

FACIAL EXPRESSIONS AND AMBIVALENCE: LOOKING FOR CONFLICT IN ALL THE RIGHT FACES

Marnin J. Heisel and Myriam Mongrain

ABSTRACT: The present study examined the impact of conflict over emotional expression on the nonverbal communication process between romantic partners. Fifty-four romantically involved female undergraduate students who scored within the upper or lower 30th percentile range on the Ambivalence over the Expression of Emotion Questionnaire (AEQ; King & Emmons, 1990) were recruited along with their romantic partners. The facial expressions of these women were examined during a conflict resolution task. Analyses indicated that highly ambivalent women expressed a greater number of negative facial expressions and shorter lasting positive facial expressions (measured with FACES; Kring & Sloan, 1992) than less ambivalent women. These expressions were not entirely explained by current mood, as ambivalence predicted a greater number of negative facial expressions, and a briefer display of positive facial expressions, above and beyond current levels of negative and positive affect. Furthermore, analyses indicated that the number of women's negative expressions predicted significant increases in men's dysphoria and marginal increases in men's anxiety, suggesting potential negative interactional patterns between ambivalent women and their partners.

KEY WORDS: ambivalence; conflict over expression; emotional expression; facial expressions; nonverbal communication.

Ambivalence over the expression of emotion (AEE) is a personality construct found to relate to interpersonal difficulties in romantic relation-

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ships (King, 1993; King & Emmons, 1991). AEE is characterized by conscious conflict over expressing one's self, leading to a conscious suppression of one (usually pernicious or socially censured) emotion, in favor of a second (more socially acceptable) emotion. This construct has also been linked to relationship dissatisfaction (King & Emmons, 1990), and to lower perceived social support (Emmons & Colby, 1995). The present study examined the association between AEE and emotional expression among romantic couples. Meaningful links were expected among AEE, facial expressivity, and interpersonal difficulties as reflected by ratings of partners' mood and relationship satisfaction.

AEE has been found to be a valuable construct in the prediction of psychological adjustment and interpersonal difficulties. King and Emmons (1991) reported a significant link between ambivalence scores and spouse's alcohol consumption and aspirin usage, indicating a potential stressful effect of AEE upon relational partners (King & Emmons, 1991). Mongrain and Zuroff (1994) reported that AEE mediated the association between depressive personality style and depressive symptoms among university students. These authors proposed that the suppression of emotion often associated with AEE (e.g., King & Emmons, 1990, 1991) might hamper one's self-expression and lead to dysfunctional interactions with one's environment. Ambivalence has further been related to confusion in reading others' emotions (King, 1998), pointing to an additional source of potential interactional deficits in close relationships.

Dysfunctional interactive patterns, in turn, have been found to strongly relate to relationship difficulties (e.g., Christensen, 1988; Guthrie & Snyder, 1988; Marcus & Nardone, 1992; Segrin & Abramson, 1994). In a cross-cultural comparison of conflict resolution tasks in dissatisfied German and English married couples, Hooley and Hahlweg (1989) discovered a common correlation between negative communication patterns and relationship dissatisfaction. In particular, negative nonverbal communicative behaviors were found to lead to the escalation of disagreements, and to overall relational dissatisfaction. Furthermore, negative communicative behaviors on the part of one spouse were found to elicit complementary negative behaviors from the other spouse. In a study of married couples' interactions, Gottman and Levenson (1992) discovered that the female partners, in couples whose relationships ended in separation, expressed disgust more frequently; and that both partners were "more defensive, more contemptuous, and more negative as listeners . . . than (were) stable couples" (Gottman, 1993, p. 486). Thus, negative communicative styles, particularly in the form of negative emotional expressions, have been linked to relation-

ship problems. The link between AEE and patterns of facial expressivity were investigated in order to better understand the role of ambivalence in contributing to potential relationship dissatisfaction.

