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The impact of sex and physical attractiveness on an initial social encounter (*)

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Résumé

On étudie le sexe et l'attrait physique en tant que déterminants de l'envie qu'ont les hommes et les femmes d'interagir avec un inconnu. Certains théoriciens prédisent qu'on abordera un homme ou une femme physiquement attrayant alors qu'on évitera une personne sans attrait. On s'attend à ce que ces réactions soient plus intenses lorsque les deux personnages sont de sexe différent.

Dans la première expérience, portant sur 118 hommes et femmes, chaque sujet était assis seul dans un petit bureau et un compère, homme ou femme, attrayant ou non, venait s'asseoir près de lui. On a évalué la tendance des sujets à s'approcher ou à s'éloigner de l'intrus et il est apparu qu'ils évitaient d'approcher de trop près les gens de l'autre sexe sans égard à l'attrait physique.

Dans la seconde expérience, on demandait à 97 hommes et femmes de s'entretenir avec un homme ou une femme, attrayant ou non, assis dans une pièce contiguë. Ils ont indiqué à plusieurs reprises à quel degré ils souhaitaient se rapprocher de leur partenaire et quelle anxiété ils ressentait à cette perspective. On mesurait en outre les réponses psychogalvaniques.

On conclut que les gens ne sont pas conscients de leur désir d'éviter les inconnus du sexe opposé, en dépit du fait que, selon leurs déclarations, la perspective de ces rencontres les rend anxieux. Il n'y a aucun signe physiologique à l'appui.

According to psychologists, who are known for their ability to take the romance out of anything, the enthusiasm individuals show for associating a beautiful woman, or a handsome man is simply an *arg sg* evoked by a conditioned stimulus (CS), which has

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been consistently associated with reward (k) (See Centers, 1974; Byrne 1971, & Byrne, London, & Reeves, 1968) Byrne et al., for example, state the law of attraction: "Attraction toward X is a positive linear function of the positive reinforcements received from X... or expected from X." They propose that the "reward value attached to physical attractiveness," should make one more attracted to attractive people than unattractive ones." Voluminous data support the notion that individuals especially like and are especially eager to be near physically appealing individuals. (see for example, Hatfield (in press); Walster, Aronson, Abrahams, & Rottman, 1966; Brislin & Lewis, 1968; Byrne et al., 1968; Byrne, Ervin, & Lamberth, 1970.) For example, Dion, Berscheid, and Walster, 1972 asked men and women to examine a collection of photographs. They were asked to attempt to guess what the people in the photographs (who differed markedly in appearance) were like. The raters were told that their inferences would be scored for accuracy. The authors found that men and women assumed that attractive people possess almost every socially desirable personal personality trait possible. For example, physically attractive people were assumed to be more sexually warm and responsive, sensitive, kind, interesting, strong, poised, modest, sociable, and outgoing than persons of lesser physical attractiveness. They were also assumed to be more exciting dates, more nurturant individuals, and to have better character than others.

The men and women were not only asked to estimate the current personality characteristics of people simply from their appearance, but to guess what fate held in store for them. Raters predicted that physically attractive individuals would have happier marriages and more prestigious occupations than would the less attractive. All in all, attractive people were expected to lead far more fulfilling lives than were the unattractive. (Similar results were secured by Smits & Cherkonia, 1976).

Not only are beautiful people better liked than unattractive people, but they are more likely to be approached. For example, Sigall and Aronson (1969) found that physical attractiveness interacted with acceptance in determining how much a woman was liked. If both a beautiful and an ugly woman were friendly to a man, the beautiful woman was clearly preferred. If the women were sharply critical of him, the beautiful woman was disliked more than was the ugly one. Regardless of how the women evaluated the men, however, men preferred to have subsequent contact with the pretty woman rather than with the ugly one.

In addition to the aesthetic rewards beautiful people provide, they are *assumed* to possess personality and character traits which are likely to provide additional rewards. Miller (1970) and Berscheid, Dion, Walster E., and Walster G. (1971), in studies of trait ascription, found that a multitude of positive personality and character traits are ascribed to attractive strangers, while undesirable personalities and characters are attributed to unattractive strangers. Whether or not beautiful people really possess such stunning traits is unknown.

When the preceding data are reported to students, they often react with intense interest and intense resentment. Students generally agree that the data are correct. They admit that beauty does give its possessor an enormous advantage in attracting and holding others. They sometimes note that beauty is a special advantage - and an especially unfair advantage - in getting to know people of the opposite sex.

Byrne et al. (1968) agree. They hypothesize:

"In a college age population, expectancies concerning the reinforcement value of a stranger of the opposite sex should be greater than expectancies about a stranger of the same sex. Further, the hypothesized effects of physical attractiveness should be greater with opposite-sex than with same-sex strangers. It is therefore hypothesized that... (c) The effects of physical attractiveness and sex are interactive." (p. 261).

