



Components of negative affectivity and marital satisfaction: The importance of actor and partner anger

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ABSTRACT

Marital satisfaction is inversely associated with neuroticism in oneself (actor effects) and one's spouse (partner effects). However, different facets of neuroticism, particularly angry hostility in comparison to depression or anxiety, may have differential effects on relationship quality. The present study examined actor and partner effects of anxiety, angry hostility, and depression facets of neuroticism on marital satisfaction in 301 couples. All path analyses demonstrated that depression and angry hostility had equivalent, significantly negative actor effects on marital satisfaction, but only angry hostility had a significant negative partner effect. Hence, in examining marital adjustment, the distinction between the various facets of neuroticism may be important. Further, anger may be an important but understudied consideration in research on marital discord.

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1. Introduction

A substantial body of research suggests a strong link between individual differences in neuroticism or negative affectivity and marital dissatisfaction (see reviews by Karney and Bradbury (1995), Malouff, Thorsteinsson, Bhullar, and Rooke (2010)). High neuroticism is also a robust risk factor for more transient psychological symptoms of depression, anxiety, and anger (e.g., Martin, Watson, & Wan, 2000; Widiger & Trull, 1992), which, in turn, are also negatively associated with marital satisfaction (e.g., Baron et al., 2007; Renshaw, Steketee, & Chambless, 2005; Whisman, 2001). Despite these findings, surprisingly few investigations of marital satisfaction have examined individual facets of neuroticism or, in the context of psychopathology research, the relative effects of symptoms of anger, depression, and anxiety considered together.

Although theory and empirical research on both aspects of personality and symptoms of emotional distress indicate that anger, depression, and anxiety are clearly related (e.g., Costa & McCrae, 1995; Smith & Mumma, 2008), they are certainly not isomorphic. Thus, it is possible that when these constructs are considered in isolation from each other, associations between the affective construct measured and marital satisfaction are actually due to the association of marital satisfaction with a correlated but unmeasured affective trait. For example, associations of anxiety with mar-

ital dissatisfaction may, in fact, reflect the association of marital satisfaction and anger.

In fact, there is good reason to believe that the relative associations of these related but independent affective constructs with marital satisfaction may vary. For instance, functionalist approaches distinguish anger from fear based on the notion that anger is intended to “remove an obstacle to a goal, whereas fear functions to avoid a threat” (Witherington & Crichton, 2007, p. 629). Furthermore, during social interactions, expression of anger leads to greater increases in negative communication than expression of other negative emotions, like sadness (Sanford, 2007). Hence, expressions of anger during marital interaction might undermine marital adjustment to a greater extent than expression of sadness or distress. In fact, based on such findings, some couples therapies have moved to encourage partners to express the distress or hurt that might underlie anger, which is commonly seen as more problematic in distressed relationships (e.g., Epstein & Baucom, 2002; Jacobson & Christensen, 1996).

This distinction in the literature on marital satisfaction and emotional expression raises the question of whether and how personality-based individual differences in various forms of negative affect, particularly angry hostility versus depression and anxiety, might differ in their associations with marital satisfaction. Although these three facets of neuroticism clearly share common variance, they are distinguishable. A high level of any particular personality facet is theoretically linked to a higher likelihood of experiencing and expressing the other associated emotions. To date, however, research on personality traits and relationship satisfaction has primarily focused on broad dispositions, such as neg-

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ative and positive affect (e.g., [Donnellan, Conger, & Bryant, 2004](#); [Robins, Caspi, & Moffitt, 2000](#); see also review by [Karney and Bradbury \(1995\)](#)). Based on the theory and research discussed above, it is plausible that the angry hostility facet of trait neuroticism would be more strongly related to marital dissatisfaction than the anxiety or depression aspects of trait neuroticism. Moreover, it is also plausible that other facets of neuroticism (e.g., self-consciousness, vulnerability) may be related to the marital relationship in unique ways. These other facets, however, do not have analogues in research on symptoms of emotional distress and marital adjustment that bolster this type of distinction.