The FACES coding system (Kring & Sloan, 1992) was used in the present study to assess facial expressions of emotion. The FACES system distinguishes facial expressions of emotion based upon valence without naming specific emotions.¹ These expressions are then rated for intensity and duration. Fridlund (1994) and Coren and Russell (1992) suggested that broad aspects of emotional expression, such as valence and intensity ratings, may be more useful in studying facial expressions than might specific emotions. The FACES system is further distinguished from other facial coding systems by its relative ease of usage, and the possibility of coding expressions in real time. It provides measures of "global dimensions" of emotional expression, with a "high degree of correspondence . . . (with) . . . EMFACS" (Kring & Neale, 1996, p. 251), the Emotion Facial Action Coding System (see Matsumoto, Ekman, & Fridlund, 1991). In the present study, videotaped conflict resolution sessions involving women high or low in ambivalence and their partners were coded with the FACES system.

Aims of the Current Study

Couples recruited according to the female partner's degree of ambivalence over the expression of emotion were studied in the context of a laboratory conflict-resolution task. Couples identified problem areas in their relationship, and were given 8 minutes to discuss one problem with the intent on its resolution. The valence, duration, and intensity of the female participant's emotional expressions were extracted from videotaped segments. It was predicted that the conflict resolution task regarding a relationship issue might engender conflict over emotional expression in women high in AEE, and that this conflict would push for expression. It was uncertain how this conflict might relate to the facial expression of negative emotions. Previous research with self-report measures has indicated that highly ambivalent women may be less expressive overall (e.g., King, Emmons, & Woodley, 1992). However, facial expressions have not been objectively assessed in these individuals. Hence, in the current laboratory context, it was predicted that ambivalent women might experience more intense negative emotions that would engender a greater number of negative expressions as perceived by external raters. Previous research has also indicated that women high in AEE were less positive in their verbal statements with romantic partners

(Mongrain & Vetteese, 2003). It was, thus, predicted that highly ambivalent women might reveal less facial positive expressivity than might less ambivalent women.

The final goal was to examine the association between women's expressions and their partners' moods. The total number of women's negative facial expressions was expected to correlate with changes in partner dysphoria and anxiety during the interaction. Finally, it was predicted that AEE might relate to relationship dissatisfaction in romantic partners, replicating previous findings linking AEE with relationship difficulties (e.g., King, 1993; King & Emmons, 1991).

Method

Sample

The participants in this study were female university students currently involved in a romantic relationship. Participants volunteered to complete a questionnaire packet distributed in large undergraduate courses at York University. Students were informed that a raffle prize of \$300 would be awarded for those who filled out the screening questionnaires, which included the Ambivalence over the Expression of Emotion Questionnaire (AEQ; King & Emmons, 1990). Participants were also told that a smaller subset would be invited to participate in a further laboratory study. Of the 560 female students who completed all of the questionnaires, 26 were selected from those in the upper 30th percentile on the AEQ, and 28 were selected from the lower 30th percentile range.² Extreme groups were used to increase the power of our analyses since the data collection for this study was costly and budgetary restrictions prevented the recruitment of a larger sample. The average age of the participants was 19.8 years ($SD = 1.1$), the average age of their partners was 21.6 years ($SD = 2.0$), and the mean duration of their relationships was 17.6 months ($SD = 15.3$) at the time of the laboratory session. There were no significant differences between groups high or low in AEQ scores in terms of age of participant ($F_{(1, 52)} = .43$, ns), age of partner ($F_{(1, 51)} = .10$, ns), or duration of the relationship ($F_{(1, 52)} = .01$, ns).

Measures

The Ambivalence Over the Expression of Emotion Questionnaire (AEQ; King & Emmons, 1990) is a 28-item scale that measures conflict over emotional expressivity. The items are scored along a 5-point Likert scale, with

anchors ranging from 1 "I never feel like this" to 5 "I frequently feel like this." The AEQ measures two areas of expressive ambivalence, corresponding to an inability to express certain emotions (e.g., "Often I'd like to show others how I feel, but something seems to be holding me back"), and experiencing guilt or regret over having expressed certain emotions (e.g., "I feel guilty after I have expressed anger to someone"). The AEQ is scored as a unifactorial measure, involving the computation of a mean AEQ score derived from all of the scale's items (King & Emmons, 1990). King and Emmons (1990) reported an average AEQ score of 2.9 for undergraduate students. In the present study, the mean AEQ score for the high ambivalence group was 3.74 ($SD = 0.24$, $n = 26$), while that of the low ambivalence group was 1.88 ($SD = 0.31$, $n = 28$). This difference was statistically significant ($F_{(1, 52)} = 594.08$, $p < 0.0001$). The AEQ has demonstrated strong internal consistency, with a recorded reliability alpha of 0.89 (King & Emmons, 1990), and an internal reliability (Cronbach) alpha of 0.91 in the current study's screening sample. King and Emmons (1990) further demonstrated acceptable temporal stability for the AEQ, reporting a test-retest reliability of 0.78 over a 6-week interval.