Unfortunately, Byrne's hypothesis that beauty is more important in opposite sex relationships than in same sex relationships received no support.

Although students may be incensed that an ascribed characteristic, beauty, can so effect one's rewards in life, they often admit with chagrin that they too enjoy being seen with an attractive date and are embarrassed about being seen with an unusually ugly person, especially if he is of the opposite sex.

In view of the plausibility, to theorists and students alike, of the argument that sex and physical attractiveness should interact in determining how eager one is to interact with a stranger, we decided to conduct Experiment I.

We hypothesized that Ss' sex, confederate's sex, and the confederate's physical appearance would interact in determining whether or not Ss would approach or avoid a confederate. We predicted that physically attractive men and women would generally be approached in a social encounter, while unattractive men and women would be avoided. We expected these approach or avoidance responses to be intensified when the confederate and subject were of the opposite sex. This reasoning is, of course, in accord with that advanced by Byrne et al. (1968):

EXPERIMENT 1

Procedure

Subjects were 118 male and female undergraduates randomly selected from study rooms at the University of Wisconsin.

Varying Physical Attractiveness

Six undergraduates served as confederates. Two of the male and two of the female confederates were judged by their peers to be unattractive; one male and one female were judged to be exceptionally attractive. (Male and female college students judged photographs of the attractive confederates to be significantly more attractive than photographs of the unattractive confederates. $F(1,28) = 171.93$ $p < .001$) The confederates were unaware of our hypotheses.

Measuring Ss' Tendency to Approach or Avoid the Confederates

Since we knew that subjects might feel sheepish about admitting they discriminated against unattractive others, we decided to use an unobtrusive measure of Ss' tendency to approach or avoid another, rather than asking them about their behavior. We collected our unobtrusive measure of Approach-Avoidance in the following way:

A photographer visited various study rooms in the University undergraduate library and selected rooms in which students were seated at tables reading and studying (1). Working from the back of the room the photographer selected from each aisle one subject whose back was to him (thus unaware of his presence) and who was surrounded by empty seats. From a distance of approximately 10 feet directly behind the subject, the photographer took Ss' pictures.

Immediately thereafter, one of the confederates sat down next to the subject. Confederates were trained to maintain a consistent pattern of behavior with all subjects. Specifically, the confederates sat straight in their chairs, leaning neither to one side nor the other. The photographer, standing behind the subject as before, waited until the subjects returned the confederate's glance and then started his stopwatch. (Obviously the subjects couldn't respond to the sex or attractiveness of the confederates until they had seen them.) Usually subjects looked up as the confederates were sitting down. When 10 seconds had elapsed, the photographer took a second photograph of the subject. (Pretesting had also show, that it took the average subject 10 seconds to readjust their positions after a confederate sat next to them).

The pictures were taken over a seven month period at randomly selected hours of the day and early evening and on randomly selected days of the week.

Measurement of Movement and Direction of Movement

The above procedure provided a photographic record of the subjects' behavioral responses to the confederates. Specifically, we were interested in the extent to which subjects moved toward or away from the confederate. (Research by Argyle, 1967; Birdwhistell, 1952; Hall, 1963; Kiesler & Golberg, 1968; Byrne et al., 1970; Goldberg,

(1) We avoided using rooms in which relatively few persons were present, since in such a situation students tended not to sit next to each other and thus our confederates might be seen as less credible.

Kiesler, & Collins, 1969; Hall, 1963; Schefflen, 1965 have demonstrated that how willing we are to approach others is strongly related to our liking for them). The direction of subjects' movement was assessed in the following way .

1) *Shoulder Movement* : Figure 1 : Diagram A, indicates the way in which shoulder movement (movement of the upper trunk) was obtained. A horizontal line was drawn across the top back of the Ss' chairs. (The end points of this horizontal line were the ends of the chair.) Next, a horizontal line was drawn across Ss' shoulders. (The end points of the shoulder line were the highest points vertically and the farthest points horizontally on Ss' shoulders.) Finally, a line was drawn connecting the midpoints of these two horizontal lines. For both photographs, the angle recorded was that angle (ABD or CBD) which faced the confederate. For example, CBD was recorded if the confederate sat on the right of the subject and ABD if the confederate sat on the left. By comparing the change in a subject's position from photo 1 to photo 2 (i.e., by subtracting angle 1 from angle 2), we determined the degree to which Ss had moved toward or away from the confederates.

