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Do You Know What I Feel? Partners' Predictions and Judgments of Each Other's Emotional Reactions to Emotion-Eliciting Situations

Sacha Senécal,[1] Nadine Murard,[1] and Ursula Hess[1,2]

The goal of the present study was to investigate empathic accuracy in couples, specifically the partners' ability to predict each other's emotional reactions to social situations. For this, 36 French Canadian couples aged from 18 to 34 years predicted their own reactions as well as their partner's reactions to a series of emotional situations. They then role-played these emotional situations while being videotaped. At a later time, the taped role-play segments were rated by the role-play actors themselves, by their partners, and by 5 individuals who did not know the actors. Results revealed high levels of empathic accuracy when we compared the partners' predictions of each other's reactions. However, when these predictions were compared with the participants' self-evaluations of their role-plays or with evaluations by individuals who did not know the actors, partners showed a positive bias in that they predicted more appropriate and fewer inappropriate reactions to the social situations for their partners than were self-rated by the partners themselves or rated by individuals who did not know the actors. Finally, the existence of couple-specific private meaning systems could not be confirmed in the present context as the evaluations of emotional expressions by unknown others, the actors' partners, and the actors themselves were largely congruent.

KEY WORDS: non verbal communication; emotion; social expression; couples.

Emotions play a vital role in our lives. Acknowledging this, Hebb (1949) proposed that "man is the most emotional of animals," an observation that applies to both the frequency and the complexity of emotional responses in humans. One of the important functions of emotions is their communicative aspect. Darwin (1872/1965) noted that emotions are accompanied by overt displays that serve to communicate the emotional state of the sender. He suggested that this communicative aspect of emotions is their evolutionary basis. Similarly, several modern emotion theories describe information as a primary function of emotions (Clore, 1994; Schwartz & Clore, 1983). Emotion displays can be conceived of as messages that allow others to learn about our affective states as well as about our likely behavioral intentions (Ekman, Friesen, & Ellsworth, 1982; Hess, Kappas, & Scherer, 1988; Noller, 1985). This is underscored by the fact that facial emotional expressions tend to be generally congruent with internal emotional states (see e.g., Buck, 1984; Ekman, 1984; Frijda, 1986; Hess, Banse, & Kappas, 1995; Scherer, 1986; but see also Fridlund, 1991, 1994).

Yet, the process of emotion communication between two people is an intricate one, and many elements can influence both emotional displays and the interpretations of such displays (see e.g., Frijda & Mesquita, 1994; Hess & Kirouac, 2000). The ability to decode accurately others' emotional displays in their social context is an important skill in everyday human interactions as well as an important part of the two

[1]Université du Québec à Montréal, Montreal, Canada.
[2]To whom correspondence should be addressed at Department of Psychology, UQAM, CP 8888, Succ. Centre-Ville, Montreal, Quebec, Canada H3C 3P8; e-mail: hess.ursula@uqam.ca.

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related concepts of social intelligence (Thorndike, 1920) and emotional intelligence (Mayer & Salovey, 1995; Salovey & Mayer, 1990). The social context influences both the encoding and the decoding of emotional messages (see e.g., Saarni & Weber, 1999; Scherer, 1978). Emotional reactions are usually subject to cultural control processes that are specific to specific social contexts (Averill, 1994; Gross, 1999; Levenson, 1994, 1999) and fully spontaneous expressions thus may be rare (Gosselin, 1995). Further, emotional displays are often elicited by complex emotional states. These states comprise elements of more than one underlying emotion (e.g., anger is often accompanied by emotions such as contempt or disgust), and thus the expression of "pure" emotional states is also rather infrequent (Hess et al., 2000; Izard, 1972; Plutchik, 1980). This implies that inferences regarding others' emotional states are often based on attenuated, complex emotional displays. Such displays are easier to decode when external sources of information, such as those provided by the social context, are considered.

Empathic Accuracy in Couples

Deaux and Major (1987) noted that interactants generally hold gender-stereotypic beliefs about themselves as well as their interaction partners, yet, these beliefs may or may not be activated to influence behavior, depending on the context, the attributes of the interaction partners, and the goals of the interaction. Further, when interaction partners have access to considerable knowledge about each other and at the same time have common goals, they might develop specific sets of rules and have access to personal information that may in turn influence the decoding and interpretation of emotional messages. Such intimate knowledge might lead to specific expectations regarding the interaction partner's emotional reactions and to dyad specific decoding processes.

Couples are special cases of dyads (Davis, Haymaker, Hermecz, & Gilbert, 1988). Both members usually have considerable knowledge of each other, and the history of the interaction is well known to both. Couple interactions also activate highly structured normative information (Bradbury & Fincham, 1987) as well as specific rules of communication (Thomas, 1977) and specific gender-typed roles (Noller, 1993). All these elements point toward the couple as a distinctive relationship that can entrain specific judgment processes.

A number of factors influence empathic accuracy in couple interactions. First, partners in a couple usually have access to considerable information about one another. In order to understand someone well, one needs to take the other person's perspective (Ickes & Simpson, 1997), and this task requires detailed knowledge of the other individual (Ickes, 1993). A high level of understanding is therefore facilitated when we know the other person well and have had previous experiences on which to base our judgment. When trying to imagine how a well known other might react in a specific situation, we can use this information to predict the other person's likely reaction. However, such knowledge can be biased, for example, in couples that experience marital distress where biases may be substantial (see e.g., Sillars & Scott, 1983).

A second source of potential influence is stereotypic information. Stereotypes are pervasive in nature, and their influence on social judgments is well documented (see e.g., Ashmore & Del Boca, 1981; Biernat & Vescio, 1993; Taylor, Fiske, Etcoff, & Ruderman, 1989). Thus, the prediction of a partner's likely reactions may not only be determined by the available personal information or the actual cues emitted by the partner, but also by stereotypes regarding the partner's social group, such as gender stereotypes. On the other hand, more detailed knowledge regarding a close other would lead to better understanding and empathy (Ickes, 1993), which in turn could entrain judgments that are less influenced by general stereotypes (Bourhis & Gagnon, 1994).

A further factor that may influence emotion communication in intimate relationships are private meaning systems (Gottman, 1979; Gottman & Porterfield, 1981) that develop over time and lead to couple-specific interpretations of behavioral information (Surra & Ridley, 1991; Thomas & Fletcher, 1997). Interpretations made by close individuals have indeed been shown to differ from those made by outside observers (Stinson & Ickes, 1992), even in the case of highly trained observers (Golding, 1978). For instance, if someone usually shows anger through irony when interacting with his or her partner, the partner might decode such ironic displays as a sign of anger, whereas a stranger may only see the humorous side of the display as she/he is unaware of the person's habit.

Finally, couple relationships have their own display rules. Display rules (Ekman & Friesen, 1969) are pre- and proscriptive norms for emotion displays that are pervasive and socialized early in life. Although many display rules apply quite generally (such as showing pleasure when receiving a gift), others are

specific to specific relationships (e.g., it may be acceptable to swear when playing ball with one's friends but not when visiting one's aunt; see also Argyle, 1986). Regarding couples, Aune, Buller, and Aune (1996) identified specific changes in the rules for the expression of positive and negative emotions over the course of the development of romantic relationships. Knowledge of such rules can bias interpretations of emotional behaviors and expressions shown by partners in a couple.