The Couples Disagreement Scale (CDS; adapted from Zuroff & Duncan, 1999) is a list of 15 areas of disagreement commonly reported by romantic couples. Such areas of disagreement include time, financial, communication, friends and family, and recreational issues. In the present study, couples were instructed to select the 5 most personally relevant areas of disagreement from a list, or from their own experiences, and to rank-order these problems by degree of importance. The experimenter selected the issue for the conflict resolution task that was rated as most important on the female partner's list, provided that it was reported by both partners.

The Visual Analogue Scale (VAS; adapted from Teasdale & Fogarty, 1979) is an 18-item, self-report measure of current mood. Mood adjectives are endorsed by placing a vertical mark along a 10 cm line running between positive and negative poles with anchors of 0 and 100. The VAS is comprised of a series of adjectives measuring anxiety (e.g., from "not at all anxious" to "very much anxious"), dysphoria (e.g., from "not at all depressed" to "very much depressed"), hostility (e.g., from "not at all hostile" to "very hostile"), and positive affect (e.g., from "not at all happy" to "extremely happy"). The anxiety subscale comprised the following adjectives: anxious, tense, nervous, and uneasy. The dysphoria subscale involved ratings on: depressed, sad, despondent, tormented, blue, and lost. The hostility subscale included the following adjectives: hostile, irritated, disagreeable, and annoyed. The positive affect subscale comprised ratings on:

cheerful, happy, glad, and pleased. Cronbach alphas for the VAS subscales among this study's participants ranged from 0.87 to 0.89.

The Index of Marital Satisfaction (IMS; Hudson, 1982a,b) is a 25-item questionnaire that measures the extent to which problems are encountered in romantic relationships (e.g. "I feel that my partner treats me badly") (Hudson, 1982b). Scoring follows a Likert format, with responses ranging from 1 (rarely or none of the time) to 5 (most or all of the time). The IMS is intended to measure relationship satisfaction, and not adjustment levels. As the IMS was originally developed for use with married couples, any reference to "spouse" was reworded as "partner." In the present study, 9% of the female and 17% of the male participants scored above 30, the cut score for clinically relevant relationship problems. The IMS has demonstrated strong internal consistency, with a mean alpha of 0.96; and temporal stability, with a test-retest correlation of 0.96 (Corcoran & Fischer, 1987). The Cronbach alpha coefficient in the present study was 0.82.

The Facial Expression Coding System (FACES; Kring & Sloan, 1992) is a measurement system for coding facial expressions. An expression is indicated by a change in appearance of facial musculature from a neutral or baseline appearance to some other appearance. "Using this system, coders rate the frequency, mean intensity, and mean duration of both positive and negative facial expressions" (Kring & Neale, 1996, p. 252). The duration of an expression was measured from the point of departure from either a previous or neutral expression to the point of change to either a neutral or subsequent expression. The valence of an expression was determined by the experimenter to be either positive or negative.³ FACES has demonstrated high interrater reliability, with reported values ranging from 0.70 to 0.99 (Kring & Sloan, 1992), and has been used extensively in the study of facial expressions of individuals with schizophrenia (Earnst et al., 1996; Kring, Kerr, Smith, & Neale, 1993; Kring & Neale, 1996). In the present study, interrater reliability was obtained from two judges blind to group membership for 25% of the taped interactions. The intra-class correlation coefficient for the independent ratings was 0.80 for the duration of negative facial expressions and 0.80 for the duration of positive facial expressions.

