

### **HHS Public Access**

Author manuscript

J Marriage Fam. Author manuscript; available in PMC 2016 June 03.

#### Published in final edited form as:

J Marriage Fam. 2014 February ; 76(1): 130–144. doi:10.1111/jomf.12085.

## Marital Conflict in Older Couples: Positivity, Personality, and Health

#### James Iveniuk,

University of Chicago, Department of Sociology, 1126 East 59th Street, Chicago, IL 60637

#### Linda J. Waite,

University of Chicago, Department of Sociology, 1126 East 59th Street, Chicago, IL 60637

#### Martha K. McClintock, and

University of Chicago, Department of Psychology, 940 East 57<sup>th</sup> Street, Room 329, Chicago, IL 60637

#### Andrew D. Teidt

NORC, University of Chicago, 1155 East 60th Street, 266-23, Chicago, IL 60637

James Iveniuk: iveniukj@uchicago.edu

#### Abstract

We examine the implications of health and personality characteristics for late-life marital conflict, using data from the 2010–11 wave of the National Social Life Health and Aging Project (NSHAP), a nationally representative study with data on both partners in 955 marital and cohabitational dyads. Using these data, we relate characteristics of husbands to characteristics of their wives, and vice versa. Wives with husbands in fair or poor physical health are more likely to report high levels of marital conflict, but the reverse is not true. Similarly, wives report more conflict when their husbands are high on Neuroticism, high on Extraversion, and low on a new measure we call Positivity. Our findings point to noteworthy gender differences between men and women in the associations between individual characteristics and levels of marital conflict. We point to differences between husbands' and wives' marital roles as a contributor to these differences.

#### Keywords

Conflict; Families in middle and later life; Health; Marriage; Personality; Survey research

Married individuals typically have better physical and emotional health than the unmarried, and are at lower risk of mortality (Holt-Lunstad & Birmingham, 2008; Waite & Gallagher, 2000). However, these effects depend on the quality of the marriage, and individuals with poor marital quality tend to experience worse health than the unmarried (Umberson, Williams, Powers, Liu, & Needham, 2006; Williams, 2003). Poor marital quality is also associated with worse physical and mental health, and marital conflict increases the risk of dying (Birditt & Antonucci, 2008; Coyne et al., 2001). Conversely, a good relationship with one's spouse can mitigate the consequences of poor health, and improve overall quality of life (Bookwalla, 2011; Warner & Kelley-Moore, 2012). Thus, a high-quality, low conflict

marriage can greatly benefit older adults (Carstensen, Gottman, & Levenson, 1995; Umberson, et al., 2006), which makes it important to understand why some late-life marriages show worse conflict than others.

Several processes may affect levels of marital conflict among older couples. First, while both physical and mental health can be diminished by poor marital quality, poor marital quality can also be precipitated by poor health. As a person ages, worsening physical health can become a burden, making marital obligations more difficult to manage (Booth & Johnson, 1994; Joung, van de Mheen, Stronks, van Poppel, & Mackenbach, 1998), and likewise, mental health difficulties can create challenges, as partners' emotional states become more volatile (Gagnon, Hersen, Kabacoff, & Van Hasselt, 1999). Second, an older person's personality traits - their characteristic patterns of behavior and thought - may also impact marital quality (Botwin, Buss, & Shackelford, 2006; Donnellan, Assad, Robins, & Conger, 2007; Robins, Caspi, & Moffitt, 2000). Negative personality traits generally predict greater conflict between partners (Caughlin, Huston, & Houts, 2000; Heaven, Smith, Prabhakar, Abraham, & Mete, 2006; McNulty, 2008), whereas spouses with positive personality traits tend to have marriages with better functioning (Botwin, et al., 2006; Donnelland, Conger, & Bryant, 2004; Gattis, Berns, Simpson, & Christensen, 2004). Both health and traits therefore constitute resources that spouses bring to their relationship, and employ in the production of good marital quality. However, as we will argue below, the effects of good health and positive traits on marital quality may be different for men and women, owing to genderspecific roles in the marital relationship (Bernard, 1972; Kiecolt-Glaser & Newton, 2001).

Taking up this emphasis on gender, our paper examines the implications of personality and health for marital conflict among older couples. We focus on conflict as an important predictor of marital dissatisfaction (Christensen & Walczynski, 1997) and marital disruption (Gottman, 1994). We develop hypotheses about the sources of marital conflict, and test them using data from Wave 2 of the National Social Life, Health and Aging Project (NSHAP), a nationally-representative sample of older married and cohabiting couples, fielded in 2010-11 (Waite, et al., 2013). In these data, both husbands and wives were interviewed, which allows us to link characteristics of husbands with the characteristics of their wives and vice versa. In preparation for analyzing these data, we review relevant literature in order to theorize the connection between traits, health and marital conflict for older adults. Building on previous findings, we put forward an innovative model for measuring personality traits that allows us to measure the common variance across numerous personality sub-scales, to enrich our understanding of relationship between traits and marital conflict. We then use traits estimated by this model, as well as mental and physical health measures, to examine gender differences in the associations between health, traits and marital conflict. Finally, we close with implications for future studies.

