

NATURALISTIC SOCIAL COGNITION: INTERSUBJECTIVITY IN SAME-SEX DYADS

William Ickes
William Tooke
Linda Stinson
Vickie Lau Baker
Victor Bissonnette

ABSTRACT: The research paradigm that Ickes and his colleagues (Ickes, Robertson, Tooke, & Teng, 1986; Ickes & Tooke, 1988) have developed for the study of naturalistic social cognition was used to explore the phenomenon of *intersubjectivity* as it naturally occurs in the initial, unstructured interactions of same-sex (male-male and female-female) dyads. The results of two studies revealed evidence of greater similarity (i.e., convergence) in the thought-feeling content of the male dyad members than in that of the female dyad members on measures pertaining to the quality of their reported feelings. These findings were consistent with the assumption that, due to a normatively narrower range of affective involvement in the male-male dyads, the male dyad members were more likely than the female dyad members to monitor closely the emotional tone of their interaction. In direct support of this assumption, there was significantly less nonverbal involvement (i.e., gesturing, smiling, gazing, mutual gaze) in the male-male dyads in both studies, along with corresponding differences in the variability of these behaviors. In addition, the results of both studies revealed serendipitous evidence of greater similarity in the thought-feeling content of the female, than of the male, dyad members on measures pertaining to the degree of metaperspective taking and to thoughts and feelings about other people. The discussion emphasized the need for theorists and researchers in cognitive social psychology to address those genuinely *social-cognitive* (i.e., intersubjective) phenomena that have traditionally been ignored.

If the term "social cognition" is taken at face value, the phenomenon most directly implicated by this term would probably be intersubjectivity.

The authors would like to express their appreciation to Kristine Arnold, Ray Bristow, Robin Klemick, Laurie Luce, Julie Williams, and Mari Wilson for their assistance in coding the data for the studies reported here. Address reprint requests to William Ickes, Department of Psychology, University of Texas at Arlington, Arlington, Texas, 76019.

Intersubjectivity is a generic term for any phenomenon involving and/or "occurring between [at least two] separate conscious minds" (*Webster's Ninth New Collegiate Dictionary*, 1986, brackets ours). Just as the study of *subjective* phenomena involving or occurring within a single conscious mind is the domain of mainstream cognitive psychology, it follows logically that the study of *intersubjective* phenomena involving or occurring between at least two conscious minds is the proper domain of cognitive social psychology.

The logic of this conclusion has been consensually validated by present and past reviewers of social cognition research. Markus and Zajonc (1985) ended their *Handbook* chapter on cognitive social psychology by stating that "the properties of social perception and social cognition that make them distinct are reciprocity and intersubjectivity" (p. 213). They noted that "many earlier authors, such as Mead (1934), Merleau-Ponty (1945), Asch, (1952), and Heider (1958)" have drawn essentially the same conclusion. In a similar vein, Swann (1984) has concluded that "it may simply be the case that it is impossible to fully understand the nature of social thought without simultaneously considering the nature of social interaction" (p. 473).

It is a curious irony, therefore, that intersubjectivity is one of the *least*-studied topics in cognitive social psychology.¹ Historically, relatively few researchers in the area of social cognition have bothered to inquire how the contents and processes of one mind are related to those of another. Instead, using as their models the studies conducted in more traditional areas of psychology, they have inquired how the contents and processes of individual minds tested "one at a time" are related to "social" stimulus materials whose features and contents have been predetermined by the experimenter. In consequence, the field of social cognition is currently one whose "preoccupation with social information processing" (Swann, 1984, p. 458) has cast the social perceiver in the role of "a hermit, isolated from the social environment," and has relegated other people to the status of experimental "stimuli" or perceptual "targets" (Fiske & Taylor, 1984, p. 416).

The necessary corrective for this state of affairs is a matter on which there is a fairly clear consensus. According to Markus and Zajonc, "the

¹ A search of the *Cumulative Subject Index to Psychological Abstracts* revealed that not a single published article using "intersubjectivity" as an index work appeared during the 16-year period from 1969 through 1985. Two such articles appeared during the 1940s, however. Both were written by Schutz for the journal *Philosophy and Phenomenological Research*. The first (Schutz, 1942) is a critique of Scheler's (1923) conception of intersubjectivity; the second (Schutz, 1948), a critique of Sartre's (1943) conception of intersubjectivity.

study of social cognition must reach beyond the simple experimental paradigms of information processing that are studied by cognitive psychologists" (p. 213). According to Swann (1984), cognitive social psychologists "should devote more attention to the manner in which the person perception process is woven into the fabric of people's ongoing social relationships" (p. 472). And, according to Fiske and Taylor (1984), cognitive social psychologists should "begin to recognize the importance of real interaction contexts, minds in contact with other minds" (p. 416).

Acknowledging the importance of intersubjectivity is one thing; coming to grips with the construct, both conceptually and methodologically, is another. Some of the conceptual difficulties involved are suggested by the language of writers who have attempted to describe intersubjectivity, as cited by Markus and Zajonc (1985). In both of the following quotations, there is a heavy reliance on metaphor (i.e., the metaphor of the "double-being" in the quote from Merleau-Ponty, 1945, and of the "pictured streams of consciousness" in the quote from Schutz, 1970).

In the experience of a conversation . . . my thoughts and his make up a single issue, my words and his are called out by the phase of the discussion, they insert themselves in a common operation of which neither of us is the sole creator. A double-being comes about, and neither is the other one for me a simple behavior . . . nor am I that for him, we are, one for the other, collaborators in a perfect reciprocity, our perspectives glide one into the other (Merleau-Ponty, 1945, p. 407).

In order to get your subjective meaning, I must picture to myself your stream of consciousness as flowing side by side with my own. Within this picture, I must interpret and construct your intentional acts as you choose your words. To the extent that you and I can mutually experience this simultaneity, growing older together for a time, to the extent that we can live in it together, to that extent we can live in each other's subjective contexts of meaning (Schutz, 1970, p. 167).

Dyadic Intersubjectivity

Although the language of the philosopher, like that of the poet, may be elegantly phrased and richly evocative, it is often unsuited to the needs of the scientist. The scientist requires (a) conceptual definitions in which the construct of interest is clearly and unambiguously linked to other rigorously-defined constructs, and (b) operational definitions in which the meaning of the construct is further specified in terms of concrete operations and procedures. In order to provide such definitions for the construct of intersubjectivity, even as first-order approximations, it is useful to nar-

row the scope of the construct to its simplest, most prototypic case: *dyadic intersubjectivity*.

