The Role of Sex and Self-Monitoring in Unstructured Dyadic Interactions

William Ickes and Richard D. Barnes
University of Wisconsin—Madison

This study was conducted to determine how individual differences in sex and in level of self-monitoring were related to subjects' behavior during an initial interaction in same-sex dyads. Subjects who had been previously tested with Snyder's Self-Monitoring Scale were covertly videotaped during an unstructured 5-minute interaction with a same-sex stranger. They were then asked to give impressions of their own and the other person's behavior during the interaction period. The videotapes of these interactions were subsequently coded for a variety of behavioral measures. With respect to variations in sex, the data provided considerable evidence of greater involvement and affiliation in the female dyads than in the male dyads. The data also suggested that the self-monitoring of certain expressive behaviors may be mediated by perceptions of their sex-role appropriateness. With respect to variations in self-monitoring, the data indicated that (a) the higher self-monitoring (SM) subject within each dyad was more likely to initiate conversation, (b) dyads in which a high-SM subject and a low-SM subject were paired appeared to experience particular interaction difficulty, and (c) within dyads, the higher (versus the lower) SM subjects' perceptions of their own and their partners' behavior were generally consistent with Snyder's conception of self-monitoring.

Experience suggests that some people are much more concerned than others about behaving in a "correct" or appropriate way in the social situations that they encounter. Despite the fact that much of socialization is dedicated to teaching and encouraging people to monitor and control their behavior effectively during interaction with others, it is apparent that individuals may differ markedly in the extent to which they actually do so. Snyder (1974) has argued that such differences are real and important, and he has proposed that they can best be conceptualized in terms of an underlying dimension of self-monitoring (SM)—a construct that he has attempted to operationalize and systematically validate.

Conceptually, SM may be viewed as a unitary construct that reflects the individual's tendency to employ the tactics of impression management in his relations with others (Snyder, 1977). However, because this general tendency is the resultant of a number of specific behavioral components, Snyder (1974) has elaborated the concept of SM by describing certain basic ways in which the behavior of the high-SM individual should differ from that of the low-SM individual. Specifically, the high-SM individual should be (a) more concerned about behaving in a socially appropriate manner, (b) more sensitive to the expression and self-presentation of others in social situations, and (c) more skillful in using these and other situational cues "as guidelines for monitoring and managing his own self-presentation and expressive behavior" (Snyder, 1974, p. 536). Snyder has also suggested, as corollaries to these basic
differences, that the high-SM individual should be more likely to seek out and use relevant social comparison information in a self-presentation situation and should be able to express and communicate an arbitrarily chosen emotional state more accurately.

Operationally, SM can be assessed by means of Snyder's (1974) Self-Monitoring Scale. This is an internally consistent self-report measure that contains 25 true–false items such as the following: "In different situations and with different people, I often act like very different persons;" "When I am uncertain how to act in a social situation, I look to the behavior of others for cues;" "I may deceive people by being friendly when I really dislike them." Snyder has reported that the scale has a Kuder–Richardson 20 reliability in the .60–.70 range and a test–retest reliability of .83.

Some initial evidence for the validity of the SM construct has been provided by a rapidly growing number of empirical investigations. In Snyder's 1974 paper, convergent validity for SM was established in four separate studies. The first study demonstrated that in comparison to low-SM subjects, high-SM subjects were rated by their peers as being better at learning what is socially appropriate in new situations and having better self-control of their emotional expression. The second study revealed that the mean SM score of a group of professional stage actors was significantly higher than that of a sample of Stanford undergraduates, whereas the mean SM score of a group of psychiatric-ward patients was significantly lower than that of the student sample. The third study indicated that high-SM subjects were able to communicate a variety of emotional states nonverbally with greater accuracy than low-SM subjects were. Finally, the fourth study showed that high-SM subjects were more likely than low-SM subjects to seek out social comparison information when it was relevant to their self-presentation.

Subsequent research has indicated that the behavior of high-SM subjects varies more in response to situational changes than does that of low-SM subjects (Lippa, 1976; Rarick, Soldow, & Geizer, 1976; Snyder & Monster, 1975). These findings have been complemented by the data obtained by Snyder and Swann (1976) and Snyder and Tanke (1976) that suggest that high-SM subjects can tolerate greater inconsistency between their behaviors and their attitudes than low-SM subjects can. With respect to social perception, high-SM subjects have been found to be (a) more sensitive to situational-context cues in their perception of others (Jones & Baumeister, 1976), (b) more likely to remember and make strong dispositional attributions about persons on whom their outcomes depend (Berscheid, Graziano, Monson, & Dermer, 1976), and (c) better able to detect deception, whether in other subjects (Krauss, Geller, & Olson, Note 1) or in "To Tell the Truth" contestants (Geizer, Rarick, & Soldow, in press). From a social interaction standpoint, high-SM subjects appear (a) to define themselves more in terms of their relationships with others (Ickes, Layden, & Barnes, Note 2), (b) to have more insight into hypothetical means of influencing the affective response of others (Brothen, in press), and (c) to be better able to control their expressive behavior and thus facilitate the expression of socially desirable dispositions while suppressing socially undesirable ones (Lippa, Note 3). Finally, it appears that obese people may be generally higher in SM than non-obese people (Younger & Pliner, 1976), a finding that may be due either to the presumed hypersensitivity of obese individuals to external cues (e.g., Schachter, 1971; Schachter & Rodin, 1974) or to a "deviant" status that forces obese individuals to monitor and control their behavior more carefully in order to achieve social acceptance.

These results are intriguing in that they appear to provide fairly consistent evidence for a number of different facets of the SM construct. In none of the studies, however, was an attempt made to examine the role of SM as an individual-difference variable in ongoing social interaction. Instead, the approach adopted in most of the studies was to present subjects with an "as if" or hypothetical task and then look for SM differences in the resulting behavior(s). Because
SEX AND SELF-MONITORING IN DYADS

SM appears to be a construct that is ideally suited to the investigation of social-interaction processes, the major purpose of the present study was to extend previous validation attempts by beginning to explore the role of this variable in the unstructured dyadic interactions of strangers.