Specific Objectives

In the present study we aimed to investigate empathic accuracy in couples. We were interested in studying partners' ability to predict each other's likely emotional reactions on different levels. For this we assessed empathic accuracy using two measures of predictive accuracy. First, we assessed whether self-predictions and partner-predictions of emotional reactions are congruent. This is actually a common task in many relationships where partners are, for example, called upon to predict whether the other would react positively to a gift or negatively to the postponement of a planned event. We then compared these predictions to each partner's self-ratings of their videotaped behavior as well as to ratings of the same tapes made by individuals who did not know the partner. Finally, to assess the hypothesis that couples develop private meaning systems, we compared the judgments of the videotaped behavior made by the partners with judgments made by individuals who did not know the person. This comparison also allowed us to verify whether strangers' evaluations tend to be more in line with general gender stereotypes than are the partners' evaluations of each other's emotional reactions.

METHOD

Overview

The present study was conducted in three phases. First, couples completed two questionnaires. The first questionnaire asked participants to describe their own likely emotional reactions to a series of hypothetical situations. The second questionnaire asked participants to describe their partner's likely reactions to the same events. The second phase consisted of a role-playing task. For this, both partners played out their most likely reaction to various emotion-eliciting scenarios while being videotaped. Directly following the role-play, participants rated their emotional reactions during the role-play. The third phase of the experiment was conducted during a separate session, which took place 2–4 weeks after the initial session. For this, participants rated the emotions displayed during the role-plays of six individuals of the other sex—including their own partner. They also rated their own performance. Each session lasted for approximately 90 min.

Participants

Thirty-six heterosexual French Canadian couples, who had been together for at least 6 months, participated in the first part of the study, for a total of 72 participants. Participants' ages ranged from 18 to 34 years with an average of 24.1 years. In the majority of cases one of the partners was an undergraduate or graduate student. Couples had been together for an average of 30.8 months; the range was 6–93 months. Of the 36 couples, 29 were living together at the time of the study. Participants were recruited via announcements in classes and posters advertising the study at the University of Quebec at Montreal. Some participants were alerted to the study by word of mouth. For the video ratings in Session 2, care was taken that none of the participants saw excerpts featuring someone they knew. For one couple, only Session 1 was completed.

Procedure

Session 1

Following the initial instructions and the signing of the consent forms, couples were separated, and each partner was assigned to an experimenter of the same sex. Participants then either completed the questionnaires or took part in the role-playing session. The order of the two tasks was counterbalanced across couples.

At the beginning of the questionnaire session, participants were told that the questionnaires aimed to assess the types of emotional reactions that they expected themselves or their partners to express in specific situations should these situations happen to them. Participants read vignettes that described an emotion-eliciting event and indicated their own likely reactions or their partner's likely reactions on a series of scales. Their self-predictions and the predictions regarding their partner's reactions were assessed in

separate questionnaires. The order of distribution of the two questionnaires was counterbalanced across participants.

For the role-playing task, participants were conducted to a room that was designed to resemble a living room. The participants sat in a comfortable chair, facing an empty chair. A small VCR camera was placed behind the empty chair and aimed toward the participant. The experimenter gave all instructions face to face but stood behind a partition while the participant was engaged in the actual role-play so as not to intimidate or distract the participant. Participants' task was to try to imagine their partner sitting in the chair in front of them. They were instructed to react as naturally as possible by saying or doing whatever they would say or do in such a situation. Participants knew that they would be videotaped and were assured that sound would not be recorded. Each participant completed eight role-play segments. The first two were practice trials. The practice trials were intended to familiarize the participants with the procedure and the experimental situation and did not involve couple interactions. The six other role-play scenarios were situations taken from a set of vignettes aimed at eliciting six emotional reactions (happiness, fear, anger, sadness, shame, and guilt). These vignettes were taken from the same pool of vignettes as the questionnaire items. However, vignettes were assigned so that participants were not presented with the same vignettes for both tasks. Once the participants had completed both tasks, they were debriefed and instructed not to talk with their partners about the specifics of the role-play they had enacted. They were reminded that the experimenter would contact them in the following weeks for the second session.

Session 2

The second session was held 14–32 days after the first, with an average of 20 days.[3] Couples came together to the laboratory. They were told that they would individually view videotaped segments from the first part of the experiment and that their task would be to rate the intensity of the emotional expressions shown during the role-play. They were instructed to base their judgments on the nonverbal behavior of the person on the tape. Couples were then separated, and each partner was assigned to an experimenter of the same sex. Participants were led to different rooms where a VCR and a 21″ television monitor were placed on a table. Each participant first rated two practice segments while the experimenter was available to answer procedural questions. Participants then saw the role-play segments of six individuals of the other sex, one of whom was their partner—the other five were members of other couples who were not known to the participant. All six role-play segments recorded for each target person during the first session were shown. After each segment, participants paused the VCR, rated the quality and the intensity of the expression, and then moved on to the next segment. The segments showing the partner were never shown first or last but either as the third or fourth in the series. After having rated all 36 segments, participants were shown a recording of their own role-play and were asked to rate their own performance using the same scales. Participants were then debriefed together, and the experimenter answered any remaining questions.

[3]The session was conducted separately so as to permit the editing of the videotapes to be judged. For this, six role-play sessions had to be completed. Variation in delays was due to the scheduling problems inherent in recruiting two people for one session.

Materials

The vignettes used in this study were selected to represent the core relational themes (Lazarus, 1991) for six emotions: happiness, fear, anger, sadness, shame, and guilt. Selected scenarios had to feature two interaction partners, at least one of whom showed an emotional reaction in the situation described. Further, selected vignettes had to permit an inversion of the partners' roles. For example, an item where a man learns from his partner that she is pregnant would not have been retained because it is biologically impossible to reverse the roles in this situation. The final set consisted of three vignettes per emotion. The following is an example for a guilt vignette: "You lie to your partner about the reasons why you were late." An example for an anger vignette is "Your partner accuses you of something that you have not done." The complete set of 18 vignettes used in this study is available upon request from the authors.

Dependent Measures

Self-Predictions

Participants indicated for each of 18 potential emotional reactions the likelihood in percent (0–100%) that they would react in this way to the

situation described in the vignette should it happen to them. Two types of emotional reactions were included on nine general emotion scales (i.e., happiness, serenity, anger, contempt, disgust, sadness, fear, shame, and guilt), as well as nine emotional behaviors: to laugh/to get excited (happiness), to smile/to relax/to contemplate (serenity), to hit/to insult/to criticize (anger), to stare/to look hard at (contempt), to grimace/to vomit (disgust), to cry/to isolate oneself (sadness), to tremble/to freeze (fear) to withdraw/to lower one's head/to blush (shame), and to justify one self/to apologize (guilt). For ease of reference we will refer to the emotion described by the behaviors rather than to the behaviors throughout this article.

Partner-Predictions

Participants were also asked to indicate how their partner would react to the same emotion-eliciting situation using the same emotion scales as for the self-ratings. The order of distribution of the self-prediction and the partner-prediction questionnaires was counterbalanced across participants.

Online Self-Ratings

Following each role-play segment, participants were asked to describe their role-play using the same emotion scales as above. However, instead of indicating in percent the likelihood that they would react with each of the different emotions/behaviors, they were asked to indicate their intensity on a scale from 0% (not at all) to 100% (as intense as possible). Because of a clerical mistake, the first six couples who participated in the study did not answer these scales and were thus assigned missing data for this part of the study.

Video Ratings

To judge the videotaped role-play segments, participants used the same scale as for the role-play self-ratings. To obtain the stranger-ratings, the ratings from the five participants who rated each segment, and who did not know the actor, were averaged.

