

THE ROLE OF MEN'S CRITICAL/REJECTING OVERATTRIBUTION BIAS, AFFECT, AND ATTENTIONAL DISENGAGEMENT IN MARITAL AGGRESSION

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The present study explored how men's attentional disengagement, affective reactions, and inferential bias contribute to their wife-directed aggression. We used signal detection analyses, the standard-stimulus empathic accuracy paradigm, and mediation analyses to replicate and extend findings by Schweinle, Ickes, and Bernstein (2002). The results indicated that more aggressive husbands appear to maintain their bias to overattribute criticism and rejection (C/R-O Bias) to women through two independent mechanisms: emotional countercontagion, in the form of contemptuous feelings, and attentional disengagement (i.e., "tuning out") when a woman expresses herself. These findings inform our theoretical understanding of abusive husbands' social cognition and have important implications for future research and intervention.

Wife-directed violence and aggression are present in an alarming number of marriages. Using national survey methods, Straus and Gelles (1986) and Heyman and Schlee (1997) reported that roughly one in eight

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husbands will physically aggress against their wives. This aggression often carries severe physical and psychological consequences for wives and children (for reviews, see Holtzworth–Munroe, Smutzler, & Bates, 1997; Holtzworth–Munroe, Smutzler, & Sandin, 1997). These sobering findings argue for the importance of research into the characteristics of abusive and aggressive husbands in order to develop more effective methods for reducing husbands' wife-directed aggression.

An important area of recent exploration is the social cognition of maritally aggressive husbands. Several authors have noted that men's marital aggression is often associated with their hypervigilance for any possible hint of criticism or rejection from their female partners (Berry, 1998; Deschner, 1984; Downey, Feldman, & Ayduk, 2000; Dutton, 1995a, 1998; Jacobson & Gottman, 1998; Nelson, 1997; Walker, 1979). It also appears that maritally aggressive men's hypervigilance for relationship threat generalizes to women other than the men's own wives. For example, Dutton and Browning (1988) found that, relative to nonviolent men, physically assaultive husbands perceived more relationship threat when they viewed a standard videotape of a staged relationship conflict, even though the participants did not know either the male or the female actors. Similarly, Holtzworth–Munroe and Hutchinson (1993) used a vignette paradigm and found that maritally violent men attributed more negative intent to wives' behavior than nonviolent men did.

Schweinle, Ickes, and Bernstein (2002) demonstrated that more aggressive husbands tend to be biased to overattribute criticism and rejection to women. Their data enabled them to rule out the contrasting possibility that the men's wife-directed aggression is related to a heightened level of accuracy about the critical and rejecting thoughts and feelings that women actually have about their male partners. These findings support Holtzworth–Munroe's (1992) theoretical speculations about abusive men's deficient social information processing (McFall, 1982) and the biased inferences made by maritally violent men. Schweinle and his colleagues labeled this phenomenon the *critical/rejecting overattribution bias* (C/R–O bias).

The primary goal of the present study stems from the question, "How, in light of the social information available to them, are aggressive men able to make such consistently biased inferences about women's criticism and rejection?" To answer this question, we replicated and extended the primary results reported by Schweinle et al. (2002). We also explored the role of two factors that could potentially "enable" and sustain the men's C/R–O bias: affect and attention.

AGGRESSIVE HUSBANDS' AFFECTIVE RESPONSES TO WOMEN

Although more aggressive husbands tend to exhibit the greatest bias toward inferring criticism or rejection in women, the process(es) that underlie this association remain unclear. There is some evidence to support the hypothesis that whenever aggressive men have a negative emotional reaction to a woman's expressed concerns, the negative affect biases the men's judgment in a way that leads them to overattribute criticism and rejection to the woman, and this overattribution bias in turn precipitates the men's aggressive behavior.

Several authors have noted the association between negative or aggressive affect and men's wife-directed aggression (Dutton, 1998; Downey et al., 2000). Battered wives report that their husbands commonly expressed contempt and belligerence toward them prior to the violent behavior (Jacobson & Gottman, 1998). Moreover, compared to nonviolent husbands, violent husbands also appear to be more contemptuous and belligerent toward their wives in a laboratory setting (Jacobson & Gottman, 1998). In a similar vein, Holtzworth-Munroe and Smutzler (1996) observed that violent husbands reported less sympathy and more anger in response to standard videotapes of various wife behaviors. Further, Moore, Eisler, and Franchina (2000) found that abusive husbands attributed more negativity and reported more negative feelings when listening to standardized audiotapes of hypothetical dating situations in which the female target was highly provocative, moderately provocative, or not provocative of confrontation. Finally, Betancourt and Blair (1992) found that when male participants made certain attributions to the characters in an interpersonal conflict vignette and responded to the characters with more anger and less sympathy, these negative affective reactions were associated with more aggressive hypothetical reactions by the male participants.

Some social cognition findings further support the hypothesized causal sequence in which negative emotion precipitates biased inference-making, and biased inferences in turn precipitate aggression. This causal sequence is consistent with a tradition of social cognition research and theory that began with the work of Feshbach and Singer (1957) and Schachter (1959). According to this tradition, affect precedes social cognition and social judgment, which in turn influences social behavior (see also Bless, 2000; Fiedler, 2000; Griffitt, 1970; and Schwarz & Clore, 1988). For example, Karney, Bradbury, Fincham, and Sullivan (1994) reported that negative affect influences the attributions that spouses make about each other. Similarly, Fincham and Bradbury (1992) found that the nega-