When considering effects of negative emotions on marital satisfaction, one must attend to both actor effects (i.e., effects of a person's own affect on their own marital adjustment) and partner effects (i.e., effects of one's partner's affect). For example, [Robins and colleagues \(2000\)](#) found that, although trait negative and positive emotionality both exhibited actor effects on marital satisfaction in men and women, only neuroticism exhibited partner effects for both men and women. Similarly, in a recent study of psychopathology, [Whisman and colleagues \(2004\)](#) found significant actor effects of both anxiety and depressive symptoms on marital satisfaction in both men and women, but significant partner effects only for depressive symptoms. Although this type of research is growing, no study has yet included anger in an investigation of the relative strength of actor and partner effects of negative affectivity on marital satisfaction. Such research is important, given the common co-occurrence of anger with other negative emotions, such as anxiety or depressive symptoms. Moreover, because the interpersonal message communicated by expression of anger is quite distinct from that conveyed by sadness or distress, they may have particularly different partner effects, with a propensity toward anger being more deleterious for partners' marital satisfaction than a propensity toward anxiety or depression.

Additionally, one must attend to potential sex differences in the associations of marital satisfaction with personality or other variables. In general, women report higher levels of both relationship satisfaction (e.g., [Davila, Karney, Hall, & Bradbury, 2003](#); [Sakallı-Ugurlu, 2003](#)) and trait neuroticism than men (e.g., [Costa, Terracciano, & McCrae, 2001](#)). Although we identified no studies of sex differences in the specific facets of neuroticism, research in psychopathology suggests that women are also more likely to experience both depressive and anxiety disorders ([American Psychiatric Association, 2000](#)). In contrast, men and women appear to experience anger equally, although men are more likely to engage in physical forms of aggression ([Archer, 2004](#)).

Researchers who have investigated possible sex differences in the association of these various constructs with marital satisfaction have reported mixed results, with some studies finding equivalent associations for men and women (e.g., [Baron et al., 2007](#); [Senchak & Leonard, 1994](#)), others finding greater relative effects of these types of variables on women's marital satisfaction (e.g., [Davila et al., 2003](#); [Herr, Hammen, & Brennan, 2007](#); [Monnier, Cameron, Hobfoll, & Gribble, 2002](#)), and still others finding greater relative effects on men's marital satisfaction (e.g., [Fincham, Beach, Harold, & Osborne, 1997](#); [Johns, Newcomb, Johnson, & Bradbury, 2007](#)). Due to the mixture of findings, we examined potential sex differences in our sample, but made no a priori hypotheses regarding differential associations for men and women.

The current study addresses the issues raised above in a sample of middle-aged and older couples married for at least 5 years. We examined the relative strength of actor and partner effects of the anxiety, angry hostility, and depression facets of neuroticism on marital satisfaction in both men and women. For actor effects, we expected that some associations of these three negative affective traits would be overlapping, and therefore simultaneous asso-

ciations would differ from their individual univariate associations. Further, based on emotion theory and prior empirical findings (e.g., [Sanford, 2007](#)), we expected that partner effects of angry hostility on marital satisfaction would be larger than those of the depression and anxiety facets of neuroticism.

2. Methods

2.1. Sample

In the Utah Health and Aging Study, a total of 301 middle-aged and older couples were recruited from the greater Salt Lake City metropolitan area. Participants were recruited through a local polling firm, advertisements in local newspapers, and community organizations (e.g., elder fairs). For couples in the middle-aged group, one spouse must have been between 40 and 50 years old, and for the older group, the age range was 60–70 years. For both groups, the maximum age difference between spouses was 10 years. Couples were required to have been married a minimum of 5 years and to be currently living together. Seventy-seven percent of wives and 80% of husbands indicated that they were in their first marriage, and couples had been married an average (*M*) of 27.6 years (*SD* = 12.4). Mean age of husbands was 55.5 (*SD* = 10.3), and mean age of wives was 53.3 (*SD* = 10.1). Less than 6% (5.7%) of the sample indicated that the annual household income was less than \$25,000, 28.5% indicated \$25,000 to 49,999, 36.1% indicated \$50,000 to 74,999, and 28.8% indicated an annual income over \$75,000 (1% of the sample failed to report their annual income). The majority of the sample (95.2%) identified themselves as White, with 0.5% identifying as African American/Black, 1.6% as Asian or Pacific Islander, 1.6% as Native American, and 0.5% as "Other" (0.5% failed to report their race). Because the larger study focused on coronary health and social behavior, exclusion criteria included: prior diagnosis of coronary heart disease, dementia, current use of prescription medication that could alter cardiovascular reactivity (e.g., beta-blockers, nitrates, calcium channel blockers), and body mass index over 38.

