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Destined to Fail or Something to Grow On? Examining the Relationship between Implicit Theories of Relationships and Perceptions of Others Romantic Relationships

Sining Wu

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Destined to fail or something to grow on? Examining the relationship between implicit theories of relationships and perceptions of other's romantic relationships

By

Sining Wu

A Thesis
Submitted to the Faculty of
Mississippi State University
in Partial Fulfillment of the Requirements
for the Degree of Master of Science
in Psychology
in the Department of Psychology

Mississippi State, Mississippi

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2015

Destined to fail or something to grow on? Examining the relationship between implicit theories of relationships and perceptions of other's romantic relationships

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The present study examined whether an individual's own implicit theory of relationships predicts how s/he perceives his/her friend's romantic relationship. Implicit theories of relationships are based on destiny beliefs (DB), the belief that a relationship is meant to be, and growth beliefs (GB), the belief that relationships require work. Each participant was randomly exposed to one of three relationship scenarios where the participant's hypothetical friend discusses a partner displaying negative, mixed, or positive relationship behaviors. We found the participants high in DB were less approving of the relationship, and those high in GB were more approving. Those high in DB also made more relationship-damaging attributions when asked to select reasons why the partner engaged in said behaviors but surprisingly perceived the couple as more satisfied overall. Anticipated interactions between DB and GB were not found.

DEDICATION

I would like to dedicate this research to my dear family, lover, and friends, for their continual support and encouragement for my dream and life.

ACKNOWLEDGEMENTS

I would like to thank Dr. Colleen Sinclair for her guidance and mentoring during my graduate career. Without her expertise I would not be where I am today with both my education and my thesis. There are truly no words to express my gratitude for her support for my research interests, lab experiences, and professional development. Secondly, I would like to thank Dr. Carolyn Adams-Price for her support on my thesis when I was in need. I would also like to thank Dr. Kristina Hood who went way above and beyond her duties to support and encourage my development as a researcher. Third, I would like to thank my committee member Dr. Samuel Winer for his comments which only served to better my thesis. Lastly, I would like to thank the people from Mississippi State who provided assistance throughout this project and helped me on my way to successful graduation.

TABLE OF CONTENTS

DEDICATION	ii
ACKNOWLEDGEMENTS	iii
LIST OF TABLES	vi
LIST OF FIGURES	vii
CHAPTER	
I. INTRODUCTION	1
Literature Review.....	1
Network opinions.....	1
Developing network opinions: perceptions	3
Making sense of relationships.....	4
Implicit theory of relationships.....	5
Attributional process in romantic relationships	8
Current Study	13
Hypothesis 1: Main Effect of partner behaviors	14
Hypothesis 2: 2-Way Interaction of growth beliefs and destiny beliefs.....	14
Hypothesis 3: 3-Way Interaction of growth beliefs, destiny beliefs and partner behavior	15
II. METHOD	16
Participants.....	16
Procedure	16
Materials	17
Demographics	17
Predictor Variables-growth and destiny subscales of the Implicit Theories of Relationships Scale.....	17
Independent Variables-vignettes.....	18
Manipulation Check.....	20
Dependent Variable 1–Adapted Relationship Attribution Model Measurement (RAMM)	21
Dependent Variable 2-Adapted Social Network Opinion Scale.....	22
Dependent Variable 3- Adapted Satisfaction Scale	22

	Dependent Variable 4-Adapted Commitment Scale.....	23
III.	RESULTS	24
	Hypothesis Testing.....	26
	DV: Relationship-Damaging Attributions	26
	DV: Relationship Approval	27
	DV: Relationship Satisfaction.....	27
	Exploratory Analyses.....	31
	DV: Relationship Commitment	31
	Overall Group Differences.....	33
	Summary.....	36
IV.	DISCUSSION.....	38
	Limitations	38
	Implications.....	41
	Conclusions.....	47
	REFERENCES	49
	APPENDIX	
A.	DEMOGRAPHIC QUESTIONS.....	57
B.	RELATIONSHIP VIGNETTE	59
C.	ADAPTED RELATIONSHIP ATTRIBUTION MEASUREMENT	62
D.	ADAPTED SOCIAL NETWORK OPINION SCALE	65
E.	ADAPTED SATISFACTION SCALE.....	67
F.	ADAPTED COMMITMENT SCALE	69
G.	MANIPULATION CHECK	71
H.	IRB APPROVAL LETTER.....	75

