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Gender Norm Conformity, Uncertainty, Communication, and Satisfaction Within Romantic Relationships: a Dyadic Model

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GENDER NORM CONFORMITY, UNCERTAINTY, COMMUNICATION,
AND SATISFACTION WITHIN ROMANTIC RELATIONSHIPS:
A DYADIC MODEL

by

Ashley K. Billig

A Dissertation Submitted in
Partial Fulfillment of the
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ABSTRACT

GENDER NORM CONFORMITY, UNCERTAINTY, COMMUNICATION, AND SATISFACTION WITHIN ROMANTIC RELATIONSHIPS: A DYADIC MODEL

by

Ashley K. Billig

The University of Wisconsin-Milwaukee, 2016
Under the Supervision of Professor Katie Mosack

Marital satisfaction is associated with better overall life satisfaction (Holt-Lunstad, Birmingham, & Jones, 2008) and myriad positive health outcomes (Beach & O’Leary, 1993; Kiecolt-Glaser & Newton, 2001). Sexual script theory suggests that within heterosexual romantic relationships, scripts are “the mechanism through which appropriate identities are made congruent with desired expectations” (Simon & Gagnon, 1984, p. 53). To examine how gender norm conformity within heterosexual relationships may be influenced by situational cues and to measure how norm conformity is related to interpersonal outcomes, I recruited 35 dyads for participation in a date description task and a questionnaire which measured gender norm conformity, relational uncertainty, relational communication, and relationship satisfaction. Multilevel modeling and the actor-partner interdependence model (APIM; Kenny, Kashy, & Cook, 2006) was used for analysis. The results of the study were mixed; there were no differences in gender norm conformity between primed dyads and non-primed dyads, and no significant partner effects were found. However, several significant actor effects were found. This study improves understanding of the relationship between gender norm conformity and interpersonal relationship outcomes by expanding the research on partner effects. These effects are useful for clinicians working with couples to improve relationship communication and satisfaction.

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Gender Norm Conformity, Uncertainty, Communication, and Satisfaction within Romantic Relationships: A Dyadic Model

Marital satisfaction is associated with better overall life satisfaction (Holt-Lunstad, Birmingham, & Jones, 2008) and myriad health outcomes such as lower depression (Beach & O'Leary, 1993), lower blood pressure, and more positive health habits (Kiecolt-Glaser & Newton, 2001). When partners are not satisfied with their relationship, their own health often deteriorates along with the relationship. Relationships end in divorce and incidence of domestic abuse increases (Meredith, Abbott, & Adams, 1986). It is apparent that quality relationships are related to a better quality of life. However, it is not clear how personal characteristics are related to the interpersonal processes that contribute to relationship satisfaction.

Sexual script theory suggests that within heterosexual romantic relationships, scripts are “the mechanism through which appropriate identities are made congruent with desired expectations” (Simon & Gagnon, 1984, p. 53). Scripts are guided by societal expectations of how men and women should behave in various scenarios, including within romantic relationships. *Intrapsychic scripts* are the personal, individual “internal rehearsal” of interactions with the world (i.e. self-talk; Simon & Gagnon, 1984) and *interpersonal scripts* are those that guide the role one takes while interacting with others. Both partners act according to their own perceived script, and the resulting interpersonal processes are then guided by what each perceives the appropriate behavior for their gender (Gagnon & Simon, 1973).

According to this theory, these scripts develop from cultural norms and change over time as a result of changing situational contexts, are guided by expectations and norms an individual follows for how one should be behaving within any given situation, and therefore change based on the context. These norms develop into scripts that act as a guide for what should

happen in any given scenario. Because romantic relationships are dyadic in nature, a focus on interpersonal scripts and the behaviors that are enacted as a result of norm conformity is necessary in order to understand which communication scripts might influence overall satisfaction.

Interpersonal communication within a relationship is necessary for relationship satisfaction. For example, the process of self-disclosure, conflict management skills, and perspective-taking capabilities (Hendrick, 1981; Meeks, Hendrick, & Hendrick, 1998) are all predictive of relationship satisfaction. Specifically, how do gender roles predict communication and relational satisfaction within heterosexual romantic couple relationships? Many researchers have focused on gender roles, gender expression, and masculinity and femininity as they relate to individual outcomes, but research that focuses on the effects of gendered norm conformity, in the form of behaviors and attitudes, on each individual's *partner's* outcomes is limited. The purpose of this study is to examine conformity to gender norms as it relates to overall relationship outcomes.

Intrapyschic and Interpersonal Gender Scripts

Traditional gender role norms (i.e. exclusively enacted femininity and communality for women and exclusively enacted masculinity or agency for men) can sometimes reach unhealthy levels. Unmitigated agency for example (Helgeson & Fritz, 2000) is the extreme form of masculinity, with intense self-focus and the exclusion of others as defining characteristics. Unmitigated communion (Helgeson & Fritz, 1999) is the opposite – an extreme form of femininity defined by focus on others at the exclusion of the self. Although masculine and feminine scripts may be considered intrapersonal in nature (i.e. gender as an internal

performance), people do not express gender in isolation. Therefore, intrapersonal scripts must be viewed within the larger context of interpersonal scripts.

As heterosexually-identified teens begin engaging in romantic relationships with opposite-gendered partners, the traditional expectation is that young women's sexual scripts during these encounters often resemble submissiveness, and young men's scripts involve dominance. Numerous researchers have documented the traditional dominant/submissive roles within heterosexual relationships during adolescence (Williams & Best, 1982; Pellegrini & Bartini, 2001; Martin, 1996). Within the context of an in-depth qualitative interview, young women described their subordinate role within their relationships in an attempt to demonstrate their femininity (Connell, 1987) and sought to gain status within their social circles by discussing their relationships with young men (Tolman, 2002). To these young women, they follow the predominant script in Western culture of the heterosexual adolescent girl by discussing their role as the subordinate girlfriend in their 'compulsory romance' with their same sex friends. In Korobov and Thorne's study (2009), these girls discussed their relationships with boys in three predominant ways: with a sentimentality repertoire, an unrequited pursuit repertoire, or an emotional caretaker repertoire (Korobov & Thorne, 2009) in order to demonstrate femininity, which was important for their social status and identity.

Although adherence to sexual scripts in adolescence is prevalent, there is research to suggest that traditional scripting declines as teens move into emerging adulthood. While in adolescence, teens are typically exposed to a relatively small social network composed of friends and family who have played a role in their socialization up to that point. In early adulthood and during college, individuals are exposed to a wider network of people, values, cultures, etc. that may alter and broaden preconceived scripts that had previously been established. In fact,

researchers have reflected the change in sexual initiation over time as contemporary norms change, with women taking a more agentic role in their own sexual experiences by initiating activity more frequently as relationships progress (Seal, Smith, Coley, Perry, & Gamez, 2008; Vannier & O’Sullivan, 2011). In one study, 91% of sexual initiation was nonverbal, and women were more likely to use direct nonverbal initiation strategies such as sexual touching, as opposed to men who were more likely to engage in indirect nonverbal strategies, such as smiling (Vannier & O’Sullivan, 2011). These changes and flexibility in roles are a consequence of many variables, including age, varying upbringings, and changes in perceived social acceptability. Over time within committed relationships, men and women often become more flexible with gender script adherence, with men reporting more compliance (Vannier & O’Sullivan, 2009) and women initiating sexual activity. This “reversal” of roles is viewed as a more egalitarian relationship, with both partners displaying a mixture of traditional masculine *and* feminine characteristics.

Intrapsychic and interpersonal scripts are both established within the larger situational context. Despite extant literature suggesting that traditional gender role script adherence is still prevalent (Kiefer & Sanchez, 2007), these scripts are not always enacted in all situations. The flexibility in script suggests that gender role conformity may have less to do with ingrained scripts and more to do with situational cues, which results in flexible role taking. Deaux and Lewis (1984) refer to the flexibility in gendered behavior as the situational-cue perspective. For example, if a topic of conversation is related to gender, then conversation partners tend to enact gendered characteristics (Dovidio, Brown, Heltman, Ellyson, & Keating, 1988). To test these situational cues, Vogel, Tucker, Wester, & Heesacker (1999) placed couples in one of three experimental conditions: discussing everyday things not related to the relationship, discussing satisfaction with the intimacy of the relationship, and a control group in which no conversation

occurred. Both women and men reported significantly more traditional female and male attitudes (respectively) when in the condition in which they discussed their relationship.

Despite a shift toward more egalitarian roles within society, researchers have recently found that both women and men rated an atypical men (i.e. those who are non-gender conforming) less favorably than a woman in a simulated job interview, though both read from the same pre-written script (Moss-Racusin, Phelan, & Rudman, 2010). This unfavorable rating of gender nonconformance may be illustrative of a need to abide by traditional norms when presenting oneself. In the beginning stages of a relationship, when partners do not know what to expect from each other, they may behave in accordance with traditional sexual scripts in order to unconsciously reduce uncertainty.

Relationship Uncertainty

Relational uncertainty encompasses the uncertainty one feels about his or her place in a relationship, his or her partners' commitment to a relationship, and uncertainty about the relationship as a unit (Knobloch & Solomon, 1999). *Self-uncertainty* includes an individual's general inability to "describe, predict, or explain his or her own attitudes or behavior" (Knobloch & Solomon, 1999, p. 262). *Partner uncertainty* is an individual's "lack of knowledge about his or her partner as an individual" (Knobloch & Solomon, 1999, p. 262) which decreases the ability to predict partners' behavior within a relationship. *Relationship uncertainty* is the uncertainty or doubt one feels about a relationship itself rather than the self or the partner. The content of all three types of uncertainty could be behavioral, which reflects the uncertainty about the norms or "the right way to act" in a given situation for both partners, or cognitive, which evolves from not knowing information (Knobloch & Solomon, 1999). Within dating relationships, oftentimes "the right way to act" is in accordance with the traditional script for men and for women.

Even in instances when people perceive themselves to be non-traditional, they implicitly display traditional script adherence (Laner & Ventrone, 1998). For example, in two replication studies, researchers had daters describe a typical heterosexual date. Though the daters reported themselves to be egalitarian, the description of the dates fit a traditional script and replicated results from an earlier study (Laner & Ventrone, 1998; 2000). The authors explain that “scripts for both sexes are well-known to both men and women, making the formats of first dates highly predictable” (Laner & Ventrone, 2000, p. 488). In another study, researchers found a link between traditional gender role attitudes and certainty. That is, those who were more egalitarian, both women and men, reported more uncertainty in their relationships (Vanyperen & Buunk, 1991). If people are motivated to reduce uncertainty, they follow the predictable script.