Conceptual definition. We define dyadic intersubjectivity as *the similarity in the thought-feeling content of two dyad members that develops as a consequence of their interaction*. Implicit in this definition is the assumption that the thought-feeling content of two interactants can either (a) converge and become more similar, (b) diverge and become more dissimilar, or (c) remain essentially unchanged. The first outcome, the convergence of the dyad members' thought-feeling content, can be described as "increased intersubjectivity," whereas the second outcome, the divergence of the dyad members' thought-feeling content, can be described as "decreased intersubjectivity." The third outcome, the lack of any change in the dyad members' thought-feeling content, may occur in highly "scripted" (i.e., overlearned, routinized) interactions or in other social exchanges between individuals whose "minds are elsewhere" (Abelson, 1976; 1981; Schank & Abelson, 1977; Langer, 1978).

As illustrations of these outcomes, imagine that two former classmates, Phil and Judy, have just recognized each other at their high school reunion. At the start of their conversation, Phil is mildly pleased to see Judy, whereas Judy is feeling some regret over having to miss her favorite opera in order to attend the reunion. However, as their conversation turns to Wiley, a mutual friend and the self-appointed "class clown," the recollection of his hilarious misadventures and outrageous practical jokes puts both of them in a boisterous mood. Meanwhile, as Janet talks to Frank in another corner of the room, she becomes increasingly irritated at his crude attempts at humor and his sexual innuendo. The more ebullient he becomes and the sexier he feels, the more angry and aloof she becomes in response. Finally, Carole, who is worrying about her impending tax audit with the IRS, nods her head and pretends to be listening to Sue while remaining oblivious to Sue's obsessive conversation about her new diet.

In the examples just given, the dyad members' thought-feeling content (a) converges and becomes more similar for Phil and Judy, (b) diverges and becomes more dissimilar for Janet and Frank, and (c) remains essentially unchanged for Carole and Sue. It should be noted, however, that these relations are dynamic and can change over time. Moreover, the choice of a time interval in which to observe these effects is completely arbitrary. If assessed ten minutes later, the thoughts and feelings of Phil and Judy might be very dissimilar (divergent), whereas those of Janet and Frank might be very similar (convergent). A further complication is that the dyad members might converge on one dimension of their thought-feeling content, but

diverge or remain unchanged on another. Although a detailed exploration of these issues is beyond the scope of this article, we acknowledge their importance for future theory and research.

Operational definition. How should the construct of dyadic inter-subjectivity be defined in operational terms? If we use our conceptual definition as a guide, a procedure is needed that permits us to assess "the similarity in the thought-feeling content of two dyad members that develops as a consequence of their interaction." This reduces to two problems: (a) assessing the thought-feeling content of the dyad members, and (b) finding an appropriate statistical test of similarity/dissimilarity to apply to the resulting data.

A methodological solution to the problem of assessing the dyad members' thoughts and feelings has recently been reported by Ickes, Robertson, Tooke, and Teng (1986). These authors incorporated a modified version of the thought-listing technique developed by Brock (1967), Greenwald (1968) and Cacioppo and Petty (1981) into the dyadic interaction paradigm developed by Ickes (1982, 1983). The resulting research paradigm enabled them to assess the actual thoughts and feelings that dyad members experienced during their initial, unstructured interactions. In addition, the data collected by the authors provided evidence for the interrater reliability and construct validity (i.e., face and content validity, concurrent validity, convergent and discriminant validity) of various measures of thought-feeling content.

At least two statistical solutions can be applied to the problem of assessing the degree to which dyad members are similar in their responses. According to Kenny (1988), the degree of similarity in the responses of dyad members on a given variable can either be assessed (a) *for each dyad*, by means of the absolute difference between the dyad members' individual scores, or (b) *for an entire set of dyads*, by means of the appropriate (standard or intraclass) correlation of the dyad members' scores treated as paired (X, Y) observations. An advantage of the absolute-difference-score option is that it can be used to compute an operational measure of similarity in thought-feeling content for each of the dyads studied. The disadvantages of this option carry far greater weight, however, since the resulting discrepancy measure reflects multiple sources of variance that confound its interpretation (Cronbach, 1955). Kenny (1988) has cautioned that the use of such a measure "should be avoided if possible."

The correlational option is the one that Kenny has endorsed as "almost always better" in standard dyadic designs "in which each person has one and only one partner." This "across dyads" correlation provides a

precise, statistically defensible estimate of the degree to which the dyad members' responses are similar or dissimilar. However, this estimate applies not to a particular dyad but to a set of dyads taken together. Thus, in electing to use this option in the present case, we are concerned *not* with how intersubjectivity varies between different *dyads* but with how it varies between different *dyad types*.

The Present Studies: Overview and Hypotheses

In the present studies, we sought to demonstrate differences in the intersubjectivity of two different types of same-sex dyads: those composed of two male strangers and those composed of two female strangers. We chose to contrast male-male and female-female dyads because of the clearcut pattern of behavioral differences in interactional involvement that has differentiated these dyad types in previous research (Ickes & Barnes, 1977; Ickes, Schermer, & Steeno, 1979). Pairs of male strangers have typically displayed considerably less verbal and nonverbal involvement than pairs of female strangers, and these differences have emerged for measures of the amount of talking, gazing, smiling, gesturing, and verbal reinforcement (i.e., "backchannel" response) recorded during the dyad members' interactions.

Given the striking behavioral differences in the initial interactions of male-male and female-female dyads, we felt it would be reasonable to expect to find intersubjectivity differences as well. As a means of testing for such differences, the thought-feeling assessment procedure described by Ickes et al. (1986) was used in both studies to obtain measures of the content of the thoughts and feelings experienced by the members of each dyad. By subsequently correlating the dyad members' scores for a given thought-feeling content measure across the appropriate set of male-male or female-female dyads, we were able to determine the degree of dyadic convergence (i.e., similarity) or divergence (i.e., dissimilarity) within each dyad type.

Lacking any previous theory or research on intersubjectivity to guide us in developing hypotheses to test, we started with one fundamental assumption. We assumed that the significantly lower level of verbal and nonverbal involvement consistently found in the initial interactions of male strangers is the product of a normatively narrower range of "appropriate" levels of emotional involvement. Our assumption, depicted graphically in Figure 1, is that when two male strangers interact, normative considerations prescribe that they must maintain a narrower range of affective (and, hence, interactional) involvement than two female strangers.