It should be noted that the use of SM as an individual-difference variable may pose an interesting if not unique problem for the experimental social psychologist. If high-SM individuals are indeed more responsive than low-SM individuals to social-appropriateness cues, their behavior should be especially sensitive to whatever "demand characteristics" may exist within a given experimental situation. In the context of the present research, this argument suggests that if two subjects were explicitly instructed to interact with each other for a specified period of time, any resulting evidence of greater interactional involvement on the part of the higher SM subject might simply reflect a greater responsiveness to experimental demand rather than a more general difference in interactional style. For this reason, we believed that it was essential to create a situation in which social interaction would not be required of the subjects as a "task" to be performed. We therefore attempted to construct a setting in which interaction could either occur or not occur, depending on the subjects' willingness to interact.

Although our procedure was independently developed, it bears some resemblance to that used in previous studies by Mehrabian (e.g., Mehrabian, 1971; Mehrabian & Diamond, 1971). As in Mehrabian's studies, the members of each dyad—two strangers of the same sex—were led into a "waiting room" and left there together in the experimenter's absence. During this interval while the subjects were ostensibly waiting for the experiment to begin, the verbal and nonverbal behaviors of both individuals were audio- and videotaped over a 5-minute observation period. Any interaction that occurred during this period was unstructured and spontaneous; both participants were naive subjects (no confederates were employed in the study) who had not been previously introduced to each other or instructed to get acquainted.

In the present study, the interactional behavior of six different dyad types was examined. These dyad types represented all possible pairings of same-sex subjects at high (H), moderate (M), and low (L) levels of SM. Thus, two high-SM subjects comprised an HH dyad, one high-SM and one low-SM subject comprised an HL dyad, and so on. Of the six dyad types (HH, HL, LL, HM, MM, and ML), the HL condition was considered to be of particular interest for the study of interactional dynamics. Assuming that Snyder's (1974) characterization of high-SM versus low-SM individuals is essentially correct, the extreme differences in the interaction styles of the members of the HL dyads might cause them to experience particular difficulty or interactional strain in their attempts to relate to each other. On a more general level, Snyder's (1974) analysis suggested that differences in SM should be directly evidenced by differences in (a) the subjects' concern about behaving appropriately, (b) their sensitivity to the other's expression and self-presentation, and (c) the degree to which they monitor and control their own expressive behavior.

Method

Subjects

The subjects were 60 male and 64 female undergraduates enrolled in introductory psychology classes at the University of Wisconsin. They were drawn from a population of 607 students who had been pretested with Snyder's (1974) Self-Monitoring Scale earlier in the semester. From the obtained distribution of scores, subjects at three levels of SM—high (SM score of 15–22), moderate (SM score of 9–14), and low (SM score of 1–8)—were contacted by telephone and scheduled to participate in the study in same-sex dyads. Of those dyads who actually participated, the data for two female pairs were excluded from the analysis—one pair because the subjects suspected that their interaction had been monitored with a hidden camera and the other pair because the subjects had met each other previously.

Design

In attempting to relate SM to social interaction processes, we were interested in behavior at two
levels of analysis. On one level, using *dyads* as the units of analysis, we were interested in how behavior might vary as a function of sex of dyad and dyad type (SM composition). On another level, using *subjects within dyads* as the units of analysis, we were interested in how behavior might vary as a function of the relative SM rank (higher vs. lower) of the subjects within dyads. After obtaining statistical consultation, we adopted a two-between, one-within design that varied sex of dyad and dyad type (HH, HL, LL, HM, MM, and ML) as the between-dyads factors, and varied the SM rank of subjects within dyads (higher vs. lower) as the within-dyads factor. Subjects were assigned randomly, within the constraints imposed by sex and dyad type, to the 12 between-dyads conditions, with \( n = 5 \) dyads in each condition.

Given the sources of variation that we wanted to study, the design was necessarily unconventional in two respects. First, because the magnitude of the difference in SM scores within dyads was obviously not independent of dyad type, any interpretation of effects involving both the between-dyads variable of dyad type and the within-dyads variable of SM rank must take into account the fact that the meaning of the SM-rank comparison varies from one dyad type to the next. Fortunately, this interpretive problem affected very few of the findings to be reported here because significant effects involving both the dyad-type and the SM-rank factors were rare. Second, the SM ranking of the members of the homogeneous (HH, MM, and LL) dyad types was arbitrary (i.e., random) for seven dyads in which the participants' SM scores were equal. As the arbitrary ranking in these cases could have contributed to the production of spuriously significant effects involving the SM-rank factor, we recomputed all the relevant analyses with the data for these seven dyads excluded. In no case did the reanalysis render a previously significant result insignificant, and since the original analyses proved to be the more conservative in nearly every case, the results of the original analyses are presented here.

**Setting and Equipment**

The experimental room used as a setting for the study was furnished so that it appeared to be a storage area that had recently been converted into a temporary waiting room (for schematics, see Figure 1). Boxes, printouts, old questionnaires, and various experimental paraphernalia were stacked in a disorderly fashion in one corner of the room; these concealed a Panasonic NV-3130 videorecorder and a Panasonic WV-340P camera fitted with a zoom lens. The camera was positioned behind a set of boxes stacked on a table and was hidden by a screen of translucent blue plastic placed directly in front of the lens. The videorecorder was concealed within a sound-insulated box on the table. Directly across the room from the camera were a couch, approximately 170 cm in length, and a medium-sized coffee table. The coffee table was flanked by two desk chairs that were positioned about 3 m apart to face opposing walls.

**Procedure**

During the telephone solicitation, a research assistant (who feigned naivety of what the study was about) instructed the subjects to report to specific waiting areas in the psychology building. These areas were physically isolated from each other but were on the same floor as the experimental room described above. At the beginning of each session and prior to meeting each pair of subjects, the experimenter activated the videotape equipment in the experimental room and checked to ensure that it was well concealed and operating properly. He then turned off the lights in the room and collected the two subjects from their respective waiting areas. (The experimenter was kept blind with respect to the subjects' SM scores.)