Relational Communication and Satisfaction

According to uncertainty reduction theory (Berger & Calabrese, 1975), people are motivated to reduce uncertainty in their interactions with new acquaintances by use of interpersonal communication. Uncertainty for those in the early courtship stages of a relationship was associated with lower perceived effectiveness and explicitness of communication in one study (Knobloch, 2006), while those who perceive more commitment in their relationships communicated more about their commitment and reported less relationship uncertainty in another study (Weigel, Brown, & O’Riordan, 2011). In addition, dyadic effects have been found, with women’s commitment positively associated with their own and their partner’s communication about the relationship (O’Riordan, 2007). Conversely, when partners are uncertain about their place in the relationship, their partner’s commitment, or the future of the relationship, they perceive less intimacy from their partner (Knobloch & Solomon, 2005) and

therefore avoid direct communication about sensitive issues. In fact, relational uncertainty has been positively associated with indirect communication about sexual intimacy (Theiss, 2011).

Indirect communication may lead to miscommunication, which is linked with the demand/withdraw pattern of communication (Tannen, 1990). Christensen (1987; 1988) identified the *demand/withdraw* communication pattern within marriages in which one partner demands something and the other partner withdraws to avoid discussion. Christensen argues that the female demand/male withdraw roles are reflective of socialized traditional gender norms in which women attempt expression and become aggravated at not being able to express themselves, and men withdraw when they cannot instrumentally solve a problem (Christensen, 1987; 1988). Furthermore, the demand/withdraw pattern is also viewed as a result of structural power imbalances within marriages, with wives attempting gain even power in the relationship by demanding something of the husband (Jacobson, 1990). Indeed, the wife-demand/husband-withdraw pattern is more prevalent than the husband-withdraw/wife-demand pattern (Christensen & Heavy, 1990; Caughlin & Vangelisti, 1999; Vogel, Wester, & Heesacker, 1999), which indicates that gender dynamics are a source of this particular communication pattern. Researchers have associated the demand/withdraw pattern with lower relationship satisfaction for both partners within marriages (Caughlin, 2002; Eldridge & Christensen, 2002). Furthermore, the demand/withdraw behavior was associated with more manipulation and control tactics, and fewer cooperative strategies in married couples seeking treatment (Baucom, Atkins, Eldridge, McFarland, Sevier, & Christensen, 2011). In another study, couples who reported demand/withdraw tactics were less likely to resolve conflict, and were less likely to agree on the resolution (McGinn, McFarland, & Christensen, 2009).

Scholars suggest that in addition to differences in general communication patterns based on gender and power, men and women also communicate differently about sex. Wiederman (2005) argues that reproductive differences between men and women are the early markers of this difference. Parents' communication with children regarding sexuality differs by gender, with girls being taught restraint and the potential consequences of non-restraint, such as an unplanned pregnancy, and boys are taught sexual assertiveness as part of their masculine gender script (Wiederman, 2005). It is this early communication from parents that begin to shape a young person's idea of how she or he should behave towards and communicate with a member of the opposite sex. The restraint women are taught to behave with, combined with the instrumentality young men are taught result in women being the gatekeepers of sexual activity.

Though women are traditionally viewed as the gatekeepers of sexual activity, they report difficulty in refusing unwanted activity (Kaestle, 2009). Half of women and 26% of men in one study (O'Sullivan & Allgeier, 1998) and 65% of women and 40% of men in another study (Impett & Peplau, 2003) reported that they had been sexually compliant and engaged in unwanted behaviors with their partners. Women's compliance was linked with wanting to promote intimacy within the relationship, and also reported putting their partner's sexual needs before their own in order to reduce relationship conflict (Impett, Schooler, & Tolman, 2006). Although women may believe their partners wish for them to be submissive, the reality is that men report a preference for a partner to be less submissive (Dworkin & O'Sullivan, 2005). Indeed, men report wanting their partners to initiate activity more often, because having a partner who initiates activity boosts men's confidence and satisfaction. In one study, young men complied with unwanted sexual activity because they thought it would impress friends and to

gain experience (Shotland & Hunter, 1995). Though both sexes report compliance, the motives for complying reiterate the roles that have been socialized based on gender.

Men who adhere to traditional masculine gender norms are more likely to associate sex with dominance (Kiefer & Sanchez, 2007), which can lead to aggressive sexual behavior (Mussweiler & Förster, 2000). In fact, women whose partners were characterized with unmitigated agency reported more emotional and physical abuse compared to women whose partners did not display unmitigated agency (Suarez-Al-Adam, Raffaelli, & O’Leary, 2000). Additionally, men have been found to be significantly more likely compared to women to have participated in physical or non-physical coercion with a female sexual partner (VanderLaan & Vasey, 2009).

The collective set of negative effects, or “sex role strain” is described by O’Neil, Helms, Gable, David, and Wrightsman (1986) as “a psychological state where gender roles have negative consequences or impact on a person or others” (p. 336). Pleck (1981) describes a sex role strain paradigm in which both the adherence to and the violation of gender roles lead to negative psychological consequences. For example, men’s ideology about what it means to be “masculine” may include values and beliefs from their given culture, such as toughness and being emotionally inexpressive. These same characteristics, while internalized as part of an ideology, are associated with negative effects such as reluctance to seek help (Addis & Mahalik, 2003).

While sex role strain reflects the intrapersonal consequences of gender norm conformity, researchers use gender role conflict (GRC; O’Neil, 2008) to describe the collective negative consequences for gender role adherence, both intrapersonal and interpersonal. For men, four main patterns of conflict exist: 1) success, power, and competition, 2) restricted emotionality, 3)

restricted affectionate behavior between men, and 4) conflict between work and family relationships. All of these patterns are linked with negative outcomes for men, such as depression, anxiety, substance abuse, stress, and reckless behavior (Danoff-Burg, Mosher, & Grant, 2006) while dependency on others, subordination, depression, and low self-esteem are just some of the negative effects for women who display unmitigated communion (Helgeson & Fritz, 1999; Buss, 1990). Within relationships, researchers have found associations between marital satisfaction and partner depression, with those whose partners are depressed reporting lower satisfaction (Pruchno, Wilson-Genderson, & Cartwright, 2009) in addition to the association between one's own depression and anxiety and lower marital satisfaction (Whisman, Uebelacker, & Weinstock, 2004). Additionally, gender role conflict is related to restricted emotionality within relationships and is positively associated with less relationship intimacy and more marital problems (Wester, Vogel, O'Neil, Danforth, 2012). Mahalik, Burns, and Syzdek (2007) found that despite these negative effects associated with traditional gender role socialization, men continue to engage in unhealthy behaviors if they perceive them to be normative to their prescribed gender script. In fact, women's perception of their male partner's conformity to male norms was associated with women's lower relationship satisfaction (Burns & Ward, 2005). The negative physical and psychological effects related to gender conformity for men and the psychological effects related to gender conformity for women suggests that gender script adherence not only results in negative outcomes for the individual but for their partners as well.

Current Study

As outlined in sexual script theory, intrapersonal scripts occur within the context of interpersonal scripts, which in turn occur within situational contexts. Previously, researchers have focused on one type of script and outcomes for the individual related to that script. In order

to understand relationship outcomes related to sexual scripts, each type of script must be examined. Additionally, much of previous literature includes data from individuals who report for themselves and for their partners rather than eliciting data from both members of the relationship separately. These methods rely on one partner's perceptions, which may not be congruent with what the partner would self-report him or herself. With the current study, we will recruit dyads and perform multilevel modeling, including the Actor-Partner Interdependence Model (APIM; Kenny, Kashy, & Cook, 2006) in order to measure both partners' gender norm conformity and how each partner's conformity predicts their own and their partner's level of relationship uncertainty and report of relationship communication and satisfaction.

Because scripts are socially constructed, researchers have suggested that enactment of gender scripts is dependent upon the situation. This assumption will be tested by priming half of the participating dyads before measuring their gender script adherence by creating a situational cue.

RQ1: Do couples who are primed by use of a situational cue report higher levels of traditional gender norm conformity among heterosexually-involved dyads?

H1: Dyads who are primed to think about the relationship before completing a questionnaire will be more likely to report higher levels of traditional gender norm conformity compared to dyads who are not primed.

RQ2: Is traditional gender norm conformity, after controlling for situational context priming, related to relationship uncertainty, communication, and satisfaction when measuring these constructs using data from both members of heterosexually-involved dyads?

H2: After controlling for situational context priming, those who report stronger conformity to traditional gender norms will be less likely to report relationship uncertainty and will be less likely to have partners who report relationship uncertainty.

H3: After controlling for situational context priming, those who report weaker conformity to traditional gender norms will be more likely to report more positive sexual communication and will have partners who report more positive sexual communication compared to those who report stronger conformity to traditional gender norms.

H4: After controlling for situational context priming, those who report weaker conformity to traditional gender norms will be more likely to report greater relationship satisfaction and will have partners who report greater satisfaction compared to those who report stronger adherence to traditional gender norms.

RQ3: Is communication within heterosexual couples related to overall satisfaction?

H5: After controlling for situational context priming, those who report more positive sexual communication with their partner will be more likely to report greater relationship satisfaction and will have partners who report greater relationship satisfaction compared to those who report less positive communication.

Methods

Participants

Over 200 people responded to the initial interest form for the study, with some people filling out multiple forms. Those who filled out the form were emailed and asked to have their partners fill out the interest form as well. Approximately 25 women expressed interest in participating but their partners did not fill out the interest form and thus they were not able to participate. Another 16 couples were given the code to sign up after both partners filled out the interest form but did not sign up or participate in the study. Three couples signed up but did not

arrive for their appointment. One couple expressed interest but could not participate because of their married status. Overall, a total of 35 opposite-sex couples were recruited for participation in this study. Participants were recruited primarily through a study participation database within a department of psychology at a mid-size urban university. Initial participants (those who responded to the interest form first) were between 18-25 years old, though two partners aged 26 and 28 were also included, with an overall average age of 20.91 ($SD = 2.17$). The average length of relationship was 27.19 months ($SD = 21.23$), with a median length of 12 months. Overall, 9 couples reported a relationship length of 0-6 months, 4 reported 7-12 months, 4 reported 13-24 months, and 18 couples had been together for 25 months or more. Most individuals (61.4%) worked part time. Fifty-two people identified as Caucasian (74.3%), 10% identified as mixed race ($N = 7$), 3 (4.3%) identified as African American, and 3 (4.3%) identified as Asian.

Measures

Date Description Task. Methods from Vogel, Tucker, Wester, & Heesacker (1999) and Laner and Ventrone (1998) were combined to create a situational primer referred to as the Date Description Task. While in the same room, each partner was given a laptop with the Date Description Task. The instructions for this task read “There are two parts to this section of the study. You will do both parts in this room together. You both have the same instructions and should discuss these parts together.” After clicking to the next page, they were given the following prompt:

We want you to spend about 5minutes talking about your satisfaction with your relationship, including closeness, commitment, and time together. For example, you can talk to each other about how close you are to each other, how committed you are to each

other, and/or the time you spend together. These are only examples – you may talk about your relationship in any way you would like.