#### BACKGROUND

As American society ages, an increasing number of marriages in the United States are latelife, long term marriages (Gagnon, et al., 1999). Research occasioned by this demographic shift has revealed a generally positive picture of late-life marriage, with low conflict and generally high positive affect compared to younger couples (Carstensen, et al., 1995;

Gagnon, et al., 1999; Smith, et al., 2009). Nevertheless, older adulthood is also marked by challenges that are particular to this stage in the life course. The personality traits of older adults are typically more stable than the traits of younger persons (Turiano, et al., 2012), which may make it more difficult for older adults to alter any characteristically conflictual patterns of behavior or thought for the sake of marital quality (Booth & Johnson, 1994; Joung, et al., 1998). Aging is also accompanied by declines in health and functioning, which may affect long-held marital roles and require one or both of the spouses to take on new

responsibilities, such as caregiving (Christakis & Allison, 2008; Pinquart & Sörensen, 2011). Reviewing these two currents of research, we now turn to a discussion of the impact of traits and health on marital conflict.

#### **Personality Traits and Marital Conflict**

One line of research looks to the traits of both partners to account for differences in marital conflict (Eldridge & Christensen, 2002; Malouff, Thorsteinsson, Schutte, Bhullar, & Rooke, 2010; Vogel, Murphy, Werner-Wilson, Cutrona, & Seeman, 2007). Within this research, the most commonly-used framework for measuring personality traits is the Big Five (John, Naumann, & Soto, 2008; Malouff, et al., 2010). These dimensions of personality, summarized in the mnemonic OCEAN, are: Openness to experience, Conscientiousness, Extraversion, Agreeableness, and Neuroticism.

Based on previous work, it seems that marital quality does not depend on any one of these traits, but rather on the co-occurrence of several positive Big Five traits. Individuals whose partners are low on Neuroticism, high on Agreeableness, high on Conscientiousness, and high on Extraversion tend to report greater satisfaction (Caughlin, et al., 2000; Gattis, et al., 2004; Malouff, et al., 2010; McNulty, 2008). At the same time, positive personality traits are generally associated with one's own relationship satisfaction (Heller, Watson, & Illies, 2004). Gattis and colleagues found that high A and high C were tied to marital satisfaction, as was high levels of a construct called 'positive expressivity:' being gentle, helpful, kind and understanding (2004). Furthermore, older adults who give positive responses across psychometric measures recall their marital history selectively, emphasizing and remembering good times over the bad, thereby facilitating good marital quality (O'Rourke & Cappeliez, 2005). Thus, it may not be any particular scale in OCEAN that matters for preventing marital conflict, but a global disposition to display a high level of positive emotionality across Big Five traits. This possibility invites us to develop an innovative model of the Big Five, allowing us to investigate this previously-unmeasured, overarching characteristic, which we call *Positivity*. We hypothesize that people high on Positivity will tend to see their relationship in a better light, regardless of objective circumstances, and these people will also tend to behave in ways that lead to relatively little conflict. Thus we hypothesize:

Hyphthissistules high on Positivity report lower levels of marital conflict than others.

Hyp8thesiss1bf individuals high on Positivity will report lower levels of conflict than others.

Negative personality traits have also been linked to marital conflict. The relationship between Neuroticism and conflict is particularly well-replicated (Caughlin, et al., 2000;

Gattis, et al., 2004; McNulty, 2008); people higher on Neuroticism are more likely to be critical of their partners, and to perceive their partners as being hostile or critical, even when observer ratings did not confirm this (McNulty, 2008). They are also more likely to be unhappy with their marriages, possibly due to a lower threshold for negative affect (Donnelland, et al., 2004; Gattis, et al., 2004; Lahey, 2009). Thus, we hypothesize:

Hypothesishigh on Neuroticism will report higher levels of conflict than others.

Hyp8thesiss1of individuals high on Neuroticism will report higher levels of conflict than others.

#### **Health and Marital Conflict**

According to a parallel current of research, mental and physical health are also resources that partners bring to the relationship, which can help them to carry out marital roles and to care for their partners (Christakis & Allison, 2008). Virtually all of the literature on this topic focuses on the effects of marital quality on health (Donoho, Crimmins, & Seeman, 2013; Holt-Lunstad & Birmingham, 2008; Kiecolt-Glaser, et al., 1997), rather than the reverse. However, there seems to be good reason to hypothesize that health may affect marital quality. Poor physical health can create stress within a relationship, by making it more difficult for one partner to perform marital roles, to reciprocate kindness, or to contribute to the household (Booth & Johnson, 1994; Joung, et al., 1998). The spouse in poor health may require care from the other spouse, sometimes leading to stress, overwork, and resentment on the part of the caregiver (Pinquart & Sörensen, 2011). And poor physical or functional health may contribute to poor mental health (Bookwala and Franks, 2005). Therefore:

Hypothessisvath worse physical health will report more marital conflict.

Hypothesis these spouses have worse physical health will report more marital conflict.