While conducting the subjects to the experimental room, the experimenter explained that the first part of the study involved filling out copies of a questionnaire but that he had just run out of these and would have to get some more. He led the subjects into the experimental room and, turning on the lights, asked them to leave their belongings by the door and take a seat on the couch while he went for some fresh copies of the questionnaire. Explaining that he would return "in a minute or two," the experimenter left the room and closed the door behind him. He then activated a stopwatch to time the 5-minute interval in which the subjects were covertly audio- and videotaped.

At the end of this period, the experimenter reentered the room, announced that the study was half over, and queried the subjects for possible suspicion of the videotaping before proceeding further. After testing for suspicion, he explained that the first part of the study had been designed to examine "the actual behavior of two strangers during their initial interaction." He showed the subjects how their interaction had been videotaped, assured them that any data taken from the tape would be used

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1 An alternative design was also considered but was not recommended as most appropriate by our consultants: Here, the subjects within each dyad would arbitrarily be labeled #1 and #2, and the data would then be analyzed in a \( 3 \times 3 \times 2 \) between-dyads factorial (SM Level of #1 X SM Level of #2 X Sex of Dyad). This design would permit the effects of sex and of SM level of the participants to be tested, with the dyad used as the sole unit of analysis. It would fail, however, to test for variations in behavior that occur within the unique interactions and therefore would not take into account the substantial degree of correlation between the scores of the subjects within each dyad.
Figure 1. Schematic representations of the experimental room. (VTR = videotape recorder.)
for statistical purposes only, and asked them to sign a release form giving their consent for the tape to be used in this way (all subjects agreed to sign the release). He also indicated that all tapes would be erased as soon as the relevant data had been coded from them.

The experimenter then explained that the second part of the study involved assessment of the subjects’ perceptions of the interaction in which they had just engaged. Accordingly, both subjects were asked to fill out a brief posttest questionnaire designed to elicit perceptions of their own and the other subject’s behavior during the interaction period. Before completing the questionnaires, the subjects were seated in opposite corners of the room, facing away from each other, and were explicitly assured that their responses would not be seen by the other subject. The experimenter waited outside in the hall while the subject completed the questionnaires and collected the forms from them when they left the room. Each subject was sworn to secrecy and then released.

**Dependent Measures**

Several different categories of dependent measures were obtained from the data generated by this study. First, the videotape data were coded to produce primary measures of some relatively constant or “static” behaviors and of some relatively variable or “dynamic” behaviors. Second, the coded records of this first set of measures were used as a basis to derive a number of measures of the patterns of verbal and nonverbal interaction. Third, responses to the items on the posttest questionnaire yielded data concerning the subjects’ individual impressions of self and of other during the 5-minute interaction period. For the purpose of clarifying our later discussion of the results, the dependent measures in each of these categories will be discussed in turn.

**Primary Measures**

*Static behaviors.* A number of the measured behaviors were labeled static either because they could occur only once or because they were relatively invariant over the entire interaction period. Two independent judges who were blind to the subjects’ SM scores made ratings of these behaviors from the first few seconds of interaction recorded on the videotapes. Coded behaviors that occurred only once were what sat first and who talked first (i.e., initiated conversation). Interrater reliability coefficients indicated near-perfect agreement ($r_s = .99$) for both of these measures.

Coded behaviors that continued but remained fairly invariant throughout the interaction were interpersonal distance and the degree of body orientation each subject maintained with respect to the other. Interpersonal distance (in cm) was measured in three ways: (a) axis-to-axis distance, a measure of the distance between the imaginary axes that laterally bisected the bodies of each pair of subjects as they sat on the couch; (b) boundary-to-boundary distance, a measure of the distance between the closest points of their bodies (e.g., elbows); and (c) shoulder-to-shoulder distance, a measure of the distance between their proximal shoulders. Body orientation was measured by estimating the degree of orientation of the subject’s body (plane of back) toward or away from the other person. Given the assumption that sitting faced forward with one’s back flat against the couch represented a 0° orientation of one’s body with respect to the other, estimates were made within a range of $-90^\circ$ (facing away from the other, back at right angles to the couch) to $+90^\circ$ (facing toward the other, back at right angles to the couch). Interrater reliabilities were .92 for the interpersonal-distance measure (computed from the shoulder-to-shoulder distance only) and .76 for the body-orientation measure.

*Dynamic behaviors.* A number of the measured behaviors were dynamic in the sense that they could occur more than once or were relatively variable over the interaction period. The primary measures in this category—verbalizations, directed gazes, and expressive gestures—were coded by two independent judges who were blind to the subjects’ SM level. An Esterline-Angus heat-sensitive event recorder was used in conjunction with the videotapes to record the total frequency and duration of each behavior. All verbalizations were recorded, regardless of their content. Directed gazes were recorded whenever the subject under observation looked directly toward the other person’s face, regardless of whether or not the other person returned the gaze. Expressive gestures were recorded as gross arm and hand movements that accompanied verbalizations and appeared to supplement their content. Interrater reliabilities for the total frequency of these three dynamic behaviors were .87, .94, and .99, respectively. Reliabilities for the total time given to each of these behaviors were .99, .84, and .99, respectively.

**Derived Measures**

*Initiation and termination of mutual gazes and conversation sequences.* From the Esterline-Angus charts of the directed gaze data, blind independent judges recorded mutual gazes whenever the charts indicated that both subjects were simultaneously engaged in a directed gaze. After determining when these mutual gazes occurred, the judges then noted which subject initiated the mutual gaze (i.e., met the other’s gaze) and which subject terminated it (i.e., looked away first). Interrater reliabilities for these derived measures were .99 for initiations and .99 for terminations. In a similar manner, judges used the charts of the verbalization data to record the number of times each subject initiated (i.e.,
spoke first) and/or terminated (i.e., spoke last) a conversation sequence. Since the audio portion of the videotapes was not of sufficient clarity to permit accurate transcripts of the content of the verbal interactions to be made, conversation sequences were defined as groupings of verbalizations that appeared on the charts without a major interruption (see next section). Interrater reliabilities for the initiation and termination of these sequences were .88 and .78, respectively.