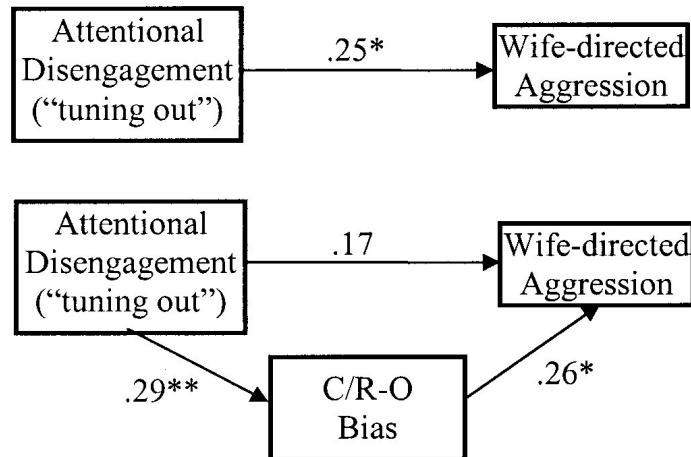


FIGURE 1. Coefficients are standardized regression coefficients (β s) for effects to be reported later in this article.

tive affect evoked by standardized stimulus material influenced attributions of responsibility between spouses.

These arguments point to the possibility that the angry and contemptuous affect of aggressive husbands is subsequently interpreted and “explained” in terms of the criticism and rejection that these men (mistakenly) perceive in women’s thoughts and feelings. In other words, they suggest a causal sequence in which the relationship between the men’s negative affect and their marital aggression is mediated by the men’s bias to mistakenly perceive criticism and/or rejection in women’s thoughts and feelings (see Figure 1).

MEN’S ATTENTIONAL DISENGAGEMENT AND WIFE-DIRECTED AGGRESSION

It seems likely that there are other means by which maritally aggressive men can avoid taking women’s perspectives and thereby maintain their biased interpretation of women’s thoughts and feelings. Although there does not appear to be any literature directly related to this idea, there are a few research findings that offer some promising clues.

For example, Holtzworth–Munroe and Smutzler (1996) found that abusive husbands were less likely to discuss with their own wives the conflict themes that were depicted in a standard videotape. The abusive

men were also less likely to report that they would respond with sympathy or comforting behavior. These findings suggest that the more aggressive or abusive husbands may be less willing to engage emotionally with women who express their relationship-related distress. If so, their aversion to attending to women's relationship complaints might take the form of *attentional disengagement* or "tuning out," thereby forestalling a sympathetic identification with women's relationship distress.

Evidence for such a response has been reported by Sillars, Roberts, Leonard, and Dun (2000). They found that people in relationship conflict situations selectively attended to the available sources of social information. Sillars et al. further suggested that this attentional selectivity is somewhat idiosyncratic, thus echoing Sillars's (1998) speculation that it might play an important role in marital aggression. Consistent with this speculation, we think it is possible that the C/R-O bias displayed by aggressive or abusive men might be further supported and sustained by their attentional disengagement from a woman's expressed concerns.¹

Following this logic, if more aggressive husbands disengage their attention from women's expressed complaints, they can, in the absence of any contradictory information, effectively sustain their bias to *overattribute* criticism or rejection to women and respond with more aggression. If this reasoning is correct, we would expect to find a relationship between the men's attentional disengagement and the men's reported aggression against their own female partners that is mediated by the magnitude of the men's C/R-O bias (see Figure 2).

OVERVIEW OF THE PRESENT INVESTIGATION

The present study used an adaptation of the empathic accuracy paradigm (see Ickes, Stinson, Bissonnette, & Garcia, 1990; Marangoni, Garcia, Ickes, & Teng, 1995) to collect data regarding men's empathic inferences, their affective responses, and their attention to a woman depicted in a standardized videotape. Signal detection methods (for a review, see MacMillan & Creelman, 1991) were used to compute indices of the men's inferential bias and accuracy when they attributed criticism or rejection to the woman on the videotape. Correlation and OLS regression/mediation analyses (see Baron & Kenny, 1986) were used to determine whether the men's negative affect, attentional disengagement, and

1. It is noteworthy in this regard that Dodge and Frame (1982) and Dodge and Newman (1981) found that more aggressive fifth-grade boys attended to social cues more selectively and less carefully than less aggressive boys did. This selective attention resulted in biased attributions of hostility, which in turn were directly related to aggressive responses.

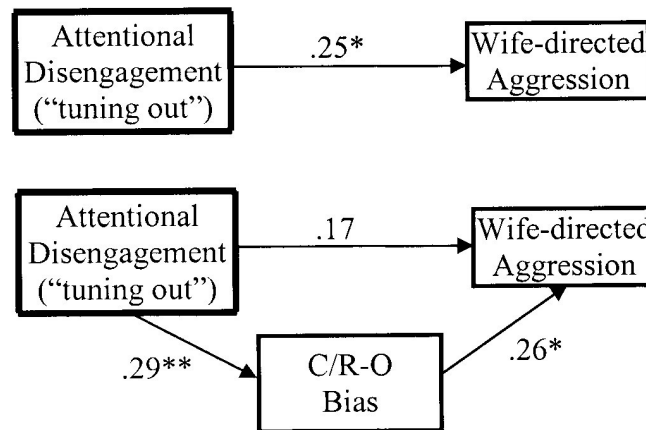


FIGURE 1. Coefficients are standardized regression coefficients (β s) for effects to be reported later in this article.

C/R–O bias were related to their wife–directed aggression in the predicted ways.

METHOD

PARTICIPANTS

Eighty–five men who had been in a close relationship with their wives for at least one year were recruited from a large metropolitan community in north Texas through local newspaper advertisements offering \$35 for their participation in a study related to marital problems. There was no mention of marital aggression in the ads. The one–year requirement ensured that the participants had been married long enough to respond effectively to several of the measures used in this study. Two of these 85 men withdrew from the study about halfway through the procedure. An equipment malfunction and local construction noise rendered data from three other participants invalid. The following results are therefore based on the remaining sample of 80 men. All 85 participants were debriefed at the end of their session and were paid the full \$35 participation fee.