Data Reduction

We reduced the number of dependent measures by regrouping both the general emotion scales and the behavioral reaction scales into four categories based on their predominant action tendencies (Frijda, 1986). The groupings were confirmed using factor analysis for both emotional reactions and behaviors. The factors explained 57.5% and 53.4% of the variance, respectively. All variables loaded higher than .5 on their respective factors except for disgust (.46), which also cross loaded weakly on the withdrawing factor (Senécal, Herrera, Hess, & Kirouac, 1999). The four resulting emotion scales were labeled: (1) Positive Emotional Reactions (happiness and serenity), (2) Antagonistic Emotional Reactions (anger, disgust, and contempt), (3) Withdrawing Emotional Reactions (sadness and fear), and (4) Self-Directed Emotional Reactions (guilt and shame). The resulting behavioral reaction scales were (1) Positive Behaviors (to laugh/to get excited and to smile/to relax/to contemplate), (2) Antagonistic Behaviors (to hit/to insult/to criticize, to grimace/to vomit, and to stare/to look hard at), (3) Withdrawing Behaviors (to cry/to isolate oneself and to tremble/to freeze), and (4) Self-Directed Behaviors (to withdraw/to lower one's head/to blush and to justify oneself/to apologize).

Data Analyses

We first analyzed the participants' online self-ratings, obtained after each role-play, as a manipulation check. The goal was to verify whether participants' reported having reacted with the target emotion during the role-play.

To assess empathic accuracy, profile analyses were employed. Profile analysis is a special application of multivariate analysis of variance designed to assess whether the profile of ratings on a set of measures differs between groups. The analysis comprises three tests. The test of parallelism assesses whether different groups have different profiles. In the present context, the question is whether the partners' judgments show the same pattern of reactions across emotion scales. The "level" test assesses whether one group scores on average higher on the collected set of measures. For example, do the partners' judgments differ in terms of the intensity of the emotional reactions? Finally, the third test assesses whether the profiles show highs and lows at all or are flat (for more details regarding this procedure see for example, Tabachnick and Fidell, 1996). As all profiles were significantly nonflat, these findings are not reported.

Finally, to investigate whether strangers' ratings differed systematically from the two partners' ratings

3 (judge: self, partner, stranger) × 2 (sex of target) analyses of variance were conducted. Planned comparisons were conducted to contrast the two partners' ratings with the strangers' ratings.

RESULTS

Manipulation Check

We first assessed the participants' online self-ratings of their emotional reactions during the role-play. For this, planned contrasts were conducted to compare the target emotion to the other emotions in the profile. Both men and women reported significantly more emotional reactions congruent with the target emotion than for any other of the nine emotions of the profile for happiness, anger, sadness, and fear role-play situations (see Table I). For shame and guilt role-play situations, the highest rating was for guilt. In addition, some gender differences were found. Specifically, women rated their target emotional reactions as more intense for happiness, fear, anger, and sadness situations than did men. Further, they rated themselves as reacting with more sadness in fear situations as well as with less anger in happiness situations, whereas men reported more anger for guilt situations.

As regards self-reported emotional behaviors, both men and women reported to have shown the target behavior during happiness and anger. As was the case for emotional reactions, both men and women reported significantly more guilt than any other behavior for both shame and guilt vignettes. For anger vignettes, guilt behaviors were also reported. Women reported more target behaviors for happiness, fear, anger, and sadness situations. In addition, women reported to have shown sadness, anger, shame, and guilt behaviors as well as fear behaviors during fear situations, whereas men reported predominantly anger behaviors for this situation. Also, only women reported significantly more sadness behaviors during sadness role-play, whereas men reported a variety of different behaviors. Men also reported more serene behaviors during anger role-play. In addition, men reported more anger behaviors during shame and guilt role-play, as well as more contempt behaviors during guilt role-plays. In contrast women reported more sadness behaviors during shame role-plays.

In sum, the emotion self-ratings obtained immediately following each role-play show that both men and women report the most intense level of emotional reaction for the target emotion. As is often found in research in Western cultures, shame and guilt were not differentiated (Wallbott & Scherer, 1995). Only very few gender differences emerged, mostly in terms of women giving higher ratings than men to the target emotion. With regard to the self-rated behaviors shown during the role-play, the picture is more complex. Only for happiness, shame, and guilt were the target behaviors dominant. Mixed emotional behavior was reported for fear, anger, and sadness role-plays. Also, more differences between men and women were found.

These findings suggest that the manipulation was successful in eliciting the target emotional reactions. This notion is also supported by debriefing interviews, which showed that participants said that they were able to "get into the role" quite well. Further, the elicited behaviors were not too stereotypical and overstated but showed a variety of reactions and mixed behaviors, as is more commonly the case in natural interactions.

Empathic Accuracy

Empathic accuracy was operationalized using two measures of predictive accuracy. First, we compared partner-predictions with self-predictions. We then compared partner-predictions with video self-ratings as well as with stranger-ratings. Empathic accuracy should evidence itself by largely parallel profiles, which suggest that each partner predicted and rated the same reactions for their partner as the partner predicted and rated for him or herself. Means and standard deviations for all ratings are presented in Table II.

Are self-predictions and partner-predictions congruent? Profile analyses were employed to answer the question to what degree the two partners were able to take each other's perspective. Most profiles were observed to be parallel and level (see Table III). For men, only the profile for behaviors during sadness situations was marginally nonparallel. Post hoc analyses revealed that the female partners expected men to show more withdrawing behaviors than the men predicted for themselves.

For women, profiles for emotional reactions in guilt situations and behaviors in sadness situations were nonlevel, and the former also was nonparallel. Behavioral reactions to shame situations were

Table I. Means and Standard Deviations for Online Self-Ratings as a Function of Sex of Target, Type of Reaction, and Emotional Situation