Periods of silence. From the Esterline-Angus charts of the verbalization data, blind independent judges recorded the frequency and duration of major breaks in the flow of conversation over the course of each dyad's interaction. For most dyads this proved to be a relatively easy task because verbalizations during the 5-minute interval tended to be grouped into definite aggregates or clumps separated by at least 10 seconds of silence and a lack of visual interaction. The interrater reliability was .75 for the total number of periods of silence and .99 for the total time spent in silence.

Postexperimental Questionnaire Data

The perceptions-of-interaction questionnaire contained a number of parallel items that assessed (a) the subjects' perceptions of their own feelings or behavior on some dimension and (b) their perceptions of the other person's feelings or behavior on the same dimension. A 14-point (0-13) scale was used as the response format in all cases. The specific items included on the questionnaire are described in the next section in order to provide a more immediate context for the presentation and discussion of the results obtained.

Results and Discussion

Static Behaviors

Who sat first and who talked first. Chi-square analyses indicated that the member of each dyad who sat first did not vary as a function of dyad type, of sex, or of SM rank within dyads (all $\chi^2$s ns). Similar analyses indicated that the measure of who talked first was also unrelated to dyad type and to sex, but was clearly related to the subject's relative SM rank within the dyad. Excluding from the analysis the five dyads (three male, two female) in which neither person talked at all, the higher SM subject was found to have initiated conversation in 39 of the 55 dyads in which talking occurred, $\chi^2(1) = 9.62, p < .005$. This effect was present both in the male dyads (20 out of 27), $\chi^2(1) = 6.26, p < .02$, and in the female dyads (19 out of 28), $\chi^2(1) = 3.57, p < .07$. These data appear to provide direct behavioral support for Snyder's (1974) conception of SM as a measure of the degree to which a person "has good control of his self-presentation...and is sensitive to social appropriateness cues" (p. 530). If it is assumed that speaking to the other was generally seen as the socially appropriate thing to do in the waiting-room situation, the subject with the greater capacity for effective self-presentation and greater social sensitivity might reasonably be expected to be the first to break the silence.

Interpersonal distance and body orientation. Interpersonal distance was measured in terms of (a) axis-to-axis distance, (b) boundary-to-boundary distance, and (c) shoulder-to-shoulder distance. The analysis of the axis-to-axis data revealed a significant main effect for sex, suggesting that interpersonal distance was greater in the male dyads ($M = 104.1$ cm) than in the female dyads ($M = 94.0$ cm), $F(1,48) = 8.60, p < .01$. This effect vanished completely, however, when distance was measured from body boundary to body boundary or from shoulder to shoulder ($Fs < 1$), indicating that it was an artifact that simply reflected the greater body bulk of the males and not their desire to sit further apart. Results for the body orientation measure revealed a nonartifactual main effect for sex, indicating a significantly greater degree of orientation toward the other in the female dyads ($M = 7.8^\circ$) than in the male dyads ($M = 0.5^\circ$), $F(1,48) = 8.47, p < .01$. This was the first of several effects in the data that evidenced greater affiliativeness and personal involvement in the female dyads than in the male dyads.

Because both interpersonal distance and body orientation could conceivably vary according to which member of each dyad sat on the couch first (and thus defined available space for the other member), subsequent analyses were conducted to contrast conditions in which the higher SM subject sat first with those in which the lower SM subject sat first. Apart from the findings already noted, however, these analyses yielded no significant results.
Table 1  
**Behavioral Differences in Male and Female Dyads over a 5-Minute Interaction Period**

<table>
<thead>
<tr>
<th>Behaviors</th>
<th>Male dyads</th>
<th>Female dyads</th>
<th>$F(1, 48)$</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total frequency</td>
<td>Total duration</td>
<td></td>
</tr>
<tr>
<td>Verbalizations</td>
<td>14.7</td>
<td>26.9</td>
<td>10.75**</td>
</tr>
<tr>
<td></td>
<td>39.2</td>
<td>97.1</td>
<td>19.34***</td>
</tr>
<tr>
<td>Directed gazes</td>
<td>15.4</td>
<td>26.4</td>
<td>9.13**</td>
</tr>
<tr>
<td></td>
<td>30.7</td>
<td>80.5</td>
<td>21.38***</td>
</tr>
<tr>
<td>Expressive gestures</td>
<td>2.2</td>
<td>5.6</td>
<td>8.55*</td>
</tr>
<tr>
<td></td>
<td>2.9</td>
<td>14.5</td>
<td>8.09*</td>
</tr>
</tbody>
</table>

*Note.* When dyads, rather than subjects, are the units of analysis, the reported means are based on the averaged scores of each pair of subjects, not on their combined scores.

* In seconds  
** $p < .005$.  
*** $p < .001$.  

**Dynamic Behaviors**

Verbalizations, directed gazes, and expressive gestures. As Table 1 indicates, analyses of variance for measures of the total frequency and duration of each subject’s verbalizations, directed gazes, and expressive gestures revealed strong and consistent main effects for the sex variable. The data clearly showed that the females talked more frequently, looked at each other more frequently, and used significantly more expressive gestures during the interaction period than did the males. Similarly, the total time spent engaged in each of these behaviors was significantly longer for females than for males. All of these effects held regardless of whether or not the dyads in which no verbal interaction occurred were excluded from the analyses. The data also suggested that in each case the average time per behavior was reliably greater for females than for males, but statistical problems associated with the treatment of zero frequencies in computing such averages greatly limit the comparability of these results to those presented in Table 1. For this reason, the average time-per-behavior data are not reported in the present article.