Following this, couples were asked to click “we are finished discussing our relationship and are ready to move on to the next task.” The next prompt was as follows:

For the next 10 minutes, please think of a time you recently went out together. For example, when you last went to dinner together, to the movies, to a concert, a festival, shopping, etc. Discuss one specific event with each other. Use the space below to write 10 things YOU specifically did involving the event. For example, you can write things you did before the event to get ready, things that happened during the event, and things you did after the event. Example items: buy tickets online ahead of event, select a restaurant to eat at, buy a new outfit to wear, pick up my partner at his/her house, pay the bill, etc. Each of you should type your own lists on your own computers. You might have items that go on both of your lists, and you might have items that go on one of your lists but not the other. Please try to identify 10 things each. When you are finished, please click the next button to submit your items. A researcher will be back in approximately 10 minutes.

Masculine Norm Conformity. The Conformity to Masculine Norms Inventory (CMNI; Mahalik, Locke, Ludlow, Diemer, Scott, Gottfried, & Freitas, 2003) measures normative masculinity and includes 11 specific action, thought, and feeling norms such as “dominance” and “power over women” measured with 94 items on a four-point Likert-type scale. The scale has been tested and validated with college samples and has good overall internal consistency ($\alpha = .94$). The subscales that measure each type of norm have also been deemed reliable, with consistencies ranging from .72 - .91. The scale has been validated with other similar measures of masculinity such as the Brannon Masculinity Scale (BMS; Brannon & Juni, 1984) and the

Gender Role Conflict Scale (GRCS; O'Neil, Helms, Gable, David, & Wrightsman, 1986). The total scores on the CMNI were significantly positively related to scores on both the BMS and the GRCS in a sample of single undergraduate college men (Mahalik et al., 2003). A shorter 46-item version of the CMNI (CMNI-46; Parent & Moradi, 2009) has been developed for ease of use, and displayed internal consistency ranging from .77-.91 and convergent validity with similar male norm inventories, specifically, the BMS (Brannon & Juni, 1984), and the Male Role Norms Inventory (Levant, Hirsch, Celentano, Cozza, Hill, & MacEachern, 1992; Parent & Moradi, 2009). Items were on a 4-point scale, with 0 = strongly disagree and 3 = strongly agree. The internal consistency for this sample was $\alpha = .92$ for the full short form scale, which was used for analysis. See Table 1 for all reliability estimates.

Feminine Norm Conformity. The Conformity to Feminine Norms Inventory (CFNI; Mahalik, Morray, Coonerty-Femiano, Ludlow, Slattery, & Smiler, 2005) measures normative femininity. Similar to the CMNI, the CFNI measures a broad range of feminine norms. The scale includes 8 specific norms that are common within the United States, such as “nice in relationship” and “domestic.” The overall internal consistency for the CFNI is .88, and consistency for the 8 subscales ranges from .77 to .92. The scale has convergent validity, with total scores significantly positively related to the Bem Sex Role Inventory Femininity score (BSRI; Bem, 1974) and the Feminist Identity Composite Passive Acceptance subscale (FIC; Fischer, Tokar, Merl, Good, Hill, & Blum, 2000). Items are on a 4-point scale, with 0 = strongly disagree and 3 = strongly agree. The short form (CFNI-45; Parent & Moradi, 2010) was used in this study. For this sample, $\alpha = .84$.

Relationship Uncertainty. Relational uncertainty was measured using Knobloch and Solomon's (1999; 2005) Relational Uncertainty Scale. The scale includes three dimensions of

uncertainty (self, partner, and relationship). Each dimension was scored on a 6 point scale, with 1=completely or almost completely certain, and 6=completely or almost completely uncertain. Items on the self-dimension include “How certain are you about how committed you are to the relationship” and “how certain are you about whether you want this relationship to last?” The items on the partner dimension are the same as the self, but ask the respondent how certain they are about their partner’s commitment and whether their partner wants the relationship to last, etc. The relationship dimension includes items such as “how certain are you about the future of this relationship?” The relationship dimension was the subscale that was used for analysis. The Relational Uncertainty Scale has been used in college student samples (Knobloch & Carpenter-Theune, 2004; Knobloch, 2007) and for this sample, the relationship dimension subscale $\alpha = .94$.

Relationship Communication. The short form of the Communication Patterns Questionnaire (CPQ; Christensen & Heavey, 1990) was used to measure relationship communication. This version contains 11 items that make up four subscales: female demand/male withdraw, male demand/female withdraw, total demand/withdraw, and positive interaction, which is meant to measure constructive communication. Participants were asked “when issues or problems arise, how likely is it that...” with items including “both spouses try to discuss the problem” and “during a discussion of issues or problems, how likely is it that...” with a sample item including “both spouses express feelings to each other.” For this sample, “spouse” was replaced with “partner”. The positive interaction subscale consistency was .68, and the total demand-withdraw subscale consistency was .74.

Relationship Satisfaction. The Interpersonal Exchange Model of Sexual Satisfaction Questionnaire (Lawrance, Byers, & Cohen, 1998) is a measure of satisfaction that includes the Global Measure of Sexual Satisfaction (GMSEX), the Global Measure of Relationship

Satisfaction (GMREL), rating of rewards and costs, and a Rewards/Costs Checklist. The items were developed in order to assess overall relationship satisfaction, sexual satisfaction, and the costs and rewards each partner associates with the relationship. On the GMSEX and GMREL partners rate the sexual relationship and overall relationship on 5 bipolar items (good-bad, pleasant-unpleasant, positive-negative, satisfying-unsatisfying, and valuable-worthless) on a 7 point scale, with higher numbers representing greater sexual and relational satisfaction. The GMSEX has been validated with the Index of Sexual Satisfaction (Hudson, Harrison, & Crosscup, 1981). The GMSEX and GMREL both demonstrated good internal consistency (.93 and .88 respectively) for this student sample, and the GMREL was used for analysis.

Depth of Relationship. The depth subscale within the Quality of Relationships Inventory (Pierce, Sarason, & Sarason, 1991) was used to measure relationship depth. This subscale contains 6 items on a 4-point Likert-type scale ranging from “not at all” to “very much”, in which the participants respond to items such as “how significant is this relationship in your life?” and “how close will your relationship be with this person in 10 years?” Internal consistency was good ($\alpha = .74$).

Procedure

Institutional Review Board approval was obtained for all procedures and data collection before the start of the proposed study. The study was posted on the UWM Psychology Department website, fliers were placed on campus bulletin boards, emails were sent to graduate student listservs, and class visits were made to deliver information about the study including the lab phone number. A link was included in all electronic and print adverts, in which interested students clicked on and submitted an interest form. The interest form asked for the student’s name, email address, acknowledgement that the student has a romantic partner who might be

willing to participate, and the name of the romantic partner. In order to participate, the index participant (the one who filled out the interest form first) must have been between the ages of 18-25, identify as male or female, and be in a romantic relationship with someone else of the opposite sex who might be willing to participate.

After meeting eligibility requirements, the index participant was sent an email with the instruction to ask his/her partner to fill out the same interest form. Once the form was completed by the partner, the two people were emailed a code to sign up for a timeslot on SONA. Both partners were given instructions to meet with a researcher in person at the same time in the researcher's lab space.

Before arriving, the dyads were randomly assigned to one of two groups by using a random number generator. The random number was used to link the data upon completion of participation. If the random number was even, the dyad was assigned to the experimental group, and if it was odd the dyad was assigned to the control condition.

Consent. When the couples arrived to the lab space during their assigned timeslot, they sat at a table in the same room and filled out consent forms. The consent form contained the details of the study in addition to the request to audio record the Date Description Task. Participants were told that the audio recording was completely optional, not a requirement for participation, and would be used primarily for record-keeping purposes. A total of 21 couples gave permission for audio recording; 10 were in the experimental group, and 11 were in the control group.

Experimental condition. After arriving for participation and signing consent forms, couples who were randomly assigned in to the experimental group remained in the same room to

complete the Date Description Task together before being separated for the survey portion of the study.

Control condition. Dyads that were randomly assigned to the control condition went through the same procedures as those assigned to the experimental condition except that the order of the procedures was different such that they completed the Date Description Task after the survey procedures to remove the impact the Task might have on the participants' survey responses.

The study took approximately 1 hour to complete, and each student participant who was eligible to do so received one hour of extra credit for participation. Additionally, every participant entered a raffle for gift cards (one \$25 gift card per person per winning couples).

Data Analysis

Data collected from dyadic partners within dating relationships were considered *non-independent* due to “voluntary linkage” (Kenny et al., 2006, p. 4). This non-independence is due to the two partners in a relationship being similar in ways not related to the study variables for reasons outside of the study. One such explanation is a “compositional effect” (Kenny, 1996; Kenny & Judd, 1986; Kenny et al., 2006, p. 5). Such effects are “expected with dating and married couples because, even before they meet, members of such couples typically are similar to one another on a wide range of variables...” (p. 5). One partner's score on a variable relating to the relationship is often related to their partner's score on the same variable. In addition, though partners will not be in the same room while completing the survey, it is possible that the knowledge of their partner's presence can influence each individual's self-report. Therefore, multilevel statistical approaches must be used in order to account for the likelihood of non-independence when analyzing dyadic data.

Dyads are deemed either “distinguishable” or “indistinguishable” for the purposes of the actor-partner interdependence model (APIM; Kenny, et al., 2006). Indistinguishable dyads are those in which one member of the dyad is not distinguishable from their partner on a meaningful characteristic that is the same distinguishing characteristic across all dyads. Distinguishable dyads are partnerships in which there is a meaningful distinguishing characteristic between the two members of the dyad and is the same characteristic across all dyads. For example, heterosexual dyads are distinguishable because one member of the dyad is a woman and one is man; therefore sex is the distinguishing characteristic across all dyads. Figure 1 illustrates the APIM for distinguishable dyads.

Measurement of Non-independence. For distinguishable dyads, the measure of non-independence is a Pearson correlation between the two members of the dyad on the same variable. There is no threshold for non-independence; however, “the absence of a significant sample correlation does not ensure independence” (Kashy & Snyder, 1995, p. 339). For romantic relationship variables such as distress, perception of closeness, and relationship satisfaction, correlations between the two partners have previously been measured as .45, .38, and .52 respectively (Kashy & Snyder, 1995; Sanchez, Phelan, Moss-Racusin, & Good, 2012), see Table 2 for non-independence for all measures.

At the beginning of the survey, each participant was given a numerical code that matched his or her partner’s numerical code. This numerical code was the first item on the electronic survey and the first item on the Date Description Task. Additionally, partners were given a “Person” identifier – either A (for men) or B (for women) which was also included in the Date Description Task and was used as a skip pattern item on the survey to differentiate whether participants completed the masculine norm conformity measure or the feminine norm conformity

measure. After completion, the data were downloaded from Qualtrics and uploaded in to SPSS. The numerical codes were used to pair the two respondents' data together and the person identifier differentiated the responses by person.

Data Preparation. After uploading into SPSS, data were recoded and reverse coded as needed. Three data points were missing from the masculine norm conformity measure, 5 data points were missing from the feminine norm conformity measure, and 2 data points from the uncertainty measure were missing; the respondents with missing data points provided responses for all other items on the scale and therefore mean replacement was use for these data. The uncertainty measure was significantly positively skewed and a log10 transformation was performed.