2.2. Measures

The *Marital Adjustment Test* (MAT; [Locke & Wallace, 1959](#)), a widely-used self-report inventory, was used to assess marital satisfaction in men and women. The MAT has well-established internal consistency and construct validity ([Beach, Fincham, Amir, & Leonard, 2005](#); [Crowther, 1985](#); [Locke & Wallace, 1959](#)). Scores in the present sample range from 14 to 154 for wives and 31–156 for husbands. Despite the inclusion criterion of at least 5 years of marriage, 26.2% (*n* = 79) of wives and 22.2% (*n* = 67) of husbands scored in the maritally distressed range (below 100; see [Table 1](#) for means and standard deviations).

The *NEO-Personality Inventory-Revised* (NEO-PI-R; [Costa & McCrae, 1992a](#)) was used to assess individual differences in neuroticism, and three 8-item facet scales were used to assess the specific anxiety (N1), angry hostility (N2), and depression (N3) facets of neuroticism. Participants completed the self-report version (Form S) and also rated their spouse on the same items (Form R), to provide multiple measures of individual differences, and to account for problems of potential shared method variance when assessing the relative strength of actor and partner effects. Both versions of the anxiety, angry hostility, and depression facet scales have high levels of internal consistency (Cronbach's $\alpha > .74$ in validation sample; all $\alpha > .70$ in current sample), as well as substantial levels of construct validity in prior research ([Costa & McCrae, 1992a](#)). These scales assess components or facets of the broader personality trait domain of neuroticism, or emotional stability

Table 1

Means, standard deviations, and intercorrelations of self-reported marital satisfaction and facets of neuroticism in husbands and wives.

| | M | SD | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---------------------------|--------|-------|---------|---------|--------|--------|--------|--------|--------|
| 1. Wives' satisfaction | 112.79 | 26.20 | | | | | | | |
| 2. Husbands' satisfaction | 114.86 | 24.09 | .55*** | | | | | | |
| 3. Wives' anxiety | 1.86 | 0.69 | -.17** | -.14* | | | | | |
| 4. Wives' anger | 1.49 | 0.63 | -.25*** | -.27*** | .49*** | | | | |
| 5. Wives' depression | 1.61 | 0.75 | -.32*** | -.23*** | .62*** | .56*** | | | |
| 6. Husbands' anxiety | 1.53 | 0.58 | -.15** | -.21*** | .16** | .07 | .14* | | |
| 7. Husband's anger | 1.49 | 0.58 | -.19** | -.32*** | .15* | .07 | .15* | .53*** | |
| 8. Husbands' depression | 1.48 | 0.71 | -.20** | -.34*** | .18** | .18** | .23*** | .69*** | .52*** |

Note: Means for anxiety, anger, and depression are item means; these scores correspond to *T*-scores of 49, 49, and 50 for women, and 47, 50, and 51 for men, relative to NEO-PI-R norms (Costa & McCrae, 1992a).

* $p < .05$.** $p < .01$.*** $p < .001$.

versus distress. The anxiety scale assesses apprehension, worry, fearfulness, nervousness, and tension. The angry hostility scale assesses the tendency to experience anger, frustration, bitterness, contempt, and resentment. The depression scale assesses affective and cognitive aspects of depressive symptoms, including the tendency to experience depressive affect, sadness, guilt, self-blame, low self-esteem, and hopelessness. These scales are interpreted as assessing relatively stable individual differences in affective dispositions (see Costa & McCrae, 1992a), rather than symptoms of diagnosable emotional disorder, per se. However, these scales are associated with elevations in closely related clinical symptoms and diagnosable disorders (Costa & McCrae, 1992b).

2.3. Procedure

All procedures were approved by the University of Utah Institutional Review Board. Participants received questionnaire packets in the mail, and were instructed to complete the MAT, the two NEO-PI-R forms, and a demographic information questionnaire, separately (i.e., without consulting their spouse). Couples returned completed questionnaires and informed consent forms at the time of a scheduled laboratory visit.