		Emotional reaction				Emotional Behavior			
		Men		Women		Men		Women	
Emotional situation	Emotional reaction	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Happiness	Happiness	38.33*	36.42	61.46	38.50	18.40†	24.70	34.50	37.54
	Serenity	25.67	29.18	29.17	33.71	37.67	32.02	50.00	37.30
	Sadness	7.33	12.30	9.50	21.75	4.67	10.74	4.17	15.32
	Fear	2.83	6.91	2.50	7.96	1.00	4.03	0.17	0.91
	Anger	5.83*	12.74	0.33	1.27	2.83	8.48	1.67	9.13
	Disgust	1.00	4.03	0.00	0.00	1.43	5.72	4.17	18.67
	Contempt	0.67	3.65	1.00	4.03	1.50	3.51	1.17	6.39
	Shame	0.53†	2.01	3.00	6.77	6.23	11.54	11.33	26.88
	Guilt	4.17	10.99	8.17	20.53	12.00	23.10	32.73	32.73
Fear	Happiness	1.33	5.07	0.50	2.74	7.57	16.43	5.00	19.07
	Serenity	2.00	7.61	1.17	4.86	8.40	19.77	4.33	10.15
	Sadness	28.67**	34.61	59.00	38.02	4.67***	10.33	32.17	35.25
	Fear	43.73*	31.97	64.83	24.83	4.17*	11.15	16.33	27.29
	Anger	19.00	29.17	14.83	23.80	15.50	28.99	14.67	31.92
	Disgust	1.03	2.75	4.33	15.41	5.33	19.03	7.67	19.82
	Contempt	1.50	3.51	4.00	18.26	3.83	10.31	3.33	10.28
	Shame	3.00	8.37	4.83	15.89	1.17*	3.39	10.67	20.96
	Guilt	9.33	21.81	12.67	22.31	9.17	21.90	15.67	28.70
Anger	Happiness	3.17	8.35	2.17	8.48	8.83	18.92	4.33	14.06
	Serenity	8.30*	14.65	2.00	9.25	10.13	16.23	2.00	10.95
	Sadness	9.27	15.36	10.83	19.70	0.67	3.65	4.23	10.97
	Fear	1.70	4.41	3.00	12.84	0.73	2.55	2.67	7.40
	Anger	18.57**	19.30	36.00	29.90	19.17	24.88	25.67	28.37
	Disgust	2.83	8.06	6.33	17.32	4.00	15.17	6.67	18.07
	Contempt	5.53	12.19	11.67	20.82	7.50	14.55	13.70	22.45
	Shame	1.20*	3.12	0.00	0.00	2.67	8.68	1.50	5.11
	Guilt	7.00	11.86	4.53	13.66	23.17	31.03	17.17	30.02
Sadness	Happiness	5.00	11.22	2.83	15.52	2.07	5.50	0.83	3.73
	Serenity	7.00	13.10	4.17	12.39	10.00	18.48	4.17	15.09
	Sadness	25.50*	25.10	43.17	35.93	4.50***	8.94	30.17	33.04
	Fear	14.53	22.62	11.50	22.97	4.33	9.98	10.00	19.65
	Anger	18.00	24.02	17.83	24.52	12.83	19.01	5.67	15.96
	Disgust	1.07	3.81	2.50	9.35	0.33	1.27	2.33	9.35
	Contempt	5.83	12.74	8.00	19.90	8.00	17.30	6.83	16.11
	Shame	5.50	15.83	4.17	12.74	10.00	18.75	11.00	20.94
	Guilt	8.17	16.79	7.67	22.39	14.83	22.26	14.83	28.36
Shame	Happiness	1.67	9.13	4.83	17.74	4.37	13.04	8.33	23.21
	Serenity	6.00	18.86	9.50	23.35	4.50	11.01	12.83	26.87
	Sadness	20.53	20.37	23.00	30.36	0.00*	0.00	5.67	15.74
	Fear	8.20	12.12	10.33	21.53	1.83	4.64	4.00	14.04
	Anger	2.10	7.49	3.00	13.17	1.83†	5.65	0.00	0.00
	Disgust	2.23	10.95	1.67	9.13	0.33	1.27	7.83	24.41
	Contempt	0.50	2.01	2.17	9.26	0.67	2.54	2.67	7.85
	Shame	18.33	23.65	14.40	16.29	24.70	24.10	17.83	28.91
	Guilt	40.07	26.90	34.33	33.60	52.50	32.37	49.33	33.21
Guilt	Happiness	5.00	11.60	3.33	11.54	7.67	15.74	4.83	15.34
	Serenity	3.33	11.55	2.83	10.06	6.50	14.81	9.83	21.79
	Sadness	21.00	27.96	25.00	30.77	2.00	5.66	7.33	20.83
	Fear	10.67	14.37	14.33	19.29	3.00	6.38	8.63	21.93
	Anger	6.00	11.55	1.00	2.75	3.33*	8.54	0.00	0.00
	Disgust	5.00	18.57	4.83	10.95	1.33	5.71	7.83	22.12
	Contempt	2.33	6.79	4.50	18.59	4.17†	13.00	0.00	0.00
	Shame	31.83	26.99	41.00	32.84	17.17	19.10	21.73	33.28
	Guilt	42.73	30.69	52.33	22.34	63.17	27.93	67.17	32.24

Table II. Means and Standard Deviations for All Ratings as a Function of Sex of Target, Type of Reaction, and Emotional Situation

Emotional situation	Emotional reaction	Type of reaction		Self-prediction		Partner-prediction		Online self-rating		Video self-rating		Video partner-rating		Stranger rating	
				M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Happiness	Positive	Emotion	Male	41.11	27.78	37.01	27.31	32.00	27.14	14.00	22.19	14.71	20.01	12.14	13.37
			Female	51.51	28.80	46.39	29.66	45.32	27.60	21.81	25.35	21.93	26.11	16.02	15.12
		Behavior	Male	39.17	23.87	37.71	28.99	28.03	22.73	9.50	16.76	11.79	15.58	13.46	16.04
			Female	41.90	29.80	39.92	30.05	42.25	33.20	20.33	20.79	19.93	26.19	16.86	18.13
	Antagonistic	Emotion	Male	2.50	6.85	2.31	5.58	2.50	5.88	2.57	6.97	4.62	9.25	4.83	6.12
			Female	1.11	6.12	1.67	5.83	0.44	1.63	2.05	4.61	3.90	8.88	5.33	7.12
		Behavior	Male	0.60	2.04	1.25	2.83	1.92	5.23	3.10	9.20	3.05	7.73	3.48	4.57
			Female	1.67	5.37	0.32	1.68	2.33	7.92	1.14	3.20	4.14	9.58	4.70	5.38
	Withdrawing	Emotion	Male	9.17	21.04	9.10	15.21	5.08	7.86	5.93	10.73	11.36	16.96	11.22	13.10
			Female	4.44	9.60	2.64	6.35	6.00	13.03	7.00	15.41	4.36	8.63	7.35	8.90
		Behavior	Male	3.06	7.22	7.99	13.02	2.83	5.68	3.14	7.94	7.44	20.09	5.12	10.40
			Female	2.57	7.11	0.83	3.48	2.17	7.65	2.43	8.84	2.36	6.15	3.83	4.90
	Self-directed	Emotion	Male	5.63	9.70	4.58	8.21	2.35	5.65	15.14	26.21	4.21	9.81	11.64	12.23
			Female	5.00	14.98	3.19	9.04	5.58	11.46	6.29	17.05	8.21	15.24	10.71	8.77
		Behavior	Male	14.44	22.24	12.50	16.90	9.12	12.97	19.36	26.19	16.14	20.15	21.81	14.44
			Female	14.79	19.03	13.68	16.44	14.00	21.82	12.36	19.68	12.43	21.25	16.83	12.26
Fear	Positive	Emotion	Male	1.74	5.91	1.88	7.85	1.67	4.79	3.86	9.06	5.29	16.90	7.44	11.32
			Female	0.63	2.34	0.14	0.83	0.83	3.73	1.29	4.59	3.86	8.65	4.91	10.69
		Behavior	Male	4.79	12.14	1.67	6.01	7.98	13.94	4.79	11.67	3.57	14.72	8.62	15.50
			Female	0.21	0.92	0.63	2.02	4.67	10.84	0.57	2.36	2.97	8.13	5.20	10.94
	Antagonistic	Emotion	Male	10.42	15.18	11.06	13.77	7.18	10.38	12.48	17.47	10.57	14.52	10.40	11.99
			Female	10.51	12.78	8.80	12.33	7.72	13.13	11.38	14.56	13.50	15.04	13.44	9.83
		Behavior	Male	9.44	11.92	5.83	11.57	8.22	12.55	11.71	14.11	8.35	13.12	9.16	10.00
			Female	9.19	14.08	7.59	12.93	8.56	12.50	7.51	10.93	11.48	14.00	12.28	9.31
	Withdrawing	Emotion	Male	46.81	26.03	48.19	26.37	36.20	28.83	11.86	14.07	8.71	11.56	8.19	9.52
			Female	57.15	25.87	50.35	29.85	61.92	29.12	30.36	23.86	16.79	18.10	12.76	11.67
		Behavior	Male	9.10	15.45	21.18	21.74	4.42	8.65	4.71	10.76	1.50	3.99	2.90	3.85
			Female	21.81	26.43	6.35	12.57	24.25	26.97	8.43	14.87	6.59	12.01	7.43	10.59
	Self-directed	Emotion	Male	12.21	23.20	6.11	11.91	6.17	14.66	5.36	15.44	9.00	19.20	6.58	9.56
			Female	10.76	21.30	6.81	16.14	8.75	18.02	5.93	14.64	11.00	21.56	8.28	12.69
		Behavior	Male	13.61	23.20	9.44	21.50	5.17	11.85	10.21	19.08	15.91	22.35	13.21	9.62
			Female	10.63	19.26	12.08	23.17	13.17	17.22	14.56	24.50	17.93	22.99	14.24	15.14
Anger	Positive	Emotion	Male	1.60	5.58	0.83	2.31	5.73	9.22	3.64	8.47	5.21	11.32	4.53	8.59
			Female	2.22	9.22	2.92	8.73	2.08	7.66	1.29	4.43	6.00	16.04	3.55	6.12
		Behavior	Male	4.03	11.06	1.60	5.04	9.48	12.80	4.29	10.77	4.21	10.00	4.07	9.61
			Female	3.33	9.26	1.53	4.11	3.17	11.71	2.50	6.50	5.36	14.01	5.29	8.19
	Antagonistic	Emotion	Male	26.06	20.06	26.81	16.08	8.98	9.03	13.86	18.03	12.57	15.08	12.86	10.55
			Female	23.27	17.20	22.78	19.04	18.00	16.19	16.00	12.53	17.85	16.16	13.85	12.79
		Behavior	Male	18.56	13.78	20.93	15.16	10.22	12.17	9.71	14.58	10.43	12.95	10.37	9.40
			Female	18.84	16.59	14.86	16.03	15.34	14.43	11.99	14.31	15.38	16.98	15.54	12.79