Procedure

Participants were telephoned 12–20 weeks following the initial screening. Those still involved in a romantic relationship were asked to participate in the study. Participants were informed of the general experimental task on the telephone before scheduling an experimental session. Upon entering the laboratory, both partners were presented with copies of the Couples

Disagreement Scale (CDS), and they independently listed common areas of disagreement in their relationship. They then filled out a questionnaire packet, including the VAS. Upon completion of the questionnaire packets, they were seated upon a sofa, and the conflict resolution task was described to them. The researcher privately examined the issues listed by both partners and selected the one ranked highest on the female partner's list. Couples were asked to "try and resolve" this issue for the next 10 minutes. They were assured strict confidentiality and anonymity, and videotaping was begun as the researcher left the room. Eight minutes later, the researcher returned to the room, turned off the videocameras and asked both partners to complete the VAS for a second time. They then took part in an additional interaction and filled out measures as part of a larger project. Upon completion of the study, they were debriefed, and paid \$30 (\$15 each) for their involvement in the study.

Recording equipment. Participants were videotaped using two Sony hi-resolution 8 mm camcorders placed at 4 and 8 feet from the couple. Videocameras were in full view, preventing deception. The camera closest to the couple was angled toward the female participant, producing a close-up of her face. The second camera recorded both partners in a medium-shot.⁴

Coding of Emotional Segments

The full 8-minute videotaped interactions were coded in 15-second increments with the audiotrack muted, in order to ensure that the judges were responding to the facial channel of nonverbal communication without the potential intrusion of verbal sources of information (see Ekman & Friesen, 1975). The 15-second increments were coded independently by each judge on a 4-point Likert scale devised for the present study, assessing the intensity of emotional expressivity. The intensity ratings for the 15-second increments were then averaged. These intensity ratings demonstrated strong interrater reliability ($r = .80$, $p < 0.001$). Three-minute segments involving heightened emotionality had to be selected from the total interaction in order to optimize the likelihood of observing a sufficient number of emotional expressions. It was expected that the differences between ambivalent and non-ambivalent women would be most pronounced in such episodes. The 3-minute segments were selected by choosing the set of sequential 15-second increments that maximized the intensity of emotional expression for each participant over the course of the videotaped interaction.

The 2 judges then rated the 3 minutes using the FACES coding system.

Timing of a facial expression began at the moment of change from either a previous or neutral expression, and ended with either a change to neutrality or to a subsequent expression. The videotaped segments were viewed in real time, with duration of expressions determined by an on-screen time counter. Valence of emotional expressions (positive vs. negative) was determined by attending to the overall global expressions of the participants, independent of the content of the conversation. Kring and Sloan (1992) provided a list of positive (e.g., "Happy," "Delighted," "Amused," "Excited," and "Satisfied") and negative (e.g., "Miserable," "Distressed," "Annoyed," "Nervous," and "Angry") affect descriptors that were utilized for the determination of valence.

Results

Descriptive statistics of the variables under consideration in this study are presented in Table 1. Correlational findings are presented next, exploring the associations between the AEQ, experienced emotions, facial expressions, and relationship satisfaction. These findings are followed by an examination of the association between negative facial expressions in women, and changes in partners' mood over the course of the conflict resolution task. Finally, a set of multiple regression analyses is presented, predicting women's facial expressions with self-reported mood state and the AEQ.

AEQ, Facial Expressions, and Experienced Emotions in Women and Their Partners

Female participants' AEQ scores, categorized as high or low, were dummy-coded and correlated with the number and mean duration of negative and positive facial expressions derived from the FACES scale (see Table 2). Women's AEQ scores were significantly related to a greater number of negative facial expressions ($r = .29, p < 0.05$), as well as to a briefer display of positive facial expressions ($r = -.28, p < 0.05$). Therefore, ambivalent women displayed more negativity nonverbally.