2.4. Analytic strategy

We conducted path analyses with husbands' and wives' self-report (SR) of marital satisfaction as outcome (endogenous) variables and husbands' and wives' N1 (anxiety), N2 (angry hostility), and N3 (depression) scores as predictor (exogenous) variables. The initial model contained all possible paths from exogenous to endogenous variables, representing all actor and partner effects of each facet of neuroticism. We tested for sex differences in actor effects, partner effects, and effects of each facet of neuroticism, by testing nested models in which relevant paths were constrained to be equal for husbands and wives. Finally, we compared the strength of paths involving angry hostility to the strengths of paths involving depression and anxiety by testing nested models in which these various paths were constrained to be equal.

In addition, due to expected correlations of neuroticism facets within individuals and expected correlations of each facet across husbands and wives, we also freed the following covariance paths in the phi matrix of each analysis: those among each person's own facets of negative affect (anxiety, angry hostility, and depression), that between husbands' and wives' N1 (anxiety) facets, that between husbands' and wives' N2 (angry hostility) facets, and that between husbands' and wives' N3 (depression) facets. Finally, due to the expected relationship between husbands' and wives' marital satisfaction, we also freed the path representing a correlation of the disturbance between husbands' and wives' marital sat-

isfaction in the psi matrix. The overall initial model is shown in Fig. 1. All path analyses were conducted with Lisrel 8.80.

It is important to note that when only self-reports of neuroticism are used in tests of associations with self-reported marital adjustment, larger actor effects relative to partner effects could reflect common method variance. In contrast, the role of common method variance could inflate partner effects if only spouse ratings of neuroticism are used. To address these problems with shared method variance in estimating the relative magnitude of actor and partner effects, we took three separate approaches in representing each participant's facets of neuroticism. First, we utilized scores from Form S (self-report) of the NEO-PI-R, which resulted in shared method variance when estimating actor effects but not partner effects. Second, we utilized scores from Form R (partner-report) of the NEO-PI-R, which resulted in shared method variance when estimating partner effects but not actor effects. Finally, we transformed all self- and partner-ratings on the N1, N2, and N3 subscales of the NEO-PI-R to *Z*-scores based on sample means and standard deviations, and then averaged each participant's *Z*-transformed self-ratings with his or her partner's *Z*-transformed ratings. For example, each wife's own *Z*-transformed score on the N1 subscale was averaged with her husband's *Z*-transformed rating of her anxiety on the N1 subscale to create a *Z*-score combination variable for that wife's N1 score. Hence, these combination variables contained equal amounts of variability from self-reports and spouse ratings, which distributed shared method variance equally in actor and partner effects.

3. Results

Means and bivariate correlations of husbands' and wives' self-reported marital satisfaction and anxiety, anger, and depression facets of neuroticism are reported in Table 1. Correlations using partner-report and combination facet scores are shown in Table 2. All neuroticism facet scores demonstrated significant negative bivariate relationships with marital satisfaction of both partners. In general, the magnitudes of actor effects were slightly higher than those of partner effects for self-report, with the reverse pattern for partner-report, and no clear differences for the combination variables. This pattern is consistent with shared method variance, which was contained wholly within the actor effects when using self-report, wholly within the partner effects when using partner-report, and fairly evenly distributed when using combination variables. Although the correlations within husbands' and wives' three facets of neuroticism were high, the shared variance between each set of components ranged from less than 25% to just over 50%. Moreover, angry hostility demonstrated the lowest correlations with the other two facets. Similarly, the correlations of marital satisfaction with anxiety, angry hostility, and depression

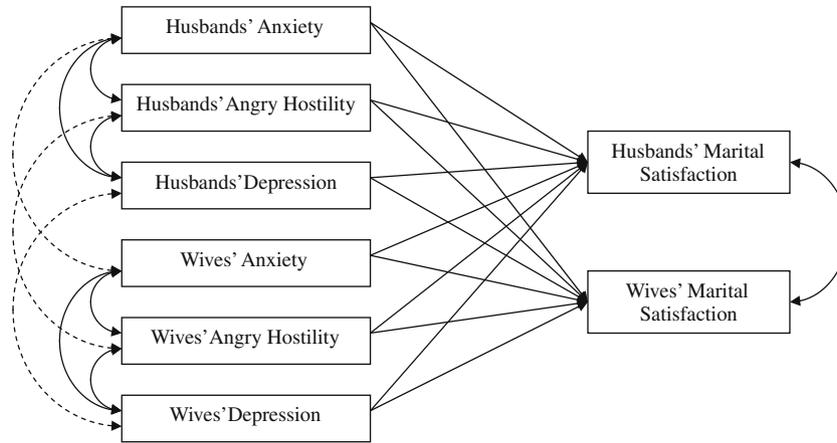


Fig. 1. Full initial model, with all actor and partner effects of the anxiety, angry hostility, and depression facets of neuroticism on marital satisfaction specified for men and women. Note: Dotted lines represent cross-partner correlations on the same facet of neuroticism (e.g., wife’s anxiety with husband’s anxiety).