The 80 men included in the study sample ranged in age from 21 to 73 years old ($M = 43.4$, $SD = 12.5$). At the time of testing they had been married from 4.5 months to 50 years ($M = 14.6$, $SD = 12.5$) and had from zero

to five children ($Mdn = 2$, $SD = 1.6$). Of the 80 participants, 56 were White, 13 African American, seven Hispanic, and four reported their ethnicity as "Other." Thirteen participants reported being in an ethnically mixed marriage; the rest reported being married to a woman of the same ethnic background.

When each participant reported to the lab, he was met by the male experimenter, the only person with whom the participants had contact during this study. Each participant was seated alone in a cubicle. He was then given an informed consent form that described the procedure without revealing either the hypotheses of the study or the fact that the participant himself would be covertly videotaped while he viewed and responded to the stimulus tape.

MEASURES

Initial Questionnaire Battery. Among the initial battery of self-report measures were: (1) the Propensity for Abusiveness Scale (PAS; Dutton, 1995b), a nonreactive self-report measure with excellent internal consistency and substantial evidence supporting its construct validity (Dutton, 1995a, 1995b, 1998; Dutton, Landolt, Starzomski, & Bodnarchuk, 2001); (2) the MC1-(10) (Strahan & Gerbasi, 1972), a 10-item version of the Marlowe-Crowne measure of socially desirable response set; (3) the Revised Dyadic Adjustment Scale (RDAS; Busby, Christensen, Crane, & Larson, 1995); and (4) several demographic items that assessed age, years married, number of children, and so on.

The PAS (Dutton, 1995b, Dutton et al., 2001) is a 39-item measure with low reactivity that is designed to yield a continuous index of men's partner-abuse propensity. The PAS was created by Dutton (1995b), who validated it against the Psychological Maltreatment of Women Inventory (PMWI; Tolman, 1989). PAS scores were found to correlate significantly with both of the PMWI subscale measures: dominance/isolation and emotional/verbal abuse. The PAS appears to be a good measure of men's potential for marital aggression, and it typically yields reliability alphas greater than .90 (Dutton, 1995b; Dutton et al., 2001).

The MC1-(10) (Strahan & Gerbasi, 1972) is a 10-item, true-false version of the Marlowe-Crowne measure of socially desirable responding ($\alpha = .54$ in the present sample). There is evidence supporting its construct validity relative to the full-length Marlow-Crowne scale (Fraboni & Cooper, 1989). To statistically control for socially desirable response bias, scores on the MC1-(10) were used to adjust scores on the more sensitive or reactive measures in the final set of questionnaires (see below).

The Revised Dyadic Adjustment Scale (RDAS; Busby et al., Crane, & Larson, 1995) is a 14-item version of the original Dyadic Adjustment

Scale (DAS; Spanier, 1976). The revised measure was edited specifically to assess distress versus satisfaction in married or cohabitating relationship partners. By statistically controlling for RDAS scores as a covariate, we could establish that the participants' bias to infer criticism or rejection in the thoughts and feelings of women is a general bias rather than one that derives more specifically from the participant's dissatisfaction with his own marital relationship.

Empathic Accuracy Stimulus Material. The stimulus materials for the empathic accuracy assessment included an instructional videotape that explained the procedure and a stimulus tape that was a slightly edited version of one that was developed by Marangoni et al. (1995). The tape depicts a female client participating in a simulated Rogerian psychotherapy session with a male therapist. The client was White, 24 years old, college-educated, and from a middle- to upper-middle-class background. She had previously consented in writing to have her session videotaped and to allow the videotape to be used as stimulus material in subsequent research.

The client was debriefed immediately after her therapy session and was asked to read and sign a second consent form in which she agreed to (1) watch the videotape of her therapy session, (2) pause the tape at each point that she remembered having had a specific thought or feeling, (3) write down the time at which that thought or feeling occurred (using a running timer that appeared as an overlay on the video image), and then (4) write a sentence containing the actual content of that thought or feeling on a standardized thought/feeling reporting form. She was asked to be as honest and accurate as possible when reporting the thoughts or feelings she remembered having during her therapy session, and not to report any thoughts or feelings that she did not distinctly remember having during the session.

To determine whether each thought or feeling reported by the client was critical/rejecting or not critical/not rejecting, five female undergraduate students independently viewed the entire therapy session tape. The female raters were instructed to view the tape and to stop it at each of the points where the female client had reported a thought or feeling. At each tape stop, the raters read the client's actual reported thought or feeling, considered the actual thought or feeling in the videotaped context in which it had occurred, and then decided whether the thought or feeling was either critical or rejecting (CR) or noncritical/nonrejecting (NCR) of the client's ex-husband.

The final judgment about the theme of each thought or feeling, either CR or NCR, went to the majority of the raters. Fifteen of the 30 thoughts and feelings were rated as critical or rejecting and 15 were rated as not critical or rejecting. The two types of thoughts and feelings (CR and

NCR) were distributed throughout the tape as the female therapy client had actually experienced them, rather than being segregated into clusters. The overall kappa coefficient (see Fleiss, 1981) for these ratings was significant ($\kappa = .31, z = 5.30, p < .001$).

Final Measures. A second battery of aggression measures was administered at the end of the procedure. These more face-valid aggression scales included: (1) the Conflict Tactics Scale, Form N (CTS; Straus, 1979); (2) an adapted version of the Psychological Maltreatment of Women Inventory (PMWI; Tolman, 1999); and (3) three questions about the respondent's relationship with his wife.

