NEWLYWED COUPLES’ MARITAL SATISFACTION AND PATTERNS OF CORTISOL REACTIVITY AND RECOVERY AS A RESPONSE TO DIFFERENTIAL MARITAL POWER

A Dissertation Presented

by

MATTITIYAHU S. ZIMBLER

Submitted to the Graduate School of the University of Massachusetts Amherst in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

May 2012

Social Psychology
NEWLYWED COUPLES’ MARITAL SATISFACTION AND PATTERNS OF CORTISOL REACTIVITY AND RECOVERY AS A RESPONSE TO DIFFERENTIAL MARITAL POWER

A Dissertation Presented

by

MATTITIYAHU S. ZIMBLER

Approved as to style and content by:

__________________________
Paula Pietromonaco, Chair

__________________________
Maureen Perry-Jenkins, Member

__________________________
Sally Powers, Member

__________________________
Thomas Dumm, Member

Melinda Novak, Department Head
Psychology Department
DEDICATION

To Erin, the woman who makes this work important to me. In memory of Uncle Bill, who embodied what it is to be a partner.
&
To Grover C. Zimbler, for his unconditional love.
ACKNOWLEDGEMENTS

The idea of writing a dissertation alone is akin to being completely independent in this world. Both are impossible. Just as socializing and interdependence are woven into our culture and DNA, so is the accomplishment of this dissertation the product of both myself, and those who supported me through the process.

First and foremost, this research doesn't happen without my partner, Erin. The irony of a dissertation regarding household labor, is that I have been forced to neglect my own domestic responsibilities in order to complete the work before you. She has been understanding, supportive, motivating, and even more understanding. She believes in a world of fairness, and I love the world she strives to create. While there is no way to ever fully repay you, by marrying you, I hope to give myself the opportunity to try.

To my family and friends, you are one and the same. In times of academic isolation you all gave me your time, patience, attention, and love. These are acts of kindness which cannot be forgotten, and which will always be meaningful to me. I continue to believe that these relationships are the key to sustained happiness. So thank you, for being my sustenance.

To my academic colleagues. This work would never have been possible without you. Without your generosity of time, interest, and spirit, I would have been adrift, wandering the academic void, lost in time. Thank you for your guidance and selflessness.

And last but never least, my dogs, Grover and Falcor. There is no therapy quite like being nuzzled between your fuzzy faces. You continue to open my eyes to new worlds of connection, and you may just be the best dogs that ever were.
ABSTRACT

NEWLYWED COUPLES’ MARITAL SATISFACTION AND PATTERNS OF CORTISOL REACTIVITY AND RECOVERY AS A RESPONSE TO DIFFERENTIAL MARITAL POWER

MAY 2012

MATTITIYAHU S. ZIMBLER, B.A., WESLEYAN UNIVERSITY
M.S., UNIVERSITY OF MASSACHUSETTS AMHERST
Ph.D., UNIVERSITY OF MASSACHUSETTS AMHERST

Directed by: Professor Paula Pietromonaco

This study investigated the extent to which gender moderates, and perceptions of fairness mediate, the link between marital power and overall marital satisfaction, as well as cortisol stress trajectories in response to marital distress. Study 1 examined a sample of 213 opposite sex newlywed couples from western Massachusetts, and focused on marital satisfaction as the dependent variable. Findings from the structural equation analysis suggested that perceptions of relationship fairness concerning the division of labor completely mediated the association between marital power and marital satisfaction for wives, but not for husbands. These results also implied an association between wives' perceptions of fairness and husbands' marital satisfaction. Study 2 looked at a subsample (N = 158 couples) of newlywed couples and investigated the effect of experiencing marital power on cortisol stress reactivity and recovery in response to a marital conflict discussion. Findings from the structural equation model suggested a significant association between marital power and stress reactivity & recovery for all participants, with low power wives exhibiting a failure to recover back to baseline levels of stress post-conflict. Methodological and measurement issues pertaining to the study of marital
power are discussed, as well as potential implications of this work on future studies related to marital well-being.
# CONTENTS

<table>
<thead>
<tr>
<th>Acknowledgements</th>
<th>v</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abstract</td>
<td>vi</td>
</tr>
<tr>
<td>List of Tables</td>
<td>ix</td>
</tr>
<tr>
<td>List of Figures</td>
<td>x</td>
</tr>
</tbody>
</table>