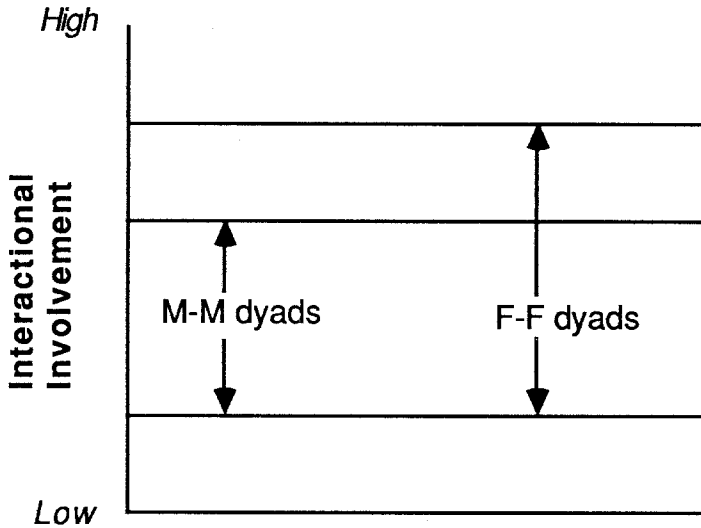


FIGURE 1

**Hypothetical Ranges of Normatively-Appropriate Levels of
Interactional (and Emotional) Involvement in Initial Male-Male and
Female-Female Interactions**

We propose that, at the *lower bound* of this range, both male-male and female-female strangers must maintain at least a minimal level of interactional involvement in order to avoid an inappropriately low level of emotional involvement that in turn could result in negative attributions (e.g., of unfriendliness or lack of manners) and feelings of awkwardness, unease, and discomfort. On the other hand, as Figure 1 indicates, the *upper bound* of this range is assumed to be substantially higher for female-female pairs than for male-male pairs, because the norms associated with sex-role stereotypes permit pairs of female strangers a wider latitude of emotional involvement in an initial interaction. Female strangers are expected, by virtue of the feminine sex-role stereotype, to be more emotionally expressive than male strangers. By the same token, if male strangers display "too high" a level of emotional involvement in their initial interaction, questions about their masculinity and/or sexual orientation might be raised.²

² Consistent with this reasoning, men and women have been shown to differ in their preference for low versus high levels of interactional involvement in their initial interactions with same-sex strangers (Ickes et al., 1979). These differences in preference for a given level of interactional involvement are assumed to be directly related to differences in individual

One indicator of the narrower range of acceptable levels of emotional involvement in the male-male dyads would be the consistently lower level of nonverbal involvement that is characteristic of these interactions (cf. Ickes & Barnes, 1977; Ickes et al., 1979). This difference in the average level of nonverbal involvement presumably reflects the different central tendencies within the normatively acceptable ranges of involvement for the initial interactions of male versus female strangers. A second, more direct indicator would be significantly less variability in the male-male dyads for those behaviors most closely associated with emotional involvement.

A third, and perhaps the most subtle indicator, however, would be any evidence in their thought-feeling content that the members of male-male dyads display greater sensitivity to the affective tone of their interaction because of the greater care they must take to "steer" the interaction within narrower boundaries of emotional involvement. Just as motorists must be more attentive to potential violations of the physical boundaries on either side when steering a car through a narrow tunnel than when driving on a six-lane divided highway, so must the members of male-male dyads be more attentive to the affective tone of their initial interaction in order to avoid potential violations of its narrower boundaries of emotional involvement. The hypothesis suggested by this reasoning is that, relative to female strangers, male strangers will more frequently and closely monitor the affective tone of their initial interaction. As a consequence, the thought-feeling content of the male dyad members should evidence greater similarity (i.e., convergence) than that of the female dyad members on measures pertaining to the quality of their reported feelings.

Method

Subjects

The subjects in Study 1 were 36 male and 36 female undergraduates who were preselected on the basis of pretest data and recruited by telephone to participate in same-sex dyads of predetermined composition. The subjects in Study 2 were 56 male and 56 female undergraduates who were recruited through a modified version of the usual "sign-up sheet" procedure. In this study, separate sign-up sheets were used to schedule nonpreselected volunteer subjects, whose pairing as the dyad members for a given session was essentially random within the constraints

sex-role orientation (i.e., degree of masculinity and femininity; Bem, 1974), but only indirectly related to gender *per se* (Ickes, 1981, 1985; Shaver, Pullis & Olds, 1980; Lamke & Bell, 1982; Antill, 1983).

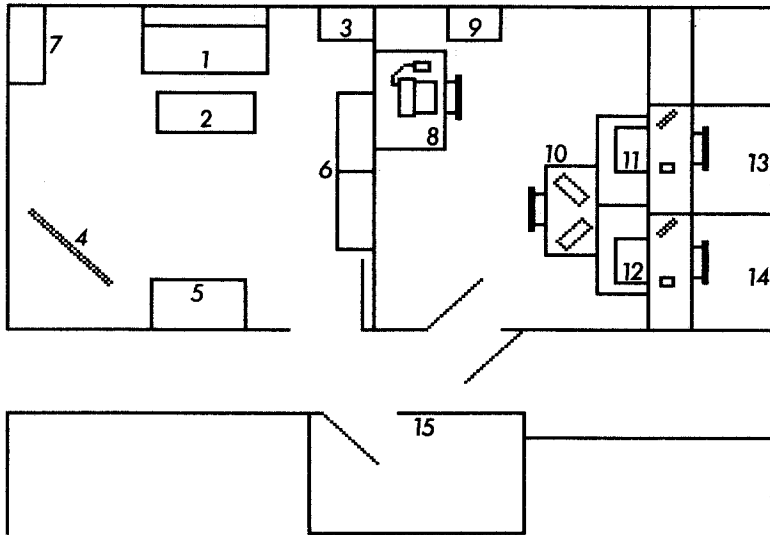


FIGURE 2

Schematic Diagram of the Laboratory Setting

imposed by gender composition (cf. Ickes et al., 1986). The separate sign-up sheets, which not only bore the names of different experiments but also directed subjects to report to different waiting areas, were used to help ensure (a) that two friends or previously-acquainted individuals would not sign up for the same session and (b) that each scheduled pair of subjects would not meet and interact before their session began.³

Setting and Equipment

As indicated in Figure 2, the observation room in which the dyad members' interactions were recorded was furnished with a long couch (1) and an accompanying coffee table (2) that concealed an FM wireless microphone. A video camera focused on the area of the couch and coffee table was concealed in a darkened storage room (15) across a hallway from the observation room. This arrangement permitted the dyad members' interaction to be recorded through the open doorways of the storage and observation rooms with minimal likelihood of the camera being detected.

³ Because of the extreme investment of time and resources required by the research paradigm, both of these studies were designed to test additional hypotheses that are not relevant to the present paper. For this reason, only those features of the procedure that were common to both studies are reported here.

Adjacent to the observation room was a control room used to house the video and audio equipment operated by the experimenter or by a research assistant. Along one wall of the control room was the experimenter's control station. Here the experimenter could sit in front of a single table (10) that supported a microphone, an intercom system, and two identical videocassette recorders that were both connected (by means of a Y-adaptor) to the video camera in the storage room across the hall. Each VCR was also connected, respectively, to one of two 25" color TV monitors (11 and 12) that were oriented to face through one-way mirrors into identical test cubicles. The test cubicles (13 and 14) were each equipped with an intercom speaker, a remote start/pause switch connected to the VCR and TV monitor system unique to each cubicle, and a supply of "Thought-Feeling Coding Forms."