In order to measure non-independence, the individual data set was formatted into a dyadic set. For this format, each row represented a couple rather than an individual, and “.1” and “.2” were added to each variable label to represent the scores for each partner placed next to each other on the same row. Each variable .1 (men) was then correlated with each variable .2 (women) to measure the non-independence for that variable.

An individually formatted data set was used test Hypothesis 1. The predictor variable (whether the dyads were primed or not) was considered a level 2 variable because it described the dyad rather than the individual. This variable was effects coded (primed = 1; not primed = -1) before analysis. In addition, scores for gender norm conformity were standardized, kept separate and tested separately.

In order to test hypotheses 2-5, the individual data set was transformed in to a pairwise format to measure the APIM. For this transformation, scores for masculine norm conformity and scores for feminine norm conformity were merged in to one gender norm conformity variable

and standardized, as were all other variables. With the APIM model, predictor variables were also grand-mean centered such that the mean of each variable was 0. Dummy codes to distinguish men from women were also included in the pairwise set, so that each actor effect and each partner effect were distinguished by sex. That is to say, each effect was calculated using only half of the individual data according to which dummy code with which it was associated. Priming was also effects coded (primed = 1; non-primed = -1) and used in the APIM models as a control.

Hypothesis testing. In order to test hypothesis one, that dyads that were primed to think about the relationship before completing a questionnaire would be more likely to report higher levels of traditional gender norm conformity compared to dyads that were not primed, multilevel modeling with restricted maximum likelihood was used to estimate the effect of situational priming on gender norm conformity. The presence of the situational cue for some dyads and not others created a level 2 variable which required a multilevel modeling approach.

Hypotheses 2-5 were analyzed using the actor-partner interdependence model (APIM; Kenny, et al., 2006). With the APIM used as a framework, each member of the dyad was an actor and a partner. Each produced an “actor effect” and a “partner effect.” That is to say, each person had a continuous score on each of the measures and outcomes, and the pathway from their own predictor to their own outcome was the “actor effect,” and the pathway from their predictor to their partner’s outcome was the “partner effect.” With distinguishable dyads, the model resulted in two actor effects (one for women and one for men) and two partner effects (one for women’s relationship to men’s outcome, and one for men’s relationship to women’s outcome). Therefore, each hypothesis included a prediction of all of these effects.

Due to the dyads' distinguishability, two approaches were used to measure the APIM estimates. The intercepts, actor effects, partner effects, and residual variances for each person in each dyad could have been different because the sample consisted of two "types" of people. First, the interaction method proposed by Kenny, Kashy, and Cook (2006) was conducted for analysis with this actor-partner interdependence model. This method yielded six parameters for estimates of fixed effects (see Table 3), including whether there was a significant average actor effect, average partner effect, and whether sex moderated either effect. Next, a two-intercept model was constructed in order to measure each specific effect for the two people and test the significance of each effect. Both models were run with restricted maximum likelihood.

Power. Two main considerations for power in a multilevel model were made: first, whether there was enough power to test for non-independence, and second, what the power was for each estimate of the APIM model given sample size, alpha, and level of non-independence. According to Kenny, et al. (2006), there is "relatively little power in the tests of non-independence when that non-independence is small in size" (p. 48); however multilevel modeling should be conducted for any degree of non-independence. Specific power calculations were conducted with the use of Ackerman and Kenny's (2016) APIMPowerR application.

Results

Hypothesis 1: Dyads that are primed to think about the relationship before completing a questionnaire will be more likely to report higher levels of traditional gender norm conformity compared to dyads that are not primed.

Multilevel modeling with restricted maximum likelihood was used to estimate the effect of situational priming on gender norm conformity. Priming was not a significant predictor for feminine norm conformity, $t(33) = -.013, p = .99$ nor masculine norm conformity, $t(33) = .629, p$

= .534. Dyads that were primed ($N = 19$) did not differ from dyads that were not primed ($N = 16$). No differences were detected for scores between women who were primed ($M = 83.57$, $SD = 11.98$) and women who were not primed ($M = 83.63$, $SD = 12.00$), nor between men who were primed ($M = 57.83$, $SD = 15.33$) and men who were not primed ($M = 54.44$, $SD = 16.38$). The hypothesis was not supported.

H2: After controlling for situational context priming, those who report stronger conformity to traditional gender norms will be less likely to report relationship uncertainty and will be less likely to have partners who report relationship uncertainty.

Multilevel modeling with restricted maximum likelihood (REML) was used to estimate the APIM for relationship uncertainty predicted by gender norm conformity. Estimates indicated no significant average actor effect ($p = .465$) or average partner effect ($p = .899$). See Table 4 for all parameter estimates. The hypothesis was not supported.

H3: After controlling for situational context priming, those who report weaker conformity to traditional gender norms will be more likely to report more positive interaction communication and will have partners who report more positive interaction communication compared to those who report stronger conformity to traditional gender norms.

The same REML model was analyzed with gender norms conformity predicting positive interaction communication. There was a significant actor effect for men, $t(31) = -3.209$, $p = .003$ and the actor effect for women $t(32) = 1.88$ approached significance ($p = .07$). These two effects were significantly different from one another, $t(45.758) = -3.445$, $p = .001$. The actor effect for men was in the hypothesized direction, with those reporting stronger gender norm conformity reporting less positive interaction. For women, however, the stronger their reported gender norm

conformity, the more positive interaction communication they reported. There were no significant partner effects for this model. This hypothesis was partially supported. All model estimates are displayed in Table 5. Power estimates for significant results are listed on Table 8.

H4: After controlling for situational context priming, those who report weaker conformity to traditional gender norms will be more likely to report greater relationship satisfaction and will have partners who report greater satisfaction compared to those who report stronger adherence to traditional gender norms.

The model was analyzed with relationship satisfaction as the outcome variable for both partners. As predicted, the men's actor effect was significant, $t(31) = -2.781, p = .01$. However the actor effect for women was not significant ($p = .781$), even though the difference between the actor effect for men and women was significant, $t(51.889) = -2.072, p = .04$. As with the previous hypothesis, there were no significant partner effects; thus, this hypothesis was only partially supported. All model estimates are displayed in Table 6, with power estimates for significant results listed in Table 8.

H5: After controlling for situational context priming, those who report more positive interaction communication with their partner will be more likely to report greater relationship satisfaction and will have partners who report greater relationship satisfaction compared to those who report less positive interaction communication.

The APIM was analyzed with positive interaction communication and relationship satisfaction. Both the men's actor effect $t(31) = 2.824, p = .01$, and the women's actor effect $t(31) = 2.464, p = .02$ were significant. The more positive interaction communication was reported, the greater the relationship satisfaction. There were no significant partner effects for

this model. The hypothesis was partially supported. All model estimates are displayed in Table 7, and Table 8 includes power estimates for significant results.

Discussion

The purpose of this study was to examine how partners' gender norm conformity was related to their own and their partners' relationship satisfaction. More specifically, I aimed to prime gender norm conformity by use of a situational primer and then measure how gender norm conformity predicted each partner's relationship uncertainty, positive interaction communication, and relationship satisfaction. An actor-partner interdependence model was used in order to measure outcomes from multiple perspectives.

The results of this study were mixed. With the APIM model, the correlation between distinguishable dyad members serves as the calculation of non-independence; with these data, the expected correlations ranged between .4 and .5 given previous findings. With this sample, however, many of the variables were not significantly correlated between the two members of the couple, indicating that these couples were not as dependent as expected. For example, even the reporting of perceived relationship variables such as depth of relationship and relationship satisfaction were not correlated between men and women within dyads.

This weak evidence of non-independence is most likely the most immediate explanation for the lack of partner effects. The main predictor variable in this study was gender norm conformity, and it was not significantly correlated between partners. Additionally, although most estimates were in the hypothesized direction, the effects for men tended to be more significant. This could be due to the measure of men's gender conformity having a much larger range and variance compared to the measure of women's gender conformity.

The first hypothesis was not supported: gender norm conformity was not primed with the Date Description Task. The lack of priming effectiveness was likely due to multiple factors. First, the men in this study scored relatively average on the masculine norm conformity measure, and the women scored significantly higher on the feminine norm conformity measure. That is to say, the women in this study reported significantly more conformity to feminine gender norms than the men did to masculine norms in this study, on average. It was expected that a more conforming group and matched group of couples would participate; however, that expectation was not fulfilled in this study. Furthermore, the instructions on the Date Description Task were to discuss the relationship together for five minutes before moving on to the next portion of the task. Of the couples in the priming group who agreed to be audio recorded, very few actually completed this task as instructed (as evidenced by the recording). Those instructions were adapted from Vogel, Tucker, Wester, and Heesacker (1999) and Laner and Ventrone (1998) and the priming might have had more success if the task had been followed in the same manner. For example, participants in the previous study were given the additional instruction to discuss “any changes you want to see in the area of intimacy” (Vogel et al., 1999, p. 465), given eight minutes, and videotaped. The only task for the participants to complete in that portion of the study was the eight minute conversation before a researcher came back. In this study, the Date Description Task included a second part that the couples could skip to instead of taking the full five minutes to engage in the assigned conversation. Finally, although measures were taken to not prime the control group, participating in a couples study, arriving together, and sitting together discussing the consent form likely acted as a prime in itself. That is to say, even the most mundane procedures underscored the centrality of the couple relationship in the study.

The second hypothesis was not supported. Although both of the actor effects were in the hypothesized direction (that is, those who reported more conformity reported less uncertainty in their relationship, consistent with Vanyperen & Buunk, 1991), none of the effects were significant. One important distinction is that within the APIM model, the X variable is assumed to precede the Y variable even when no causal conclusions can be made due to lack of experimental method. The hypothesized direction was that gender conformity would predict uncertainty; it could be that those who are uncertain are motivated to adjust their behavior in to a more gender conforming way in order to reduce the uncertainty, reversing the association. Within the APIM model, this reversal could make a difference because uncertainty was much more non-independent than gender conformity; when the predictor variable is more positively correlated between partners, actor and partner coefficients could change. Additionally, some evidence suggests that interference within a relationship (when one person disrupts the actions of another) has a curvilinear relationship with intimacy, such that more interference occurs in couples with moderate intimacy compared to lower or higher levels of intimacy (Solomon & Knobloch, 2001). Interference occurs during the transition from casual to more committed relationships as partners become more interdependent with one another. In the initial stages of this transition, one partner might interfere with the plans of the other before establishing a pattern of time spent together that works for both. Prior to an established pattern, partners could experience uncertainty about their partner. In this sample, more than half of the couples had been together longer than two years, and about a quarter had been together for less than six months. This left only 4 couples who had been together between 6 months to a year, and 4 more who had been together between 1-2 years. If the sample were more evenly distributed in terms of relationship length, more couples would have been in the moderate stage of their relationship and

possibly experiencing interference from their partner. In such a scenario, the partner uncertainty measure, rather than the relationship uncertainty measure, might yield more significant associations with gender norm conformity.