AEQ scores were significantly positively correlated with women's VAS mood measures of dysphoria and anxiety, and marginally with ratings of hostility; and were significantly negatively correlated with VAS ratings of positive affect. Therefore, ambivalent participants reported feeling more negatively at the beginning of the experiment. The change in affect over the conflict resolution task was examined next, utilizing residualized change scores. Women's AEQ scores were marginally related to changes

TABLE 1
Descriptive Statistics of Ambivalence, Facial Expressions,
and Mood Measures

Variable	Total		High AEQ		Low AEQ	
	Mean	(SD)	Mean	(SD)	Mean	(SD)
Ambivalence (Female)						
AEQ	2.77	(0.97)	3.74	(0.24)	1.88	(0.31)
FACES Measures (Female)						
Negative						
Total Number ^a	50.17	(25.02)	57.73	(23.69)	43.14	(24.55)
Mean Duration (in sec.)	1.72	(0.40)	1.69	(0.40)	1.75	(0.41)
Positive						
Total Number	40.67	(20.19)	41.46	(22.18)	39.93	(18.53)
Mean Duration (in sec.)	1.61	(0.49)	1.46	(0.27)	1.73	(0.60)
Women's VAS Scores (Scored out of 100)						
Anxiety (Time 1)	22.00	(15.18)	26.30	(16.67)	18.00	(12.68)
Anxiety (Time 2)	21.82	(16.96)	28.05	(18.18)	16.05	(13.67)
Dysphoria (Time 1)	16.11	(15.78)	20.43	(16.97)	12.10	(13.69)
Dysphoria (Time 2)	15.66	(15.00)	19.35	(15.97)	12.24	(13.43)
Positive Affect (Time 1)	50.27	(13.18)	45.94	(13.47)	54.29	(11.75)
Positive Affect (Time 2)	46.83	(16.95)	45.04	(16.46)	48.49	(17.53)
Hostility (Time 1)	13.20	(13.32)	16.72	(13.42)	9.93	(12.59)
Hostility (Time 2)	19.39	(18.54)	23.20	(18.25)	15.86	(18.42)
Men's VAS Scores (Scored out of 100)						
Anxiety (Time 1)	23.50	(14.62)	20.54	(15.01)	26.26	(13.94)
Anxiety (Time 2)	20.48	(15.06)	19.29	(15.72)	21.59	(14.62)
Dysphoria (Time 1)	14.58	(12.79)	12.88	(10.77)	16.16	(14.43)
Dysphoria (Time 2)	12.89	(11.75)	13.28	(10.28)	12.53	(13.15)
Positive Affect (Time 1)	51.56	(13.47)	52.63	(14.35)	50.56	(12.78)
Positive Affect (Time 2)	49.32	(16.46)	48.16	(16.66)	50.40	(16.50)
Hostility (Time 1)	15.92	(13.94)	15.28	(15.49)	16.52	(12.59)
Hostility (Time 2)	18.85	(16.15)	18.62	(15.53)	19.06	(16.99)

^aMany emotional expressions lasted a mere second or two.

Note: Total = Total sample ($N = 54$); High AEQ = Participants scoring in the upper 30th percentile range on the AEQ ($n = 26$); Low AEQ = Participants scoring in the lower 30th percentile range on the AEQ ($n = 28$).

TABLE 2

**Point-Biserial Correlations Between AEQ Scores and Facial Expressions,
Experienced Emotions, and Relationship Satisfaction**

Variables	AEQ
Mean Duration of Positive Expressions	-0.28*
Number of Positive Expressions	0.04
Mean Duration of Negative Expressions	-0.07
Number of Negative Expressions	0.29*
Women's VAS Scores	
Dysphoria (Time 1)	0.27*
Anxiety (Time 1)	0.28*
Hostility (Time 1)	0.26†
Positive Affect (Time 1)	-0.32*
Men's VAS Scores	
Dysphoria (Time 1)	-0.13
Anxiety (Time 1)	-0.20
Hostility (Time 1)	-0.05
Positive Affect (Time 1)	0.08
IMS Scores	
Women's	0.33*
Men's	-0.04

Note: AEQ = Ambivalence Over the Expression of Emotion Questionnaire; IMS = Index of Marital Satisfaction Scores.

† $p < 0.10$; * $p < 0.05$.

in anxiety ($r = .24, p < 0.10$), but unrelated to change in other mood ratings. Hence, ambivalent women reported marginal increases in anxiety during the interaction task with their partners. Women's AEQ scores were not significantly related with the VAS mood measures of their male partners at Time 1. Women's AEQ scores were further unrelated to changes in their partners' mood. However, the total number of negative expressions of emotion in women did relate to significant increases in partners' level of dysphoria, and marginal increases in partners' level of anxiety (see Table 3). Therefore, women who displayed a greater number of negative expressions had partners who reported feeling increasingly dysphoric and somewhat more anxious over the course of the interaction task.