Table 2
Intercorrelations of self-reported marital satisfaction with partner-reported or combination scores of facets of neuroticism.

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---------------------------|---------|---------|---------|---------|---------|---------|---------|---------|
| 1. Wives' satisfaction | – | .55*** | –.20*** | –.35*** | –.36*** | –.26*** | –.33*** | –.31*** |
| 2. Husbands' satisfaction | .55*** | – | –.24*** | –.40*** | –.32*** | –.23*** | –.36*** | –.37*** |
| 3. Wives' anxiety | –.19** | –.29*** | – | .50*** | .71*** | .18* | .25* | .26** |
| 4. Wives' anger | –.36*** | –.42*** | .50*** | – | .59*** | .17** | .19* | .28*** |
| 5. Wives' depression | –.32*** | –.33*** | .72*** | .57*** | – | .26*** | .26*** | .36*** |
| 6. Husbands' anxiety | –.29*** | –.20** | .02 | .12* | .14* | – | .52*** | .74*** |
| 7. Husband's anger | –.37*** | –.29*** | .12* | .13* | .17** | .48*** | – | .51*** |
| 8. Husbands' depression | –.36*** | –.31*** | .15* | .21*** | .23*** | .73*** | .48*** | – |

Note: Correlations with partner-report scores on facets of neuroticism are below the diagonal; correlations with Z-score combination scores on facets of neuroticism are above the diagonal.

* $p < .05$.
 ** $p < .01$.
 *** $p < .001$.

had a wide range. Specifically, for all forms of neuroticism facet variables (self-report, partner-report, and combination), wives’ and husbands’ own marital satisfaction was significantly more strongly correlated with their depression than with their own anxiety (all $ps < .05$), and husbands’ satisfaction was more strongly correlated with wives’ anger than with wives’ anxiety ($p < .05$). In addition, when using partner-report of neuroticism facets and the combination variable, wives’ satisfaction was more strongly correlated with wives’ anger than with wives’ anxiety ($p < .01$), and when using the combination variable, husbands’ satisfaction was more strongly correlated with husbands’ anger than with husbands’ anxiety ($p < .05$). (See Steiger (1980) for details on the statistical comparison of correlation coefficients.) Thus, although the three facets of neuroticism were strongly related, they (and their associations with marital satisfaction) were distinguishable.

3.1. Sex differences

The initial structural model with all paths specified was fully saturated, meaning no fit indices were able to be generated. To test for sex differences, a series of nested models was analyzed, in which the following effects were constrained to be equal across husbands and wives: (1) actor and partner effects of anxiety, (2) actor and partner effects of angry hostility, (3) actor and partner effects of depression, (4) all actor effects, (5) all partner effects, and (6) all actor and partner effects. Regardless of the type of variable used for neuroticism facets (self-report, partner-report, or combination), all nested models provided an excellent fit to the data, with no significant decrements in fit as additional constraints were

added (all $ps > .50$), indicating that there were no significant sex differences in any actor and partner effects of any neuroticism facet. The fit indices for the final model with actor and partner effects of each facet of neuroticism held equal across men and women indicated excellent fit. Fit indices and path coefficients for actor and partner effects of each facet in this model are shown in Table 3.