	Withdrawing	Emotion	Male	9.10	17.61	16.58	15.52	5.48	7.80	5.43	7.56	4.43	9.72	6.13	6.06
			Female	13.26	15.49	12.85	19.35	6.92	11.31	6.07	12.19	8.36	11.76	7.34	6.04
		Behavior	Male	2.57	7.11	5.69	8.80	0.70	2.17	1.50	3.94	1.29	4.08	1.98	3.44
			Female	4.31	8.98	3.68	10.39	3.45	7.43	0.71	2.47	2.86	8.40	2.15	3.46
	Self-directed	Emotion	Male	2.78	6.70	2.36	6.79	4.10	6.16	10.36	18.20	4.21	11.61	6.79	7.10
			Female	3.82	9.46	3.99	13.13	2.27	6.83	3.21	9.79	5.86	13.71	5.97	7.20
		Behavior	Male	6.46	12.05	8.26	13.12	12.92	15.65	22.57	23.08	14.74	18.54	16.17	12.22
			Female	10.14	17.52	12.43	17.03	9.33	15.00	13.36	18.43	10.66	14.53	12.57	9.25
Sadness	Positive	Emotion	Male	3.06	6.76	4.17	9.37	6.00	8.37	4.07	9.40	4.79	9.90	6.95	10.24
			Female	1.94	6.04	3.61	9.68	3.50	10.35	2.67	9.48	4.29	13.20	3.18	4.35
		Behavior	Male	2.58	6.10	3.06	7.79	6.03	10.23	1.47	4.12	3.79	7.70	6.20	11.22
			Female	0.69	2.96	0.90	4.23	2.50	7.66	2.14	8.85	3.43	8.91	3.18	4.61
	Antagonistic	Emotion	Male	10.18	12.53	14.33	17.85	8.30	10.58	8.38	10.57	9.87	13.52	7.76	7.51
			Female	15.88	20.58	12.04	19.55	9.44	13.39	8.53	15.14	14.20	16.68	11.61	9.39
		Behavior	Male	6.81	9.71	6.81	9.74	7.06	11.05	6.43	11.41	7.00	10.20	5.72	5.91
			Female	9.17	14.54	5.35	8.96	4.94	10.16	5.86	8.41	10.79	15.86	10.87	7.88
	Withdrawing	Emotion	Male	35.35	20.26	36.60	21.75	20.02	20.80	12.07	18.66	9.37	16.35	13.00	11.06
			Female	43.40	20.65	37.85	25.07	27.33	21.86	22.01	21.88	16.00	19.77	11.04	6.33
		Behavior	Male	8.06	12.37	17.60	18.00	4.42	7.30	5.14	11.13	2.39	7.97	4.37	9.21
			Female	26.26	22.03	16.81	21.89	20.08	18.95	9.79	16.55	7.79	14.52	6.50	5.91
	Self-directed	Emotion	Male	7.43	13.00	9.31	14.71	6.83	14.40	13.64	24.07	8.53	16.43	10.08	9.85
			Female	8.82	18.96	3.68	8.77	5.92	16.92	10.79	25.69	12.96	24.18	11.17	11.03
		Behavior	Male	11.11	16.38	7.43	12.61	12.42	13.51	19.57	26.08	17.53	17.49	16.88	10.24
			Female	16.39	23.20	14.17	20.47	12.92	19.85	16.10	19.58	17.14	24.06	18.65	14.26
Shame	Positive	Emotion	Male	3.89	10.90	2.57	10.24	3.83	13.50	6.50	15.86	3.07	6.70	4.21	5.92
			Female	2.43	9.63	7.57	15.04	7.17	18.23	3.71	7.96	9.36	19.21	6.14	6.91
		Behavior	Male	5.28	12.69	5.83	16.62	4.43	10.45	4.00	13.05	3.71	8.67	4.26	6.03
			Female	6.94	14.51	6.88	14.67	10.58	22.50	2.86	9.24	8.14	15.43	5.62	6.99
	Antagonistic	Emotion	Male	4.35	8.49	3.57	6.37	1.61	4.43	5.95	11.05	5.95	9.42	5.06	5.52
			Female	6.76	16.69	3.06	8.40	2.28	7.33	2.19	4.78	5.43	8.81	6.11	6.45
		Behavior	Male	1.90	4.26	2.69	6.85	0.94	2.46	4.86	8.13	4.28	7.90	3.68	4.10
			Female	2.13	4.66	1.71	4.64	3.50	9.79	2.12	4.04	6.48	9.85	5.87	6.56
	Withdrawing	Emotion	Male	15.00	15.87	16.78	20.98	14.37	13.44	6.64	11.94	11.03	18.19	11.76	11.05
			Female	20.14	19.06	18.19	20.41	16.67	23.08	11.64	16.79	6.29	9.63	8.30	7.23
		Behavior	Male	1.32	4.20	4.58	9.88	0.92	2.32	2.79	6.66	1.90	4.46	3.25	4.09
			Female	6.81	18.49	4.44	11.64	4.83	14.02	2.43	6.08	5.07	13.18	3.28	3.92
	Self-directed	Emotion	Male	36.60	27.78	33.01	24.75	29.20	20.95	16.29	23.35	10.93	16.30	21.27	16.16
			Female	39.38	28.74	33.06	28.85	24.37	21.43	18.21	23.81	16.43	21.89	18.65	15.34
		Behavior	Male	37.08	25.44	30.07	24.55	38.60	19.96	23.21	26.22	24.57	25.89	26.98	16.73
			Female	42.54	22.99	39.07	25.55	33.58	21.71	30.57	25.71	19.93	21.40	23.79	16.86

Table II. (*Continued*)