Additionally, poor mental health may affect marital relationships by precipitating conflict and by fostering the perception of conflict. Among both husbands and wives, one's own depressed mood at one time predicts declines in marital quality later (Dehle & Weiss, 1998; Whisman & Uebelacker, 2009). Living with a more depressed partner also pressures the non-depressed partner to alter their behavior and to inhibit their negative responses to spouses' depression, leading to stress (McLeod, 1994; Pruchno, Wilson-Genderson, & Cartwright, 2009). Furthermore, individuals with worse mental health may be less able to adjust their behavior to the requirements of married life (Gagnon, et al., 1999; McLeod, 1994). In light of these findings:

Hypothesisvath worse mental health will report more marital conflict.

Hypotheseise and set spouses have worse mental health will report more marital conflict.

#### **Gender and Marital Conflict**

Poor health and negative personality traits may each contribute to marital conflict, but perspectives on gender and marital quality suggest that the effects of poor health and negative traits on conflict may be larger for women than for men (Eldridge & Christensen, 2002; Gottman, 1994). At some point in the relationship, one partner may desire change

from the other, but because men are typically advantaged in wealth and power, they are better able to resist women's demands and to withdraw from negotiations, thereby precipitating conflict (Carstensen, et al., 1995; Gottman, 1994). In terms of health, husbands may therefore resist demands arising from their partner's poor physical or mental health, such as demands for emotional restraint around a person with poor mental health, or demands for taking care of an individual with physical health problems (Christakis & Allison, 2008: 471).

Similarly, literature on personality and relationship quality suggests that husbands' traits may be more important for marital quality than wives'. Botwin, Buss and Shackelford (2006) found that women are more likely than men to prefer socially-desirable personality traits in their partners (i.e. O,C,E and A), and that if their partner was lacking in any of these traits, women were more likely than men to report dissatisfaction with the relationship. Women are also more likely than men to be happy with male partners who have high positive emotionality (DiStephano & Motl, 2009). Furthermore, women show stronger physiological and emotional reactions to marital conflict than do men (Kiecolt-Glaser, et al., 1997; Kiecolt-Glaser & Newton, 2001). Taken together these findings suggest that wives of more positive husbands will be less likely to report conflict, but men with wives high in Positivity will report no more or less conflict than men with less positive wives. This leads us to our final hypothesis:

**Hypothesiss** *d***c**iation between wives' reports of conflict and their husbands' personality traits and health will be greater than the association between husbands' reports and wives' traits and health.

To restate the objectives of this study, we will employ dyadic data to examine the association between traits and marital conflict (Hypotheses 1a–1d), and the association between health and marital conflict (Hypotheses 2a–2d), and to assess whether these associations vary by gender (Hypothesis 3, above). To test these hypotheses, we require reports of conflict from both husbands and wives in the relationship, as well as measures of each partner's health and personality traits. Additionally, our analyses will have to control for age, ethnicity, education, time living together, and whether the two partners are married or cohabiting, since each of these factors has implications for marital quality, and may act as confounders (Umberson, et al., 2006; Waite & Gallagher, 2000). We discuss our data and methods for testing our hypotheses below.

#### **METHODS**

#### Sample and Measures

Our data came from the second wave of the National Social Life, Health and Aging Project, or NSHAP (Waite, et al., 2013). NSHAP is a nationally-representative study of older adults, designed to collect extensive information on the social and romantic/sexual lives of older respondents, as well as a broad array of assessments of health. The first wave of NSHAP, collected in 2005–2006, comprised 3005 respondents with a response rate of 75.5%. By Wave 2, fielded in 2010–11, 318 respondents became deceased, 115 were in too poor health to be reinterviewed, and an additional 311 were not reinterviewed for various reasons

including refusals. Of those partners who were asked to participate in NSHAP, 84.5% consented and were interviewed, yielding a sample of 955 partners, and thus, 955 marital and cohabitational dyads (proportion cohabiting given in Table 1a below). Spouses and coresident partners were interviewed using the same protocol as the focal respondents; note that age was not used as a criterion for whether a *partner* would be interviewed, and so respondents were added to the sample who could be younger than 57. There was one same-sex female couple and one same-sex male couple; since this is too few to make inferences about non-heterosexual pairings, we did not include these couples in the analysis below, leaving 953 couples. The Wave 2 response rate was 76.9%, including partners.

**Marital Conflict**—Our outcome measure was a scale composed of three items, the respondent's perception of: 1) how often their partner makes too many demands, 2) how often the partner criticizes them 3) how often the partner gets on their nerves. The response categories for each of these items were *"Never" "Hardly ever or rarely" "Some of the time"* and *"Often."* The internal consistency of the scale was acceptable for both genders ( $\alpha = .65$  for men, .65 for women).

**Personality**—The Big Five dimensions of personality were measured using the Midlife Development Inventory or MIDI (Lachman & Weaver, 1997). See Iveniuk et al. (Forthcoming) for a description of the MIDI in NSHAP. The MIDI is highly consistent across time at older ages (Turiano, et al., 2012), meaning that our personality measure generally described the person as they have been for some time. Loading of the adjectives on the latent OCEAN factors will be described below, along with the method we used to construct the sixth factor, Positivity. We used factor scores as measures of personality, predicted from the SEM below.