## CHAPTER

I. INTRODUCTION ......................................................... 1
II. STUDY 1 ............................................................ 11
III. STUDY 2 ........................................................... 30
IV. GENERAL DISCUSSION ............................................... 48
APPENDIX: CONFLICT TOPIC GUIDELINES ............................. 69
BIBLIOGRAPHY .............................................................. 70
## LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Summary of Descriptive Statistics and Husbands' and Wives’ Means for all Variables</td>
<td>53</td>
</tr>
<tr>
<td>2. Correlation Matrix of All Indicator Variables</td>
<td>54</td>
</tr>
<tr>
<td>3. Description of Both the Time of Assessment and the Point on the Stress Trajectory That Each Cortisol Sample Assesses</td>
<td>55</td>
</tr>
<tr>
<td>4. Husbands' and Wives’ Mean Cortisol Levels ($\mu g/dl$) for the Six Saliva Samples</td>
<td>56</td>
</tr>
<tr>
<td>5. A Summary of the Path Coefficients from the Structural Equation Models Estimated at Each Sampled Time Point</td>
<td>57</td>
</tr>
</tbody>
</table>
LIST OF FIGURES

<table>
<thead>
<tr>
<th>Figure</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The Standardized Coefficients for the Measurement Model of the X-side of the Structural Equation Model of Perceived Fairness as a Mediator between Marital Power and Marital Satisfaction</td>
<td>58</td>
</tr>
<tr>
<td>2. The Standardized Coefficients for the Measurement Model of the Y-side of the Structural Equation Model of Perceived Fairness as a Mediator between Marital Power and Marital Satisfaction</td>
<td>59</td>
</tr>
<tr>
<td>3. The Standardized Coefficients for the Actor-Only Structural Model of Perceived Fairness as a Mediator between Marital Power and Marital Satisfaction</td>
<td>60</td>
</tr>
<tr>
<td>4. The Standardized Coefficients for the Actor Plus Partner Effects Structural Model of Perceived Fairness as a Mediator between Marital Power and Marital Satisfaction</td>
<td>61</td>
</tr>
<tr>
<td>5. The Standardized Coefficients for the Actor Plus Partner Effects Full Model of Perceived Fairness as a Mediator between Marital Power and Marital Satisfaction</td>
<td>62</td>
</tr>
<tr>
<td>6. The Standardized Coefficients for the Actor Plus Partner Effects Structural Model of Perceived Fairness as a Mediator between Marital Power and Marital Satisfaction, Including Indices of Non-Independence between Latent Variables</td>
<td>63</td>
</tr>
<tr>
<td>7. The Standardized Coefficients for the Structural Model of the Relationship between Marital Power and Salivary Cortisol at its Intercept, Linear Slope, and Quadratic Trajectory for the Time-Point Representing Cortisol During the Marital Conflict</td>
<td>64</td>
</tr>
<tr>
<td>8. The Standardized Coefficients for the Full Model of the Relationship between Marital Power and Salivary Cortisol at its Intercept, Linear Slope, and Quadratic Trajectory for the Time-Point Representing Cortisol During the Marital Conflict</td>
<td>65</td>
</tr>
<tr>
<td>9. The Standardized Coefficients for the Structural Model of the Relationship between Marital Power and Salivary Cortisol at its Intercept, Linear Slope, and Quadratic Trajectory for the Time-Point Representing Cortisol During the Marital Conflict, Including Indices of Non-Independence between Latent Variables</td>
<td>66</td>
</tr>
<tr>
<td>10. Women's Cortisol Trajectory as a Function of High or Low Marital Power Over the Course of the Experiment</td>
<td>67</td>
</tr>
<tr>
<td>11. Men's Cortisol Trajectory as a Function of High or Low Marital Power Over the Course of the Experiment</td>
<td>68</td>
</tr>
</tbody>
</table>
CHAPTER I

INTRODUCTION

“Where should we go for dinner?” What starts as an innocuous question to one’s spouse can transform into a very real marital conflict. Often times, marital disagreements in which both partners want different outcomes reflect the underlying power structure of the marriage. How couples perceive and respond to these marital conflict interactions can often predict later outcomes for the relationship (Gotman, Coan, Carrere, & Swanson, 1998; Heavey, Layne, & Christensen, 1993). Moreover, past research suggests that additional factors, such as gender (Sexton & Perlman, 1989; Tichenor, 1999) and perceptions of fairness (Frisco & Williams, 2003; Lavee & Katz, 2002), are also crucial in understanding how relationship conflict is experienced and negotiated. The current work aims to extend this literature by testing the extent to which gender moderates, and perceptions of fairness mediate, the relationship between marital power and overall marital satisfaction, as well as physiological indicators of marital distress.