Procedure

Consistent with the directions given on the telephone or on their respective sign-up sheets, the two subjects who were scheduled for each session reported to different waiting areas in the psychology building. These areas were physically isolated from each other but were both in reasonably close proximity to the suite of research rooms just described.

Collection of the videotape data. The experimenter collected the two subjects from their respective waiting areas, conducted them into the observation room, and asked them to leave their belongings on the table (5) and be seated on the couch (1). The experimenter then attempted to get copies of the informed consent form from a box on one of the bookcases (6), but "discovered" that only one copy of the form was left. Explaining the need to get additional copies of the form, the experimenter left the observation room, promising to return "in a few minutes." At the point of the experimenter's departure, an experimental assistant in the control room activated the video equipment (10) to begin the videotaping. Exactly five minutes later, at the end of the observation period, the experimenter returned to the observation room and the videotaping was terminated.

After probing for any evidence of suspicion, the experimenter conducted a partial debriefing.⁴ The subjects were told that they had been videotaped for the purpose of studying their naturally-occurring interaction behavior. The experimenter described the videotaping procedure, explained the methodological importance of not telling them about the taping in advance, and informed them that their written consent was required for the tape to be used as data. To assure the subjects that their rights to privacy had been protected, the experimenter explained that the video camera was activated before they entered the observation room and that their interaction was recorded automatically. If one or both of the subjects exercised the right to have the tape erased immediately, instead of releasing it for use as data, the content of the interaction would remain their own private concern. (None of the subjects in either of the studies requested to have the tape erased.)

⁴ One of the male-male dyads in Study 1 and one of the female-female dyads in Study 2 had to be replaced because one or both of the dyad members expressed suspicion that their interaction had been videotaped.

Collection of the thought-feeling data. Once the subjects' written consent had been obtained, the experimenter described the next part of the study. In this part, the subjects were asked to view the videotape and make a written record of the thoughts and feelings they experienced during the five-minute interaction period. When the subjects had been seated in individual cubicles (13 and 14), the experimenter used the intercom in the control room to give them detailed instructions regarding the thought-feeling data collection procedure.⁵ The two VCRs were then activated, and the subjects used their start/pause controls to independently start and stop their respective copies of the videotape.

Consistent with the instructions they received, the subjects stopped the videotape at each point during the interaction that they recalled having had a specific thought or feeling. They recorded each thought or feeling on a "Thought and Feeling Coding Form" by entering (a) the time the thought or feeling occurred (available as a digital readout on the upper-left part of the videotape), (b) the specific content of the thought-feeling entry (written in sentence form on the coding sheet), and (c) whether the entry was a thought or a feeling (coded as "T" or "F" on the coding sheet).

Collection of the final self-report measures. In the final part of the study, the subjects were asked to remain in their respective cubicles long enough to complete a brief posttest questionnaire. The items on the questionnaire assessed the subjects' perceptions of (a) the quality of their interaction, and (b) the degree to which they liked each other. When each subject had completed the questionnaire and returned it to the experimenter, the subjects were debriefed more fully, were asked not to discuss the study with potential future subjects, and were then thanked and released.

Dependent Measures

Behavioral measures. In both studies, two types of behavioral data, "static" behaviors and "dynamic" behaviors, were coded from the videotapes by two independent judges. The static behaviors, which either occur only once or do not vary much across time, included interpersonal distance (shoulder-to-shoulder), body orientation, and openness of body posture. Because the data for the static behaviors are not relevant to the hypotheses tested in the studies reported here, they will not be discussed further.

The more temporally-variable dynamic behaviors included the total frequency and duration of verbalizations (i.e., speaking turns), directed gazes, mutual gazes, gestures, and expressions of positive affect (i.e., smiles and laughter). Also included were measures of the number of verbal reinforcers (e.g., "yeah," "right," "uh-huh") provided by each dyad member during the course of the interaction. In Study 1, the interrater reliabilities of these behavioral measures ranged from .77 to .97, with a mean of .90; in Study 2, they ranged from .70 to .98, with a mean of .89. (For the operational definitions of these behaviors, see Ickes and Turner, 1983, pp. 214–215).

⁵ For a transcript of these instructions, see Ickes et al., 1986, p. 69.

Self-report measures. In both studies, two types of self-report data were obtained—the dyad members' reported thoughts and feelings and their responses to the items on the posttest questionnaire. The thought-feeling data were coded by two independent judges (a different pair from those who coded the behavioral data). These judges recorded (a) the total *number of entries* (thoughts + feelings) for each subject, and (b) the *emotional valence* of each entry (+, 0, or -). They also recorded, in terms suggested by Laing, Phillipson and Lee (1966), (c) whether the entry represented a *direct perspective* (subject's own perspective) or a *metaperspective* (subject's adoption of his or her partner's perspective) and (d) the target or *object of the perception* expressed by the entry (S: self, P: partner, O: other person(s), or E: environmental object, event or circumstance).

As in the previous study by Ickes et al. (1986), we found that our coding scheme was sufficient to categorize over 98% of the thought-feeling entries, with the frequency of the remaining entries being too low to justify using them as data in any event. Moreover, these categorical judgments were reasonably reliable, with the judges' rates of agreement within each category ranging from 80% to 86% in Study 1 and from 92% to 94% in Study 2. And, because the cases in which the judges originally disagreed were later resolved through reexamination and discussion, the effective rates of agreement for the final ratings in both studies were all greater than ninety percent.

The coded thought-feeling data for the subjects within each dyad were then entered into a microcomputer as the input to a software program called *COLLECT YOUR THOUGHTS*.⁶ This program produces as output various summary measures of the number and percentage of entries in specific thought-feeling categories. In the present studies, these measures included the number and percentage of each subject's entries that were coded as thoughts, feelings, positive entries, neutral entries, negative entries, self (relevant) entries, partner entries, other-person entries, environment entries, direct perspective entries, and metaperspective entries.

The self-report measures on the posttest questionnaire included (a) a single-item measure of the dyad member's self-reported discomfort during the interaction ("To what degree did the interaction seem *awkward*, *forced*, and *strained* to you?"), and (b) a single-item measure of the dyad member's liking for his or her interaction partner ("How much do you like the other person?"). Both items were rated on 11-point scales, ranging from "0" ("not at all") to "10" ("extremely").