The Conflict Tactics Scale – Form N (CTS; Straus, 1979) is a widely used, 19-item index of conflict and violence within the family that reliably measures self-reported aggression between marital partners during the preceding year (Avakame, 1998; Downey et al., 2000; Dutton, 1998; Ehrensaft & Vivian, 1999; Hanley & O'Neill, 1997; Ryan, 1998). According to Straus (1979), responses on this measure can be aggregated to create three subscales: (1) reasoning tactics (CT-Reasoning), (2) verbal aggression, and (3) physical aggression. For our purposes, however, it made more sense to combine each participant's verbal and physical aggression scores into a single continuous measure of wife-directed aggression, which we adjusted for socially desirable response bias using the MC1–(10) scores (see Saunders, 1991). We will refer to this combined measure as CT-Aggression.²

We also tested our participants with the section of the CTS in which the respondent reports the levels of aggression exhibited by his or her partner (in this case, the participants' wives). This assessment was included to encourage honest responses by giving each participant the impression that the goal of the CTS was to assess the overall level of conflict in his marriage, and not specifically his own aggressive behavior.

The Psychological Maltreatment of Women Inventory (PMWI; Tolman, 1989) is a 58-item, Likert-type scale designed to assess the extent to which males psychologically abuse their female partners. Responses to PMWI items can be separated into two subscales: domi-

2. There is a widely acknowledged problem with collecting self-reported marital aggression data only from husbands: the correlations between a husbands' self-reported aggression and wives' reports of husbands' aggression tend to be moderate at best (Browning & Dutton, 1986; Jouriles & O'Leary, 1985; Szinovacz, 1983). Reports by Dutton and Hemphill (1992) and by Tolman (1989) suggest that men tend to under-report their aggressive behavior in relation to their scores on socially desirable response measures. We therefore used a computational method proposed by Saunders (1991) to adjust participants' continuous CT-Aggression scores according to their scores on the M-C 1(10) (Strahan & Gerbasi, 1972).

nance/isolation (PMWI-DI) and emotional/verbal abuse (PMWI-EV). Each subscale score reflects a different type of men's psychological abuse of women. Given the correlational focus of the present study, we combined the 23 PMWI items that significantly differentiated between battering and relationship-distressed respondents (Tolman, 1999) into a single, first-person, self-report scale. Thirteen of the 23 items were from the dominance-isolation subscale and ten were from the emotional-verbal subscale. Because this first-person adaptation of the PMWI is face-valid and potentially subject to self-presentation bias, we adjusted these scores for socially desirable response bias (see Saunders, 1991).

We also included a key question in the final questionnaire battery, "To what extent would you characterize your wife or female partner as being critical or rejecting of you?" Participants were asked to respond on a 5-point response scale (from "not at all" to "extremely"). This last question was included for use as a control covariate in analyses of the relationship between inferential biases and aggression. By controlling for how critical or rejecting husbands think their own wives are, we can rule out the possibility that the level of inferential bias displayed by the participant could be a function of the amount of criticism or rejection that he perceived in his own marriage.

EMPATHIC ACCURACY INFERENCE PROCEDURE

The participant first viewed an instructional videotape that described the basic procedure for the empathic accuracy assessment task. It informed the participant that he would view a videotape of a psychotherapy session. At specific points throughout the session, the videotape was paused by the experimenter. The participant's task during each of the 30 tape stops was to write down, on specially prepared forms and in the form of a complete sentence for each inference, his inference regarding the content of the specific thought or feeling that the female client had reported at that point during the videotaped interaction (for more details, see Ickes, 2001).

After writing down each thought/feeling inference, the participant indicated whether he thought that the client's thought or feeling was critical or rejecting (CR) or not critical/not rejecting (NCR) of her ex-husband by checking the appropriate box on the inference form. The participant then restarted the tape by means of a remote control and viewed the videotape until the experimenter paused the tape again. The participant was asked to follow this procedure for all 30 thought-feeling inferences.

During this empathic inference phase of the procedure, the participant's facial expressions and behaviors were videotaped with a hidden

camera. The camera recorded the participant's facial expressions onto the video track while the audio track of the psychotherapy session was recorded directly from the client tape.

PARTICIPANTS' AFFECT REPORTING PROCEDURE

After a rest break, the participant was reseated in the cubicle and informed that he had been videotaped during the previous phase of the procedure. The experimenter asked each participant whether he was suspicious that he had been observed or videotaped. Forty-eight of the 80 participants indicated that they had, at least once, thought about the possibility of having been observed or videotaped while in the cubicle. However, as noted previously, none of the participants asserted any confidence in his suspicion or knew where the camera was located.³ The experimenter then briefly explained (1) why the participants were videotaped, (2) that the participant would be viewing this tape, and (3) that the participant could opt at any time to have the videotape immediately erased and be paid the \$35 if he did not want to continue. The participant was then given a second consent/release form and informed that he could (1) stop the procedure and have the tape erased, (2) continue with the procedure and allow the tape to be used only as data for the present study, or (3) continue with the procedure and fully release the tape for use beyond this study (e.g., as stimulus material in other studies or for professional presentations). The participant was further informed that he could change his decision and that, regardless of his decision, he would be paid the full \$35.

Twenty-five of the 80 participants consented at the "data-only" level and 55 consented at the "full-release" level. Two participants changed their release levels after seeing the tape of themselves—one from data only to full release and the other from full to data only.

The participants were asked to report their own feelings during the empathic inference task while watching the videotape of their own facial expressions—with the therapy client's audio track running in the background. Participants were specifically asked to report only the feelings they remembered having while they watched the client tape and use a

3. There was no significant difference between the disengagement scores for the men who reported suspicion of being videotaped ($M = 389s$) and the disengagement scores for the men who reported no suspicion ($M = 529s$; $F(1, 76) = 2.49, ns$). Nor was there a significant relationship between the men's scores on the MC1-(10) social desirability index and the men's attentional disengagement ($r = -.02, ns$). Neither of these results challenges our conclusion that the camera was well-hidden and did not affect the participants' behavior or the findings reported here.

mood adjective checklist (MACL) to report those remembered feelings. The MACL choices were *irritated, annoyed, sympathetic, concerned, indifferent, unaffected, insulted, contempt, uncaring, and sad*.