Despite our intuitive expectations, consistent effects for SM were not evident in either the verbalization data or the directed-gaze data. Effects for SM were clearly evident, however, in the data for expressive gestures. For both the frequency and the duration of expressive gestures, the reported main effects for sex were qualified by a significant interaction with the SM rank of the subjects within dyads, $F(1, 48) = 9.32, p < .005$, for frequency, and $F(1, 48) = 5.96, p < .05$, for duration. With respect to the frequency data, a comparison of the interaction means indicated that in the female dyads, the total number of expressive gestures was reliably greater for the higher SM subjects ($M = 7.2$) than for their lower SM counterparts ($M = 4.0$), $F(1, 24) = 9.82, p < .01$. In the male dyads, however, the total number of expressive gestures was somewhat less for the higher SM subjects ($M = 1.5$) than for their lower SM partners ($M = 2.9$), $F(1, 24) = 1.64, ns$.

Parallel differences were found in the duration data: The higher ranked females devoted significantly more time to expressive gestures ($M = 21.9$ sec) than did their lower ranked partners ($M = 7.0$ sec), $F(1, 24) = 5.66, p < .05$; the higher ranked males, however, devoted slightly less time to this behavior ($M = 2.4$ sec) than did their lower ranked companions ($M = 3.3$ sec), $F < 1$. It is clear from these comparisons that a significant main effect for SM rank in the duration data $F(1, 48) = 4.76, p < .05$, was due entirely to the data from the female dyads. Taken in sum, these data suggest that the tendency to monitor and manage one’s expressive behavior (in this case, gestures) may increase the expression of such behavior in females but may tend to inhibit its expression in males, at least in the context of an initial interaction with a same-sex stranger.

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2 The sole exception was a three-way (Sex X Dyad Type X SM Rank) interaction that appeared in the duration data for directed gazes. This effect has not been reported because it was (a) relatively weak ($p < .05$), (b) based on an $n$ of only five dyads per cell, and (c) inconsistent with the frequency data, in which the corresponding $F$ was only .69 (ns).
Initiation and termination of mutual gazes and conversation sequences. From the charted records of the directed gazes and verbalizations of the two members of each dyad, measures were derived of the frequency with which each member initiated and/or terminated a mutual gaze or a conversation sequence. Analyses of these measures revealed significant main effects for sex. Because of the greater number of directed gazes occurring in the female dyads, the number of mutual gazes initiated and terminated was greater for females ($M = 9.7$) than for males ($M = 3.9$), $F(1,48) = 17.55, p < .001$. Similarly, because the frequency and duration of verbalizations were greater in the female dyads than in the male dyads, the average duration of the separate conversation sequences was also greater; thus, fewer conversation sequences occurred in the female dyads ($M = 0.9$) than in the male dyads ($M = 1.4$), $F(1,48) = 5.20, p < .05$, during the 5-minute observation period.

In addition to the reported main effect for sex, the data for the number of conversation sequences initiated revealed a significant main effect for the SM rank of the subjects within dyads. These data were consistent with the results of the who-talked-first measure in showing that the subjects with the higher SM rank initiated more of the conversation sequences ($M = 1.5$) than did their lower ranked companions ($M = 1.0$), $F(1,48) = 4.85, p < .05$. No comparable result, however, was found in the data for the number of conversation sequences terminated: the higher SM subjects were neither more nor less likely to be the last speaker before a period of silence than were their lower SM partners ($Ms = 1.0; F < 1$).

Finally, the conversation sequence data indicated a marginally significant ($p < .10$) main effect for dyad type, suggesting that the total number of conversation sequences differed among the various dyad types studied. Because this result was more clearly evident in the data for the total number of periods of silence during the interaction interval—a measure that was highly correlated with the number of separate conversation sequences, $r(58) = .92$—it will be discussed below.

Table 2

Average Number of Periods of Silence in the Various Dyad Types

<table>
<thead>
<tr>
<th>Dyad type</th>
<th>HH</th>
<th>HL</th>
<th>LL</th>
<th>HM</th>
<th>MM</th>
<th>ML</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2.7</td>
<td>3.9</td>
<td>2.6</td>
<td>2.0</td>
<td>2.2</td>
<td>0.9</td>
</tr>
</tbody>
</table>

Note. Abbreviations for dyad members: H = high self-monitoring subject, L = low self-monitoring subject, M = moderate self-monitoring subject.

Periods of Silence

The number of definite breaks, or periods of silence, in the flow of conversation during the 5-minute observation period was used as an intuitive measure of the degree of difficulty the members of each dyad experienced in attempting to maintain their verbal interaction. In addition to this frequency measure, the silences within each dyad's interaction were measured in terms of their total (combined) and their average duration.

An analysis of the data for the total number of silences yielded statistically reliable main effects for sex and for dyad type. The finding of fewer periods of silence in the female dyads ($M = 1.7$) than in the male dyads ($M = 3.1$), $F(1,48) = 10.66, p < .005$, could again be attributed to the greater frequency and duration of talking in the female dyads. The main effect for dyad type, $F(5,48) = 3.34, p < .02$, indicated, among other things, that the total number of silences was greatest in the HL dyads (see Table 2). This comparison was tested by means of a weighted contrast (Myers, 1972, p. 354), which revealed that the mean number of silences in the HL dyads was significantly greater than the combined mean silences in the other dyad types, $F(1,48) = 9.54, p < .005$.

Although the above finding is consistent with our expectations and with data to be

3 The total number of conversation sequences terminated was less than the number of sequences initiated because the experimenter often interrupted a conversation at the end of the 5-minute interaction period before it had run its course.
presented later, a further examination of the means in Table 2 suggests that the data cannot be summarized as simply as “people with different interaction styles experience more breaks in their conversation.” In point of fact, when the means were combined into a relevant contrast, the data indicated that there were actually slightly more, rather than fewer, silences in the three homogeneous dyad types (HH, MM, and LL; M = 2.5) than in the three heterogeneous dyad types (HM, HL, and ML; M = 2.3), F < 1. Furthermore, the data strongly suggested that the presence of a moderate-SM subject within the dyad may have been an important factor in minimizing breaks in the flow of conversation. The combined mean of the dyad types that contained a moderate subject (HM, MM, and ML; M = 1.7) was significantly smaller than the combined mean of the dyad types that did not (HH, HL, and LL; M = 3.1), F(1, 56) = 9.61, p < .005. This effect was most strikingly illustrated by the difference between the means of the HL and the ML dyads—a difference that can only be attributed to the presence of a high-SM versus a moderate-SM subject in the dyad.