3.2. Angry hostility versus depression and anxiety

We next constrained paths involving angry hostility to be equal to those involving depression and those involving anxiety. The fit of a model in which the actor effect of angry hostility was held equal to the actor effect of depression did not decrease significantly, regardless of whether self-report ($\chi^2_{\text{difference}}[1] = 0.17, p = .68$), partner-report ($\chi^2_{\text{difference}}[1] = 0.08, p = .78$), or the combination form ($\chi^2_{\text{difference}}[1] = 0.12, p = .73$) of neuroticism facets were used. In contrast, the fit of a model in which the partner effects of angry hostility and depression were held equal was significantly or marginally significantly worse than the fit of the model without such a constraint, depending on the variables representing facets of neuroticism: with self-report, $\chi^2_{\text{difference}}(1) = 2.96, p = .09$; with partner-report, $\chi^2_{\text{difference}}(1) = 4.29, p < .05$; with the combination variables, $\chi^2_{\text{difference}}(1) = 5.70, p < .05$. Thus, depression and angry hostility appeared to exert different levels of partner effects on marital satisfaction, but equivalent actor effects.¹

¹ The same pattern of results was found when the anxiety facet of neuroticism was excluded from these analyses; thus, the findings did not appear to be affected by any potential overlap of either angry hostility or depression with the anxiety facet.

Table 3

Fit indices and standardized path coefficients for model of actor and partner effects of neuroticism facets on marital satisfaction, with equal effects across sexes.

| | Self-report variables | Partner-report variables | Combination variables |
|--------------------------|-----------------------|--------------------------|-----------------------|
| Fit Indices | | | |
| χ^2 (12) | 4.44 | 4.22 | 1.34 |
| RMSEA | .00 | .00 | .00 |
| CFI | 1.00 | 1.00 | 1.00 |
| Path coefficients | | | |
| Actor anxiety | .10 [†] | .10 [†] | .16 ^{**} |
| Actor angry hostility | -.18 ^{***} | -.21 ^{***} | -.23 ^{***} |
| Actor depression | -.26 ^{***} | -.20 ^{***} | -.26 ^{***} |
| Partner anxiety | .04 | -.03 | .02 |
| Partner angry hostility | -.18 ^{***} | -.27 ^{***} | -.26 ^{***} |
| Partner depression | -.07 | -.17 [*] | -.07 |

Note. All χ^2 values were nonsignificant, with $p > .95$. RMSEA = root mean square error of approximation; CFI = comparative fit index.

[†] $p < .08$.

^{*} $p < .05$.

^{**} $p < .01$.

^{***} $p < .001$.

The model in which actor effects of angry hostility were held equal to actor effects of anxiety was significantly worse than the model without such a constraint, regardless of the method of estimating the neuroticism facets: with self-report, $\chi^2_{\text{difference}}(1) = 13.11$, $p < .001$, with partner-report, $\chi^2_{\text{difference}}(1) = 15.89$, $p < .001$, and with the combinations, $\chi^2_{\text{difference}}(1) = 25.81$, $p < .001$. The same pattern was found when partner effects of angry hostility were held equal to partner effects of anxiety: Model fit was significantly poorer when self-report ($\chi^2_{\text{difference}}[1] = 8.27$, $p < .01$), partner-report ($\chi^2_{\text{difference}}[1] = 9.84$, $p < .001$), and the combinations ($\chi^2_{\text{difference}}[1] = 13.77$, $p < .001$) were used. Thus, anxiety and angry hostility appeared to exert different levels of actor and partner effects on marital satisfaction.²

These tests yielded a model with equal effects for husbands and wives, in which actor and partner effects of each facet of neuroticism were different except for actor effects of angry hostility and depression. The model provided a good fit for the data with all forms of the neuroticism facet model (see Table 4). In general, all actor effects were significant, but partner effects were significant only for angry hostility (see Table 4). The only exceptions to this pattern was that the actor effect of anxiety was only marginally significant when using self-report of neuroticism facets ($p < .07$), and the partner effect of depression was significant ($p < .05$) when using partner-report of neuroticism facets. In all cases, the partner effects of angry hostility were nearly identical to actor effects of depression and of angry hostility (in fact, models that constrained these paths to be equal were not significantly different in fit, regardless of whether self-report, partner-report, or combination variables were used, all $ps > .10$). All significant path coefficients but one were negative, indicating that higher levels of each facet were related to lower levels of marital satisfaction. The exception was the path between actor anxiety and marital satisfaction, which was significantly positive, indicating that when controlling for the effects of angry hostility and depression, higher scores on the anxiety facet of neuroticism were related to higher levels of marital satisfaction.³

² The same pattern of results was found when the depression facet of neuroticism was excluded from these analyses; thus, the findings did not appear to be affected by any potential overlap of either angry hostility or anxiety with the depression facet.