**Physical Health**—Self-rated global physical health is a reliable predictor of mortality and declines in health (Latham & Peek, 2013), and generally, individuals who report that they are in poor physical health are correct in their assessment, according to objective measures (Idler & Kasi, 1995). Self-rated health was obtained by asking "Would you say your health is excellent, very good, good, fair or poor?" These five categories were dichotomized as "poor or fair" vs. "good, very good or excellent" to identify health poor enough to affect functioning. We included self-rating of poor or fair physical health for each spouse as key predictors of each spouse's reports of marital conflict.

**Mental Health**—Respondents were asked a question about mental health that was very similar to the question on physical health: "Now how about your mental health? Is it excellent, very good, good, fair or poor?" Self-rated global mental health, which provides a summary measure, correlates with other mental health measures (Fleishman & Zuvekas, 2007). As before, we dichotomized the measures into "poor or fair" vs. "good, very good or excellent."

**Control Variables**—In this paper, used the term 'husbands' and 'wives' to refer to male and female partners respectively, however, we also included a measure of relationship status coded as married vs. cohabiting (for details see Kim & Waite, Forthcoming). Information on

respondents' demographic characteristics and the length of their partnership were obtained from NSHAP as well.

#### Analytic Strategy

**Constructing Positivity**—The first stage of our analysis used SEM to extract the Big Five dimensions of personality, as well as the additional Positivity factor. It is not uncommon in SEM to include an additional factor capturing variance which is due to person-specific patterns of scale use across subscales (Chang, Connelly, & Geeza, 2012; DiStephano & Motl, 2009). These are called *method factors*, and they are sometimes described as measuring traits that are of interest to researchers (Chang, et al., 2012). For example Geiser, Eid and Nussbeck discuss willingness to rate oneself high on positivesounding items as possibly representing a kind of trait (2008), and relate it to a highly optimistic self-image and view of life . Once fit to the data, it may be that a method factor is, as its name suggests, only an artifact of method, but we propose that if the additional factor is a survey effect, we will not observe any impact of a husband's method factor score on his wife's appraisal of the relationship.

Consider the responses of individual *i* to a set of personality adjectives *j*. An *m*-dimensional factor model for  $y_{ij}$  takes the form:

 $y_{ij} = \mu_j + \Lambda'_j \gamma_i + e_{ij}$ 

Where  $\mu$  denotes the intercept for item *j*,  $\Lambda$  is the vector of factor loadings for that item,  $\gamma$  is the factor score estimated in the SEM, and *e* is the error term. Under conventional specifications of the Big Five, *m* is five, and so  $\Lambda$  will have five possible entries, each assigned to an item *j*. To model positivity, we fit a sixth factor which was allowed to predict respondents' scores on all items, meaning the model became:

$$y_{ij} = \mu_j + \Lambda_j \gamma_i + \Omega_j \omega_i + e_{ij}$$

where the new terms  $\Omega$  and  $\omega$  are vectors containing the sixth factor loading, and the sixth factor score respectively. Thus every Big Five factor score was interpretable as a latent trait, net of the sixth factor. This changed the interpretation of the other five factors, as we point out in the discussion. Since the response categories are ordinal, we employed an ordered probit link for  $y_{ij}$ , and so all factor loadings were in standard deviation units on a standard normal distribution, with a mean of 0; as such, factor scores could be negative.

**Regression Analysis**—We used factor scores in our models to predict self-reported conflict with one's partner, separately by gender to test the hypotheses presented earlier. Because reports of conflict are very likely to be correlated within couples (which we tested below), estimating the regressions separately for men and women could have produced inefficient regression estimates (Zellner, 1963). To address this problem, we used Seemingly Unrelated Regression Equations (SURE):

$$y_{iH} = x'_{iH} \beta_H + \varepsilon_{iH}$$
 (1)

$$y_{iW} = x'_{iW} \beta_{W} + \varepsilon_{iW}$$
 (2)

Equation 1 predicts some outcome for husbands (H) and equation 2 predicts some outcome for wives (W).  $\boldsymbol{x}'_i$  is a vector of independent variables and  $\boldsymbol{\beta}$  is a vector of regression coefficients. These two equations were estimated simultaneously, along with a correlation between the disturbance terms  $\varepsilon_{iH}$  and  $\varepsilon_{iW}$ , with the notation  $\rho$ . If the estimated correlation was not significantly different from zero, then the two equations for husbands and wives could have been estimated separately.

In order to assuage problems with missing data, mostly arising from respondents not returning the leave-behind questionnaire (see Table 1b, below), we employed Full Information Maximum Likelihood (FIML). Unlike imputation, FIML does not create simulated values, but rather makes use of all information that exists for any of the variables included in the model by computing a casewise likelihood function (Enders & Bandalos, 2001). In simulation studies, FIML has been shown to give more consistent and efficient estimates of model parameters than complete case analysis, or single value imputation, further recommending it for our use here (Enders & Bandalos, 2001). As long as there are some variables that do not have missing data, FIML allows us to use the entire sample of heterosexual couples (953 couples) as our analytic sample, and so even though some husbands have missing data on their wives' variables, their information can still be used. Note that in the regression analyses, the personality scales, age, and years living together were all standardized, in order to facilitate comparisons between coefficient sizes. Dichotomous variables were not standardized.