Although these a posteriori contrasts must be interpreted with some caution, they suggest two mutually compatible possibilities: (a) Moderate-SM subjects may be more flexible than either high-SM subjects or low-SM subjects in their interaction style and thus more capable of readily accommodating their verbal interaction to subjects of all SM levels, and/or (b) fewer breaks in verbal interaction may occur in dyads composed of individuals whose interaction styles differ only slightly than in dyads composed of individuals whose interaction styles either do not differ at all or differ quite markedly.

The measure of the total (combined) duration of the silences in the dyads indicated the by-now-expected sex effect: Less time was spent in silence in the female dyads (M = 87.6 sec) than in the male dyads (M = 189.9 sec), F(1,48) = 14.05, p < .001. This effect fell short of significance, however, when the average time per silence was used as the measure of duration. No additional effects were apparent in the data for either of these measures.

Perceptions of the Interaction

Posttest ratings were obtained from all subjects for their own and the other’s behavior during the interaction period for measures of perceived need to talk, degree of self-consciousness in the other’s presence, tendency to direct the interaction in particular ways, and use of the other person’s behavior as a guide for their own. In addition to these measures, ratings of the other (but not of self) as friendly/unfriendly, talkative/quiet, constant/variable, relaxed/nervous, and involved/distant were also obtained. The first set of measures tested for the effects of two between-dyads factors—dyad type and sex—and two within-dyads factors—the SM rank of the perceiver (higher vs. lower) and the SM rank of the perceived (higher vs. lower). The second set of measures tested for the effects of the two between-dyads factors—but did not provide self-rating baselines for the perceiving subjects’ ratings of their perceived partners.

Need to talk. Results for the perceived-need-to-talk measure indicated a marginally significant main effect for the within-dyads factor of SM rank of the perceived. These data suggest that both participants in the dyad tended to see the higher SM subject as
having had a greater need to talk \((M = 6.2)\) than the lower SM subject did \((M = 5.8)\), \(F(1,48) = 3.88, p < .06\). This result is consistent with the actual behavior of the higher and lower SM subjects as assessed by the measures of who talked first and the number of conversation sequences initiated.

**Self-consciousness.** Results for the self-consciousness measure revealed significantly higher ratings of self-consciousness in the male dyads \((M = 4.6)\) than in the female dyads \((M = 3.1)\), \(F(1,48) = 6.42, p < .025\). Given the striking differences between the males and the females in their affiliativeness and involvement with same-sex partners, this difference was not surprising. The data provided no basis, however, for deciding whether the males' heightened self-consciousness was an antecedent or a consequence of their relatively aloof, uninvolved behavior.

The main effect for the within-dyads variable of SM rank of the perceiver was also significant, indicating that the higher SM subjects perceived both self and other as having been more self-conscious \((M = 4.5)\) than did their lower SM partners \((M = 3.2)\), \(F(1,48) = 7.37, p < .01\). This effect was further qualified by a significant three-way interaction of the dyad-type, rank-of-perceiver, and rank-of-perceived variables, \(F(5,48) = 2.47, p < .05\). A detailed analysis of the interaction is beyond the scope of this paper; however, a major source of variation in this effect is suggested by the means in Table 3. An examination of these means indicates that the main effect for SM rank of the perceiver was particularly characteristic of the HL dyads. Weighted contrasts (Myers, 1972) applied to these data revealed that the higher SM subjects in the HL dyads described themselves as having been much more self-conscious than did those in the other dyad types, \(F(1,48) = 13.11, p < .001\), and attributed a comparably higher level of self-consciousness to their lower SM companions, \(F(1,48) = 7.34, p < .01\). However, the low self-consciousness ratings of the lower ranked subjects in the HL dyads did not differ significantly from the ratings of the lower ranked subjects in the other dyad types \((Fs < 1)\).

Within the HL dyads, self-ratings of self-consciousness were significantly greater for the high-SM subjects than for their low-SM partners, \(F(1,9) = 11.65, p < .01\).

These data are interesting in at least two respects. First, the main effect difference that suggested that self-ratings of self-consciousness were greater for the higher SM subjects within dyads than for their lower SM partners was not reflected in the participants' views of each other. Instead, the participants appeared to overgeneralize or project their own felt level of self-consciousness onto their respective partners in the interaction. Second, this pattern of results was most strongly evidenced in the HL dyads, suggesting that—for some reason or reasons—the high-SM subjects felt especially self-conscious in their interaction with the low-SM subjects, onto whom they projected a similarly high level of self-consciousness.

What feature of the interactions of the HL dyads could possibly have engendered so much self-consciousness in the high-SM subjects? The only real clue suggested by the data we have examined so far was the significantly greater number of silences, or definite breaks in the flow of conversation, that were found in these dyads. When this lead was pursued through the use of correlational analyses, it was discovered that (a) for the entire set of data, individual self-ratings of self-consciousness were significantly correlated with the number of silences in each dyad, \(r(118) = .29, p < .01\), and (b) when broken down by the subjects' SM rank within dyads, this correlation was found to be significant for the higher SM subjects, \(r(58) = .38, p < .01\), but not for their lower SM partners, \(r(58) = .20, p > .10\) \((ns)\).

These data directly related personal feelings of self-consciousness to the number of definite breaks in the flow of conversation. They further suggested that these periods of silence may have been experienced as more awkward by the higher SM subjects than by their lower ranked companions.