Briefly, in this phase of the session, (1) the participant viewed the videotape of himself with the client audio track running in the background; (2) the experimenter paused the tape at the time the client tape had been paused; (3) the participant indicated on the MACL which affect word or words described his feelings; and then (4) restarted the tape. The participant then (5) resumed viewing the tape of himself until the experimenter paused the tape again.

When the participant had completed the affect coding phase of the procedure, the experimenter entered the cubicle, collected the MACL forms, and asked the participant to complete the final set of self-report measures that we have described above in the "Final measures" subsection of the section on the various self-report measures collected in the study.

The experimenter then carefully debriefed each participant and gave him his payment, a debriefing form, copies of the consent forms, and the experimenters' phone numbers. The participant was encouraged to keep the debriefing form and to call the experimenters if he had any questions in the future. Finally, information about obtaining marital or individual counseling was available to all interested participants.

During the entire procedure, the experimenter remained blind to any information reported on any of the scales and questionnaires that the participant had filled out.

INFERENCE ACCURACY AND BIAS SCORING METHODS

Thematic (CR vs. NCR) Accuracy and Bias Scores. Signal detection (TSD) methods are ideally suited to analyze the CR versus NCR data that were obtained in the present study (see MacMillan & Creelman, 1991 for a clearly stated overview of signal detection theory and methods). TSD analyses were used to partition the participants' individual CR versus NCR inference patterns into two components: (1) the *thematic accuracy* or discrimination (d') with which participants inferred the theme of the female client's thought or feeling (CR vs. NCR), and (2) the degree and valence of any bias (B''_D , Donaldson, 1992) on the part of the participant when inferring criticism or rejection in the female client's thoughts and feelings. Although accuracy and bias are not orthogonal measures, they do reflect distinct characteristics of a person's response performance.

Empathic Accuracy Scores. As opposed to thematic inference characteristics, *empathic* or *content accuracy* refers to the accuracy with which

participants inferred the specific content of the female client's thoughts and feelings. The female therapy client's actual thoughts and feelings and the participants' written inferences about them were transcribed into WillMind (Schweinle & Ickes, 2000). WillMind is a customized software application based on specially formatted Microsoft Excel (Microsoft Corp., 1999) spreadsheets that enabled the six undergraduate raters to view and rate—one pair at a time—each actual thought or feeling paired with a participant's corresponding inference of that thought or feeling. Each of the ratings was made on a three-point scale (0 = essentially different content; 1 = similar, but not the same, content; 2 = essentially the same content). The WillMind program stored the ratings in a form that facilitated subsequent data management. From a functional standpoint, WillMind is identical to previous software programs developed for the same purpose (see Ickes et al., 1990; Ickes & Trued, 1985).

The interrater reliability (Cronbach's alpha) for these empathic accuracy ratings was .89. A final accuracy score for each inference was calculated as the mean of all six raters' similarity ratings. These ratings were collapsed across all 30 inferences to compute an aggregated empathic accuracy (EA) score for each participant. These scores were then divided by 2 (the highest possible EA score per item) and multiplied by 100, resulting in scores with a theoretical range from 0 to 100, which are easy to interpret as a percentage-analogue measure.

Attentional Disengagement Scores. Of the 80 "participant videotapes," 78 were coded by two independent raters for the total amount of time the participant was looking away from the monitor while the stimulus tape was playing. Two participant tapes were not used, because there was not enough discernable videotape of the participants to accurately code their behavior during the inference phase.

Of the 78 remaining participants, 72 were visible throughout the entire empathic inference phase and six were visible for at least two-thirds of their tapes. In these six cases, we extrapolated estimates of each participant's total attentional disengagement by dividing each "looking away" score by the proportion of time that the participant was visible to the behavior raters.

The two raters used an electronic timer to record how long the participant was not looking at the monitor while the client tape was playing. The interrater reliability coefficient for the attentional disengagement scores was high, $r = .98$, $p < .01$. Accordingly, we averaged the scores from both raters to compute the attentional disengagement scores for each of the 78 participants that could be rated.

RESULTS

In this section, we limit ourselves to describing the results that are directly relevant to the various predictions that we have made above. For those who are interested, the descriptive statistics for each of the measures used in this study are reported in Table 1.

REPLICATION FINDINGS

As predicted, we replicated the most important finding reported by Schweinle et al. (2002). There was a significant partial correlation between the participants' bias to infer criticism or rejection (C/R-O bias) in the stimulus target's thoughts and feelings and the extent to which the participants reported aggressing against their own wives, controlling for the extent to which participants felt that their own wives were critical or rejecting of them and their scores on the RDAS, $r = .25, p < .05$. This finding discourages the conclusion that the relationship between the men's marital aggression and their C/R-O bias derives from either the amount of criticism or rejection they encountered from their own wives or from the perceived quality of their marital relationship.

We are able to report a multi-measure replication of the basic Schweinle et al. (2002) finding using PMWI (Tolman, 1989) scores. The correlation between participants' scores on the emotional/verbal abuse subscale and their C/R-O bias approached significance ($r = .21, p < .075$, see Table 1). However, this was not the case with respect to the correlation between the participants' scores on the dominance/isolation subscale and their C/R-O bias ($r = .03, ns$). This pattern of results suggests that men's bias to overattribute criticism or rejection to a woman is related to their tendency to verbally and emotionally abuse their own wives, but is not related to their tendency to dominate or isolate their wives.