In order to ascertain the contribution of ambivalence to the number of

TABLE 3

**Correlations Between Negative Facial Expressions in Women
and Changes in Partners' Mood and Relationship Satisfaction**

Partner mood	Number of expressions	Mean duration of expressions
Change in Anxiety	0.25†	0.19
Change in Dysphoria	0.36**	0.15
Change in Hostility	0.16	0.22
Change in Positive Affect	-0.20	-0.10
IMS	-0.11	0.21

Note: IMS = Index of Marital Satisfaction Scores. Male partners' mood changes were computed utilizing residualized change scores.

† $p < 0.10$; ** $p < 0.01$.

negative expressions, over and above the experience of current emotions, a hierarchical multiple regression analysis with the VAS variables and the AEQ was conducted. VAS anxiety, dysphoria, hostility, and positive affect ratings were entered as a block on step 1, with AEQ scores entered on step 2 (see Table 4). The results indicated that the AEQ scores explained a marginal ($p < 0.07$) increase in negative facial expressions, beyond that explained by the participants' current affect. This suggests that ambivalence may lead to more negative facial expressivity irrespective of current mood.

In order to ascertain the contribution of ambivalence to the duration of positive expressions, over and above the experience of current emotions, a regression model was tested with the VAS anxiety, dysphoria, hostility, and positive affect ratings entered as a block on step 1, and AEQ scores entered on step 2 (see Table 5). The results indicated that the AEQ scores explained a significant ($p < 0.05$) decrease in the duration of positive facial expressions, beyond that explained by the participants' ratings of current mood. This suggests that ambivalence may lead to briefer displays of positive facial expressivity irrespective of mood as reported by the participant.

Hence, ambivalence marginally predicted a greater number of negative facial expressions, and shorter lasting positive expressions, over and above the experiences of positive and negative emotions. These findings suggest that ambivalence may serve to increase the expression of negative affect, and decrease positive communication above and beyond the experi-

TABLE 4
**Regression of AEQ and Affect Ratings as Predictors of Number
of Negative Facial Expressions**

		Number of negative expressions			
	Predictors	<i>B</i>	SE <i>B</i>	Beta	<i>t</i>
Model 1	(Constant)	25.46	22.53		1.13
	Anxiety	.06	.26	.04	.23
	Dysphoria	.18	.44	.11	.41
	Hostility	.54	.41	.29	1.31
	Positive Affect	.27	.37	.14	.72
Model 2	(Constant)	19.43	22.22		.87
	Anxiety	-.02	.26	-.01	-.06
	Dysphoria	.25	.43	.16	.59
	Hostility	.46	.41	.24	1.12
	Positive Affect	.42	.37	.22	1.14
	AEQ	6.51	3.50	.26	1.86 ^a

Note: AEQ = Ambivalence over the Expression of Emotion Questionnaire; Anxiety = VAS anxiety score at Time 1; Dysphoria = VAS dysphoria score at Time 1; Hostility = VAS hostility score at Time 1; Positive Affect = VAS positive affect score at Time 1. $R^2 = .13$, $F_{(4,49)} = 1.75$, ns for Model 1; $R^2 = .18$, R^2 -change = .06, F -change_(1,48) = 3.46, $p < 0.07$ for Model 2.

^a $p < 0.07$.

ence of specific emotions themselves. Moreover, this negative expressivity led to increases in the negative affect of their romantic partners.

Finally, the link between the AEQ and relationship satisfaction was examined. As predicted, ambivalent women reported being significantly more dissatisfied with their relationships (see Table 2). However, contrary to our hypothesis, women's ambivalence scores did not correlate with men's relationship satisfaction. Possible interpretations for this finding will be addressed in the next section.