Results

We hypothesized that a normatively narrower range of "appropriate" levels of emotional involvement in the male-male dyads would influence their interactions in at least three ways. First, the members of the male-male

⁶ *COLLECT YOUR THOUGHTS* is a package of Applesoft Basic programs written by William Ickes specifically for this program of research. Within two years of its development, a Pascal version of *COLLECT YOUR THOUGHTS* was written by Victor Bissonnette. These software packages are now commercially available to other users and can be obtained by writing to the first author.

dyads should display significantly less nonverbal involvement than the members of the female-female dyads, thus replicating previous findings in this program of research (Ickes & Barnes, 1977; Ickes, Schermer, & Steeno, 1979). Second, there should be significantly less variability in the male-male dyads for those behaviors most closely associated with emotional involvement. Third, the thought-feeling content of the male dyad members should evidence greater similarity (i.e., convergence) than that of the female dyad members on measures pertaining to the quality of their reported feelings. This third prediction is based on the assumption that the men would monitor the affective tone of their interactions more closely than the women, because of the greater care they must take to "steer" the interaction within narrower boundaries of emotional involvement.

Behavioral Differences in the Male-Male and Female-Female Dyads

Differences in the level of behavior. The findings relevant to our first prediction are reported in Table 1. The data from both studies revealed the expected pattern of behavioral differences in the interactions of the male-male and the female-female dyads. As the results in Table 1 indicate, the level of interactional involvement was significantly lower in the male-male dyads than in the female-female dyads. This difference, which was found for virtually every dynamic measure of interactional involvement in both studies, clearly replicates the pattern that has reliably emerged in previous comparisons of the initial, unstructured interactions of male-male and female-female dyads (e.g., Ickes & Barnes, 1977; Ickes et al., 1979).

In addition to the behavioral differences reported in Table 1, interpersonal distance (measured directly from the video screen as the distance between the dyad members' proximal shoulders) was found to be reliably greater for the male-male dyads than for the female-female dyads in Study 1, $t(17) = 3.22, p < .01$. This finding was not replicated in Study 2, however, most likely because the slide projector screen was moved to an angle and location that required subjects to occupy only a certain area of the couch in order to see it clearly. Finally, in both Studies 1 and 2, the male dyad members displayed significantly more "open" body postures than did the female dyad members ($t_s > 4.0, p_s < .0001$), a difference which has emerged just as strongly in previous comparisons of male-male and female-female dyads (e.g., Ickes, 1984; Ickes & Barnes, 1977; Ickes et al., 1979).

TABLE 1

Differences in the Interactional Involvement of the Male-Male and Female-Female Dyads in Studies 1 and 2

Behavioral measure	Study 1		Study 2		<i>t</i> (1, 27)
	M-M dyads	F-F dyads	M-M dyads	F-F dyads	
Verbalizations (freq.)	29.7	47.3	17.9	21.6	1.39†
Verbalizations (dur.)	74.4	122.2	64.1	87.8	2.25*
Directed gazes (freq.)	16.4	25.6	9.9	13.0	1.84*
Directed gazes (dur.)	50.6	115.8	41.1	89.8	4.37****
Mutual gazes (freq.)	12.9	27.1	6.8	12.3	3.34****
Mutual gazes (dur.)	19.4	56.2	15.5	46.8	3.97****
Positive affect (freq.)	5.9	13.1	4.1	6.2	2.18*
Positive affect (dur.)	16.9	33.9	12.2	18.9	2.06*
Gestures (freq.)	3.3	9.3	2.3	3.7	1.75*
Gestures (dur.)	4.6	11.7	4.1	9.4	2.28*
Verbal reinforcers (freq.)	4.7	8.5	2.0	3.4	2.59**

Note. M-M dyads = male-male dyads, F-F dyads = female-female dyads. Consistent with the directional prediction, all *t*-tests are one-tailed. †*p*<.10. **p*<.05. ***p*<.01. ****p*<.005. *****p*<.001.

The Study 1 means are always larger than the corresponding Study 2 means because the behaviors are aggregated over the entire five minutes of interaction in Study 1 but over only the first four minutes in Study 2. This difference was necessitated by our discovery that a faulty rewind mechanism in one of the VCRs had backed the tape up too far and recorded over portions of the last minute of interaction in some of the Study 2 dyads.

Differences in the variability of behavior. The findings relevant to our second prediction are reported in Table 2. Although the variances for most of the interactional involvement behaviors were lower in the male-male dyads than in the female-female dyads, as expected, significant differences in variability were predicted only for those behaviors most closely associated with emotional involvement. Accordingly, we tested for variance differences in the three behaviors—mutual gazes, smiles/laughter, and expressive gestures—which previous research suggests are emotionally expressive in initial interactions of the type we have studied. The findings from both studies clearly revealed significantly less variability within the set of male-male dyads for the frequency and duration of gestures and for the duration of mutual gazes. Apparently, normative constraints permit men less latitude than women in gesturing and making eye contact with their partners in an initial, same-sex interaction.

Self-Report Differences in the Male-Male and Female-Female Dyads

Intersubjectivity correlations: Original dyads. The findings relevant to our third prediction are reported in Table 3. The “patterns of intersubjectivity” characterizing the male-male versus the female-female dyads were established by determining the degree to which dyad members’ scores were correlated on the various measures of thought-feeling content. Significant positive correlations on these measures serve to identify the specific categories of thought-feeling content that dyad members reported to a similar degree as a consequence of having interacted together. Significant negative correlations, on the other hand, serve to identify the categories of thought-feeling content on which dyad members diverged (i.e., became more dissimilar) as a consequence of their interaction.

Because the dyad members were always of the same gender, it was essentially arbitrary which dyad member’s score was treated as the *X* variable and which was treated as the *Y* variable when correlating their scores on a given thought-feeling content measure. In cases such as this, the *intraclass correlation* is the appropriate statistic to use (Kenny, 1988). Accordingly, we analyzed the intersubjectivity data by applying Kenny’s (1988) formulas for computing and testing the significance of the intraclass correlation when the group size is equal to two (dyadic case).⁷

⁷ Because the intraclass correlation (r_i) is equal to omega-squared (Ω^2) for a random independent variable (dyad), the correlations we report represent the amount of variance accounted for by the interdependence of the dyad members’ responses. This statistic is therefore more analogous to r^2 than it is to r .

TABLE 2

Differences in the Variability of Affect-Expressive Behaviors in the Male-Male and Female-Female Dyads in Studies 1 and 2

Behavioral measure	Study 1			Study 2		
	M-M dyads	F-F dyads	F(17, 17)	M-M dyads	F-F dyads	F(27, 27)
Mutual gazes (freq.)	153.8	164.1	1.07	30.8	46.4	1.51
Mutual gazes (dur.)	435.6	1700.7	3.90**	312.2	1429.2	4.58**
Positive affect (freq.)	25.3	34.1	1.24	9.6	16.1	1.68
Positive affect (dur.)	212.9	341.9	1.61	108.0	185.8	1.72
Gestures (freq.)	10.4	100.4	9.65**	6.1	12.0	1.97*
Gestures (dur.)	21.0	182.7	8.70**	20.8	129.8	6.24**

Note. M-M dyads = male-male dyads, F-F dyads = female-female dyads.

* $p < .05$.