#### RESULTS

#### **Structural Equation Modeling**

Figure 1 shows results from the SEM. Previous to fitting this model, we attempted several alternative specifications, comparing models by three measures: the chi-squared test of model fit, the Confirmatory Fit Index (CFI), and the Root Mean Squared Error of Approximation (RMSEA). Smaller chi-squared values, higher CFI and lower RMSEA indicate better model fit (Ullman & Bentler, 2003). First, we fit a model with five latent factors corresponding to OCEAN, estimating all covariances between latent factors ( $\chi^2$  4919.67; CFI .85; RMSEA .10). Second, we fit a model using the General Factor of Personality (Erdle & Rushton, 2011; Van der Linden, Scholte, Cillessen, te Neijenhuis, & Segers, 2010), which is a common second-order trait in the personality literature ( $\chi^2$  5083.59; CFI .84; RMSEA .10). Finally, we fit the model as shown in Figure One, which added a sixth factor, and left all factors constrained to have covariances of zero ( $\chi^2$  2078.66; CFI .94; RMSEA .07); allowing additional paths meant the model was no longer identified.

The chi-squared test was always significant p < .001, but the chi-squared test is rarely insignificant in large surveys because it is sensitive to sample size (Ullman & Bentler, 2003). This final, six-factor model had the best fit. Variances of latent factors were constrained to one, and means set to zero, again to ensure the model was identified.

The sixth factor on the left could be interpreted in several different ways. On the one hand, the sixth factor could be capturing social desirability (Bäckström, Björklund, & Larsson, 2009), but if so, we would expect positively worded items to load positively on the sixth factor, and negative items to load negatively. However, 'worrying' and 'nervous' do not load onto this factor at all, making that interpretation implausible. We could interpret it as an acquiescence factor (Krosnick, 1999), but this is also contrary to the results, since then we would expect all items to load positively on it, and this is not the case. For the same reasons, this does not seem to be a factor capturing scale use. We label this factor *P* for *Positivity*, because it displays large, positively loading factors for positively worded items, but ignores, for the most part, negatively worded items (note that the absolute value of the loading on 'moody,' while significant, is small). As was said above, at this stage is it not clear whether Positivity is simply a survey artifact, or something that is associated with behavior outside the survey context. If we find that one partner's positivity score affects the other partner's appraisal of trouble in the relationship, then we can more plausibly argue for the latter.

#### **Descriptive Statistics**

Table 1a presents characteristics of the 953 partner dyads. Husbands (72) were three years older than their wives (69) on average. The couples were predominantly non-Hispanic whites, had some post-secondary education, and, for the most part, represented their self-rated physical and mental health as better than poor or fair. Respondents also commonly reported having some conflict within their relationship. It is worth mentioning that the gender difference was statistically significant (p < .01), and unexpectedly, men reported slightly more conflict than women. As would be expected, the couple's race (.81), education (.40) and age (.70) were highly correlated. Finally, note that almost none of the variables in this table had any missing data.

Table1b provides summary statistics on the five personality factors, including Positivity. Here we can see that there was more missing data on the personality variables, largely because the personality battery was administered in the leave-behind questionnaire, and some respondents never returned it (87.3% of respondents returned the questionnaire). Many gender differences were significant, but correlations within couples on personality scores were fairly low. We also found that these correlations were low prior to fitting the structural equation model, and that correlations between any two personality scales were low within couples (lower than .10, results not shown).

#### **Regression Results and Tests of Hypotheses**

Table 2 provides the results from SURE, predicting marital conflict, using personality, health, married or cohabiting, years living together, and demographic controls; we can see at the bottom of the table that  $\rho$  was .23, and significant at p < .001, pointing to a significant correlation between the error term in the equation for husbands and that in the equation for

wives, meaning it was suitable to use SURE in this case. Tests of our hypotheses can be made using the results from Table 2. Hypothesis 1a stated that one's own Positivity would be associated with lower levels of conflict. But neither husband's nor wife's own Positivity was associated with their own reports of marital conflict (husbands' b=-0.07 n.s.; wives' b=-0.01, n.s.), which does not support Hypothesis 1a. We can see that wives whose husbands show higher levels of Positivity reported less conflict, on average, as we hypothesized (b=-0.11, p<.01), which supports Hypothesis 1b. But wives' Positivity had no association with husbands' reports of conflict. Hypothesis 1c and 1d, above, stated that one's own Neuroticism and partner's Neuroticism would be associated with higher levels of marital conflict for both hypotheses; own Neuroticism was associated with higher levels of reported conflict for both husbands (b=0.17, p<.001) and wives (b=0.09, p<. 05) and spouse's Neuroticism showed the same pattern (b=0.07, p<.05 for husbands and b=0.12, p<.01 for wives). Surprisingly, a wife with a more extraverted husband, net of his other personality characteristics, was *more* likely to experience conflict (b=0.09, p<.05).