A lack of power in romantic relationships predicts poorer relationship functioning, including less relationship satisfaction (Aida & Falbo, 1991; Bentley, Galliher, & Ferguson, 2007; Falbo & Peplau, 1980; Peplau & Campbell, 1989), increased likelihood of separation (Felmlee, 1994; Filsinger & Thoma, 1988), increased instances of domestic violence (Babcock, Waltz, Jacobson, & Gottman, 1993; Bentley, Galliher, & Ferguson, 2007; Sagrestano, Heavey, & Christensen; 1999), and greater depression and anger (Beach & Tesser, 1993; Whisman & Jacobson, 1990). Such power imbalances also contribute to marital conflict and divorce, which have been linked to a number of deleterious health outcomes (Beach, Fincham, & Katz, 1998; Ewart, Taylor, Kraemer, & Agras, 1991; Fincham
& Beach, 1999, 2010; Gottman, 1994; Kiecolt-Glaser et al., 1996; Proulx, Helms, & Buehler, 2007). What is less understood is the mechanism through which experiencing high or low marital power affects marital satisfaction and physiological markers of marital well-being.

Before outlining our research plan for exploring these mechanisms, we first discuss the methodological issues inherent to this literature, focusing considerable attention on the operationalization and measurement of marital power. Next, we critically evaluate the literature to examine the extent to which gender moderates the link between power and marital functioning. Then, in Study 1, using gender as a lens, we discuss how couples’ perceptions of fairness regarding the division of labor can play a critical role in mediating marital power's effect on marital satisfaction. Finally, in Study 2, we discuss some of the more recent research in the field of relational power that examines the body’s physiological responses to high and low power situations.

**Methodological Issues**

Previous work investigating the connection between marital power and marital satisfaction has been hampered by a number of methodological challenges. One methodological issue in this literature stems from much of the past work relying solely on self-report responses. Although self-reports can provide insight into individuals’ subjective experiences, it also is important to examine other, less subjective responses that may be important for relationship outcomes (e.g., see Lee, Rogge, & Reis, 2010). For example, recent work has begun to explore the physiological outcomes that result from marital conflicts (see Gottman & Notarius, 2000). To supplement self-report measures of marital satisfaction, which are subject to social desirability bias, researchers hope that
measuring biological responses may provide new insight into how marriage impacts overall satisfaction and well-being.

Thus far, only one study has applied this emerging paradigm to look specifically at the physiological outcomes related to the experience of marital power (Loving, Heffner, Kiecolt-Glaser, Glaser, & Malarkey, 2004). Furthermore, very little is known about the extent to which established findings concerning the relationship between marital power and marital satisfaction are in agreement with the more recent work looking at the connection between marital power and bio-psychosocial indicators. The current research seeks to add to this burgeoning physiological literature by measuring cortisol reactivity during conflict in relation to marital power. Additionally, by testing parallel hypotheses that relate the experience of marital power to both self-reported marital satisfaction and physiological indicators of stress during a conflict situation, this research will examine if partner’s reports of marital satisfaction are reflected in their biological responses.

Another issue inherent to the study of marital power stems from the challenge of modeling data for non-independent dyads. When studying couples, and especially when investigating gender differences, the first impulse may be to look at men and women's data separately. However, because husbands and wives' responses are related to one another, it is essential to take this non-independence into account when analyzing results statistically. In the current work, advancements in statistical modeling techniques were incorporated that allow for the use of structural equation modeling to accurately capture the non-independence innate to marital dyads. Additionally, we were able to model partner effects: wives' power and perceptions of fairness predicting husbands' satisfaction, and husbands' power and perceived fairness predicting their wives' marital satisfaction.
Defining and Measuring Marital Power

Researchers have defined and measured marital power in multiple ways throughout the years (Gray-Little and Burks, 1983). Theorists have variously defined marital power in terms of a person’s potential to exert influence (e.g., in terms of the person’s available resources) or their actual influence in a given situation (for a detailed discussion, see Gray-Little & Burks, 1983). The majority of work over the past two decades has relied upon the two most widely accepted definitions for marital power: the ability to influence or control another person’s attitudes or behavior (Cromwell & Olson, 1975; McCormick & Jessor, 1982), and the ability to produce desired or intended effects from another person (Gray-Little & Burks, 1983; Sprecher & Felmlee, 1997; Balswick & Balswick, 1995). Inherent in these definitions is the interplay between two individuals, in this case the marital couple. Rollins & Bahr (1976) added to this understanding of power by pointing out that when measuring power one is actually measuring a “characteristic of social interaction between two or more persons.”

