants are opposite sex.

Preliminary evidence on this point has been provided by Aronson and his associates. A good deal of data suggests that, if an audience perceives their communicator to have a "desire to influence," his persuasive effectiveness will be decreased, since he will appear relatively untrustworthy. Mills and Aronson (1965) hypothesized, however, that in the case of physically attractive communicators, a frankly stated desire to influence would actually enhance the effectiveness of the communicator. Their results confirmed their hypothesis. When a female communicator was made to look physically attractive, she was more effective in influencing her male audience when she announced her intention to persuade them than when she did not; when she appeared physically unattractive, however, her stated intention to persuade had no apparent influence on her effectiveness.

An illustration of how physical attractiveness may modify a principle of interpersonal attraction is provided by Sigall and Aronson (1969). The attraction literature provides much evidence to support a reciprocity-of-liking rule: we like those who like us and we dislike those who dislike us (cf. Berscheid & Walster, 1969). Sigall and Aronson found, however, that the physical attractiveness of an evaluator interacts with the nature of her evaluation. When a physically attractive female evaluator gave a positive evaluation to the male Ss, she was liked most; when she presented a negative evaluation, she was liked least; and when she was made to appear unattractive, her evaluation had a good deal less influence on how much she was liked.

Kahn, Hottes, and Davis (1971) have provided evidence that many of the findings contained in the large body of literature examining the "prisoner's dilemma" situation may be modified if the physical attractiveness levels of the two contestants are taken into consideration. They found that females were likely to vary their competitive versus cooperative choices as a function of the sex and the physical attractiveness level of the partner.

The possibility that the physical attractiveness of an experimenter, or of a confederate, may affect the results obtained in investigations of other social psychological relationships is also in need of scrutiny. Experimenters generally use one confederate and/or one experimenter, and the extent to which the experimental findings are unique to a confederate or

experimenter of that particular attractiveness level is generally not examined. Evidence that the physical attractiveness level of an experimenter may be a significant source of variance, even with dependent measures which would seem to be immune to influence, is provided by Eisenman and Huber (1970). These investigators were interested in the correlation between two personality measures (creativity and insolence) of documented reliability and validity. They found that, while female Ss displayed the expected positive relationship, male Ss did so only when the personality tests were administered by a physically attractive, as opposed to an unattractive, female experimenter. Although this finding has a hint of the occult, Eisenman and Huber conclude that the attractiveness of a female experimenter needs to be considered as a source of variance, even in situations in which the Ss do little more than fill out questionnaires.

The physical attractiveness findings to date have implications for nonsocial psychological concerns as well. Some of these have been outlined in previous sections, but a final one might be specifically noted here. Cavior (1970) has observed that the consistent and high positive relationship between physical attractiveness and interpersonal attraction carries implications for psychotherapy research and practice. Cavior hypothesizes that people who request psychotherapy may be less attractive than those who do not; requests for therapy frequently represent difficulties in interpersonal relations involving such factors as loneliness and depression, a likely consequence of being unattractive. Cavior adds his own anecdotal evidence that individuals very low in physical attractiveness are either not accepted for therapy or are placed in group therapy. Others who work in mental hospitals (e.g., Sawicki, personal communication, 1972) have spontaneously suggested that the physical attractiveness level of a patient influences the degree of attention he receives from professionals and the intensiveness of the therapy given him by staff members. Cavior concludes:

> Psychotherapists might do well to consider plastic surgery (reconstructive and cosmetic) as an alternative or adjunct to psychotherapy. Anecdotal reports by plastic surgeons and inter-disciplinary research by psychologists, sociologists, and plastic surgeons (e.g., Kurtzberg, Safar, & Cavior, 1968) have suggested that plastic surgery can result in marked changes in self-concept, behavior, and the responses of others. For example, if an unattractive girl requests psychotherapy because she feels lonely and rejected and cannot find a husband, it might be more advantageous in terms of time and expense to consider plastic surgery. Rather than have the girl spend months or years in expensive therapy trying to discover her intrapsychic difficulties, it might be better to help her integrate and adjust to the changes which might result from plastic surgery [p. 97].

Cavior goes on to note that some progressive mental hospitals have recently employed professional cosmetologists to help female patients become more attractive. Institutes established to help the blind adjust to their fate have also shown a recent interest in providing formal courses in physical attractiveness improvement (Warschaw, personal communication, 1972). While the blind themselves are perhaps not influenced by physical appearance factors (although it would be interesting to know if the "aura" of physical attractiveness transcends sight), they must associate with sighted people and they are undoubtedly responded to, at least in part, in terms of their physical appearance.

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