Discussion

The present study sought to examine the interpersonal ramifications of conflict over emotional expression along nonverbal lines of communication. The results indicated that ambivalent women expressed greater overall

TABLE 5
Regression of AEQ and Affect Ratings as Predictors of Duration
of Positive Facial Expressions

		Duration of positive expressions			
	Predictors	<i>B</i>	<i>SE B</i>	Beta	<i>t</i>
Model 1	(Constant)	2.09	.46		4.52***
	Anxiety	-.00	.01	-.08	-.48
	Dysphoria	-.01	.01	-.29	-1.00
	Hostility	.01	.01	.15	.63
	Positive Affect	-.01	.01	-.19	-.91
Model 2	(Constant)	2.23	.45		4.96***
	Anxiety	-.00	.01	-.02	-.11
	Dysphoria	-.01	.01	-.35	-1.26
	Hostility	.01	.01	.20	.88
	Positive Affect	-.01	.01	-.29	-1.42
	AEQ	-.16	.07	-.32	-2.18*

Note: AEQ = Ambivalence over the Expression of Emotion Questionnaire; Anxiety = VAS anxiety score at Time 1; Dysphoria = VAS dysphoria score at Time 1; Hostility = VAS hostility score at Time 1; Positive Affect = VAS positive affect score at Time 1. $R^2 = .03$, $F_{(4,48)} = 0.40$, ns for Model 1; $R^2 = .12$, R^2 -change = .09, F -change_(1,47) = 4.76, $p < 0.05$ for Model 2.

* $p < 0.05$; *** $p < 0.001$.

numbers of negative expressions than women low in AEE. As such, highly ambivalent participants tended to appear either more irritable, angrier, or more dysphoric than their less ambivalent peers. Moreover, negative expressivity correlated with changes in the partner's moods, including increases in anxiety and dysphoria. Hence, the results provided support for the second hypothesis that dysfunctional interpersonal interactions along nonverbal channels of communication negatively influence partner's moods. Contrary to expectations, ambivalent women's partners were not more dissatisfied with their relationship than were partners of non-ambivalent women. Each set of results will be discussed in turn.

Multiple regression analyses indicated that AEE marginally improved the prediction of the number of negative expressions above and beyond experienced affect. AEE further significantly improved the prediction of the duration of positive expressions above and beyond experienced affect. Thus, while current mood ratings added predictive value to the study of

facial expressions, the inclusion of AEE marginally improved the prediction of negative expressivity, and significantly improved the prediction of positive expressivity. These results suggest that conflict may have implications for the regulation of affect and may actually intensify the nonverbal aspects of emotional expression.

King, Emmons, and Woodley (1992) indicated that AEE was negatively related to self-reported emotional expressiveness, while the present study's findings demonstrated a positive relation to negative expressions. As such, while these individuals indicate on self-report measures that they are non-expressive, this may be true only for positive emotions as observer ratings reveal greater negative expressivity. It is possible that highly ambivalent individuals are not sufficiently self-aware to recognize their facial expressions. They have previously been found to be confused in their attempts to decipher others' emotions (King, 1998), and these difficulties may apply to them as well. Alternatively, they may prefer to downplay their negative emotional experiences, consonant with the very definition of the AEE construct.

While ambivalent individuals may try to restrain their verbal expressivity, their faces betray their experience of negative emotions. These interpretations are speculative and require further study, given that the present study did not examine the relation of AEE with self-awareness or with verbal expressivity. However, they are concordant with previous findings linking AEE, rumination (King et al., 1992), and the perseveration of mood (Katz & Campbell, 1994).

It appears that the faces of highly ambivalent women belie a sense of interpersonal distress. AEE in adults might reflect both early interpersonal issues regarding the expression of affect, and current interpersonal difficulties with significant others. A conflict resolution context may be particularly threatening to highly ambivalent individuals, and their faces may reflect perceived interpersonal danger associated with an emotion-producing situation. Possible ruminations (e.g., "Should I express myself or shouldn't I?") could intensify the conflict and magnify the apparent distress. Fear of potential retaliation from partners could also contribute to the more negative communicative style of ambivalent individuals, as found by Mongrain and Vettese (2003). Finally, the absence or reduced amount of positive expressions in a romantic context may be detrimental to the well being of the relationship (Gaelick, Bodenhausen, & Wyer, 1985).