Overall, the difficulty with classifying intimacy and commitment is the changing nature of relationships for college-aged men and women (Shulman & Connolly, 2013). The reporting of relationship certainty implies an intention for there to be a relationship for the foreseeable future; however, it is possible that many participants did not intend to stay in their current relationships, yet did not report them to be uncertain because there was an expectation that it was a non-committed, short-term arrangement. The social desirability of reporting relationship uncertainty while participating in a couples study with one's partner in the next room cannot be ignored either. Notably, this measure was the only one that had to be transformed due to a significant positive skew.

Men who reported greater levels of masculine norm conformity reported less positive interaction communication, as expected. This is consistent with literature in which gender role conflict is described for men, in part, by restricted emotionality (O'Neil, 2008). The measure used for masculine norm conformity (CMNI-46; Parent & Moradi, 2009) specifically includes a subscale measuring emotional control. The positive interaction items include whether or not both partners "try to discuss the problem," "express feelings to each other," and "suggest possible solutions and compromises." In order to engage in such behaviors, men would have to have a low level of restricted emotionality and be less conforming. However, women who reported greater levels of feminine norm conformity reported greater positive interaction, contrary to the hypothesis. Although female demand/male withdraw patterns of communication are more prevalent than male demand/female withdraw (Vogel, Wester, & Heesacker, 1999), those

women who engage in demand/withdraw and other unhealthy communication are most likely those who are relationships with more conforming men with more restricted emotions and therefore become frustrated and demanding alongside men who withdraw. When paired with a less conforming male partner, women might actually be using their own conformity to their advantage. In fact, the measure of feminine norm conformity includes subscales for relational norms and romantic relationship norms (CFNI-45; Parent & Moradi, 2010) and as such, women who conform more report more positive interaction communication. Although not significant, women's reports of positive interaction communication were negatively predicted by their partner's level of male norm conformity, such that those women who reported less positive interaction have partners who are more conforming to gender norms, as expected.

Similarly, men who reported greater gender norm conformity reported less relationship satisfaction. Although not significant, the women's partner effect was also negatively associated with greater levels of male gender conformity. However, women were not less satisfied, and although not significant, their partners were actually more satisfied when the women were more gender conforming. In the same way that male conformity is related to less satisfaction for both partners, women's conformity could be beneficial to relationship satisfaction when they are partnered with more egalitarian men.

Finally, both men and women reported greater relationship satisfaction when reporting more positive interaction communication as hypothesized. This is consistent with literature linking avoidance with dissatisfaction (Dailey & Palomares, 2004). This sample reported themselves to be rather certain about their relationships, which is linked with a variety of more direct and effective communication strategies (Knobloch, 2006) and ultimately satisfaction. Mindfulness is an additional mechanism by which communication is linked with relationship

satisfaction. Barnes, Brown, Krusemark, Campbell, and Rogge (2007) linked trait mindfulness with more positive communication and relationship satisfaction within college students. It could be that for this particular sample, which mostly included couples who had been together for longer than two years, partners tended to be more mindful of each other and thus engage in more positive communication, resulting in greater satisfaction with the relationship.

Limitations

This study is not without limitations. First, the power of these analyses was not sufficient to detect partner effects. While the sample size is smaller than ideal, the level of non-independence of the data also contributes power. A non-independence of .5 would produce power of .92 with only 40 dyads at the more conservative alpha of .05 (Kenny, et al., 2006). Two primary considerations are made regarding power in a multilevel analysis: first, whether there is enough power to detect non-independence, and second, what happens to power when the dyad is used as the unit of analysis rather than the individual. The dyad members in this study were not as non-independent as expected and therefore there was not sufficient power to detect the non-independence. Regardless, the data were treated as non-independent with the dyad as the unit of analysis. When this occurs, power is a function of not only the sample size, effect size, and alpha, but also it is a function of the correlation of predictor variables as well as the correlation of residuals (i.e. the non-independence of the outcome not explained by the model). For example, the analyses in which the predictor and residual non-independence is higher yields more power than models in which one or both have less non-independence for the same estimates with the same sample size. Because both levels of non-independence are lower in this sample than expected, treating the dyad as the unit of analysis rather than the individual caused the model to lose power. In individual analyses, adding more data usually helps increase the power; however

in the APIM analysis, adding more data that are not non-independent would not increase the power as much as more dependent data would.

Because this study was advertised as a couple's study within the psychology department, some potential participants might have viewed this opportunity as "couples' counseling/therapy." Indeed, several potential participants asked during in-class recruitment and via email whether the study was a therapy session and expressed interest in participating after being told it was not therapy. This is consistent with literature in which scholars indicate that more masculine men tend to be less likely to engage with mental health promoting activities, including therapy (Vogel, Heimerdinger-Edwards, Hammer, & Hubbard, 2011). In fact, many women expressed interest on the recruitment form and had male partners who, despite numerous emails, did not fill out the recruitment forms and therefore did not participate as a couple. It is unclear why those men did not fill out the recruitment form; scheduling issues, forgetting, and lack of interest could have all led to non-participation. Logically, however, many of those men whose partners wanted to participate but who did not fill out the screening form themselves would probably score on the higher end of gender norm conformity and were likely not interested in participating.

Finally, this study is not generalizable to other populations. The sample recruited was comprised mostly of Caucasian couples who had been together for longer than two years. A more varied sample comprised of couples at earlier stages in their relationship could have made a difference in the congruency of gender norm conformity; that is to say, couples at earlier relationship stages could have been comprised of partners who both reported more gender norm conformity.

Implications and Future Directions

The results regarding communication patterns are a useful tool for therapists working with couples at the early stages of their relationship, as communication avoidance increases over the years with married couples (Holley, Haase, & Levenson, 2013). If maladaptive patterns are changed into more healthy and effective strategies, the avoidance strategy can be prevented earlier, leading to more satisfaction with the relationship. Those who are more satisfied in their relationships enjoy better physical and mental health and overall life satisfaction (Kiecolt-Glaser & Newton, 2001; Beach & O'Leary, 1993; Holt-Lunstad, Birmingham, & Jones, 2008).

Extending the current study, one next step would be to manipulate the situational primer such that participants must work together to supply written answers during the discussion portion of the task, which would help keep the participants actively on task. Additionally, a task could be added in which couples solve a problem together, with third party observations made of the couple's communication behavior using an established coding system such as Gottman's Specific Affect Coding System (SPAFF; Gottman, McCoy, Coan, & Collier, 1996). The reliance of this study on self-reported communication patterns might not be accurate, as some individuals might not recognize patterns in themselves. Participants should be asked about their expectations with the current relationship rather than their level of uncertainty; they could be certain that the relationship is not going to be a long-term relationship and therefore their responses could indicate a deep, committed short-term relationship. Furthermore, the conformity to masculine norms inventory used contains many subscales that are probably more directly related to these hypotheses rather than the full scale. For example, women partnered with men who report higher levels of emotional control and power over women might report worse communication and satisfaction. Finally, given these data were collected in a lab environment using a cross-sectional design, another potential next step would be to recollect these data from individuals online and

measure the consistency with which they respond to the same items in different environments at different points in time. The self-reported level of intimacy, communication, and satisfaction could fluctuate day to day or with the changing levels of stress that college students are under throughout each semester.

Despite only partial support for most of the hypotheses, this research still provides useful implications. First, this is the first study known to include a situational primer that is controlled for in a subsequent multilevel analyses, which is important given the contextual nature of gendered behavior. The use of a model such as the APIM greatly benefits the body of literature regarding couples because of the ability to test for partner effects within couples who participate rather than collecting data from an individual about the perceptions of his or her relationship. This study is one of only a few to utilize the APIM model within a non-married college sample. Furthermore, the hypotheses linking masculine norm conformity to less positive interaction and less relationship satisfaction were supported, consistent with previous literature. For both partners, reports of positive interaction were significantly related to relationship satisfaction.

References

- Ackerman, R. A., & Kenny, D. A. (2016, April). APIMPowerR: An interactive tool for Actor-Partner Interdependence Model power analysis [Computer software]. Available from <https://robert-a-ackerman.shinyapps.io/APIMPowerRdis/>
- Addis, M. E., & Mahalik, J. R. (2003). Men, masculinity, and the contexts of help seeking. *American Psychologist, 58*, 5-14.
- Barnes, S., Brown, K. W., Krusemark, E., Campbell, W. K., & Rogge, R. D. (2007). The role of mindfulness in romantic relationship satisfaction and responses to relationship stress. *Journal of Marital and Family Therapy, 33*(4), 482-500.
- Baucom, B. R., Atkins, D. C., Eldridge, K., McFarland, P., Sevier, M., & Christensen, A. (2011). The language of demand/withdraw: Verbal and vocal expression in dyadic interactions. *Journal of Family Psychology, 25*(4), 570-580.
- Beach, S. R., & O'Leary, K. D. (1993). Marital discord and dysphoria: For whom does the marital relationship predict depressive symptomatology? *Journal of Social and Personal Relationships, 10*(3), 405-420.
- Bem, S. L. (1974). The measure of psychological androgyny. *Journal of Consulting and Clinical Psychology, 42*, 155-162.
- Berger, C. R., & Calabrese, R. (1975). Some explorations in initial interaction and beyond: Toward a developmental theory of interpersonal communication. *Human Communication Research, 1*, 99-112.
- Brannon, R., & Juni, S. (1984). *A scale for measuring attitudes about masculinity*. American Psychological Association. Journal Supplement Abstract Service.

- Burns, S. M., & Ward, A. Z. (2005). Men's conformity to traditional masculinity and relationship satisfaction. *Psychology of Men & Masculinity*, 6(4), 254-263.
- Buss, D. M. (1990). Unmitigated agency and unmitigated communion: An analysis of the negative components of masculinity and femininity. *Sex Roles*, 22(9/10), 555-568.
- Catania, J. A. (1998). Dyadic sexual communication scale. *Handbook of sexuality related measures*, 129-131.
- Caughlin, J. P. (2002). The demand/withdraw pattern of communication as a predictor of marital satisfaction over time. *Human Communication Research*, 28(1), 49-85.
- Caughlin, J. P., & Vangelisti, A. L. (1999). Desire for change in one's partner as a predictor of the demand/withdraw pattern of marital communication. *Communication Monographs*, 66, 66-89.
- Christensen, A. (1987). Detection of conflict patterns in couples. In K. Hahlwed & M. J. Goldstein (Eds.), *Understanding major mental disorders: The contribution of family interaction research* (pp. 250-265). New York: Family Process Press.
- Christensen, A. (1988). Dysfunctional interaction patterns in couples. In P. Noller & M. A. Fitzpatrick (Eds.), *Perspectives on marital interaction* (pp. 31-52). Clevedon, England: Multilingual Matters.
- Christensen, A., & Heavy, C. L. (1990). Gender and social structure in the demand/withdraw pattern of marital conflict. *Journal of Personality and Social Psychology*, 59, 73-81.
- Connell, R. W. (1987). *Gender and power: Society, the person and sexual politics*. Cambridge: Polity Press.