2) *Head Movement* : Head movement was measured in the following way. (See Figure 1 : Diagram B.) The subjects's shoulder line was used as the base line. From the midpoint of the shoulder line, a line was drawn to the center of the top of Ss' heads. Again, the angle recorded was the angle which faced the confederate. By measuring the change in angle from photo 1 to photo 2, we determined the degree to which the subjects had moved their heads toward or away from the confederate.

3) *Total Movement* : The subjects' head and shoulder movements were added together to obtain an index of total movement. This measure was chosen as our dependent variable.

DIAGRAM A: SHOULDER MOVEMENT

DIAGRAM B: HEAD MOVEMENT

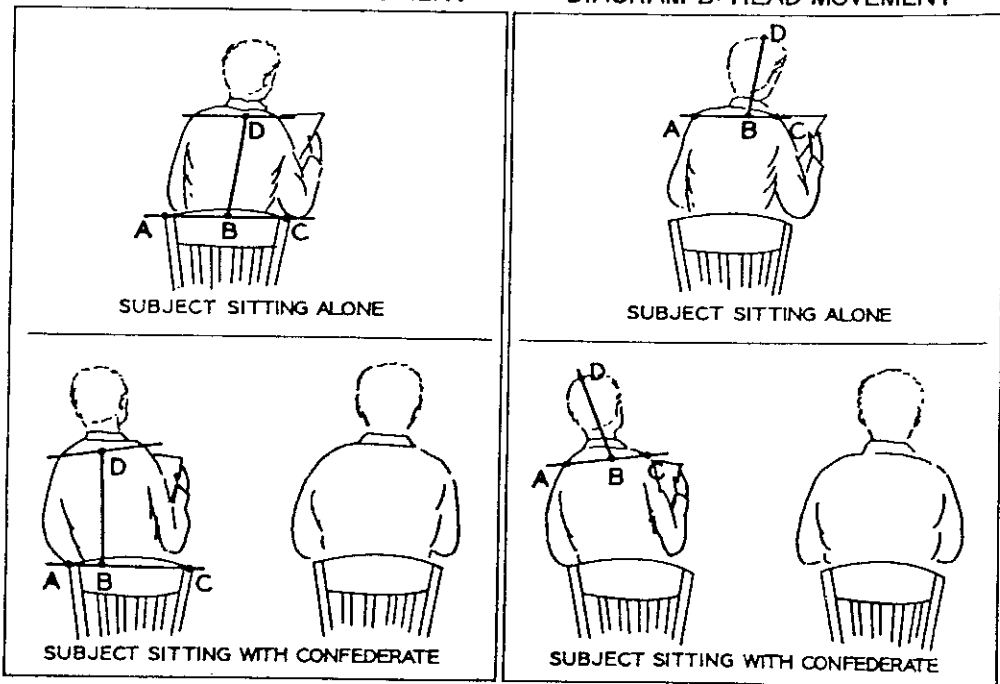


Figure 1. An Illustration of How Shoulder Movement and Head Movement Were Calculated.

Results and Discussion

It will be recalled that we predicted that Ss of both sexes would move toward an attractive confederate and away from an unattractive confederate, and that these movements would be stronger when the confederate was of the opposite sex. In other words, we expected a Sex of Subject $\times$ Sex of Confederate $\times$ Physical Attractiveness Interaction. This hypothesis was *not* confirmed. The Interaction $F(1,232)$ for Total Movement = 1.22; *n.s.*

A significant, although unanticipated, interaction was secured, however. (See Table 1 and Figure 2.) Sex of Subject and Sex of Stimulus interacted in determining how subjects positioned themselves with respect to the confederate. Male Ss moved farther away from female confederate than from male confederates; female Ss moved farther away from male confederates than from female confederates. Interaction $F(1,232)$ for Total Movement = 6.11; $p < .05$. Ss accomplished this differential avoidance mainly by shifting their head away from opposite-sex confederates, rather than shifting their entire bodies away. Interaction F for Shoulder Movement = 1.43 *n.s.*