Hypotheses 2a to 2d stated that worse physical and mental health, either in one's self or in one's spouse, would be associated with worse marital conflict. Results from Table 2 show that one's own physical health was not associated with increased marital conflict, for husbands (b=0.05, n.s.) or wives (b=-0.10, n.s.), in contrast to the expectations of Hypothesis 2a. However, in support of Hypothesis 2b, wives of husbands in poor or fair physical health reported higher conflict (b=0.27, p<0.001), even though husbands married to wives in poor or fair health do not report higher conflict (b=-0.06, n.s.). Supporting Hypothesis 2c, one's own poor or fair mental health was associated with reports of greater marital conflict (husbands' b=0.30, p<.01; wives' b=0.26, p<0.01), but that partner's mental health was not, for husbands (b=0.01, n.s.) or wives (b=-0.01, n.s.). So there was no support for Hypothesis 2d. To summarize, husbands' physical health mattered to their wives, but not to them, and wives' physical health did not matter to either spouse. Each spouses' own mental health was associated with more conflict, whereas spouses' mental health never mattered.

We tested Hypothesis 3, that the association between husbands' characteristics and wives' reports of conflict will be greater than the association between wives' characteristics and husbands' reports, using statistical comparisons of coefficient sizes. We carried out a one-tailed test of whether the associations between husbands' characteristics and wives' reports were greater than the associations between wives' characteristics and husbands' reports, and we marked this with a '‡' symbol. Note that for the test of spouse's Positivity and spouse's Agreeableness, we reversed the direction of the test because the coefficients are negative. One-tailed tests indicated than the association between husbands' poor physical health and wives' reports of conflict was greater than the association between wives' poor health and husbands' reports (p<0.01). One-tailed tests also indicated that the association between husbands' reports (p<0.01). It seems, in terms of personality and physical health, that husbands' characteristics were more consequential for wives' reports of conflict than the reverse.

Because Positivity has not been employed before in analyses of marital conflict, we wanted to ensure that the findings above are not artifacts of method. Therefore, we checked the bivariate associations between Positivity and conflict for both partners. Husbands' own Positivity was negatively associated with their own reports of conflict (r=-.13, p<.001), but wives' own Positivity was not associated with their own reports of conflict (r=-.05, n.s.). Also, as in the regression results above, husbands' Positivity was negatively associated with wives' reports of conflict (r=-.14, p<.001), but wives' Positivity had no association with their husbands' reports of conflict (r=-.01, n.s.). Therefore, the gender differences that we observed in the association between spouse's Positivity and reports of conflict do not appear to be the result of our modeling strategy.

We were also interested in the associations between conflict and OCEAN scores without Positivity, and accordingly we reproduced the regressions presented in Table 2, this time using factor scores produced by an SEM which did not include the Positivity factor. We found that results were very similar: Husbands' own Neuroticism was associated with higher martial conflict, according to their own reports (b=0.20, p<.001) and their Agreeableness protected against higher marital conflict, by their own reports (b=-0.13, p<.05). According to wives' reports, husbands' Neuroticism was also associated with more conflict (b=0.14, p < .01), and their Agreeableness was associated with less conflict (b=-0.20, p < .001). Husbands with more Agreeable wives were less likely to report conflict (b=-0.12, p=.04), and wives' own Neuroticism was associated with increased conflict (b=0.11, p<.01). Thus there was one exception to the hypothesized pattern that wives' traits would not affect husbands' reports of conflict: wives' Agreeableness was associated with less conflict, although this coefficient was of only borderline significant at p < .05. In contrast, the effect of husbands' traits on wives' reports were both significant at p < .01. In sum, with or without Positivity, there was a similar pattern of husbands' traits affecting wives reports, but not wives' traits affecting husbands' reports.

#### DISCUSSION

Both health and traits are relatively understudied in the literature on late-life marital quality, despite calls for more research on these topics (Booth & Johnson, 1994; Joung, et al., 1998; Whisman & Uebelacker, 2009). When they are examined, health and traits also tend to be studied separately from each other (Gattis, et al., 2004; Joung, et al., 1998; McNulty, 2008; Whisman & Uebelacker, 2009). This has limited the conclusions of previous work, because personality traits can be a resource for maintaining good health, and so traits may confound the relationship between health and marital quality (Whisman & Uebelacker, 2009: 187); healthy persons may have higher-quality marriages because individuals who make an effort to stay healthy also make an effort to maintain their relationship quality. However, this paper demonstrated independent associations between health, personality and marital quality. Therefore it seems that both health and personality traits operated on separate, gendered pathways in the production of good marital quality.