In the present study, the strength of the men's C/R-O bias was not correlated with their accuracy in inferring the specific content of the therapy client's thoughts and feelings ($r = .08, ns$). It was, however, strongly and negatively correlated with the men's *thematic accuracy* (i.e. their ability to accurately determine when the therapy client really was [or was not] having critical or rejecting thoughts or feelings) ($r = -.55, p < .01$). At a more general level than we expected, then, this finding offers additional support for Schweinle et al.'s (2002) conclusion that men's C/R-O bias is implicated in the type of decoding deficit proposed by Holtzworth-Munroe (1992).

TABLE 1. Correlations Between Relationship, Abuse-Related Measures, Inferential Accuracy/Bias Measures, and Behavioral Measures

	<i>M</i>	<i>SD</i>	α	2.	3.	4.	5.	6.	7.	8.	9.	10.
Relationship measures												
1. RDAS	45.85	10.46	.90	.33**	-.52***	-.60***	-.45	-.36**	-.17	-.42***	.08	-.14
2. MC1-(10)	4.48	1.93	.54		-.23*	-.34**	.00 ^b	.00 ^b	.00 ^b	.00 ^b	-.02	-.09
3. Wife is C/R ^c	2.02	1.08				.47**	.34**	.31**	.19†	.31**	-.03	.10
Aggression-related measures ^b												
4. PAS ^b	60.20	17.71	.93				.41***	.27*	-.07	.50***	-.10	.20
5. CT-Aggressive ^b	15.61	7.40	.81					.62**	.27*	.75***	-.17	.28*
6. PMWI ^b	37.23	7.85	.89						.82***	.86***	-.02	.15
7. PMWI-DI ^b	17.10	4.40	.83							.42***	.03	.03
8. PMWI-EV ^b	20.13	4.92	.86								-.07	.21†
Inferential measures												
9. d ¹ (C/R accuracy)	1.21	1.06										-.55***
10. B ¹¹ _D (C/R-O Bias)	.00	.53										
11. Empathic (content) accuracy	27.3	12.3	.89									
12. Attentional disengagement ^a	444.75	386.2	.98									

Note. ^a $n = 80$ for all correlations except *attentional disengagement*, for which $n = 78$; ^b Scores on all aggression-related measures were adjusted for MC1-(10) scores; ^c Husbands' perception of own wife's criticism or rejection; † $p < .075$, * $p < .05$, ** $p < .01$, *** $p < .001$.

MEDIATION ANALYSIS: FEELINGS OF CONTEMPT

We predicted that the men's C/R-O bias would mediate the relationship between the men's affective responses to the therapy client and the men's wife-directed aggression. We found that only one negative affective response to the therapy client, contempt, appeared to be relevant to the proposed hypothesis (see Table 2). The men's feelings of contempt were significantly related to the men's CT-Aggression scores ($r = .22, p < .05$) and to their C/R-O bias scores ($r = .32, p < .01$). These data are consistent with Jacobson and Gottman's (1998) finding that abusive husbands display more contempt for their wives than do nonabusive husbands. Further, contempt is commonly expressed as an emotional counter-contagion mechanism (Hatfield, Cacioppo, & Rapson, 1994). Accordingly, we conducted follow-up mediational analyses that focused on the men's reported feelings of contempt for the female therapy client.

To conduct these analyses, we followed Baron and Kenny's (1986) recommendation that three steps are needed to test for possible mediation. In carrying out these steps, we used OLS regression methods, which are appropriate for analyses with continuous variables (see Figure 1).

Step 1: We established that the frequency of the men's contempt for the stimulus client was a significant predictor of the men's CT-Aggression scores ($\beta = .22, p < .05$). *Step 2:* We established that the men's contempt was a significant zero-order predictor of their level of C/R-O bias ($\beta = .32, p < .05$). *Step 3:* We found that when the men's contempt and their C/R-O bias were successively entered in a model predicting the men's aggression, the standardized coefficient for the men's contempt was no longer significant ($\beta = .15, ns$), whereas their C/R-O bias score was ($\beta = .24, p < .05$). This outcome is evidence that the men's level of C/R-O bias mediated the relationship between their feelings of contempt for the therapy client and the men's aggression against their own wives. This conclusion is reinforced by the results of a Sobel test for mediation (Sobel, 1982), which revealed that the mediation effect was significant ($z = 1.69, p < .05$).

MEDIATION ANALYSIS: ATTENTIONAL DISENGAGEMENT

Recall our prediction that the men's C/R-O bias would also mediate the relationship between the men's attentional disengagement from the woman in the psychotherapy tape and the men's reported aggression against their own female partners (see Figure 2).

To test this prediction, we again followed the steps outlined by Baron and Kenny (1986). *Step 1:* We established that the men's attentional disengagement scores were significant predictors of the men's CT-Aggres-

TABLE 2. Correlations Between Participant Affect and Measures of Inferential Accuracy, Inferential Bias, and Aggression

	Annoyed	Concerned	Contempt	Indifferent	Insulted	Irritated	Sad	Sympathetic	Unaffected	Uncaring
d^1	.04	-.07	-.23*	.21†	-.11	.11	.00	.02	.11	-.21†
B^{1D} (C/R-O Bias)	.04	.23*	.32**	-.20	.02	-.21†	.10	.02	-.30**	.20†
Empathic Accuracy	-.20†	.23*	-.09	-.01	-.16	-.12	.12	.37***	-.11	-.31**
CT-Aggressive	-.14	.19	.22*	-.21†	.02	-.06	.22†	.05	-.12	.13
PMWI	-.08	.09	.15	-.09	-.04	.09	.21†	.04	-.19	.05
PMWI-DI	.02	-.06	.18	-.01	.01	.10	-.01	-.07	-.13	.06
PMWI-EV	-.15	.21†	.08	-.14	-.08	.05	.35**	.13	-.18	.03

Note. † $p < .075$, * $p < .05$, ** $p < .01$, *** $p < .001$.

sion scores ($\beta = .25, p < .05$). *Step 2:* We established that the men's attentional disengagement significantly predicted their C/R-O bias scores ($\beta = .29, p < .01$). *Step 3:* We found that the men's attentional disengagement was no longer a significant predictor of the men's CT-aggression scores in a model that includes the men's C/R-O bias as a predictor ($\beta = .17, ns$), and the Sobel test for mediation (Sobel, 1982) was statistically significant ($z = 1.74, p < .05$). This pattern of results indicates the men's level of C/R-O bias also mediated the relationship between the men's attentional disengagement from the therapy client and the men's aggression against their own wives.