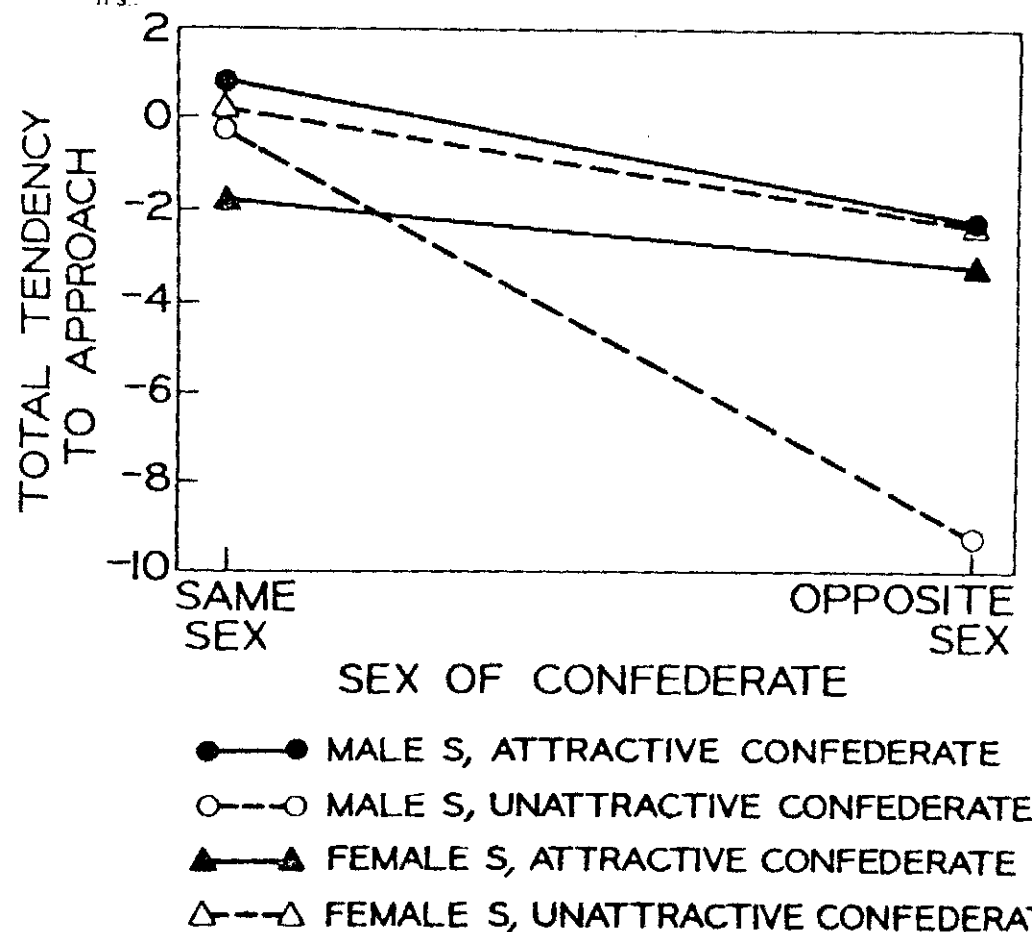


Figure 2 Ss' Tendency to Approach Others of Varying Sex and Attractiveness Levels.

It appears that individuals tend to avoid members of the opposite sex, regardless of the other's physical attractiveness. This is indeed a surprising and intriguing finding.

But how can we possibly account for such results?

Why should subjects tend to move away from confederates of the opposite sex?

Table 1
Ss Reaction to Attractive and Unattractive
Confederates of Both Sexes

Sex of Subject	Sex of Confederate	(N)	Amount of Head Movement	Amount of Shoulder Movement	Total Movement
Male	Male	(60)	2.73	- 2.43	+ .30
Female	Female	(60)	- .40	- .47	- .87
Male	Female	(60)	- 2.50	- 3.34	- 5.83
Female	Male	(60)	- .82	- 2.05	- 2.87

Significance Tests (F)

A (Sex of Subject)	.29	2.45	.30
B (Sex of Confederate)	3.19	.11	1.58
C (Attractiveness of Confederate)	1.42	.05	.71
AB	4.38*	1.43	6.11*
AC	3.78	.01	2.73
BC	1.90	.56	.43
ABC	.76	.38	1.22

* $p < .05$, d.f. 1 and 232

1. Perhaps subjects felt more anxious when confronted by the opposite sex confederate than when confronted by a same sex confederate. They may have moved away to reduce anxiety. In childhood, children generally associate with same-sex peers more often than with opposite-sex ones. Children are sometimes even punished when they attempt to play with members of the opposite sex. Boys who prefer the company of girls are called sissies, and are often hooted and jeered by their male companions. «Tom-Boys», although eager to play with boys, are often rejected by male gangs. We suspect that *associating with members of the opposite sex generally makes one more anxious than associating with members of the same sex*. Often the rewards people anticipate from opposite-sex associations may be strong enough to cause them to seek out opposite-sex companionship, in spite of their anxiety. In settings (such as a library) where potential social rewards are not usually anticipated, however, this anxiety may lead one to avoid opposite sex individuals. (See Argyle, 1967; and Hall, 1963, for a discussion of the importance of setting in determining social relationships.)