This central finding was in line with our hypotheses, and builds upon work from previous studies examining late-life marriage. Numerous previous studies have demonstrated a

negative impact of poor health (Booth & Johnson, 1994; Joung, et al., 1998; Pinquart & Sörensen, 2011; Whisman & Uebelacker, 2009), and negative traits (Caughlin, et al., 2000; McNulty, 2008), on marital quality, and our findings confirm that these factors do seem to be deleterious to marital quality, insofar as they were associated with worse conflict. It was also not surprising that gender differences emerged in the associations between health, traits and conflict; as we argued above, this was commensurate with existing theory (Kiecolt-Glaser & Newton, 2001; Sanderson & Kurdek, 1993). Furthermore, older couples in America today may also have more conventional gender roles than couples formed from younger cohorts, making it all the more plausible that we would see gender differences in the associations between traits, health and conflict in our sample (Brooks & Bolzendahl, 2004). But this also makes it difficult for any present work on late-life marriage to disentangle the effects of age and cohort. Therefore, even though our findings generally conform to existing theory about late-life marriage in America, we should remain open to revising marital theory as new cohorts enter into later life.

In addition to confirming existing theory on the relationship between personality traits and marital conflict at older ages, this paper estimated a novel, overarching dimension of personality that we labeled Positivity. While it seemed possible that this sixth factor only captured differences in scale-use or social desirability bias, two of our findings made this interpretation implausible. First, husbands' Positivity and physical health were associated with their wives' reports of marital quality, but the reverse was not the case. Second, neither husbands' nor wives' own Positivity was associated with differences in marital conflict. Therefore it seems plausible that Positivity reflects some set of behaviors and attitudes that outside of the survey situation, which husbands carried with them into marital interaction. We speculate that men in American marital relationships are generally more given to demonstrating their frustration, while women tend to reserve their negative feelings for the sake of preserving harmonious interactions (Larson & Richards, 1994; Sabatelli & Bartle-Haring, 2003; Sanderson & Kurdek, 1993). It could be that men who are higher in Positivity are better able to avoid or regulate negative affect for the sake of positive marital interactions. We encourage more empirical work on Positivity, in order to test these speculations.

Two other noteworthy findings emerged in the course of our analysis, which may inform testable hypotheses in future studies. First, wives of more-extraverted husbands were more likely to report conflict than others. While this seems counter-intuitive, removing the common Positivity factor from Extraversion left the remaining E-scale with the asocial (though not necessarily antisocial) components of Extraversion. These are impulsivity, low self-control and high levels of energy and vitality, or what is sometimes called 'Surgency' (John, et al., 2008). In light of this, it is not surprising that husbands with high levels of Extraversion, net of Positivity, were more likely to create conflict, since these individuals may be less receptive to interpersonal controls. It is also revealing that husbands' Agreeableness protected against self-reports of marital conflict even after extracting the Positivity factor; thus it would be problematic to say that the effects of Positivity were reducible to the effects of Agreeableness, or any Big Five trait. Our analysis therefore suggests that personality characteristics not only beyond the Big Five but within them could significantly contribute to social and behavioral outcomes.

Second, women reported less conflict than men, which, although the difference is small (2.26 vs 2.36 on a 4 point scale) is at odds with previous work (Whisman & Uebelacker, 2009). However, this difference is consistent with other analyses of the NSHAP data (Kim & Waite, Forthcoming) and also accords with recent observer evaluations of disagreements between spouses. Smith et al. (2009) found that in discussions of topics on which the spouses disagree older husbands displayed more warmth and less belittling and blaming but more withdrawal than did older women. Husbands in NSHAP more often say that their wife makes too many demands and criticizes them than wives in the study report the same issues (Kim & Waite, Forthcoming). In NSHAP, husbands also report more supportive interactions than do wives, which is consistent with the literature (Kim & Waite, Forthcoming).

#### Limitations

Because older adults are more likely to suffer from poor health than are young people, older couples provide some insight into the impact of health on marital functioning. Unfortunately, the long average marital duration of the couples considered here limits the generalizability of the findings and may have produced selection bias. Levels of negative affect tend to be higher in younger couples (Carstensen, et al., 1995), and those with the highest levels of conflict are more likely to dissolve, leaving a selected sample of marital survivors, which may well differ from a sample of younger dyads in personality and health. Longitudinal data examining transitions between relationships and the transition into older adulthood could be informative.

Finally, because this paper was simultaneously interested in personality and health, we did not include measures of specific health conditions, but rather provided a general picture of the relationship between overall physical/mental well-being and marital quality at older ages. It may be that not all ailments are equal in terms of their tendency to promote marital conflict. Husbands who have diseases that leave them physically infirm but mentally stable may stay amicable in the face of their disability. Chronic diseases that precipitate depression, such as diabetes (Trief, Wade, Britton, & Weinstock, 2002), may have more negative consequences for marital quality than those that are not linked to mental health (Bookwalla, 2011; Warner & Kelley-Moore, 2012).

#### Conclusions

This paper began with the question of whether there were meaningful differences between genders in the relationship between each partner's health, personality traits and the conflict each reports; it is therefore appropriate to close with implications of this study for understanding the roles that men and women take up in long-term partnerships. Women are sometimes spoken of as the 'relationship expert' in marriages (Sabatelli & Bartle-Haring, 2003; Sanderson & Kurdek, 1993: 264), that is, more likely to be equipped with skills for socio-emotional work, and maintaining the satisfaction of both partners. They are also more likely to manage the interactions of family members with the medical system (Kiecolt-Glaser & Newton, 2001). The burden of caring for a sick spouse, as well as being more attentive to their traits, would therefore be more burdensome to wives than to husbands, on average, since the less-skilled partner would delegate to the 'specialized' individual. The more difficult question is whether low levels of conflict in marriages would not only require

the absence of frustrating individual factors, such as poor health and negative traits, but also a more equal distribution of responsibility for emotional labor between husbands and wives in a dyad. This study does not provide an answer, but may be useful for subsequent studies which aim to address this question.