EXPLORATORY ANALYSES

To explore the processes that might lead to marital aggression in even greater detail, we decided to conduct the following exploratory analyses. These analyses could not be guided by empirical precedents, as no previous studies have assessed husbands' attentional disengagement from women in addition to their C/R-O bias. However, because the following analyses might prove to be important for the development of theory and for the design of future investigations, we present them with the standard caveats about models whose structures were not predicted *a priori*.

We wondered whether men's feelings of contempt and attentional disengagement might provide independent "mechanisms" by which aggressive husbands can sustain their biased inferences in the face of a woman's bids for sympathy and understanding. To answer this question, we added the interaction between the two centered (see Aiken & West, 1991) predictors (contempt \times disengagement) to the model [$F(3,77) = 4.3, p < .01$]. The addition of the interaction term did not improve the fit in comparison to the 2-predictor (contempt and attentional disengagement) model [$F(1,75) < 1, ns; \beta_{\text{Interaction}} = -.02, t = -.10, ns$]. These results lead us to propose that feelings of contempt for women and attentional disengagement from women are independent mechanisms by which maritally aggressive men can sustain their bias to overattribute criticism and rejection to women's thoughts and feelings.

It is important to note that the present findings may or may not generalize to the interactions between abusive husbands and their own wives. For example, Johnson (1995) has argued that studies such as this one, which use the Conflict Tactics Scale as a measure of wife-directed aggression, tend to measure what is called "common couple violence" (CCV), whereas other studies of known batterers typically involve a different form of violence known as "patriarchal terrorism" or "intimate terrorism" (IT). IT is characterized by the men's motivation to control

their partners. Graham–Kevan and Archer (2003) found substantial empirical support for this dichotomy in violence against women. And given that, in the present study, (1) we found a significant relationship between the men's PMWI–Emotional/Verbal scores and their CR–O bias scores but that (2) such a relationship did not exist between the men's Dominance/Isolation scores and their bias scores, it might indeed be the case that men's attentional disengagement, feelings of contempt, and their C/R–O bias may relate to CCV rather than to IT.

However, both Johnson (1995) and Graham–Kevan and Archer (2003) point out that common couple violence and intimate terrorism might share common causes that can be conceptualized as continuous measures. Perhaps the continuous predictors and the causal structure presented in the present study are related also to IT. To test this possibility, we used scores from the PMWI to determine whether the men's aggression was controlling in nature. (The 23 items in the version of the PMWI used in the present study correspond very closely with the scale items used by Graham–Kevan & Archer to determine whether wife–directed aggression was CCV or IT.) First, we standardized the men's CT–Aggression scores and their PMWI scores. Next, we relocated them such that neither distribution contained any negative scores. Finally, we multiplied the two standardized scores to create a proxy measure of IT, with the highest scores going to the men who were the most aggressive *and also* the most controlling.

The results revealed that the men's C/R–O bias scores were significantly related to their IT scores, $r = .20, p < .05$, suggesting that men's C/R–O bias may be general to both CCV and IT. Further, the men's contempt scores were significantly related to their IT scores, $r = .24, p < .05$, and the correlation between the men's attentional disengagement scores and their IT scores approached significance, $r = .19, p < .10$. Finally, we tested the possibility that men's C/R–O bias mediates the relationship between their feelings of contempt for women and their scores on our proxy IT measure. The results approached significance, $z = 1.64, p < .06$, suggesting that battering or abusive men's contemptuous feelings for women may serve as a means by which these men maintain the C/R–O bias that is related to both types of wife–directed aggression.

SERENDIPITOUS FINDINGS

Because the present study was the first to measure the men's affective reactions at each of the tape stops on the stimulus videotape, we were able to uncover an interesting relationship between the men's affect and their empathic (content) accuracy. Men who reported feeling more concern or sympathy tended to more accurately infer the content of the therapy cli-

ent's thoughts and feelings at each of the tape stops, $r(80) = .37, p < .001$ (see Table 1). On the other hand, men who reported feeling uncaring at the various tape stops were less accurate in their empathic inferences, $r(80) = -.31, p < .01$ (see Table 1). These findings are among the first to establish a direct link between men's emotional reactions to a woman and their ability to accurately infer the specific content of her thoughts and feelings.

We have already established that men's attentional disengagement plays a role in men's wife directed aggression. It is therefore of major interest to note that the data further revealed that the men's attentional disengagement was (1) negatively related to the men's relationship satisfaction, $r = -.23, p < .05$; (2) negatively related to the men's ability to discriminate between women's CR and NCR thoughts and feelings, $r = -.27, p < .05$; and (3) positively related to the strength of their C/R-O bias, $r = .29, p < .01$. This pattern of correlations suggests that attentional disengagement may be a centrally important behavioral marker of men who are disposed to engage in wife-directed aggression.

DISCUSSION

The present study both replicated and extended the major findings reported by Schweinle et al. (2002). In the following discussion, we consider how these findings inform our understanding of aggressive husbands' interactions with women. We also consider the implications of these findings for future research and intervention.