2. A library room is a place to study, not a place to socialize with others. Perhaps, when another sits down very close to us, it is distracting; when the person is of the opposite sex, it is even more distracting. Therefore, one could conclude that our results demonstrate not that people generally avoid members of the opposite sex, or that they generally feel anxious in their presence, but rather that they avoid them only when socializing is markedly inappropriate. To test the generality of the "anxiety" phenomenon, Experiment 2 should be conducted in a setting where social interaction is appropriate.

3. Perhaps subjects were only momentarily away from members of the opposite sex. Theorists (See Walster, E., Walster G., & Bersheid, 1971) have proposed that individuals who appear overly eager to interact with members of the opposite sex run the risk of being judged as less desirable than "hard-to-get individuals". Perhaps, individuals moved away, initially, simply to make it clear that they were not desperate to interact with anyone of the opposite sex. Perhaps later they would have indicated a willingness to get acquainted. Because the session lasted only 10 seconds, we do not know if subjects would have eventually shifted back toward the confederate given adequate time. To test the generality of the "anxiety" phenomenon, Experiment II should measure subjects' reactions over a longer time period.

Why wasn't physical attractiveness an important variable ?

Almost all theorists have found that physical attractiveness is an important determinant of how individuals respond to others. (See Hatfield, in press, and Miller, 1978.) We did not. How can we account for this ? Perhaps our procedure did not allow subjects to really become aware of the confederate's physical attractiveness. Confederates sat next to Ss for only 10 seconds before the second photograph was taken. Although raters agreed that our attractive confederates were far more attractive than our unattractive confederates, there was no manipulation check on whether the subjects noticed these differences. To test the generality of our findings (or lack thereof) in Experiment II we want to make sure our subjects are aware of the confederate's attractiveness.

EXPERIMENT 2

Experiment 2 had three purposes :

Experiment 2 was designed to determine whether or not our post-hoc explanation of the data we secured in Experiment 1 was correct. We were interested in determining (1) whether individuals would approach members of the opposite sex more readily than members of the same sex, even in a setting where social interaction was permissible and even when periods longer than ten seconds were involved; and (2) whether or not subjects were more anxious in the presence of members of the opposite sex than of the same sex.

(3) On the other hand, we were not *entirely* ready to give up our initial hypothesis that Sex of the participants and Attractiveness of the confederate would interact in determining the subjects' readiness to approach another. Thus, in Experiment 2 we decided to once again vary Sex of S, Sex of O, and Attractiveness of O and to examine their effect on Ss' desire to approach another and anxiety about doing so. This would enable us to determine whether or not our original hypothesis was viable. [See for example, Berscheid *et al.* (1971).] If Experiment 1 is correct, we should secure significant Sex of subject X, Sex of confederate interactions. If our initial hypothesis was viable, we should secure an ABC interaction.

Procedure

A) Subjects

Ninety-seven female and male undergraduates at the University of Wisconsin were recruited as subjects (2).

(2) Although it is generally known that sample size can markedly affect the probability of obtaining statistical significance, until recently researchers have had little guidance as to what sample size to use. Recently a usable procedure has been developed for choosing sample size so that statistical significance can be rationally used as a decision rule (See Walster and Cleary, 1970). This procedure enables a researcher to specify magnitudes of effects that are either important or unimportant, and control the probabilities of making correct decisions by solving for the sample size and critical value of the variance ratio statistic.

In this study the authors decided that a mean difference relative to underlying variability of .5 σ would be important to detect with a p of .70. In addition α was set at .05. Specifying parameters led to the choice of a sample size of 96 with the control value of 3.96.

These students were recruited to participate in a "Date Match Project". This project purported to be interested in discovering the determinants of compatibility and using this information to improve computer matching services. All those who signed up for the Date Match Project were matched with at least one date. Subjects in the presents study were offered and additional \$ 2.00 if they would agree to participate in a subsequent laboratory experiment.

B) The Rationale

When the subjects arrived for the study, they were told that our experiment was designed to investigate the establishment of communication and rapport between strangers. They were told that we had isolated three kinds of cues that seemed to be important to determining how quickly strangers could establish rapport-environmental cues, visual cues, and auditory cues. They were told that E was presently interested in isolating auditory cues in order to determine how such cues affected social relations. The subjects were told that their conversation partners had arrived a few minutes earlier than they and were seated in an adjoining room. (We intended that subjects would be unaware of either the sex or the attractiveness of their partner, at this point. Unfortunately, since our naive experimenter was unaware of our hypotheses, she inadvertently tipped off all subjects as to the partner's sex by using the appropriate pronoun "he" or "she" when referring to the partner.)