In operationalizing marital power, past studies have utilized self-report indicators of power that measure "who does what" in terms of the division of domestic labor (Lavee & Katz, 2002). The idea behind this reasoning is that by understanding who completes the household responsibilities, one can simultaneously get a snapshot of how power is allocated in the relationship. In other words, a more equitable division of labor between relationship partners reflects a more egalitarian balance of power in the relationship itself.

While division of labor (DOL) has been used in the past as a proxy for marital power, there are two notable drawbacks to using this particular operationalization of power in this type of study. How household tasks are divided does provide insight into one aspect of how
marital power is enacted in a marriage. However, to get a more well-rounded understanding of power in a marriage, it is preferable to use multiple measures of power from across a variety of domains. Additionally, when perceptions of fairness in the division of labor are investigated as a potential mediator of power's effect on marital satisfaction, there is the possibility of a conceptual confound. If marital power is operationalized according to the division of labor, and perceptions of fairness are also measured relative to the couple's feelings about the division of labor, then findings from this research become less about marital power specifically, and more about the outcomes relevant to participation in domestic responsibilities. The current work aims to operationalize marital power independently of the division of labor, by using multiple measures relevant to control and influence across various other aspects of the marriage.

In what has become one of the seminal books on relational power, Cromwell and Olson (1975) further breakdown power in relationships into three distinct areas: power basis, power process, and power outcomes. These distinctions both differentiate the various forms of power that are enacted simultaneously in a marital relationship, while also emphasizing the complexity inherent to studying relational power. Power basis refers to the resources each individual brings to the couple. These resources include both tangible capital such as money and property, as well as less explicit assets such as education, skills, or status. Power process includes all interactions and discussions between the marital couple leading up to a decision. Power process is generally measured through observing couples while they are engaged in a conflict discussion or performing experimental tasks together. Cromwell and Olson (1975) suggest that individuals’ attempts to be assertive in a discussion or to control
the partner are often important indicators of power process in a marriage. Lastly, power outcome refers to which partner gets his or her way in the end (Gray-Little & Burks, 1983).

While this tri-level power structure has been instrumental in work to understand the various domains inherent to marital power, it is limited by the unavoidable overlap among the three concepts. For example, power basis cannot be separated from the process and outcome of a marital disagreement because the resources each partner brings to the conflict are an inherent part of the marital dynamic. Likewise, it is often difficult to determine where the discussion and processing of a conflict ends, and the conclusion and outcome begins. In many real life situations, there is no distinct deadline for resolution, and thus the outcome of a conflict is merely the power process at any given moment. Despite its limitations, the tri-level divisions of relational power are still considered central in researching power in romantic relationships (Gray-Little & Burks, 1983).

While much of the early work on marital power focused on what determines who has marital power (basis), the current work is more interested how power is manifested, and therefore focuses predominantly on the marital power process. We attempted to address operational concerns by utilizing a variety of measures to capture multiple aspects of the marital power process. By asking participants to complete questionnaires related to how power was enacted in a recent conflict discussion, we hope to get a snapshot of the how the couples experience marital power during conflict. Similarly, by requesting that participants indicate who has power in a variety of specific relationship domains, we hope to gain insight into when each spouse would have the most influence on relational outcomes.

Gender and Power
Almost all of the research examining marital power shows different outcomes for wives and husbands, suggesting that gender shapes how power is perceived, interpreted, and incorporated into marriage. Thus, to systematically understand how couples handle power, it is essential to simultaneously investigate how gender contributes to this process. When looking at opposite sex couples, it is impossible to separate biological sex from power, but couples’ interactions must be viewed within the context of longstanding gender norms and gender role stereotypes. By most accounts, the balance of power in couples still favors men (Diekman, Goodfriend, & Goodwin, 2004; Komter, 1989; Sprecher & Felmlee, 1997; Wanic & Kulik, 2011). While the shift towards egalitarianism has created more equitable relationships in general, when there is a power differential, men typically are perceived to have more influence and to be more dominant in decision-making (Felmlee, 1994; Szinovacz, 1987). This section examines the extent to which gender plays a central role in understanding marital power.

One of the predominant theories for why wives have held a less prominent role in relationships in the past comes from both resource theory (Blood & Wolfe, 1960) and social exchange theory (Thibaut & Kelley, 1959). The idea was that, because husbands were the breadwinners in most relationships, they therefore commanded more power and influence in the relationship due to their resource advantage. Social role theory (Eagly, 1987), however, provided an alternate interpretation that posited that, because husbands are expected to fulfill the culturally high-status role of economic provider in marriage while the relatively devalued and low-status domestic responsibilities are relegated to wives, men thereby assume a societal power advantage in heterosexual relationships.