The present study supported the contention that the facial channel of nonverbal communication plays a role in interpersonal interactions. Indeed, often the best nonverbal cues we get into the internal emotional state of others are via facial expression and body language. In this study, it was

discovered that women's negative facial expressions related to increased dysphoria and anxiety in their male partners. However, caution is advised when one attempts to discover causal relationships in correlational analyses. As such, it might be the case that increases in men's dysphoria lead to negative emotional experiences in their female partners, which are manifested as a greater number of negative expressions and shorter lasting positive expressions. Since AEE is considered to be a dispositional, rather than a situational construct, it is theoretically more probable that women's AEE and associated negative expressivity preceded the dysphoria evident in their male partners. This is further suspected as women's ambivalence levels were assessed several weeks before the interpersonal interaction.

The results indicated that women's AEQ related to significantly lower relationship satisfaction in women. However, support was not provided for the hypothesis that women's AEQ scores relate to lower relationship satisfaction in their partners. It is quite possible that these non-significant findings are due to the relatively short duration of the romantic relationships among this sample. It is possible that, with time, AEE will come to have an effect upon partner's relationship satisfaction, as found by King (1993). Indeed, a study of individuals involved in more long-standing relationships might lead to very different results. The findings of lower relationship satisfaction among ambivalent women are supported by Emmons and Colby (1995) who indicated that these individuals reported lower social support, an effect found to explain their distress.

The results of the present study are noteworthy in that this is the first study in which facial expressions of ambivalent individuals have been examined in an interpersonal context. However, there are certain limitations to the current work. First, an examination of the *verbal* content of the women's most emotionally-charged 3 minutes with their partners would have been beneficial. As found by Mongrain and Vettese (2003), a lack of congruence may have been obtained between facial and verbal expressions (e.g., low verbal expressivity, but high facial expressivity), consonant with the definition of the AEE construct. Second, this study focused on female university students involved in relatively short-term relationships. It is entirely possible that this combination may have produced stereotypic patterns of expression that might not hold for either less educated individuals, less functional individuals, older individuals, men, or individuals involved in longer term relationships or marriages.

Finally, pragmatics necessitated the videotaping of solely female participants. In order to round out the interpersonal picture, attention must be paid to the facial expressions of the male partners of these participants. Such data would be quite valuable in illustrating the feedback processes in

interpersonal encounters across the facial channel of nonverbal communication.

Conclusions

In summary, the main purpose of the present study was to compare the facial expressions of women ambivalent over expressing their emotions in an interpersonal context. Specifically, the following findings emerged: (1) women high in AEE expressed a greater number of negative expressions and shorter periods of positive nonverbal communication than did women low in AEE; (2) AEE predicted the number of negative expressions of emotion above and beyond self-reported negative and positive affect, and shorter lasting positive expressions over and above reported negative and positive affect; (3) the number of women's negative facial expressions predicted increases in men's dysphoria and anxiety, but was unrelated to men's relationship satisfaction.

Overall, the current findings illustrated the relevance of attending to nonverbal channels of communication and, specifically, facial expressions of emotion in interactions between romantic partners. This is particularly important when a partner is conflicted and at risk for interpersonal difficulties.

Notes

1. A commonly used method of coding facial expressions is the Facial Affect Scoring Technique (FAST), which categorizes facial expressions of emotion into 6 basic emotions; anger, sadness, fear, happiness, disgust, and surprise (Ekman & Friesen, 1975; Ekman & Oster, 1979). In the present study, judgments of discrete emotions were examined; however, the interrater reliability on these judgments was rather poor, ranging from -0.08 to 0.55 , obviating further analysis. Moreover, Coren and Russell (1992) have argued that discriminations are commonly made based on broader aspects of emotion, providing support for scoring facial expressions in terms of valence and intensity of expression.
2. Twenty-nine women low in AEE were initially recruited for the present study. One of these participants was removed from the analyses as she manifested unilateral facial weakness that partially obscured her emotional expressions.
3. The interrater reliability on the FACES intensity ratings was unacceptably low ($r = .16$), and so these ratings were therefore excluded from the analyses. Also, for an in-depth discussion of the merits of measuring affect with bipolar scales, see Russell and Carroll (1999).
4. The facial expressions of the men were not examined, since there was no a priori theoretical basis for expecting differences in expressivity among partners of ambivalent women, and also due to financial and pragmatic constraints.

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