Next, E explained that she would measure the subjects' and their partner's Galvanic Skin Responses (GSR) at various points throughout the experiment, in order to get some rough indication of how soon the conversation partners began to feel comfortable with one another. The experimenter explained that she would collect initial data on the subject's GSR "base rate". The subjects were then connected to the GSR apparatus; offner paste was applied to their fingers, and finger electrodes were attached to the palmar surface of the index and fourth (ring) fingers of Ss' left hands. Ss were instructed to keep their hands in one comfortable position during the study, so that hand movement would not disrupt the GSR reading. It was emphasized that no shock or pain would result from the GSR.

E then left the experimental room, supposedly to explain the procedure to the subjects' partners. By using the appropriate pronoun "he" or "she", E inconspicuously reminded the subjects at this time that their partners were male or female.

C) Securing Initial Estimates of Anxiety (3)

1) GSR measures :

As soon as the experimenter closed the door, an observer began the first 1.5 minute reading of the subject's GSR. The 5818 GSR, manufactured by the Lafayette Instrument Company, measured on a scale of +3 to -3 (i.e., + 1500 ohms) changes in S's skin resistance. In order to quantify the GSR data, an event lapse timer and a digital counter were wired to the meter.

a) Number of deflections. The digital counter recorded each needle deflection to the left on 0 of approximately 500 ohms of resistance (i.e., - 1 on the scale).

b) Cumulative time of deflections. The event lapse timer recorded the cumulative time of all such deflections. Pretesting had shown that recording deflections to - 1 resulted in a reasonable amount of variance between subjects within the optimal sensitivity range of the meter. A drop in resistance (a deflection to the left) indicated increased arousal.

At present, of course, no adequate physiological measure of "anxiety" exists. We decided to make the best of a bad situation and use GSR measures of arousal as out indicant of anxiety. (See Geer, 1966; Forrest, 1967; Sternback, 1966; or Wilson, 1967 for evidence that GSR level is a useful indicant of anxiety.)

2) Self-report measures :

At the end of 1.5 minutes, the experimenter re-entered the experimental room and

(3) We had intended to secure base rates of anxiety before subjects were told the sex or attractiveness of their partner. As we noted earlier, all subjects were aware of the sex of their partner by this point. Rather than serving as a base rate, then, these measures assess the anxiety of subjects who *anticipate* that they will soon be interacting with a member of the same or the opposite sex.

administered the first Self-Report Questionnaire. Two measures comprised the questionnaire :

a) Behavioral assessment. The subjects were asked whether they were aware of any of the following : Heart beating or pounding, palms sweating, shaking or trembling, nervous mannerisms (fingers of feet tapping) or restless movements (squirming in chair). The subjects' anxiety scores were determined by summing the number of nervous reactions they reported.

b) Semantic differential responses. Subjects were asked to describe their feelings on a 12 item questionnaire. The items consisted of 12 pairs of polar opposites, with the connotation of "calm-nervous" (i.e., Relaxed-ill at ease; Upset-Relaxed). The subject was asked to check one of five responses for each pair (i.e., very calm = 1 to very nervous = 5). Subjects' reactions to the twelve questions were summed to form an indirect Index of the subject's anxiety.

D) Arranging For a Conversation

After completing the questionnaire, the subjects were told the details of the conversation they were to have with their partners. They were told that they had been randomly assigned to the condition in which auditory cues from the conversation would be isolated from visual and environmental cues. Therefore, they would be conversing with a male or female partner via a microphone and audio console. They learned that their partner would be seated behind a two-way mirror in an adjoining room, and thus, the partner would have visual as well as auditory cues. (In reality, the partner was a confederate. One-half of the sample spoke to a male confederate and one-half to a female confederate. All confederates were blind as to which experimental condition the subject had been assigned.)

Next, the subjects were given a list of general topics for conversation (e.g., year in school, school major, current course work). The subjects were told that it was their obligation to initiate the conversation by introducing themselves at a pre-determined signal (i.e., the illumination of a light on the console panel). Topics of conversation were suggested to the subjects in order to insure that subjects had fairly comparable with the confederates.

Somewhat as a "side thought", the experimenter gave the subjects a photograph of their partners. The experimenter explained that since the subjects would be in the awkward position of talking into a mirror, they would be given a picture of their partner to lessen their awkwardness. (In reality, the "candid" snapshots had been taken by a photographer. The stimulus pictures consisted of two females and two males judged by peers as attractive, and five females and six males judged by peers as unattractive. Which picture the subject received was randomly determined).

The experimenter reminded the subjects that their GSR would be taken again. asked for questions, then left the room.

E) Securing Longer-Term Measures of Anxiety.

With the closing of the door, the observer began the second 1.5 minute GSR reading. After recording the GSR data for Period 2, the observer again activated the GSR system for Period 3. He then turned on the light on subjects' consoles, thus signalling them to begin the conversation.