Emotional situation	Emotional reaction	Type of reaction		Self-prediction		Partner-prediction		Online self-rating		Video self-rating		Video partner-rating		Stranger rating	
				M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Guilt	Positive	Emotion	Male	6.00	13.45	4.71	11.83	4.17	10.73	4.43	9.98	4.14	9.79	4.53	5.23
			Female	4.79	13.45	3.54	11.44	3.00	8.13	2.50	6.06	5.86	12.14	7.41	10.41
		Behavior	Male	4.71	13.68	4.57	10.56	7.08	11.09	3.86	8.98	5.07	12.48	4.42	5.22
			Female	3.68	7.76	5.56	12.31	7.33	14.81	5.21	12.04	6.71	17.05	8.99	11.49
	Antagonistic	Emotion	Male	6.07	9.96	5.62	11.87	4.44	8.89	4.90	11.38	6.11	10.74	7.38	7.76
			Female	4.54	9.89	3.43	8.19	3.44	9.16	3.17	6.70	4.55	7.77	5.21	6.15
		Behavior	Male	0.76	2.54	2.05	3.79	2.94	6.31	4.91	7.70	2.88	5.36	6.11	5.28
			Female	0.56	1.87	0.46	2.78	2.61	7.37	3.67	7.07	6.30	8.90	4.92	5.98
	Withdrawing	Emotion	Male	24.19	21.29	21.67	20.61	15.83	16.85	7.14	10.42	6.39	9.34	7.81	7.80
			Female	28.82	23.45	21.46	25.14	19.67	17.70	17.57	22.71	12.29	15.05	9.49	7.12
		Behavior	Male	2.07	9.75	5.86	11.82	2.50	4.45	2.71	5.98	2.07	4.75	3.19	6.75
			Female	10.56	22.32	2.92	10.39	7.98	16.06	7.21	17.93	4.14	6.44	3.78	3.71
	Self-directed	Emotion	Male	52.67	34.80	41.49	29.67	37.28	24.86	19.79	28.33	17.57	22.90	12.33	9.58
			Female	56.25	27.95	43.26	28.69	46.67	23.54	24.54	26.71	23.43	29.16	18.85	15.93
		Behavior	Male	46.71	26.50	39.07	28.26	40.17	17.94	25.14	23.85	24.71	26.95	22.08	11.20
			Female	49.63	21.69	39.72	23.14	44.45	25.07	35.64	25.35	30.14	28.47	24.67	16.99

Table III. *F* Values, Degrees of Freedom, and Significance Levels for the Profile Analyses on Self-Predictions Versus Partners' Prediction of Emotional Reactions for Men and Women

		Emotional reactions				Behaviors			
		Male targets		Female targets		Male targets		Female targets	
Vignettes	*df*	*F*	*p*	*F*	*p*	*F*	*p*	*F*	*p*
Happiness									
Parallelism	3, 68	1.36	.262 (*ns*)	1.78	.160 (*ns*)	0.72	.546 (*ns*)	2.00	.123 (*ns*)
Coincidence	1,70	0.43	.515 (*ns*)	2.12	.149 (*ns*)	0.12	.735 (*ns*)	0.03	.860 (*ns*)
Fear									
Parallelism	3, 68	0.64	.593 (*ns*)	1.02	.388 (*ns*)	0.24	.871 (*ns*)	0.80	.499 (*ns*)
Coincidence	1, 70	0.29	.592 (*ns*)	1.35	.248 (*ns*)	1.30	.259 (*ns*)	0.14	.710 (*ns*)
Sadness									
Parallelism	3, 68	1.04	.383 (*ns*)	0.83	.480 (*ns*)	2.27	.088	2.81	.046
Coincidence	1, 70	0.02	.879 (*ns*)	0.50	.480 (*ns*)	1.55	.217 (*ns*)	4.56	.036
Anger									
Parallelism	3, 68	0.60	.619 (*ns*)	0.80	.502 (*ns*)	1.77	.162 (*ns*)	0.47	.704 (*ns*)
Coincidence	1, 70	0.16	.693 (*ns*)	0.47	.494 (*ns*)	0.03	.868 (ns)	<0.01	.979 (*ns*)
Shame									
Parallelism	3, 68	1.04	.382 (*ns*)	0.46	.712 (*ns*)	0.73	.538 (*ns*)	1.69	.178 (*ns*)
Coincidence	1, 70	0.04	.834 (*ns*)	1.52	.222 (*ns*)	0.82	.367 (*ns*)	3.62	.061
Guilt									
Parallelism	3, 68	0.31	.822 (*ns*)	1.76	.164 (*ns*)	0.70	.555 (*ns*)	1.63	.190 (*ns*)
Coincidence	1, 70	2.26	.137 (*ns*)	4.13	.046	0.54	.466 (*ns*)	2.38	.127 (*ns*)

Note. ns = Nonsignificant.

also marginally nonlevel. All three profiles show that women predicted more self-directed reactions for themselves than their male partners expected of them. Women also expected themselves to show more withdrawing behaviors in sadness situations.

How congruent are the partner-predictions with the video self-ratings? The predictions made regarding each partner's likely reactions were then compared to the partner's video self-ratings. Table IV presents the results of the profile analyses. Eighteen of the 24 profiles were nonparallel, which indicates differences between the two judgments. Fifteen profiles were also nonlevel, which indicates differences in the overall level of intensity of the judgments. Post hoc tests revealed that overall, men and women predicted more intense reactions for their partners than they observed and rated for themselves. Profiles for which this pattern was found are indicated in Table IV. However, some exceptions emerged. Specifically, for self-directed emotions, self-ratings of emotional reactions by men were higher than predicted by their partners for happiness and fear situations, as well as for self-directed behaviors in anger situations, whereas self-ratings for women's self-directed behavior were higher for sadness situations only. Higher self-ratings of positive emotional reactions were observed for men in fear situations. Finally, for guilt and shame situations, men rated their antagonistic behavior as higher than was predicted by their partners.

In sum, predictive accuracy for actual behavior was lower than predictive accuracy for hypothetical reactions. Two explanations for this finding are possible: either the video self-ratings systematically underestimated emotional expressiveness or the partner-predictions systematically overestimated emotional expressiveness. This question can be addressed by considering differences between partner predictions and the external judges' ratings of the videotaped role-play segments. If partner-predictions overestimated expressiveness, then we would expect more similar findings when comparing predictions to outside raters than when comparing predictions to the video self-ratings.

How congruent are the partner's predictions with the stranger-ratings? To answer this question, each partner's predictions of their partner's likely reactions were compared with the stranger-ratings of the videotaped material. As can be seen in Table V, 22 of the 24 profiles were nonparallel, and 16 were also nonlevel. Post hoc tests revealed a clear pattern. Specifically, the partners generally predicted higher levels of the appropriate emotional reaction for almost all

Table IV. *F* Values, Degrees of Freedom, and Significance Levels for the Profile Analyses on Partner-Predictions of Emotional Reactions Versus Self-Ratings of Videotaped Material

		Emotional reactions				Behaviors			
		Male targets		Female targets		Male targets		Female targets	
Vignettes	*df*	*F*	*p*	*F*	*p*	*F*	*p*	*F*	*p*
Happiness		(a)		(a)		(a)		(a)	
Parallelism	3, 67	9.35	<.001	2.34	<.081	9.65	<.001	6.00	<.001
Coincidence	1, 69	4.86	.031	5.91	<.018	6.94	.010	10.60	.002
Fear		(c)		(c)		(c)		(c)	
Parallelism	3, 67	18.11	<.001	3.25	.027	0.98	.407 (*ns*)	5.27	.003
Coincidence	1, 69	16.59	<.001	5.02	.028	0.49	.485 (*ns*)	0.70	.406 (*ns*)
Sadness		(c)		(c)		(c)			
Parallelism	3, 67	11.91	<.001	1.43	.134 (*ns*)	3.18	.030	2.88	.042
Coincidence	1, 69	6.25	.015	6.84	.011	0.39	.534 (*ns*)	0.03	.870 (*ns*)
Anger		(b,c)		(b,c)				(b,c)	
Parallelism	3, 67	3.76	.015	5.20	.003	2.75	.049	4.00	.011
Coincidence	1, 69	1.82	.182 (*ns*)	14.70	<.001	0.88	.351 (*ns*)	2.39	.127 (*ns*)
Shame		(c,d)		(d)		(d)			
Parallelism	3, 67	4.19	.009	1.81	.153 (*ns*)	3.30	.025	0.36	.782 (*ns*)
Coincidence	1, 69	9.65	.003	5.78	.019	5.61	.021	0.64	.426 (*ns*)
Guilt		(c,d)		(d)		(d)			
Parallelism	3, 66	4.78	.004	1.57	.204 (*ns*)	3.85	.013	0.20	.895 (*ns*)
Coincidence	1, 68	16.37	<.001	6.71	.012	3.68	.059	<0.01	.982 (*ns*)

Note. ns = Nonsignificant. a: Mean for positive reaction is higher in predictions than in self-ratings; b: mean for antagonistic reaction is higher in predictions than in self-ratings; c: mean for withdrawing reaction is higher in predictions than in self-ratings; d: mean for self-directed reaction is higher in predictions than in self-ratings.

role-play scenarios that were also rated by the strangers. Table V shows the comparisons for which this difference is significant. When strangers rated emotions as more intense than had been predicted by the partner, most of these differences were found for the nonappropriate reactions.