**Other effects.** Additional effects in the posttest questionnaire data can be summarized rather briefly. An analysis of the ratings of the extent to which each participant attempted to direct the interaction in
Table 4
Use of the Other Person’s Behavior as a Guide to One’s Own: Means by Dyad Type

<table>
<thead>
<tr>
<th>Dyad type</th>
<th>HH</th>
<th>HL</th>
<th>LL</th>
<th>HM</th>
<th>MM</th>
<th>ML</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>7.1</td>
<td>6.6</td>
<td>4.1</td>
<td>7.5</td>
<td>6.1</td>
<td>5.4</td>
</tr>
</tbody>
</table>

Note. Abbreviations for dyad members: H = high self-monitoring subject, L = low self-monitoring subject, M = moderate self-monitoring subject. All scores on 14-point scale (0–13).

particular ways revealed a significant Rank-of-Perceiver × Rank-of-Perceived interaction, \( F(1, 48) = 5.09, p < .05 \). The means for this effect indicated that the higher SM subjects saw themselves as having been no more directive during the interaction period (M = 5.0) than their lower ranked partners had been (M = 5.1), \( F < 1 \), whereas their partners perceived the higher ranked subjects as having been more directive (M = 5.4) than they themselves had been (M = 4.8), \( F(1, 59) = 3.68, p < .07 \).

The analysis of the ratings of the extent to which each participant used the other's behavior as a guide for his or her own behavior revealed significant main effects for dyad type and for rank-of-perceiver. The means for the dyad-type main effect, \( F(5, 48) = 2.84, p < .05 \), are presented in Table 4. These values suggested that the degrees to which the members of the various dyad types used each other's behavior as a guide for their own behavior were generally consistent with the assumption that the SM scale measures a unitary construct. The subjects' perceived tendency to use each other's behavior as a guide was least in the LL dyads, next least in the ML and MM dyads, and greatest in the HL, HH, and HM dyads. The mean for the HM dyads was somewhat higher than that for the HH dyads but not significantly so, and an inspection of the within-dyad means suggested that the presence of a high-SM subject within a dyad may have motivated moderate- and low-SM subjects to increase the tendency to use their partner's behavior as a guide. Overall, however, the higher SM subjects were more likely to perceive both themselves and their partners as having been guided by each other's behavior (M = 6.8) than were their lower SM counterparts (M = 5.4), \( F(1, 48) = 5.98, p < .025 \).

Finally, although the subjects' ratings of their partners on the polar adjective items yielded largely nonsignificant results, the analysis of the ratings of the partner as relaxed versus nervous revealed a significant rank-of-perceiver effect, which parallels a conceptually similar finding in the self-consciousness data. In light of the implicit self-rating baselines suggested by the self-consciousness data, it was not surprising that the higher ranked subjects rated their lower ranked partners as less relaxed (M = 8.6) than their lower ranked partners rated them (M = 9.8), \( F(1, 48) = 5.14, p < .05 \). Because the magnitude of this difference was again greatest in the HL dyads, in which the higher SM subjects attributed more nervousness to their partners than in any other condition, these data were consistent with the self-consciousness data in suggesting that the subjects may have projected their own feelings of nervousness and self-consciousness onto their partner in the interaction.

Summary and Implications

The individual findings reported above are like the many small pieces of a mosaic design: They must be fitted together in an appropriate way before the overall picture can emerge. As a first step toward such an integration, the various data we have just reviewed can be resolved into three major patterns of results: (a) sex effects, (b) SM effects (between-dyads and within-dyads), and (c) interactions of sex and SM rank within dyads. We shall summarize each of these patterns of results in turn and attempt to relate them to one another. After examining the possibility that the obtained SM results might be due to individual differences in introversion–extraversion rather than differences in SM, we shall then consider the potential implications of these findings for Snyder's (1974) conception of self-monitoring.
**Sex Effects**

The data from a variety of behavioral measures provide converging evidence of greater affiliativeness, "involvement" (Goffman, 1971), and "immediacy" (Mehrabian, 1972) in the female dyads than in the male dyads. In general, the members of the female dyads exhibited a greater degree of body orientation toward each other; they also talked, looked, and gestured to each other more frequently and for longer periods than did the members of the male dyads. Subjectively, females reported significantly less self-consciousness than did males.

Taken collectively, these data are consistent with previous findings in the nonverbal interaction literature (e.g., Argyle & Dean, 1965; Ellsworth & Ross, 1975; Exline, 1972; Exline, Gray, & Schuette, 1965; Mehrabian & Friar, 1969; Pedersen & Heaston, 1972; Rosenfeld, 1966) that also suggest that females tend to be more affiliative and sociable than males. It remains to be determined, however, whether such findings should be attributed primarily to general differences in the socialization of males and females (e.g., Macoby, 1966) or to specific differences in the cultural meaning attached to encounters between two male versus two female strangers (e.g., Ellsworth & Ross, 1975, p. 609).

**Self-Monitoring Effects**

The observed differences between the HL dyads and the other dyad types are intriguing and appear to fit together fairly well. Viewed as a pattern, the data indicate that (a) the HL dyads experienced more periods of silence (definite breaks in the flow of conversation) than did the other dyad types; (b) the number of such silences within each dyad was positively related to the participants' self-reports of self-consciousness, but this relationship was significant only for the higher SM subjects and not for their lower SM companions; (c) the higher SM subjects in the HL dyads evidenced an exceptionally high degree of self-consciousness, compared to that of the higher SM subjects in the other dyad types, and appeared to project comparably strong feelings of self-consciousness onto their lower SM companions; and (d) the lower SM subjects in the HL dyads, however, perceived both themselves and their partners as having been relatively unself-conscious, consistent with similar ratings by the lower SM subjects in the other dyad types.

The results suggest that some unique and interesting interactional processes were occurring in the HL dyads, but the data merely hint at these rather than illuminate them fully. For example, did the extreme self-consciousness of the high-SM subjects result in the greater number of silences in the HL dyads? Or did the greater number of silences cause the heightened self-consciousness of these subjects? Or was some third factor responsible for both effects?