Confederates were instructed to behave in a uniform manner with all subjects. For instance, the confederates answered the subjects' questions briefly, and asked questions only if a long, uncomfortable pause occurred or if the subjects' questions necessitated a reply from the confederates. The confederates' responses were geared to the subjects (e.g., if subjects mentioned that they were freshmen, the confederates would say that they too, were freshmen).

At the end of the three-minute conversation, the experimenter reentered the experimental room and asked the subject to fill out a second Self-Report Questionnaire. These questionnaires were identical to the first, except that the subjects were asked

to indicate how they felt *during* the conversation.

F) Measuring Subjects' Desire to Approach or Avoid Their Partners

Finally, the subjects were asked to complete an Interaction Questionnaire. They were asked to indicate their feelings toward their conversation partner. This questionnaire consisted of 15 pairs of polar opposites. Each pair was designed to assess on a five-point scale the subjects' tendency to approach or avoid the stimulus person. (For example, friendly = 5, unfriendly = 1; interested = 5, bored = 1; impressed = 5, unimpressed = 1). The subjects' responses on the 15 items were scored (in the positive direction) and summed to form an Approach Index.

The last question was a manipulation check. Ss were asked to indicate the attractiveness level of their partners on a nine-point scale (ranging from 1, "Not at all attractive" to 9, "Very good looking").

G) Debriefing

The experimenter debriefed the subject at the conclusion of the session and told him the true purpose of the study. He then paid Ss and thanked them for their participation.

Results

Our manipulation checks on attractiveness indicate that the manipulation of the confederates' attractiveness was successful. The attractive confederates were rated as significantly more attractive than were unattractive stimuli ($F(1,81) = 45.59$). Evidently the beauty of the confederate was salient to our Ss.

Since our manipulations do seem to be adequate, we can now turn to the appropriate tests of our hypotheses :

1. *Experiment 1 indicated that individuals do in fact tend to avoid contact with opposite-sex others. Were subjects in Experiment 2 aware that they desired to avoid association with members of the opposite sex ?*

They were not. On the semantic differential questionnaire designed to measure whether Sex of subject and Sex of Confederate interacted in influencing subjects' desire to approach or avoid the other, the AB interaction was only $F = 62(4)$.

2. *Are subjects aware of being more anxious when they know they must interact with a partner of the opposite sex than when they expect to interact with a same sex partner ?*

Our data provide conflicting answers to that question : When we examine the subjects' own report of how anxious they felt, the answer is "yes". Both men and women report more anxiety symptoms (more heart pounding, more shaking and trembling, or more finger tapping, etc.) when they know that they are *about* to have a conversation with an opposite-sex individual than when they are about to have a conversation with a same-sex person. (Interaction $F(1,81) = 7.11$). Subjects also report more nervousness *during* a conversation with an opposite-sex confederate ($F(1,81) = 3.80$; $p = .05$).

[see table 2 I

Our indirect measure of subjects' anxiety (i.e., subjects' selection of anxious semantic differential words rather than calm ones) revealed no between condition differences ($F_s = .47$ and $.07$ respectively).

When we turn to our physiological measure of subjects' anxiety, however, a surprising result emerges. We had assumed that a subject's Behavioral report of Anxiety and his GSR reactions would be highly correlated. They are not. When Ss' scores on these two measures (compared at the appropriate time periods) are correlated, we secure r 's ranging from $-.10$ to $.16$.

(4) In designing this experiment, we had assumed that Ss would be aware of the slight unease they felt about approaching members of the opposite sex. Evidently, they were not. In retrospect then, it is evident that our results would have been clearer had we included an unobtrusive behavioral measure of approach/avoidance.

Table 2

The Effect of Sex of Subject and Sex of Confederate on Subject's Anxiety

Sex of Subject	Sex of Confederate	(N)	Desire to Approach Partner ¹	Initial Nervousness ²			
				Nervous Behavior Reported	Semantic-Differential Nervousness Reported	GSR : Cumulative Time ³	GSR : No. Deflections
Male	Male	(28)	55.14	1.14	30.75	25.85	11.36
Female	Female	(25)	56.80	1.72	31.04	32.71	8.72
Male	Male	(22)	57.64	2.55	33.13	8.33	4.63
Female	Female	(22)	56.59	1.77	30.50	19.48	7.81
Interaction F =			.62	7.11**	.47	6.98**	7.06**
Sex of Subject	Sex of Confederate	(N)	Desire to Approach Partner ¹	Subsequent Nervousness ²			
				Nervous Behavior Reported	Semantic-Differential Nervousness Reported	GSR : Cumulative Time ³	GSR : No. Deflections
Male	Male	(28)	55.14	1.43	34.21	70.05	27.78
Female	Female	(25)	56.80	1.80	32.72	57.83	21.12
Male	Male	(22)	57.64	2.45	33.86	24.91	7.41
Female	Female	(22)	56.59	1.86	32.18	43.70	15.63
Interaction F =			.62	3.80*	.07	8.21**	22.19**

1. The higher the number, the more Ss would like to approach their partner.

2. The higher the number, the more nervous the S estimates himself to be the more nervous GSR measures show him to be.

3. Period 3 was twice the duration of Periods 1 and 2. Thus, for ease the GSR data for each of the first two periods were multiplied by two.