In sum, the partners do not generally overestimate the intensity of each others' likely reactions but rather they overestimate the degree to which their partner is likely to show the reaction that is most appropriate to the emotion eliciting situation. This finding is in line with Murray, Holmes, and Griffin's (1996a, 1996b) observation that that partners in functional couples tend to view each other in idealized terms. Specifically, the partner is seen as acting in a way that the perceiving partner believes to be the proper way for a person to behave. Similarly, the participants in our study expected their partners to react appropriately to social situations by showing the adequate emotional displays, yet, the strangers' ratings suggest that the role-play actors did this to a lesser degree than was expected by their partners. In sum, overestimation seems to be restricted to emotional reactions that concord with situation-specific display rules.

Comparisons of Self, Partner and Strangers' Ratings on Videos

Finally, we compared the three different judgments of the actual behaviors shown during the role-play to investigate the hypothesis that couples share a private meaning system. The videotaped role-play segments were each judged by five individuals, who did not know the actor in the role-play, as well as by the actor's partner and by the actor him or herself. Thus, individuals with different levels of knowledge of the actor assessed the same emotional expressive behavior. As mentioned above, evidence suggests that couples develop private meaning systems in which emotional expressions develop meanings specific to a specific couple and not shared by others (e.g., Gottman, 1979; Gottman & Porterfield, 1981). To assess whether the role-play behaviors were rated differently by different observers and whether these differences interacted with the sex of the actor, analyses of variance with the factors gender of actor and type of judge were conducted for each emotion situation. If couples are more congruent in assessing each other than are strangers, then the two partners' ratings should differ from the

Table V. *F* Values, Degrees of Freedom, and Significance Levels for the Profile Analyses on Partner-Predictions of Emotional Reactions Versus Self-Ratings of Videotaped Material

		Emotional reactions				Behaviors			
		Male targets		Female targets		Male targets		Female targets	
Vignettes	*df*	*F*	*p*	*F*	*p*	*F*	*p*	*F*	*p*
Happiness		(a,f,g,h)		(a,f,h)		(a,f,g,h)		(a,f,h)	
Parallelism	3, 68	14.77	<.001	13.38	<.001	8.55	<.001	13.90	<.001
Coincidence	1, 70	6.39	.014	7.93	.006	2.92	.092	8.40	.005
Fear		(c,e)		(c)		(e)		(c,f)	
Parallelism	3, 68	29.71	<.001	25.60	<.001	4.39	.007	9.81	<.001
Coincidence	1, 70	22.19	<.001	16.03	<.001	1.57	.214 (*ns*)	0.02	.884 (*ns*)
Sadness		(c,h)		(c)		(c,e)		(c,h)	
Parallelism	3, 68	15.16	<.001	14.23	<.001	4.79	.004	11.54	<.001
Coincidence	1, 70	10.66	.002	22.60	<.001	0.45	.506 (*ns*)	0.79	.378 (*ns*)
Anger		(b, c)		(b,c,e,h)				(c,e)	
Parallelism	3, 68	3.55	.019	8.40	<.001	1.60	.198 (*ns*)	3.77	.014
Coincidence	1, 70	4.92	.030	11.11	.001	<0.01	.985 (*ns*)	3.94	.825 (*ns*)
Shame		(d)		(c,d)		(d)		(f)	
Parallelism	3, 68	2.87	.043	3.67	.016	2.78	.048	1.44	.233 (*ns*)
Coincidence	1, 70	6.50	.013	4.65	.035	5.27	.025	0.74	.394 (*ns*)
Guilt		(c,d,f)		(c,d)		(d,f)		(d,f)	
Parallelism	3, 68	12.03	<.001	5.45	.002	10.15	<.001	3.40	.023
Coincidence	1, 70	28.98	<.001	16.30	<.001	6.39	.014	1.97	.164 (*ns*)

Note. ns = Nonsignificant; a: Mean for positive reaction is higher in predictions than in stranger-ratings; b: mean for antagonistic reaction is higher in predictions than in stranger-ratings; c: mean for withdrawing reaction is higher in predictions than in stranger-ratings; d: mean for self-directed reaction is higher in predictions than in stranger-ratings; e: mean for positive reaction is higher in stranger-ratings than in predictions; f: mean for antagonistic reaction is higher in stranger-ratings than in predictions; g: mean for withdrawing reaction is higher in stranger-ratings than in predictions; h: mean for self-directed reaction is higher in stranger-ratings than in predictions.

mean of the strangers' ratings but not from each other.

Are men's and women's performances judged differently by different judges? Table VI shows the *F*-values and significance levels for these analyses. A number of main effects of gender of target and type of judge, emerged as well as gender of target × type of judge interactions. Overall, whenever a gender of target difference emerged, women were perceived as more expressive (both regarding the general emotional reactions and the behaviors) than men; however, the type of judge moderated this general effect.

Self-Ratings

As can be seen from Table II, women rated themselves as showing more withdrawing emotional reactions during both the fear and the guilt segments as well as more positive behaviors during the happiness segments.

Partners' Ratings

Table II shows that men rated their partners as more withdrawing than women rated themselves. Specifically, women were rated as displaying more withdrawing emotional reactions during fear and guilt segments as well as more withdrawing behaviors during fear and sadness segments.

Stranger-Ratings

The last column of Table II shows that the strangers rated women's fear displays similarly to the male partners. That is, they rated women as showing more withdrawing emotional reactions and behaviors in fear situations than women rated for themselves. Strangers also rated women higher in antagonistic behaviors during anger segments and men as showing more self-directed behaviors during sadness segments than did the actors.

In order to assess whether couples were more congruent in assessing each other than were strangers, planned comparisons were conducted on the means so as to compare self and partner ratings with each other and against stranger ratings. Relatively few differences emerged for both contrasts. Of 48 planned comparisons, only seven showed differences between strangers and partners. Specifically, strangers perceived more antagonistic emotional reactions and

Table VI. F Values, Degrees of Freedom, and Significance Levels for the 3 (Judge) × 2 (Sex of Target) Analyses of Variance on Video-Rating Task