** $p < .01$.

The intersubjectivity correlations for the male-male and female-female dyads of Studies 1 and 2 are reported in the left-hand portion of Table 3. These data reveal that the patterns of intersubjectivity in dyads composed of two unacquainted men were distinctly different from those in dyads composed of two unacquainted women. The differences in these patterns become even more evident when we consider only those pairs of intraclass correlations that have been underlined to denote *replicable* relationships (i.e., relationships that were either marginally or conventionally significant for the male-male or female-female dyads of *both* studies).⁸

The underlined correlations clearly reveal that the male dyad members in both studies were similar in the numbers and percentages of thoughts and feelings they reported that concerned (a) their interaction partners and (b) their own affective states. In contrast, the female dyad members in both studies were similar in the extent to which their thoughts and feelings (a) reflected the adoption of their partner's perspective and (b) were focused on "other people" (i.e., people outside of their immediate interaction).

We propose that these different "patterns of intersubjectivity" in the initial interactions of male-male and female-female dyads are in large measure attributable to the normatively narrower range of "appropriate" levels of emotional involvement in the male-male dyads. Because of the greater care they must take to "steer" their interactions within narrower boundaries of emotional involvement, male strangers should be more motivated than the female strangers to monitor their own affective states closely and to engage in mutual social comparison (either spoken or unspoken) with their interaction partners. In contrast, because female strangers are permitted a wider latitude of emotional involvement in their initial interactions, they can afford to be less concerned about the quality of their affective states and can focus instead on their mutual willingness to see the world—and, in particular, other people—through each others' perspective.

⁸ When a considerably less stringent measure of "replicability" is used—a z-test of the difference between correlations from independent samples—all but one of the 88 pairs of correlations reported in Table 2 qualify as "replicable findings" in that the difference between the correlations within each pair is not significant. The single exception is the highly significant difference, $z = 2.83$, $p < .001$, in the correlations for the percentage of negative thought-feeling entries reported by the members of the female-female dyads. We have determined that the first of these two correlations is exceptionally high because the subjects in Study 1 were preselected on the basis of an individual difference variable (adherence to conventional morality; Tooke & Ickes, 1988) whose primary effect was to create between-dyad differences in the percentage of negative thought-feeling entries reported by the dyad members.

TABLE 3

Intraclass Correlations in the Thought-Feeling Measures for both the Original Dyads and the Corresponding Sets of "Pseudodyads" in Studies 1 and 2

Thought-feeling measure	M-M dyads		F-F dyads		M-M pseudodyads		F-F pseudodyads	
	Study 1	Study 2	Study 1	Study 2	Study 1	Study 2	Study 1	Study 2
# thought entries	.30*	.22†	.03	-.06	.02	-.05	-.06	.04
% thought entries	.32*	.43***	-.03	-.23†	-.03	.07	.03	-.07
# feeling entries	.31*	.32*	-.38*	-.14	.06	.01	.04	-.10
% feeling entries	.32*	.43***	-.03	-.23†	-.03	.07	.03	-.07
# positive entries	.22†	.49***	.02	.07	.05	.08	-.04	-.05
% positive entries	.29†	.49***	.31*	-.05	.12	.09	-.06	-.06
# neutral entries	.42*	.08	.27†	-.05	.03	-.01	-.02	.02
% neutral entries	.56***	.46***	.11	-.17†	.12	.05	-.12	-.11
# negative entries	.47**	.23†	.32*	.08	.02	-.05	-.09	-.08
% negative entries	.17	.30*	.66***	-.14	.12	.06	.07	.01
# self entries	.27†	.06	-.26†	-.09	-.03	.01	-.09	-.03
% self entries	-.02	.23†	.07	.02	.01	.10	-.03	.06
# partner entries	.43*	.28*	.22†	.05	.06	.11	-.01	.13
% partner entries	.23†	.37*	.13	.26*	.03	.15	.01	-.03
# others entries	-.01	.12	.29†	.40**	.08	-.04	.09	.03
% others entries	-.09	-.01	.14	.18†	.08	.01	.04	.03
# environment entries	.04	-.15	-.06	-.07	.01	-.08	.11	.06
% environment entries	.11	-.16	-.10	.08	.09	.00	.10	.00
# direct perspective entries	.38*	.09	-.21†	-.02	.01	-.11	-.09	-.02
% direct perspective entries	-.08	-.24*	-.67***	.27*	-.05	.03	.00	.03
# meta-perspective entries	.11	-.29*	.42*	.14	-.07	.06	-.01	.13
% meta-perspective entries	-.08	-.24*	.67***	-.27*	-.05	.03	.00	.03

Note. In Study 1, the *ns* for the male-male and female-female dyads and pseudodyads = 18; in Study 2, the corresponding *ns* = 28. None of the averaged intraclass correlations for the pseudodyads were significant, $ps > .11$ in all cases.
 $†p < .10$. * $p < .05$. ** $p < .01$. *** $p < .005$. **** $p < .001$.

Intersubjectivity correlations: "Pseudodyads". According to our conceptual definition, dyadic intersubjectivity is "the similarity in the thought-feeling content of two dyad members that develop as a consequence of their interaction." It is possible, however, that the intersubjectivity correlations reported in the left-hand portion of Table 3 were *not* a consequence of the unique interactions of the dyads we studied. Instead, they may reflect the correlations that might be observed for *any* comparably-sized sample of subjects who were asked to (a) sit in the same relative locations (b) on the same couch (c) in the same room (d) with a same-sex stranger (e) for the same length of time. This alternative explanation would hold that the experience and perspective defined by elements (a) through (e) above are themselves sufficient to account for the observed patterns of intersubjectivity, and that the unique interaction of the dyad members is not a necessary cause of these effects.

In order to test this possibility, the thought-feeling content data for each male or female dyad member who sat on the left side of the couch were artificially paired with the corresponding data from a same-sex member of a *different* dyad who sat on the right side of the couch. These "pseudodyads" were created by the computer, and the pairing of partners was random within the specified constraints that the pseudopartners were of the same gender and had occupied different ends of the couch (left versus right) during their recorded interactions. If these specified constraints are important, i.e., if the experience and perspective defined by elements (a) through (e) above are indeed sufficient to account for the patterns of intersubjectivity reported in the left-hand portion of Table 3, then the average values of the intraclass correlations computed on the data from such "pseudodyads" should depart significantly from zero in the direction of the corresponding "original dyads" correlations. On the other hand, if the unique interaction of the original dyad members is a necessary cause of the intersubjectivity correlations, whereas elements (a) through (e) by themselves are insufficient, then the average value of the intraclass correlations for the pseudodyads should *not* differ significantly from zero.

The unweighted means of the intraclass correlations resulting from 10 computer-created sets of male-male and female-female "pseudodyads" for Studies 1 and 2 are reported in the right-hand portion of Table 3. Consistent with our assertion that that dyadic intersubjectivity is a consequence of dyad members' interaction and not merely of those elements that define their relative perspectives, *none* of the mean correlations in the right-hand portion of Table 3 is reliably different from zero. These findings clearly indicate that the patterns of intersubjectivity reported in the left-hand

portion of Table 3 were a consequence of the interactions occurring in the original male-male and female-female dyads.