Although we lack an a priori causal structure in which to interpret these data, we do have the benefit of additional evidence which indicates that the higher SM subjects (a) were perceived both by themselves and by their partners as having had a greater need to talk, (b) actually spoke first and tended to initiate conversation sequences more frequently, (c) perceived themselves as having been guided by the other's behavior to a greater degree, (d) were perceived by their partners as having been more directive, and (e) probably felt more concern about behaving in a socially acceptable manner (Snyder, 1974, Exps. 1 and 4; Snyder & Monson, 1975, Exp. 1; Rarick et al., 1976). Given these additional elements, we may speculate that the high-SM subjects were particularly concerned about monitoring and adapting their behavior in an effort to maintain a smooth flow of conversation during the interaction period. Realization of this goal, however, would frequently have been frustrated in the HL dyads, and the high-SM subjects may have reacted by becoming self-consciously aware of their felt obligation to keep things moving whenever the verbal interaction broke down.

But this raises another question: Why did the flow of conversation break down so frequently in these dyads? We have just reviewed a number of findings that indicate that the interactional styles of the higher and
lower SM subjects were indeed perceived as quite different. We also reviewed earlier some additional evidence, which indicates that the interactional style of the moderate-SM subjects may have been optimal for minimizing disruptions in the flow of conversation. These data suggest that the extreme differences in the social styles of the high-SM and low-SM subjects may have been responsible for the repeated stalling out of the conversation sequences in the HL dyads, but unfortunately the exploratory measures used in the study were not sufficiently fine-grained to allow us to isolate the specific behavioral events that presumably resulted from these style differences and directly precipitated the periods of silence. The value of the present findings should not be underestimated, however, for they define a potentially rich area for future research and clearly delineate specific processes that should be studied.

Interactions of Sex and SM Rank

The interactions of sex and SM rank found in the data for expressive gestures suggest the interesting possibility that certain behavioral effects of SM may sometimes be mediated by sex role. In other words, SM may enhance the expression of behaviors that are seen as appropriate to one's sex role but may inhibit the expression of behaviors that are seen as inappropriate to one's sex role. The extremely low frequency of expressive gestures in the male dyads suggests that this particular behavior may not have been viewed as sex-role appropriate, at least not in the context of an initial interaction with another male. Given this assumption, it is reasonable that the higher SM males would be more likely than their lower SM partners to inhibit the response, whereas the reverse would be true of females, for whom the response is sex-role appropriate. Although this argument must also remain somewhat speculative for the present, it is consistent with Lippa's (Note 3) reasoning, and the hypothesis that it suggests can readily be tested in future research.

SM or Extraversion?

Snyder (1974) has reported correlational data which suggest that SM is relatively independent of such measures as the Marlowe-Crowne Social Desirability Scale (Crowne & Marlowe, 1964), Christie and Geis's (1970) Machiavellianism, and Kassarjian's (1962) inner–other directedness; however, Lippa (Note 3) has reported a statistically significant (.32) correlation between SM and extraversion, as defined by the Extraversion Scale of the Eysenck Personality Inventory (Eysenck & Eysenck, 1968). This correlation calls into question the discriminant validity of the SM measure and leads us to ask whether many of the present findings, as well as those of previous studies, might be attributable to extraversion rather than to SM.

Available evidence strongly indicates that the answer to this question is "no." For example, when Lippa (Note 3) attempted to minimize the shared variance of SM and the Extraversion Scale by identifying and removing a three-item "extraversion" factor from the original SM measure, he found a near-perfect (.96) correlation between the original and the revised SM scores, even though revised SM was only weakly correlated (.19) with extraversion. Similarly, a recomputation of the SM scores of the subjects in the present study also yielded a near-perfect (.98) correlation between their original and their revised SM scores, suggesting that removal of the extraversion factor from the original scores would not have altered the results we obtained in any substantial way. Moreover, in those studies in which the effects of SM and extraversion were to some extent independently assessed, the results have revealed no or only weak effects for extraversion, but strong and pronounced effects for SM (Snyder & Monson, 1975, Exp. 1; Lippa, Note 3). Finally, Eysenck & Eysenck's (1969) conceptualization of extraversion could not readily account for the SM effects in the self-consciousness data of the present study or for the Sex × SM Rank interactions in the expressive gesture data; however, both sets of data are consistent with Snyder's (1974) conception of SM.

Implications for Snyder's Conception of SM

What bearing do these data have on Snyder's (1974) conception of self-monitoring?
At the level of the individual, they provide a number of interesting insights into the construct. First, they offer fairly consistent, if somewhat indirect, support for Snyder's contention that SM is associated with concern about behaving appropriately in social interaction: The higher SM subjects within dyads were inclined to talk first and to initiate subsequent conversation sequences; they also reported a greater need to talk, more self-consciousness, and a greater tendency to use their partners' behavior as a guide for their own behavior.

Second, the data may provide some basis for questioning the assertion that SM is associated with sensitivity to the other's expression or self-presentation. It is possible that the ideal measures to test this hypothesis were lacking in the present study, but the measures that were taken suggest that both the higher and the lower SM subjects within dyads were relatively unaware of what their partners were feeling and doing. For example, the evidence that the subjects projected onto their partner their own feelings of self-consciousness and perceived tendency to use the other's behavior as a guide suggests that they may have weighted their own feelings quite heavily in making inferences about the other's state, and it is noteworthy that the higher SM subjects did not appear to be free from this type of bias.

Third, the expressive gesture data are consistent with Snyder's notion that SM is associated with the control of one's expressive behavior. In fact, the data tend to elaborate this notion by suggesting that such control can take the form of either greater expression or greater inhibition of the behavior, depending on its perceived appropriateness. Perceived appropriateness in this case appears to have been mediated primarily by the subjects' sex role, but the implicit or explicit standards of correctness that define appropriate behavior can obviously derive from a variety of sources. With respect to the person, these sources may be either internal (e.g., internalized roles, moral codes, other aspects of self-concept) or external (e.g., other people's behavior and expectations, social norms and conventions, relevant situational constraints).

At the interpersonal level, the data suggest that the SM construct has potential value for the study of social interaction processes. The subjects' SM rank within dyads proved to be an impressive predictor of who talked first, and between-dyads differences in the composition of the various dyad types were found to be meaningfully related to behavioral and self-report differences in the nature of the interactions experienced.

Reference Notes


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