THE MEN'S C/R-O BIAS AND THEIR WIFE-DIRECTED AGGRESSION

In the present study, we replicated the most important finding reported by Schweinle et al. (2002), that husbands' aggression toward their own wives was positively correlated with the strength of the husbands' C/R-O bias. It is important to note that our study and the Schweinle et al. (2002) study used different samples and somewhat different stimulus materials. Yet, taken together, the results of these studies provide converging evidence that the aggression displayed by maritally abusive men probably derives in some measure from the social cognition of the men themselves, and not necessarily from provocation by their female partners. Maritally abusive men may provide their own "self-provocation" through their biased inferences that women are having more critical and rejecting thoughts and feelings than is really the case.

THE ROLE OF THE MEN'S C/R-O BIAS IN THE AFFECT-AGGRESSION LINK

The present study was designed to extend the findings of Schweinle et al. (2002) by exploring the nature of men's affective responses to a stimulus tape in which a recently divorced woman talked about her ex-husband. Consistent with our predictions, the men's feelings of contempt for the woman in the stimulus tape seemed to have served as a mechanism by which the men were able to sustain their biased inferences about the woman's presumed criticism and rejection. This appears to be an example of *emotional countercontagion* (see Hatfield et al., 1994), in which the men avoid identifying with and more accurately inferring women's expressed thoughts and feelings by experiencing a contrary, nonsympathetic emotion instead of a sympathetic one.

It is impossible to conclude with certainty that the affective responses of the participants originated from the female stimulus target or that the participants' reports were accurate representations of their affect. On the other hand, there is reasonably compelling evidence that the men's feelings of contempt do not result in wife-directed aggression unless they are accompanied by the biased attribution that a woman's thoughts and feelings are highly critical and rejecting.

The possible role of the men's C/R-O bias in wife-directed aggression may have implications for the treatment of maritally aggressive or abusive men that deserve serious consideration. Therapeutic intervention aimed at reducing abusive men's C/R-O bias might be effective, although it remains to be seen whether the C/R-O bias of maritally aggressive men is amenable to therapeutic change. This is an important direction for future research.

Future research should also consider the possibility that the present findings might not generalize across all of the different types of abusive husbands (see Holtzworth-Munroe, 2000 for a concise review). For example, findings by Holtzworth-Munroe, Meehan, Herron, Rehman and Stuart (2000) would lead us to predict that, of the two major types of male batterers, the dysphoric/borderline type should be more likely than the antisocial type to exhibit the C/R-O bias. The reason for this prediction is that the dysphoric/borderline men are the ones who are characterized by fear of abandonment, insecure attachment, and dependency. On the other hand, a contrasting interpretation is suggested by the results of a study by Gottman and his colleagues (1995), who reported that the antisocial batterers in their sample were the most contemptuous of their female partners and the least capable of empathy. These findings raise the possibility that contemptuous feelings, a pro-

nounced C/R–O bias, and deficits in empathy might characterize both types of abusive husbands, although to differing degrees.

Because the present study was the first to measure the men's affective reactions at each of the tape stops on the stimulus videotape, we were able to uncover an interesting relationship between the men's affect and their empathic (content) accuracy. Men who reported feeling more concern or sympathy tended to more accurately infer the content of the therapy client's thoughts and feelings at each of the tape stops (see Table 2). On the other hand, men who reported feeling uncaring at the various tape stops were less accurate in their empathic inferences (see Table 2). Future research in empathic accuracy can profit from using this or a similar technique to more thoroughly probe the relationships between affect and empathic accuracy. Research of this type should shed light on a number of issues, including the hypothesized relationship between emotional contagion (Hatfield et al., 1994) and empathic accuracy.

THE ROLE OF THE MEN'S C/R–O BIAS IN THE ATTENTIONAL DISENGAGEMENT/AGGRESSION LINK

To the best of our knowledge, the present study was also the first to unobtrusively measure men's "attentional disengagement" to a woman's relationship concerns. The results indicated that the men's attention to the woman in the stimulus tape was related to the strength of the men's C/R–O bias as well as to their level of aggression against their own wives. In addition, the results suggest that disengagement may be a mechanism by which abusive men are able to avoid more accurate inferences about the nature of women's thoughts and feelings, allowing them to make biased inferences of criticism and rejection instead.

Further, the present findings suggest that men's attentional disengagement may be a central behavioral marker of the disposition toward wife-directed aggression. It was related in our sample to lower marital satisfaction, to inaccurate and biased inferences of women's criticism and rejection, and, ultimately, to increased wife-directed aggression. These findings suggest another possible path for intervention. Perhaps improving men's attention to women's expressions might improve the men's (and perhaps the wives') relationship satisfaction and the men's inferential accuracy, and thereby reduce the possibility of marital aggression and violence. We therefore recommend that marital aggression researchers begin to routinely code this important behavior of attentional disengagement in their observational research.

Finally, we considered the possibility that attentional disengagement and contemptuous affective responses (i.e., emotional countercontagion) might co-occur in maritally aggressive men. The data suggested,

however, that these are independent mechanisms that can each sustain the C/R–O bias of maritally aggressive men. Studies involving larger samples and more varied stimulus materials may be needed to clarify this issue.

SUMMARY

In summary, the present study provides some new and revealing insights about the social cognition of maritally aggressive and/or abusive husbands. Specifically, more aggressive husbands appear to be biased to infer women's criticism or rejection in instances when women do not actually harbor those sentiments. In addition, more aggressive husbands appear to sustain this biased way of perceiving women through two independent mechanisms: emotional counter-contagion in the form of contemptuous reactions to women, and attentional disengagement, in which men "tune out" women's relationship-relevant expressions. In essence, aggressive husbands have already pre-judged women's thoughts and feelings to be critical and rejecting, and they behave aggressively to the extent that they can sustain this biased pre-judgment through feelings of contempt or by ignoring the cues that might reveal what the woman actually thinks and feels.

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