Thought-feeling measures. Despite the compelling behavioral evidence in both studies that interactional involvement was significantly lower in the male-male dyads than in the female-female dyads, there were no corresponding gender composition differences in the measures of the dyad members' thought-feeling content. There were, quite simply, no statistically reliable *t*-test differences between the male-male and female-female dyads on any of the thought-feeling measures obtained in Study 1 and Study 2.

Given the strong and replicable gender composition differences for the various behavioral measures of interactional involvement (Table 1), it may, at first glance, seem surprising that no parallel differences were found for any of the thought-feeling content measures. We suggest, however, that this pattern of results is quite consistent with the theoretical assumptions represented in Figure 1. If male strangers must indeed "steer" their initial interactions within narrower boundaries of emotional involvement, and, in doing so, aim for a level of interactional involvement that is generally *lower* than that of female strangers, then the lack of gender-composition differences for the thought-feeling content measures is not only reasonable but entirely compatible with the findings reported in Tables 1, 2, and 3.

In other words, in order to achieve a comparable level of subjective comfort in their interactions with a same-sex stranger (as illustrated by the lack of thought/feeling content differences), the males must display a significantly lower level of behavioral involvement than the females (as illustrated by the clearcut pattern of interactional involvement differences in Table 1). Moreover, according to our argument, the means by which the males regulate and maintain their interactional involvement at this lower level is by being more attentive and sensitive to the affective tone of their interaction as it unfolds. As the male dyad members repeatedly monitor the affective tone during the course of their interaction, there should be a converging awareness of their own and their partners' feelings (as illustrated by their intersubjectivity correlations in Table 3). By this reasoning, then, the theoretical assumptions represented in Figure 1 are sufficient to account for all of the findings we have just reported.

Posttest questionnaire measures. Also consistent with the reasoning just proposed, in neither of our studies did the male dyad members rate their interactions as having been significantly more "awkward, forced, and

strained" than those rated by the female dyad members, *ts* (Studies 1 and 2) = 1.30 and .96, *ns*. However, in both studies the members of the male-male dyads reported significantly less liking for each other than did the members of the female-female dyads, *Ms* (Study 1) = 6.33 vs. 7.44, $p < .02$; *Ms* (Study 2) = 5.79 vs. 6.89, $p < .02$.

This apparently anomalous finding for the liking measure might be explained by interpreting the intersubjectivity correlations in Table 3 as evidence that male strangers must devote the earliest stage of their relationship to establishing a "safe," socially-normative range of affective involvement within which they can continue to interact without feelings of apprehension and fear of negative consequences. In contrast, female strangers, who apparently are able to initiate their relationship without having to deal with such concerns, can "get to know each other" more quickly by immediately beginning to explore the degree to which each is willing to share her own view of the world—and, in particular, her view of other people—with her interaction partner. Because female strangers appear to begin their relationship at a more intimate and self-disclosing level than that of male strangers, mutual liking may develop more quickly for female strangers than for male strangers.

Discussion

In summary, the results of both studies revealed that the "pattern of intersubjectivity" characterizing the initial, unstructured interactions of male-male dyads was distinctly different from that characterizing the initial interactions of female-female dyads. In both studies, there was evidence of greater similarity (i.e., convergence) in the thought-feeling content of the male dyad members than in that of the female dyad members on measures pertaining to the quality of their reported feelings. In addition, there was serendipitous evidence of greater similarity in the thought-feeling content of the female, than of the male, dyad members on measures pertaining to the degree of metaperspective taking and to thoughts and feelings about other people. Moreover, a comparison of the intersubjectivity correlations in each study with those resulting from the artificial creation of ten sets of "pseudodyads" supported our claim that dyadic intersubjectivity is a consequence of the dyad members' interaction and not merely of those elements that define their relative perspectives.

The pattern of intersubjectivity correlations in the male-male dyads is consistent with the assumption that, due to a normatively narrower range of affective involvement in the male-male dyads, the male dyad members

were more likely than the female dyad members to monitor closely the emotional tone of their interaction. In direct support of this assumption, there was significantly less nonverbal involvement (i.e., gesturing, smiling, gazing, mutual gaze) in the male-male dyads in both studies, along with corresponding differences in the variability of certain of the more affectively-relevant behaviors (i.e., gesturing, mutual gaze). The hypothesized mutual concern of the male dyad members with the affective quality of their interaction should have been, and was indeed, apparent in their similarity on measures pertaining to the quality of their own affective states. The same mutual concern may also be apparent in the greater similarity of the male dyad members on the thought-feelings measures pertaining to their interaction partners. This similarity in the degree of "partner focus" is most readily interpreted as evidence of a dyadic social comparison process wherein each member monitored and evaluated his own affective states with respect to those displayed by his partner.

The pattern of intersubjectivity correlations in the female-female dyads was not predicted *a priori* and provides some fascinating insights into the mutual concerns of two female strangers during their initial interaction. In both studies, the female dyad members were found to be similar in the extent to which their thoughts and feelings (a) reflected the adoption of their partner's perspective and (b) were focused on "other people" (i.e., people outside of their immediate interaction). This pattern of intersubjectivity clearly contrasts with that of the male dyad members. We propose, however, that it can also be interpreted in terms of the different expectations that men and women are assumed to have regarding an initial interaction with a same-sex stranger. Because women can generally assume that their initial same-sex interactions will be affectively pleasant and involving, they are freed from being concerned about the quality of their affective states and can focus instead on their mutual willingness to see the world through each other's perspective.

If this interpretation is correct, it suggests that the development of relationships between female strangers may be accelerated relative to those of male strangers. Unlike male strangers, who apparently must devote the earliest stage of their relationship to establishing a basis on which they can continue to interact without feelings of apprehension and fear of negative consequences, female strangers are apparently able to initiate their relationship without having to deal with such concerns. This enables the female strangers to "get to know each other" more quickly by allowing them to begin immediately to explore the degree to which each is willing to share her own view of the world—and, in particular, her view of other people—with her interaction partner. To state this difference in

terms of Altman and Taylor's (1973) social penetration theory, female strangers appear to begin their relationship at a more intimate and self-disclosing level than that of male strangers. As we have noted, the greater mutual liking of the female strangers is consistent with this interpretation.

One testable implication of this reasoning is that the pattern of intersubjectivity in the interaction of male friends should more closely resemble that of female strangers than of male strangers. Another testable implication is that the pattern of intersubjectivity in the interaction of high-conflict dyads such as distressed married couples should reveal a strong mutual concern with affective states similar to that observed in the initial interactions of male strangers. Although we are aware of no data bearing on the first of these hypotheses, studies of the interactions of high- versus low-conflict dyads (e.g., college roommates, Sillars, 1981; married couples, Gottman, 1979; Fincham & O'Leary, 1983; Sillars, 1985) have yielded at least indirect support for the second.