³ Although this paper focused on the three facets of anxiety, depression, and angry hostility, the same patterns of model fit were obtained when the other three facets of neuroticism (self-consciousness, impulsivity, and vulnerability) were included. In addition, the pattern of significance of path coefficients was also the same in all instances except one (a nonsignificant path coefficient for partner depression when using partner-report of neuroticism facets in evaluating all models).

Table 4

Fit indices and standardized path coefficients for model of actor and partner effects of neuroticism facets on marital satisfaction, with equal effects across sexes and equal effects for actor anger and actor depression.

| | Self-report variables | Partner-report variables | Combination variables |
|--------------------------|-----------------------|--------------------------|-----------------------|
| Fit indices | | | |
| χ^2 (13) | 4.61 | 4.30 | 1.46 |
| RMSEA | .00 | .00 | .00 |
| CFI | 1.00 | 1.00 | 1.00 |
| Path coefficients | | | |
| Actor anxiety | .09 [†] | .10 [*] | .15 ^{**} |
| Actor angry hostility | -.22 ^{***} | -.20 ^{***} | -.25 ^{***} |
| Actor depression | -.22 ^{***} | -.20 ^{***} | -.25 ^{***} |
| Partner anxiety | .04 | -.03 | .02 |
| Partner angry hostility | -.19 ^{***} | -.26 ^{***} | -.26 ^{***} |
| Partner depression | -.06 | -.13 [*] | -.07 |

Note. All χ^2 values were nonsignificant, with $p > .95$. RMSEA = root mean square error of approximation; CFI = comparative fit index.

[†] $p < .08$.

^{*} $p < .05$.

^{**} $p < .01$.

^{***} $p < .001$.

4. Discussion

The purpose of the present study was to extend prior research on the association of marital satisfaction with both neuroticism and psychological symptoms that are related to neuroticism, by examining marital satisfaction in relation to the specific facets of angry hostility, depression, and anxiety. Consistent with our primary hypothesis, when these individual facets of neuroticism were considered, significant partner effects were obtained for angry hostility only. This result held for both men and women. Thus, it appears that individual differences in one's partner's depressive and anxious aspects of neuroticism are unrelated to one's own marital satisfaction, once individual differences in the partner's angry hostility are controlled. This result suggests that significant partner effects of neuroticism on marital satisfaction detected in prior research (e.g., Malouff et al., 2010; Robins et al., 2000) may have been due primarily to the angry hostility facet of neuroticism. Similarly, some of the previously reported partner effects of depressive symptoms on marital adjustment (Whisman, 2001; Whisman & Uebelacker, 2009) may have been due to the overlapping partner effects of anger. Future research or re-analyses of prior findings may help to clarify this possibility.

This finding is consistent with recent research on the stronger effects of the expression of anger during marital interactions (Sanford, 2007), and it suggests that differences in types of

negative affect are important to consider at the level of personality characteristics. Although there is extensive support for structural models of this personality domain in which broader individual differences in neuroticism comprise more specific affective traits (Watson, Kotov, & Gamez, 2006), to our knowledge, this is the first empirical study of differential relative effects of these specific emotional tendencies on marital satisfaction.

With regard to actor effects on marital satisfaction, both actor depression and angry hostility were associated with overall lower ratings of marital satisfaction. Furthermore, the magnitudes of these relationships were equivalent, indicating that these two facets of neuroticism are both equally associated with perceptions of lower marital satisfaction. Interestingly, when controlling for all other effects, actor effects of anxiety were slightly positively related to marital satisfaction. This finding is consistent with some evidence that suggests that anxiety is positively associated with empathy (Cornell & Frick, 2007; Rothbart, Ahadi, & Hershey, 1994), which in turn could be associated with better relationship adjustment. However, the positive relationship detected here may also reflect the fact that the variance in anxiety that is independent of the other closely related features of negative affect reflects a different construct than the unadjusted anxiety variable (cf., Lynam, Hoyle, & Newman, 2006). It would be inappropriate to consider anxiety, in the usual meaning of this characteristic, as a potential positive influence on relationship quality, as its bivariate relationship with marital adjustment is negative, and the positive path coefficient was small and only significant in some instances. These caveats notwithstanding, the differences detected here highlight the potential value of examining different facets of neuroticism.