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\*p < .05. \*\*p < .01. \*\*\*p < .001

#### Figure 1.

Positivity (left) and the Big Five (right) in a Structural Equation Model

## Table 1a

Descriptive Statistics (n=953 Husbands; 953 Wives), Tests of Gender Differences and Correlation Within Couples

			Husbands			Wives			
Variables	Range	Mean/Freq	SD/%	% Missing	Mean/Freq	SD/%	% Missing	t-test p-value	Correlation
Marital Conflict Scale	1 to 4	2.36	0.68	0.10%	2.26	0.69	0.10%	,000	.30***
Non-Hispanic White	0 or 1	728	76.47%	0.10%	741	78.00%	0.10%	.133	.81 ***
College, BA or More	0 or 1	542	56.87%	%0	561	58.87%	%0	.256	.40 ***
Age	36 to 99	72.27	7.35	%0	68.79	8.06	%0	.000°	.70
Poor or Fair Physical Health	0 or 1	251	26.37%	0.10%	228	23.95%	0.10%	.188	.15***
Poor or Fair Mental Health	0 or 1	103	10.82%	0.10%	130	13.66%	0.10%	.050	.08*
Years Living Together	0 to 73	39.44	15.73	4.82%	39.66	15.46	3.78%	.151	.97 ***
Married (vs. Cohabiting)	0 or 1	913	95.80%	%0	910	95.49%	0%	.318	.89 ***

Note: Marital conflict scale constructed from three items: how often partner gets on respondent's nerves, makes too many demands or criticizes. Physical and mental health based on self-reports. Frequency and percentage presented if variable is dichotomous.

 $_{p<.05.}^{*}$ 

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p < .01.

\*\*\* p < .001

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## Table 1b

Descriptive Statistics (n=953 Husbands; 953 Wives), Tests of Gender Differences and Correlation Within Couples

6 Missing t-test p-value CC 2.07% .001 ** .00	Correlation .06
2.07% .001 ** .06	.06
2.07% .072 –.0	01
2.07% .051 .04	.04
2.07% .000 *** .07	.07*
2.07% .000 *** .08	.08
2.07% .000 <sup>***</sup> .10	.10**
2.07% .000 *** .10	.10**

## Table 2

Predicting Relationship Troubles (Seemingly Unrelated Regression Using Full Information Maximum Likelihood; n=953 Couples, 1906 Persons)

Variables	q	SE	q	SE
Self				
Married (vs. Cohabiting)	-0.34	(0.15)	$-0.39^{*}$	(0.16)
Years Living Together	$0.07^{*}$	(0.03)	0.05	(0.04)
Non-Hispanic White	-0.06	(0.08)	-0.09	(0.08)
College, BA or More	$0.16^{*}$	(0.07)	0.12	(0.07)
Age	-0.01	(0.03)	-0.02	(0.04)
Poor or Fair Physical Health	0.05	(0.07)	-0.10	(0.08)
Poor or Fair Mental Health	$0.30^{**}$	(0.11)	$0.26^{**}$	(0.10)
Openness	-0.02	(0.04)	0.04	(0.04)
Conscientiousness	-0.04	(0.04)	-0.05	(0.04)
Extraversion	0.00	(0.04)	-0.05	(0.04)
Agreeableness	$-0.10^{*}$	(0.04)	-0.02	(0.04)
Neuroticism	0.17***	(0.04)	$0.09^*$	(0.03)
Positivity	-0.07	(0.04)	-0.01	(0.04)
Spouse				
Poor or Fair Physical Health	-0.06	(0.08) ##	$0.27^{***}$	(0.08)
Poor or Fair Mental Health	0.01	(0.10)	-0.01	(0.11)
Openness	0.04	(0.04)	0.03	(0.03)
Conscientiousness	0.04	(0.03)	0.03	(0.04)
Extraversion	0.08	(0.04)	0.09	(0.04)
Agreeableness	-0.01	(0.04)	-0.07	(0.04)
Neuroticism	$0.07^{*}$	(0.03)	$0.12^{**}$	(0.04)
Positivity	-0.02	$(0.03)$ $\ddagger$	$-0.11^{**}$	(0.04)
Constant	0.24	(0.16)	0.28	(0.17)
ρ .23***				

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\*\* p<.01, \* p<.05,

\*\*\* p<.001

One-sided Wald test:

 $t^{t}$  coefficient in wives' equation larger at p< .05;

 $t^{\dagger}_{c}$  coefficient in wives' equation larger at p<f01

Note: Outcome, personality scores, age and years living together standardized within gender.

All other variables are dichotomous and are therefore not standardized.

The coefficient  $\rho$  is the correlation between the residual error terms from the husbands' and wives' equations.