The most general implication of the present research is that "patterns of intersubjectivity," as we have conceptually and operationally defined them, can be used to identify the common concerns of the members of particular dyad types. Clearly, the greatest advantage inherent in such data is their ability to reveal the latent similarity in the thoughts and feelings of interaction partners whose manifest behaviors may often conceal, rather than reveal, their subjective and intersubjective states. Analogous to the subtitles that provided a useful means to reveal the unexpressed thoughts and feelings of the characters portrayed by Woody Allen and Diane Keaton in the movie "Annie Hall," intersubjectivity correlations provide a useful means to reveal the often unexpressed "intersubjective themes" of the interactions of particular dyad types.

As if to underscore the importance of such data, it seems likely that the conclusion we have drawn from the present studies would have been dramatically different had the intersubjectivity correlations *not* been computed. Consider, for example, the conclusion we would have reached if we had taken the trouble to collect all of the thought-feeling measures described in this paper but had then computed *only* the male-male versus female-female *t*-test differences. Given the lack of any significant *t*-test differences between the male-male and female-female dyads on any of the thought-feeling measures for either study, we would probably have interpreted the data as evidence that the subjective experience of participating in an initial interaction with a same-sex stranger is in all respects the same for men as it is for women. Clearly, however, this conclusion would have been incorrect. The mutual subjective concerns of the male dyad members were, in fact, distinctly different from those of the female dyad members,

as the replicated patterns of intersubjectivity correlations in the left-hand portion of Table 3 plainly indicate.

The occurrence of such an outcome in what, to our knowledge, are the first empirical studies of intersubjectivity in naturally-occurring social interaction, raises an interesting question. If intersubjectivity phenomena can operate in such a way that traditional *t*- and *F*-test statistics may fail to provide the slightest hint of them (even in nontraditional research paradigms such as ours), how often in previous social cognition research have investigators failed to identify what may have been the most important and theoretically provocative phenomena occurring in their studies? In our view, this is more than a rhetorical question; it is an important empirical question for future social cognition research.

Other important questions for social cognition research follow from distinctions made in the first section of this article. What Merleau-Ponty (1945) and Schutz (1970) have alluded to is an intersubjectivity based on an interaction experience that is literally, rather than figuratively, shared. The two interactants share the ability to determine actively, in varying degrees, certain of the physical events (in particular, the words and actions) that will constitute elements of their common experience. Perhaps more important in its implications for social cognition, they share the responsibility for determining the degree to which intersubjectivity can and will develop through their efforts to communicate effectively. Moreover, because the two interactants can presumably make at least rough inferential estimates (through verbal and nonverbal signs of understanding and misunderstanding) of the degree to which intersubjectivity has, in fact, developed, they can also estimate the degree to which their cointeractant is aware of the things of which they themselves are aware.

This last feature opens up a number of interesting issues for cognitive social psychology. These issues include (a) the specific cues on which the dyad members' estimates of the degree of intersubjectivity are based; (b) the frequency with which, and the conditions in which, such estimates are revised and updated; (c) the causes and consequences of discrepancies in the estimates made by each of the dyad members; and (d) the potential emergence and effects of recursive "metaperspective" and "meta-metaperspective" inferences ("I think that he thinks that . . ." "She thinks that I think that she thinks that . . .") of the type described by Laing, Phillipson, and Lee (1966) and by Goffman (1969).

As we have noted previously, many further complexities arise because intersubjectivity is a dynamic, ongoing dyadic process rather than a relatively static and discrete dyadic state. For this reason, the thought-feeling content of two interactants can (a) converge and become more similar on

some dimensions and/or occasions, (b) diverge and become more dissimilar on other dimensions/occasions, and (c) remain essentially unchanged on yet other dimensions/occasions. These considerations raise a host of conceptual and operational issues that deserve to be explored in future theory and research.

Clearly, this brief discussion has suggested only some of the ways in which the study of intersubjectivity phenomena might proceed. Instead of extending these speculations further, we conclude this article by returning to the same point with which we began it: our assertion that the most important task of cognitive social psychology is to study the genuinely "social"-cognitive phenomena that have traditionally been neglected and ignored. We think the time is long overdue for cognitive social psychologists to devote more attention to intersubjective phenomena that involve the "meeting" and interaction of two (or more) minds. In other words, we renew the call by many earlier writers (e.g., Mead, 1934; Asch, 1952; Heider, 1958; Fiske & Taylor, 1984; Swann, 1984, Markus & Zajonc, 1985) for a greater emphasis on the *social* in social cognition.

References

- Abelson, R.P. (1976). Script processing in attitude formation and decision making. In J.S. Carroll & J.W. Payne (Eds.), *Cognition and social behavior*. Hillsdale, N.J.: Erlbaum.
- Abelson, R.P. (1981). The psychological status of the script concept. *American Psychologist*, 36, 715–729.
- Altman, I., & Taylor, D.H. (1973). *Social Penetration: The Development of Interpersonal Relationships*. New York: Holt, Rinehart, & Winston.
- Antill, J.K. (1983). Sex role complementarity versus similarity in married couples. *Journal of Personality and Social Psychology*, 45, 145–155.
- Asch, S.E. (1952). *Social Psychology*. Englewood Cliffs, N.J.: Prentice-Hall.
- Bem, S.L. (1974). The measurement of psychological androgyny. *Journal of Consulting and Clinical Psychology*, 45, 196–205.
- Brock, T.C. (1967). Communication discrepancy and intent to persuade as determinants of counterargument production. *Journal of Experimental Social Psychology*, 3, 269–309.
- Cacioppo, J.T., & Petty, R.E. (1981). Social psychological procedures for cognitive response assessment: The thought-listing technique. In T. Merluzzi, C. Glass, & M. Genest (Eds.), *Cognitive Assessment* (pp. 309–342). New York: Guilford.
- Cronbach, L.J. (1955). Processes affecting scores on understanding of others and assuming "similarity." *Psychological Bulletin*, 52, 177–193.
- Fincham, F., & O'Leary, K.D. (1983). Causal inferences for spouse behavior in maritally distressed and nondistressed couples. *Journal of Social and Clinical Psychology*, 1, 42–57.
- Fiske, S.T., & Taylor, S.E. (1984). *Social Cognition*. Reading, Mass.: Addison-Wesley.
- Goffman, E. (1969). *Strategic Interaction*. Philadelphia: University of Pennsylvania Press.
- Gottman, J.M. (1979). *Marital Interaction: Experimental Investigations*. New York: Academic Press.
- Greenwald, A.G. (1968). Cognitive learning, cognitive response to persuasion, and attitude