Emotional situation	Emotional reaction	Effect	*df*	Emotional reactions (*F*)	Behaviors (*F*)
Happiness	Positive	Sex (S)	1, 68	2.35	3.85*
		Judge (J)	2, 136	1.72	0.10
		S × J	2, 136	0.45	1.56
	Antagonistic	Sex (S)	1, 68	0.01	0.05
		Judge (J)	2, 136	3.22*	1.76
		S × J	2, 136	0.30	1.71
	Withdrawing	Sex (S)	1, 68	2.17	1.85
		Judge (J)	2, 136	1.43	0.90
		S × J	2, 136	2.57	0.98
	Self-directed	Sex (S)	1, 68	0.63	2.28
		Judge (J)	2, 136	2.38	1.79
		S × J	2, 136	3.23*	0.18
Fear	Positive	Sex (S)	1, 68	1.23	1.59
		Judge (J)	2, 136	2.40	3.14*
		S × J	2, 136	0.06	0.59
	Antagonistic	Sex (S)	1, 68	0.31	0.09
		Judge (J)	2, 136	< 0.01	0.37
		S × J	2, 136	0.90	3.57*
	Withdrawing	Sex (S)	1, 68	13.41**	6.42*
		Judge (J)	2, 136	13.84**	1.42
		S × J	2, 136	6.18**	0.12
	Self-directed	Sex (S)	1, 68	0.29	0.74
		Judge (J)	2, 136	1.49	1.21
		S × J	2, 136	0.04	0.12
Anger	Positive	Sex (S)	1, 68	0.40	0.01
		Judge (J)	2, 136	2.32	0.46
		S × J	2, 136	0.62	0.52
	Antagonistic	Sex (S)	1, 68	1.43	3.38
		Judge (J)	2, 136	0.45	0.74
		S × J	2, 136	0.48	0.50
	Withdrawing	Sex (S)	1, 68	2.02	0.24
		Judge (J)	2, 136	0.28	1.05
		S × J	2, 136	0.68	1.14
	Self-directed	Sex (S)	1, 68	1.41	4.75*
		Judge (J)	2, 136	0.49	2.09
		S × J	2, 136	2.82	0.69
Sadness	Positive	Sex (S)	1, 68	1.31	0.47
		Judge (J)	2, 136	0.77	3.13*
		S × J	2, 136	0.80	1.46
	Antagonistic	Sex (S)	1, 68	1.42	2.53
		Judge (J)	2, 136	2.40	1.66
		S × J	2, 136	0.91	1.75
	Withdrawing	Sex (S)	1, 68	2.91	4.62*
		Judge (J)	2, 136	2.67	1.07
		S × J	2, 136	3.30*	0.48
	Self-directed	Sex (S)	1, 68	0.77	0.03
		Judge (J)	2, 136	0.15	0.02
		S × J	2, 136	0.72	0.43
Shame	Positive	Sex (S)	1, 68	0.86	0.84
		Judge (J)	2, 136	0.24	1.24
		S × J	2, 136	3.24*	1.51
	Antagonistic	Sex (S)	1, 68	0.67	0.17
		Judge (J)	2, 136	1.29	1.48
		S × J	2, 136	2.14	3.13*
	Withdrawing	Sex (S)	1, 68	0.13	0.76
		Judge (J)	2, 136	0.10	0.30
		S × J	2, 136	3.07*	1.41
	Self-directed	Sex (S)	1, 68	0.32	<0.01
		Judge (J)	2, 136	2.20	0.98
		S × J	2, 136	0.76	1.79
Guilt	Positive	Sex (S)	1, 68	0.31	1.99
		Judge (J)	2, 136	2.00	0.76
		S × J	2, 136	2.14	0.58
	Antagonistic	Sex (S)	1, 68	1.68	0.13
		Judge (J)	2, 136	1.50	0.81
		S × J	2, 136	0.02	3.13*
	Withdrawing	Sex (S)	1, 68	7.27**	2.26
		Judge (J)	2, 136	1.99	1.18
		S × J	2, 136	2.55	1.28
	Self-directed	Sex (S)	1, 68	2.48	2.66
		Judge (J)	2, 136	1.75	1.93
		S × J	2, 136	0.01	0.77

*$p < .05$. **$p < .01$.

marginally ($p = .063$) more self-directed behaviors in happiness situations. In fear situations, strangers rated positive emotions and behaviors higher, whereas the members of the couple rated withdrawing emotional reactions higher. In shame situations, strangers marginally rated self-directed emotional reactions as higher ($p = .062$). Finally, in guilt situations, both partners perceived more withdrawing emotional reactions than did strangers. When we contrasted both partners' ratings, even fewer differences were found; only three contrasts were significant. Specifically, in anger situations, targets marginally ($p = .058$) rated their self-directed reactions to be higher than did their partners. In sadness situations, the reverse was found for antagonistic emotional reactions. Finally, for guilt situation, antagonistic behavioral reactions were rated as higher by the targets.

In sum, the present study's strongest evidence for empathic accuracy was found when we compared partner's predictions with self-predictions. For this comparison most profiles were parallel and/or level. However, when we compared partner-predictions with video self-ratings, most profiles were nonparallel, which suggests a lack of congruence. Thus, empathic accuracy was not observed with regard to actual behaviors. Rather, partners tended to overestimate the likelihood of situation appropriate emotional reactions. That is, they showed a tendency toward a perceptual bias in line with the situation relevant display rule. Finally, the hypothesis that couples have private meaning systems for their nonverbal behaviors was not confirmed in the present context. Ratings by the role-play actors, their partners, and a group of

strangers were largely congruent. The actors' gender interacted with the ratings on some occasions. Specifically, there was a tendency for women to be rated as higher in withdrawing reactions. This difference emerged for all three negative emotion situations for which withdrawing behaviors are typical, that is, fear, sadness, and guilt.

DISCUSSION

Our goal in the present study was to assess empathic accuracy in couples. Although complex, the pattern of results showed that overall, empathic accuracy was highest for the predictions of the partners' reactions to hypothetical situations. In this context, the participants' self-predictions and their partners' predictions agree for both global emotional reactions and for predicted behaviors. Further, partners agree with each other, as well as with strangers, on ratings of the video-taped nonverbal behaviors, with only few exceptions, most of which are related to the "women are more withdrawing" stereotype (e.g., Hess et al., 2000). However, when predictions were compared with ratings, substantial differences emerged. Overall, participants tended to expected their partners to react more appropriately to the emotion elicitor than is evidenced by the partners' actual behavior. For example, participants expect their partners to show more positive reactions in happiness situations than were actually shown by the partners. This study thus outlines a specific bias shown when evaluating one's partner's likely reaction that is in line with Murray, Holmes, and Griffin's (1996a, 1996b) observation that individuals expect their partners to show the "proper behavior" in a given situation.

However, this bias is restricted to the prediction of the partner's likely behavior and does not influence ratings of actual emotional reactions and behaviors. Moreover, the level of knowledge and degree of intimacy does not seem to play a role when judging the partners' emotional expressions because strangers, partners, and actors all rated the videotaped emotional expressions quite similarly. It is important to note that ratings are based on nonverbal material only, without access to either verbal cues or specific emotion-eliciting contextual information. It would be interesting for future researchers to include such elements in order to establish the respective role of all three elements for private meaning systems.

Overall, this study has two major implications regarding emotional empathic accuracy in couple interactions. First, we identified display rules-related biases in partners' predictions. This is of specific interest as it is a common occurrence for partners to attempt to predict each other's likely behaviors. Partners may do so when considering the likely consequences of their own behaviors (will she/he like this gift, be upset about a change of plans, etc.) or are called upon by third parties to do so. Our findings suggest that in those cases partners' assessments will be biased by display rules and that they may underestimate the degree to which partners may have mixed feelings about an event (e.g., experience sadness when confronted with an anger eliciting situation). Second, our results question the popular notion that partners decode emotional information differently from strangers. This last finding was unexpected and replications are required before concluding too strongly on the absence of a private meaning system for the decoding of emotional messages.

Couples are indeed special cases of interactions. Anyone who has first-hand experience of being in a couple knows how difficult it can be sometimes to predict our partner's reactions and to decode his/her emotional messages. By focusing on the specific structure of the relationship and on social context information, studies such as this one can help us to improve our understanding of men's and women's emotional expressivity in couple interactions. Knowing our biases and the stereotypes we hold may, in turn, help us to understand the forces that come into play whenever we are interpreting each other's emotional messages.

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