* $p < .05$, d.f. 1 and 81

** $p < .01$, d.f. 1 and 81

Even more puzzling is the discovery that according to the GSR indicant, subjects are *more* aroused when they expect to associate with members of the *same* sex than when they expect to associate with members of the opposite sex. This is true both when subjects are merely anticipating a conversation (during Period 1, Interaction $F = 6.98$ for Cumulative GSR and 7.06 for Number of GSR deflections) or when they are actually engaged in conversation. (In Period 2, Cumulative GSR $F = 13.10$; Number of Deflections $F = 8.40$. In Period 3, Cumulative GSR $F = 3.80$; Number of Deflections $F = 17.53$). These results are very perplexing. We have no explanation for them at the present time.

Physiologists have suggested that it is remotely possible that these peculiar results are due to the fact that those subjects who expected to converse with members of the opposite sex were sexually aroused as well as anxious. Anxiety and fear generate sympathetic arousal, while sexual stimulation generates parasympathetic responses (See Arnold, 1970; or Sternbach, 1966). These two sub-systems of the ANS are for the most part antagonistic. That is, both SNS and PNS fibers run to most of the autonomously-modulated organs, and these oppose each other in effect. (See Sternbach, 1966). Thus, it is possible that the competition of sexual responses and anxious responses produced these unexpected results. The problem with this "explanation" for our data, however, is that research suggest that both anxiety and sexual arousal generate increased GSR scores (See Solyom & Beck, 1967; Jordan & Butler, 1967)

3. In Experiment 1, men and women were willing to get closer to members of their own sex than members of the opposite sex—regardless of how attractive or unattractive those opposite-sexed members are. Do we secure the same results, or lack of results here? Yes. When we examine the data to determine whether Sex of Subject (A) x Sex of Confederate (B) x Attractiveness of Stimuli (C) interact in influencing subjects' willingness to approach the other, are consistently significant, we see that they do not ($F(1,81) = .54$; n.s.).

In Experiment 1 we speculated that perhaps Ss did not notice the confederate's physical attractiveness, or perhaps the time period (10 seconds) between the time the confederate sat down and the photographs were taken was too short to allow Ss to do much more than observe the confederate's sex. However, since we secure parallel findings in Experiment 2... we are led to conclude that Ss respond so powerfully to the sex of those they encounter, that it overbalances the more subtle effects of physical attractiveness.

SUMMARY

The conclusions we would draw from Experiments 1 and 2 are:

1. Although individuals are not aware of any desire to avoid members of the opposite sex (See Experiment 2), they tend to do so (See Experiment 1).

2. People probably have a slight tendency to avoid others of the opposite sex because they engender different amounts of anxiety in us than do same-sex partners. The exact nature of this anxiety response, however, is at yet unspecified. Subjects report that they *feel* more anxious in the presence of opposite-sex others, but direct physiological measures seem to indicate that they are less aroused (they have *lower* GSR levels).

3. Byrne et al. (1968) proposed that people prefer to interact with attractive individuals rather than ugly ones, and that this effect is stronger in opposite sex relations than in same sex ones. We found no evidence in support of this contention.

(Reçu juillet 1980)

Abstract

Studied gender and physical attractiveness as determinants of eagerness of men and women to interact with a stranger. Some theorists predict that a physically attractive man or woman will be approached in a social encounter, while an unattractive person will be avoided; these responses are expected to be more intense when the two persons differ in gender.

In experiment one, each of 118 men and women seated alone in a small study room was approached by an attractive or unattractive male or female confederate who seats down next to the subject. The latter's tendency to move toward or away from the intruder was assessed. It appeared that individuals avoided close proximity to members of the opposite sex, regardless of the other's physical attractiveness.

In experiment two, 97 men and women were asked to converse with an attractive or unattractive man or woman seating in an adjoining room. Subjects indicated several times how much they desired to approach their partner and how anxious they felt about this prospect. In addition, their *Galvanic Skin Responses* were measured.

It is concluded that people are not aware of their desire to avoid strangers of the opposite sex, despite the fact that they report the prospect of such encounters as anxiety producing. No concurrent physiological evidence was found.

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