- Danoff-Burg, S., Mosher, C. E., & Grant, C. A. (2006). Relations of agentic and communal personality traits to health behavior and substance use among college students. *Personality and Individual Differences, 40*(2), 353-363.
- Deaux, K., & Lewis, L. L. (1984). The structure of gender stereotypes: Interrelationships among components and gender labels. *Journal of Personality and Social Psychology, 46*, 991-1004.
- Dovidio, J. F., Brown, C. E., Heltman, K., Ellyson, S. L., & Keating, C. F. (1988). Power displays between women and men in discussions of gender-linked tasks: A multichannel study. *Journal of Personality and Social Psychology, 55*(4), 580-587.
- Dworkin, S. L., & O'Sullivan, L. (2005). Actual versus desired initiation patterns among a sample of college men: Tapping disjunctures within traditional male sexual scripts. *The Journal of Sex Research, 42*(2), 150-158.
- Eldridge, K. A., & Christensen, A. (2002). Demand/withdraw communication during couple conflict: A review and analysis. In P. Noller & J. A. Feeney (Eds.), *Understanding marriage: Developments in the study of couple interaction* (pp. 289-322). New York: Cambridge University Press.
- Fischer, A. R., Tokar, D. M., Merl, M. M., Good, G. E., Hill, M. S., & Blum, S. A. (2000). Assessing women's feminist identity development: Studies of convergent, discriminant, and structural validity. *Psychology of Women Quarterly, 24*, 15-29.
- Gagnon, J. H., & Simon, W. (1973). *Sexual conduct: The social origins of human sexuality*. Chicago: Aldine.

- Gottman, J. M., McCoy, K., Coan, J., & Collier, H. (1996). The Specific Affect Coding System (SPAFF) for observing emotional communication in marital and family interaction. In J. M. Gottman (Ed.), *What predicts divorce? The Measures*. Mahwah, NJ: Erlbaum.
- Helgeson, V. S., & Fritz, H. L. (1999). Unmitigated agency and unmitigated communion: Distinctions from agency and communion. *Journal of Research in Personality, 33*(2), 131-158.
- Helgeson, V. S., & Fritz, H. L. (2000). The implications of unmitigated agency and unmitigated communion for domains of problem behavior. *Journal of Personality, 68*(6), 1031-1057.
- Hendrick, S. S. (1981). Self-disclosure and marital satisfaction. *Journal of Personality and Social Psychology, 40*, 1150-1159.
- Hendrick, S. S., Dicke, A., & Hendrick, C. (1998). The Relationship Assessment Scale. *Journal of Social and Personal Relationships, 15*, 137-142.
- Holley, S. R., Haase, C. M., & Levenson, R. W. (2013). Age related changes in demand-withdraw communication behaviors. *Journal of Marriage and Family, 75*, 822-836.
- Holt-Lunstad, J., Birmingham, W., & Jones, B. Q. (2008). Is there something unique about marriage? The impact of marital status, relationship quality, and network social support on ambulatory blood pressure and mental health. *Annals of Behavioral Medicine, 35*(2), 239-244.
- Hudson, W. W., Harrison, D. F., & Crosscup, P. C. (1981). A short-form scale to measure sexual discord in dyadic relationships. *Journal of Sex Research, 17*, 157-174.
- Impett, E. A., & Peplau, L. A. (2003). Sexual compliance: Gender, motivational, and relationship perspectives. *Journal of Sex Research, 40*, 87-100.

- Impett, E. A., Schooler D., & Tolman, D. L. (2006). To be seen and not heard: Femininity ideology and adolescent girls' sexual health. *Archives of Sexual Behavior, 35*(2), 129-142.
- Jacobson, N. S. (1990). Contributions from psychology to an understanding of marriage. In F. D. Finchman & T. N. Bradbury (Eds.), *The psychology of marriage* (pp. 258-275). New York: Guilford Press.
- Kaestle, C. E. (2009). Sexual insistence and disliked sexual activities in young adulthood: Differences by gender and relationship characteristics. *Perspectives on Sexual and Reproductive Health, 41*(1), 33-39.
- Kashy, D. A., & Snyder, D. K. (1995). Measurement and data analytic issues in couples research. *Psychological Assessment, 7*(3) 338-348.
- Kenny, D. A. (1996). Models of non-independence in dyadic research. *Journal of Social and Personal Relationships, 13*, 279-294.
- Kenny, D. A., & Judd, C. M. (1986). A general procedure for the estimation of interdependence. *Psychological Bulletin, 119*, 138-148.
- Kenny, D. A., Kashy, D. A., & Cook, W. L. (2006). *Dyadic data analysis*. New York: The Guilford Press.
- Kiecolt-Glaser, J. K., & Newton, T. L. (2001). Marriage and health: His and hers. *Psychological Bulletin, 127*(4), 472-503.
- Kiefer, A. K., & Sanchez, D. T. (2007). Scripting sexual passivity: A gender role perspective. *Personal Relationships, 14*(2), 269-290.
- Knobloch, L. K. (2006). Relational uncertainty and message production within courtship: Features of date request messages. *Human Communication Research, 32*(3), 244-273.

- Knobloch, L. K. (2007). Perceptions of turmoil within courtship: Associations with intimacy, relational uncertainty, and interference from partners. *Journal of Social and Personal Relationships, 24*(3), 363-384.
- Knobloch, L. K., & Carpenter-Theune, K. E. (2004). Topic avoidance in developing romantic relationships: Associations with intimacy and relational uncertainty. *Communication Research, 31*(2), 173-205.
- Knobloch, L. K., & Solomon, D. H. (1999). Measuring the sources and content of relational uncertainty. *Communication Studies, 50*(4), 261-278.
- Knobloch, L. K., & Solomon, D. H. (2005). Relational uncertainty and relational information processing: Questions without answers? *Communication Research, 32*(3), 349-388.
- Korobov, N., & Thorne, A. (2009). The negotiation of compulsory romance in young women friends' stories about romantic heterosexual experiences. *Feminism & Psychology, 19*(1), 49-70.
- Laner, M. R., & Ventrone, N. A. (1998). Egalitarian daters/traditionalist dates. *Journal of Family Issues, 19*, 468-477.
- Laner, M. R., & Ventrone, N. A. (2000). Dating scripts revisited. *Journal of Family Issues, 21*(4), 488-500.
- Lawrance, K. A., Byers, E. S., & Cohen, J. (1998). Interpersonal exchange model of sexual satisfaction questionnaire. *Sexuality related measures: A compendium, 2*, 525-530.
- Levant, R. F., Hirsch, L., Celentano, E., Cozza, T., Hill, S., MacEachern, M., et al. (1992). The male role: An investigation of contemporary norms. *Journal of Mental Health Counseling, 14*, 325-337.

- Mahalik, J. R., Burns, S. M., & Syzdek, M. (2007). Masculinity and perceived normative health behaviors as predictors of mens' health behaviors. *Social Science & Medicine*, 64, 2201-2209.
- Mahalik, J. R., Locke, B. D., Ludlow, L. H., Diemer, M. A., Scott, R. P., Gottfried, M., & Freitas, G. (2003). Development of the conformity to masculine norms inventory. *Psychology of Men & Masculinity*, 4(1), 3-25.
- Mahalik, J. R., Morray, E. B., Coonerty-Femiano, A., Ludlow, L. H., Slattery, S., & Smiler, A. (2005). Development of the conformity to feminine norms inventory. *Sex Roles*, 52(7/8), 417-435.
- Mark, K. P., & Jozkowski, K. N. (2013). The mediating role of sexual and nonsexual communication between relationship and sexual satisfaction in a sample of college-age heterosexual couples. *Journal of Sex & Marital Therapy*, 39(5), 410-427.
- Martin, J. L. (1996). Structuring the sexual revolution. *Theory and Society*, 25(1), 105-151.
- McGinn, M. M., McFarland, P. T., & Christensen, A. (2009). Antecedents and consequences of demand/withdraw. *Journal of Family Psychology*, 23(5), 749-757.
- Meeks, B. S., Hendrick, S. S., & Hendrick, C. (1998). Communication, love, and relationship satisfaction. *Journal of Social and Personal Relationships*, 15(6), 755-773.
- Meredith, W. H., Abbott, D. A., & Adams, S. L. (1986). Family violence: Its relation to marital and parental satisfaction and family strengths. *Journal of Family Violence*, 1(4), 299-305.
- Moss-Racusin, C. A., Phelan, J. E., & Rudman, L. A. (2010). When men break gender rules: Status incongruity and backlash against modest men. *Psychology of Men & Masculinity*, 11(2), 140-151.

- Mussweiler, T., & Förster, J. (2000). The sex → aggression link: A perception-behavior dissociation. *Journal of Personality and Social Psychology*, 79(4), 507-520.
- O'Neil, J. M. (2008). Summarizing 25 years of research on men's gender role conflict using the Gender Role Conflict Scale: New research paradigms and clinical implications. *The Counseling Psychologist*, 36, 358-445.
- O'Neil, J. M., Helms, B., Gable, R., David, L., & Wrightsman, L. (1986). Gender Role Conflict Scale: College men's fear of femininity. *Sex Roles*, 14, 335-350.
- O'Riordan, C. K. (2007). Examining the communication of personal commitment: An actor-partner interdependence model analysis. *Southern Communication Journal*, 72, 229-245.
- O'Sullivan, L. F., & Allgeier, E. R. (1998). Feigning sexual desire: Consenting to unwanted sexual activity in heterosexual dating relationships. *Journal of Sex Research*, 35, 234-243.
- Parent, M. C., & Moradi, B. (2009). Confirmatory factor analysis of the Conformity to Masculine Norms Inventory and the development of the CMNI-46. *Psychology of Men and Masculinity*, 10, 175-189.
- Parent, M. C., & Moradi, B. (2010). Confirmatory factor analysis of the Conformity to Feminine Norms Inventory and development of an abbreviated version: The CFNI-45. *Psychology of Women Quarterly*, 34(1), 97-109.
- Pellegrini, A. D., & Bartini, M. (2001). Dominance in early adolescent boys: Affiliative and aggressive dimensions and possible functions. *Merrill-Palmer Quarterly*, 47(1), 142-163.
- Pierce, G. R., Sarason, I. G., & Sarason, B. R. (1991). General and relationship-based perceptions of social support: Are two constructs better than one? *Journal of Personality and Social Psychology*, 61, 1028-1039.