The present results have potential implications beyond personality and individual differences. The individual facets of neuroticism we examined demonstrate strong correlations with measures of analogous types of emotional difficulties in the context of psychopathology (Watson et al., 2006). Thus, one can look to clinical literature for parallel results. Surprisingly, there are no reports to date testing simultaneous effects of clinical symptoms of anger, depression, and anxiety on marital satisfaction. In the only study of both anxiety and depression, Whisman et al. (2004) found that actor effects were stronger than partner effects for both of these types of symptoms, and depression exerted a stronger relationship with marital satisfaction than did anxiety. Post-hoc analyses of our own data revealed a similar pattern of results when the angry hostility component of neuroticism was left out of analyses. Thus, it appears that the inclusion of anger demonstrates incremental utility (Hunsley & Meyer, 2003) beyond the parallel effects of anxious and depressive emotions in accounting for marital adjustment. Given the significant association of anger with depression and anxiety (e.g., Watson, 2009), future research in the clinical realm would benefit from its inclusion.

Generalization of these findings to associations of clinical symptoms of emotional distress and related disorders with marital adjustment must be made cautiously, especially in light of evidence that associations between depressive symptoms and marital adjustment are significant even when the effects of neuroticism and controlled (Whisman, Uebelacker, Tolejeko, Chatav, & McKelvie, 2006). However, with this important caveat, if one extends our results to clinical symptomatology, they suggest that clinicians treating maritally dissatisfied couples should assess for the presence of anger problems in each partner and be prepared to treat such problems. Although much recent research has focused on the use of marital therapy for treatment of individual depression (e.g., Baucom, Shoham, Mueser, Daiuto, & Stickle, 1998; Gupta, Coyne, & Beach, 2003), we identified no studies that investigated the benefits of marital therapy on individual levels of anger or of individual therapy for anger on overall marital satisfaction, outside

of the realm of treatments targeting domestic violence. Cognitive-behavioral techniques have been found to be highly effective for treating anger (Beck & Fernandez, 1998; Del Vecchio & O'Leary, 2004; DiGiuseppe & Tafrate, 2003), so incorporating anger management into cognitive-behavioral couples therapy may not be intrusive or disruptive. The most notable difference from depression- or anxiety-focused approaches would likely be an increased focus on anger-related cognitions, which generally are related to a sense of injustice or unfairness in the relationship. Such foci are already present in some marital therapies that work toward decreasing blaming attributions and communication (Baucom, Epstein, & LaTaillade, 2002) and increasing partners' acceptance of each other (Dimidjian, Martell, & Christensen, 2002).

There are some limitations in the present study that should be acknowledged when considering these findings. First, our sample consisted of somewhat older, healthy adults with generally long marriages. It is unknown whether our findings would generalize to younger couples with shorter marriage duration. Also, the exclusion of those with cardiovascular problems, which are often linked with higher levels of depression, anxiety and anger (Suls & Bunde, 2005), may have limited the range of individual differences in negative affectivity in our sample. In addition, although we attempted to reduce shared method variance by using self-reports, partner-reports, and their combination, in each set of analyses contained some level of shared method variance. Future research that utilizes broader measures of individual differences (e.g., reports from individuals not involved in the marital relationship) could help further address this issue. Finally, the cross-sectional design precludes causal conclusions. Longitudinal studies have been found to support the view that these negative affective traits confer risk of future relationship difficulties and that troubled relationships can contribute to varying levels of anxiety, anger, and depression (e.g., Ulrich-Jakubowski, Russell, & O'Hara, 1988; Whisman & Bruce, 1999).

These limitations notwithstanding, the present results attest to the potential importance of individual differences in negative affect for relationship satisfaction. Robins et al. (2000, p. 258) advocate a renewed attention to personality and relationship satisfaction, noting that "[p]eople bring histories to relationships, and these histories are captured in part by stable personality traits." They further note that several links exist between individual differences and specific tendencies in discreet interactions. Our results support this notion, but we also call for a more fine-grained examination of personality and individual differences that goes beyond higher-order traits like neuroticism. Indeed, our results and prior research on the effects of anger versus sadness or anxiety in marital interactions suggests that the specific aspects of neuroticism may have unique associations with relationship satisfaction. The current results present a framework for future research that investigates actor and partner effects of these (and other) specific aspects of personality.

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