- Pleck, J. H. (1981). *The myth of masculinity*. Cambridge, MA: MIT Press.
- Pruchno, R., Wilson-Genderson, M., & Cartwright, F. P. (2009). Depressive symptoms and marital satisfaction in the context of chronic disease: A longitudinal dyadic analysis. *Journal of Family Psychology, 23*(4), 573-584.
- Sanchez, D. T., Phelan, J. E., Moss-Racusin, C. A., & Good, J. J. (2012). The Gender Role Motivation Model of women's sexually submissive behavior and satisfaction in heterosexual couples. *Personality and Social Psychology Bulletin, 38*(4), 528-539.
- Seal, D. W., Smith, M., Coley, B., Perry, J., & Gamez, M. (2008). Urban heterosexual couples' sexual scripts for three shared sexual experiences. *Sex Roles, 58*, 626-638.
- Shotland, R. L., & Hunter, B. A. (1995). Women's token resistant and compliant sexual behaviors are related to uncertain sexual intentions and rape. *Personality and Social Psychology Bulletin, 21*, 226-236.
- Shulman, S., & Connolly, J. (2013). The challenge of romantic relationships in emerging adulthood: Reconceptualization of the field. *Emerging Adulthood, 1*(1), 27-39.
- Simon, W., & Gagnon, J. H. (1984). Sexual scripts. *Society, 53*-60.
- Solomon, D. H., & Knobloch, L. K. (2001). Relationship uncertainty, partner interference, and intimacy within dating relationships. *Journal of Social and Personal Relationships, 18*(6), 804-820.
- Suarez-Al-Adam, M., Raffaelli, M., & O'Leary, A. (2000). Influence of sexual abuse and partner hypermasculinity on the sexual behavior of Latinas. *AIDS Education & Prevention, 12*, 263-274.
- Tannen, D. (1990). *You just don't understand: Women and men in conversation*. New York: Ballantine Books.

- Theiss, J. A. (2011). Modeling dyadic effects in the associations between relational uncertainty, sexual communication, and sexual satisfaction for husbands and wives. *Communication Research, 38*(4), 565-584.
- Tolman, D. L. (2002). *Dilemmas of desire: Teenage girls talk about sexuality*. Cambridge, MA: Harvard University Press.
- VanderLaan, D. P., & Vasey, P. L. (2009). Patterns of sexual coercion in heterosexual and non-heterosexual men and women. *Archives of Sexual Behavior, 38*, 987-999.
- Vannier, S. A., & O'Sullivan, L. F. (2009). Sex without desire: Characteristics of occasions of sexual compliance in young adults' committed relationships. *Journal of Sex Research, 46*, 1-11.
- Vannier, S. A., & O'Sullivan, L. F. (2011). Communicating interest in sex: Verbal and nonverbal initial of sexual activity in young adults' romantic dating relationships. *Archives of Sexual Behavior, 40*, 961-969.
- Vanyperen, N. W., & Buunk, B. P. (1991). Sex-role attitudes, social comparison, and satisfaction within relationships. *Social Psychology Quarterly, 54*(2), 169-180.
- Vogel, D. L., Heimerdinger-Edwards, S. R., Hammer, J. H., & Hubbard, A. (2011). "Boys don't cry": Examination of the links between endorsement of masculine norms, self-stigma, and help-seeking attitudes for men from diverse backgrounds. *Journal of Counseling Psychology, 58*(3), 368-382.
- Vogel, D. L., Tucker, C. M., Wester, S. R., & Heesacker, M. (1999). The impact of sex and situational cues on the endorsement of traditional gender-role attitudes and behaviors in dating couples. *Journal of Social and Personal Relationships, 16*(4), 459-473.

- Vogel, D. L., Wester, S. R., & Heesacker, M. (1999). Dating relationships and the demand/withdraw pattern of communication. *Sex Roles, 41*(3/4), 297-306.
- Weigel, D. J., Brown, C., & O'Riordan, C. K. (2011). Everyday expressions of commitment and relational uncertainty as predictors of relationship quality and stability over time. *Communication Reports, 24*(1), 38-50.
- Wester, S. R., Vogel, D. L., O'Neil, J. M., & Danforth, L. (2012). Development and evaluation of the Gender Role Conflict Scale Short Form (GRCS-SF). *Psychology of Men & Masculinity, 13*(2), 199-210.
- Whisman, M. A., Uebelacker, L. A., & Weinstock, L. M. (2004). Psychopathology and marital satisfaction: The importance of evaluating both partners. *Journal of Consulting and Clinical Psychology, 72*(5), 830-838.
- Wiederman, M. W. (2005). The gendered nature of sexual scripts. *The Family Journal, 13*(4), 496-502.
- Williams, J. E., & Best, D. L. (1982). *Measuring sex stereotypes: A multinational study*. Newbury Park, CA: Sage.
- Zacchilli, T. L., Hendrick, C., & Hendrick, S. S. (2009). The romantic partner conflict scale: A new scale to measure relationship conflict. *Journal of Social and Personal Relationships, 26*(8), 1073-1096.

Table 1

Internal consistency for all measures

Scale	α
Total Conformity to Masculine Norms	.92
Winning	.80
Emotional control	.93
Risk-taking	.69
Violence	.87
Power over women	.71
Playboy	.77
Self-reliance	.90
Primacy of work	.68
Heterosexual self-presentation	.91
Total Conformity to Feminine Norms	.84
Thinness	.84
Domestic	.85
Investment in appearance	.82
Modesty	.71
Relational	.85
Involvement with children	.92
Sexual fidelity	.71
Romantic relationship	.72
Sweet and nice	.75

Depth of Relationship	.74
Uncertainty (Relationship)	.94
Uncertainty (Self)	.96
Uncertainty (Partner)	.94
Female demand/Male withdraw	.71
Male demand/Female withdraw	.60
Total demand/withdraw communication	.74
Overall positive interaction	.68
Relationship satisfaction	.88
Sexual relationship satisfaction	.93

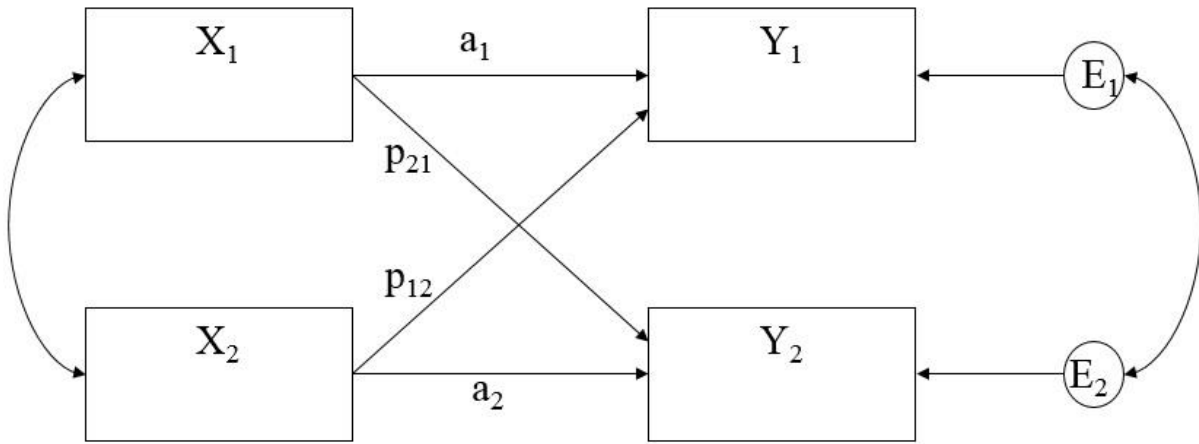


Figure 1. The Actor-Partner Interdependence Model (APIM; Kenny, et al., 2006). a_1 and a_2 represent the two individual actor effects; p_1 and p_2 represent the two partner effects; X_1 and X_2 represent the predictor variable for each member of the dyad; Y_1 and Y_2 are the outcome variables for each member of the dyad. E_1 and E_2 are the residuals for each outcome.

Table 2

Measure of non-independence for each variable

Measure	r
Gender norm conformity	.268 (p = .120)
Uncertainty (self)	.037 (p = .834)
Uncertainty (partner)	.219 (p = .206)
Uncertainty (relationship)	.491 (p = .003)
Communication (Male Demand/Female Withdraw)	.352 (p = .038)
Communication (Female Demand/Male Withdraw)	.439 (p = .008)
Communication (Positive Interaction)	.312 (p = .069)
Communication (Total Demand/Withdraw)	.370 (p = .029)
Satisfaction (relationship)	.183 (p = .293)
Satisfaction (sexual relationship)	.469 (p = .004)
Depth of relationship	.143 (p = .420)

Table 3

Estimates of fixed effects using the interaction method to estimate the APIM

Parameter	Definition
b_0	Intercept. It is the grand mean for the outcome scores for men and women who have average gender norm conformity.
b_1	The gender difference on the outcome variable. With effects coding, if it is positive, it indicates that men have a greater score on the outcome measure compared to women. This indicates whether there are mean-level differences.
b_2	The average actor effect.
b_3	The average partner effect.
b_4	The gender difference for the actor effect. This tells whether gender moderates the actor effect.
b_5	The gender difference for the partner effect. This tells whether gender moderates the partner effect.

Table 4

Parameter estimates for hypothesis 2

Parameter	Estimate	Std. Error	<i>df</i>	<i>t</i>	<i>P</i>
Men Actor	-.03	.26	31	-.12	.91
Women Actor	-.20	.25	31	-.82	.42
(Women to) Men Partner	-.11	.35	31	-.32	.75
(Men to) Women Partner	.06	.19	31	.31	.76

Table 5

Parameter estimates for hypothesis 3

Parameter	Estimate	Std. Error	<i>df</i>	<i>t</i>	<i>P</i>
Men Actor	-.72	.26	31	-3.21	.003
Women Actor	.45	.24	31	1.88	.07
(Women to) Men Partner	-.07	.30	31	-.24	.81
(Men to) Women Partner	-.12	.18	31	-.69	.50

Table 6

Parameter estimates for hypothesis 4

Parameter	Estimate	Std. Error	<i>df</i>	<i>t</i>	<i>P</i>
Men Actor	-.67	.24	31	-2.78	.009
Women Actor	.07	.25	31	.28	.78
(Women to) Men Partner	.22	.32	31	.71	.48
(Men to) Women Partner	-.04	.19	31	-.21	.84

Table 7

Parameter estimates for hypothesis 5

Parameter	Estimate	Std. Error	<i>df</i>	<i>t</i>	<i>P</i>
Men Actor	.46	.16	31	2.82	.008
Women Actor	.42	.17	31	2.46	.02
(Women to) Men Partner	.20	.23	31	.90	.38
(Men to) Women Partner	.04	.12	31	.30	.77

Table 8

Power estimates for significant results

Parameter	Predictor	Outcome	Estimate	<i>p</i>	Power
Actor effect (men)	Gender norm conformity	Positive interaction	-.72	.003	~1
Actor effect (women)	Gender norm conformity	Positive interaction	.45	.07	.943
Actor effect (men)	Gender norm conformity	Relationship satisfaction	-.67	.009	.97
Actor effect (men)	Positive interaction	Relationship satisfaction	.46	.008	.83
Actor effect (women)	Positive interaction	Relationship satisfaction	.42	.02	.76

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EDUCATION

- | | | |
|-------|---|---------------|
| Ph.D. | University of Wisconsin – Milwaukee
Major: Experimental Health and Social Psychology | August 2016 |
| M.A. | Texas A&M University – Corpus Christi
Major: Psychology | May 2010 |
| B.A. | Texas A&M University – Corpus Christi
Majors: Psychology and Media Communication | December 2006 |

RESEARCH EXPERIENCE

Graduate Research Assistant

Patient Advocacy and Research Lab

University of Wisconsin - Milwaukee

August 2012 - present

- Managed quantitative data sets, prepared and presented data at conferences, coded qualitative data, mentored undergraduate students with individual research projects and SPSS, conducted literature reviews, edited manuscripts for lab colleagues, recruited participants and collected data
Supervisor: Katie Mosack, Ph.D.

Texas A&M University – Corpus Christi

August 2007 – May 2010

- Assisted with health research projects, collected/analyzed data, assisted with literature reviews, assisted with conference presentation preparation
Supervisor: Pamela Brouillard, Psy.D.

PUBLICATIONS

Mosack, K.E., Rafferty, K.A., **Billig, A.K.**, Wendorf, A.R., Brouwer, A.M., & Stevens, P. (April 29, 2015, in press). An examination of actor-partner social support effects on HIV-related problems and interpersonal outcomes among a sample of HIV-positive African American dyads. *Cultural Diversity and Ethnic Minority Psychology*.

- Managed quantitative data files, aggregated data and analyzed results using multilevel modeling statistical techniques, conducted reliability testing for measures, wrote results section, and edited entire manuscript.

Becker, K. A., **Billig, A. K.**, & Mosack, K. E. (2014). Spirituality, religion, and health: The role of communication, appraisals, and coping process for individuals living with chronic illness. *Journal of Religion and Health, 53*(5).

- Managed quantitative data files, aggregated data and conducted bivariate statistical tests and mediation analysis, conducted reliability testing for measures, wrote quantitative results, and edited entire manuscript.

ORAL PAPER PRESENTATIONS

Billig, A. K., Sullivan, S. L., & Mosack, K. E. (2015, May). "Talk about awkward!": Barriers to sexual communication among young adults. Paper presented at the Midwestern Psychological Association annual Conference, Chicago, IL.

Mosack, K.E., Becker, K., **Billig, A.K.**, Wendorf, A. R., Brouwer, A.M., Thomas, C., & Stevens, P.E. (2014, November). HIV in a relational context: Understanding social support among HIV-infected African American dyads. Paper presented at the American Public Health Association annual Conference, New Orleans, LA.

Billig, A., Wendorf, A., Brouwer, A. M., Thomas, C., Wandrey, R., & Mosack, K. E. (2013, November). Effects of partner support on relationship conflict and depression among HIV-positive dyads. Paper presented at the American Public Health Association annual Conference, Boston, MA.

Billig, A. (2010, April). Gender roles as predictors of risky sexual behaviors. Paper presented at the 4th Annual Graduate Scholarly Works Symposium, Corpus Christi, Texas.

Billig, A., & Brouillard, P. (2010, April). Gender concepts as moderators of sexual behavior. Paper presented at the annual meeting of the Southwestern Psychological Association, Dallas, Texas.

Billig, A., Ryon, H., & Brouillard, P. (2008, May). Satisfaction among young adults: A study examining experiences and attitudes between college students from Croatia and the United States. Paper presented at the Second International Student Symposium on Contemporary Adolescent Sexualities, Groznjan, Croatia.

Ryon, H., **Billig, A.**, & Brouillard, P. (2008, May). Pornography and the sexual socialization of young adults: Ethnic and gender in a United States regional sample. Paper presented at the Second International Student Symposium on Contemporary Adolescent Sexualities, Groznjan, Croatia.

POSTER PRESENTATIONS

Gracian, E.I., Austiff, M.B., **Billig, A.K.**, Wandrey, R.L., de St. Aubin, E., & Mosack, K.E. (2015, May). Big personality traits, religiosity, and conservative beliefs are not uniformly related to negative attitudes about gay men in two samples from a mid-size Midwestern city. Association for Psychological Science Convention, New York, NY.

Zander, R., **Billig, A. K.**, & Mosack, K. (2015, May). Couples conflict: Gender differences in sexual decision-making and satisfaction. Poster presented at the Midwestern Psychological Association annual conference, Chicago, IL.

Billig, A. K., Wandrey, R., Wendorf, A., Brouwer, A., Becker, K., & Mosack, K. (2014, May). The relationship between stress, drinking, and depression within seroconcordant dyads. Poster presented at the Association for Psychological Science annual conference, San Francisco, CA.

Billig, A. K., Lewis, C., Wendorf, A., Brouwer, A., Wandrey, R., Becker, K., Safavi, M., & Mosack, K. (2014, May). Stress, social support, and the Actor-Partner Interdependence Model. Poster presented at the Midwestern Psychological Association annual conference, Chicago, IL.

Lewis, C., & **Billig, A. K.** (2014, May). The relationship between shared perception of treatment adherence and psychosocial factors within HIV-positive African American dyads. Poster presented at the Midwestern Psychological Association annual conference, Chicago, IL.

Mosack, K.E., Hodge, M., & **Billig, A.K.** (2014, January). Using Facebook to illustrate observational research methods in an on-line Research Methods course: Lessons from cyberspace. Poster presented at the annual meeting of the National Institute on the Teaching of Psychology, St. Pete's Beach, FL.

Wendorf, A., Thomas, C., Stevens, P., Wandrey, R., **Billig, A.**, & Mosack, K. (2013, August). Understanding HIV-related problems in the context of shared illness. Poster presented at the American Psychological Association Annual meeting, Honolulu, HI.

Billig, A. K., Brouwer, A., Wendorf, A. R., Thomas, C., Ollinger, R., Wandrey, R., Becker, K., & Mosack, K. E. (2013, May). Social support, perceived stress, depression, and anxiety among HIV-positive dyads. Poster presented at the annual meeting of the Midwestern Psychological Association, Chicago, IL.

Billig, A., & Brouillard, P. (2011, January). Gender identity and sexual risk-taking. Poster presented at the annual meeting of the Society for Personality and Social Psychology, San Antonio, Texas.

Brouillard, P., & **Billig, A.** (2011, January). Gender roles, narcissism and sexual satisfaction. Poster presented at the annual meeting of the Society for Personality and Social Psychology, San Antonio, TX.

Billig, A., & Brouillard, P. (2009, April). Sexual satisfaction: A cross-cultural comparison. Poster presented at the annual meeting of the Southwestern Psychological Association, San Antonio, TX.

TEXTBOOK EXPERIENCE

Editorial and Research Assistant

August 2009 – August 2010

Texas A&M University – Corpus Christi

Supervisor: Kelly Quintanilla

- Assisted with textbook production, including managing images and permissions used in text, compiling additional resources included in chapters, and creating chapter outlines, test files, and lecture slides.

Quintanilla, K. M., & Wahl, S.T. (2011). *Business and professional communication: Keys for workplace excellence*. Thousand Oaks, CA: Sage.

Editorial and Research Assistant

August 2007 – August 2008

Texas A&M University – Corpus Christi

Supervisor: Shawn Wahl

- Assisted with textbook production, including photography for images used in text, managing permissions for all photos, compiling additional resources included in chapters, and creating chapter outlines, test files, and lecture slides.

Ivy, D. K., & Wahl, S. T. (2008). *The nonverbal self: Communication for a lifetime*. Boston: Allyn & Bacon.

TEACHING EXPERIENCE

Associate Lecturer (Instructor on Record)

University of Wisconsin – Milwaukee

June 2015 – May 2016

- Health Psychology (online)
- Introduction to Psychology (face to face)

Graduate Teaching Assistant Coordinator

University of Wisconsin – Milwaukee

January 2016 – May 2016

- Undergraduate Research Methods (face to face)

Graduate Teaching Assistant

University of Wisconsin – Milwaukee

August 2012 – May 2016

- Undergraduate Research Methods (online)
- Undergraduate Research Methods (face to face)

Adjunct Instructor (Instructor on Record)

Texas A&M University – Corpus Christi

August 2010 – May 2012

- Lifespan Developmental Psychology (6 sections)
- Social Psychology (1 section)
- Freshman Seminar (12 sections)

Faculty Fellow

Texas A&M University – Corpus Christi
GEAR-UP Program

January 2011 – June 2011

- Created college presentations and summer activities for high school students

Instructor

Texas A&M University – Corpus Christi
Upward Bound Summer Program

June 2010 – July 2010

- Created presentations for high school students
- Taught courses in psychology, sociology, and study skills

Graduate Teaching Assistant

Texas A&M University – Corpus Christi

August 2008 – May 2012

- Undergraduate Abnormal Psychology
- Undergraduate Drug Use and Abuse

Undergraduate Assistant

Texas A&M University – Corpus Christi

May 2006 – May 2007

- Created reports for retention specialist
- Met with undergraduate students and created retention plans

OTHER RELEVANT EMPLOYMENT HISTORY

Graduate Data Analyst/Researcher

University of Wisconsin – Milwaukee

October 2014 – August 2015

National Research Center for Distance Education and Technological Advancements

- Prepare presentations, assemble quantitative research guides for use in toolkits, assist with manuscript writing, literature reviews

Graduate Data Analyst/Researcher

University of Wisconsin – Milwaukee

January 2014 – August 2015

E-Learning Research and Development

- Collected and analyzed quantitative data investigating the relationship between open education resources (OER) and student outcomes
- Assisted with manuscript and presentation preparation
- Provided substantial contributions to the following grant proposals:
 - Awarded \$1.48M grant from U.S. Department of Education to establish the National Research Center for Distance Education and Technological Advancements
 - Awaiting decision for \$4M U.S. Department of Education College Completion Grant
 - Awaiting decision for \$10M U.S. Department of Education Virtual Learning Lab Grant

Academic Advisor

September 2011 – July 2012

Texas A&M University – Corpus Christi

- Created degree plans for undergraduate psychology students
- Counseled students on graduate school options and admissions procedures
- Assisted students with course selection

Certified Prevention Specialist

January 2007 – August 2008

Coastal Bend AIDS Foundation

- Presented education programs to students from elementary to high school
- Created fundraising prevention events
- Recruited local business to take part in community events
- Wrote grants to fund community events

HONORS

- 2013 UWM Women's Studies Graduate Student Research Paper Award – 2nd Place
- 2012 Chancellor's Graduate Student Award, UW – Milwaukee
- 2010 Outstanding Islander Award, Texas A&M University-Corpus Christi
- 2007 Star Performer Award, August 2007, Coastal Bend AIDS Foundation
- Dean's List: Spring 2003, Fall 2005, Spring 2006

PROFESSIONAL AFFILIATIONS

- Association for Psychological Science, Student Member, 2014
- American Public Health Association, Student Member, 2013
- Midwestern Psychological Association, Student Member, 2013
- Sigma Xi, Student Member, 2013
- Society for Personality and Social Psychology, Member, 2011
- Southwest Psychological Association, Member, 2008
- American Psychological Association, Student Affiliate Member, 2008
- Psi Chi Psychology Honor Society, Member, 2006
- Lambda Pi Eta Communication Honor Society, Member, 2005
- Sigma Alpha Iota, Charter Member, 2004