LIST OF TABLES

1	Means, standard deviations, and correlations of all the variables.	25
2	Means and standard deviations of manipulation check for each conditions.	26
3	Summary of Hierarchical Regression Analysis of effects of Partner Behaviors (PB), Growth Beliefs, and Destiny Beliefs on the Relationship-Damaging Attribution, Relationship Approval, and Relationship Satisfaction (N=402)	29
4	Summary of Hierarchical Regression Analysis for Predicting Partner Behaviors (PB), Growth Beliefs, and Destiny Beliefs on the Perceptions of Relationship Commitment (N=402)	32

LIST OF FIGURES

1	Relationship Orientations (from Knee et al., 2001)	7
2	The relation between relationship satisfaction and attribution pattern for interactive behaviors within close relationships (Fletcher & Fincham, 1991).	10
3	Adapted model of knowledge structures and attributional processing within close relationships (Fletcher & Fitness, 1993; Fletcher & Fincham, 1991).	11
4	Research Design	14
5	Interaction between partner behaviors and growth beliefs on relationship-damaging attributions.....	30
6	Interaction between partner behaviors and growth beliefs on relationship satisfaction.....	31
7	Interaction between partner behaviors and growth beliefs on the perceptions of relationship commitment	33
8	Comparing attribution, approval, satisfaction, and commitment levels in the three conditions of partner behaviors.....	35
9	Compare attribution, approval, satisfaction, and commitment in three conditions of partner behaviors and with four orientations.....	36

CHAPTER I

INTRODUCTION

Previous research suggests that Implicit Theories of Relationships (ITR) influence people's perceptions of and their behaviors in their own romantic relationships (Knee, Patrick & Lonsbary, 2003; Knee & Bush, 2008; Franiuk, Cohen & Pomerantz, 2002; Franiuk, Pomerantz & Cohen, 2004; Wunderer & Schneewind, 2005). However, little is known about how an individual's ITR may influence how that individual perceives other people's romantic relationships. Yet, a friend's opinion regarding a couple's relationship is an important source of social network influence (Etcheverry & Agnew, 2004; Le et al., 2010; Sprecher & Felmlee, 1992; Wright & Sinclair, 2012). In fact, peers have even been shown to be more accurate at predicting the likely outcomes of a relationship than the romantic partners themselves (Loving, 2006). Therefore it is important to understand factors that affect the opinions of these 3rd parties to better understand their role in influencing the outcome of a relationship. This quasi-experimental study investigated how an individual's ITR influences their perceptions of others' relationships.

Literature Review

Network opinions

One might ask why the opinions of third-parties are important to examine. Social networks (e.g. friends, parents, siblings) are the contexts in which romantic relationships

develop. Every stage of a romantic relationship's development is influenced by the people around a couple (Parks, 2007). For young adults in Western cultures, their friends' opinions are particularly important (Etcheverry & Agnew, 2004). An important way friends affect a couple's relationship is through providing social approval or disapproval of their romantic relationship. According to Fitzpatrick (2012), approval is defined as a network member's "efforts to sanction" a romantic relationship, such as by offering opinions in favor of the relationship or by accepting the significant other as a member of their social group. In contrast, disapproval represents a friend's "efforts to censure" a romantic relationship, defined as a judgment against the current status or future potential of the target romantic relationship (Fitzpatrick, 2012).

There is considerable evidence showing that a friend's opinion affects various stages of a couple's relationship (Parks, 2007; Sinclair & Wright 2009). During the initial stage, friends are often the reason a significant amount of people (35% of married couples) meet their partners (Parks, Eggert, & Jones, 1991). Also, in a dating game study, Wright and Sinclair (2012) demonstrated that a manipulated friend's opinion regarding the suitability of potential dates could predict the participant's dating choices.

After a relationship is established, a friend's opinions will continue to influence the relationship's outcome. Research has consistently shown that the perceived approval of a friend of the relationship is positively correlated with that couple's satisfaction, stability, and commitment (Etcheverry & Agnew, 2004; Fitzpatrick, 2012; Sprecher et al., 2002; Sprecher & Felmlee, 1992). For example, Wildermuth (2004) found that college students involved in online relationships felt less satisfied if they *even thought* their friends *might* disapprove of their relationship. Further, two meta-analyses support the

social network effect (i.e., that one's social network's opinions can predict relationship state and fate) (Le et al., 2010; Sinclair, Hood, & Wright, 2014). Therefore, social network opinions, particularly those of friends (Etcheverry & Agnew, 2004; Wright & Sinclair, 2012) play an important role in influencing a couple.

Developing network opinions: perceptions

Despite a large number of studies establishing that network opinions have an effect on relationship outcomes, few studies have identified the factors that shape a friend's opinion in the first place. One such study analyzed answers from an open-ended question, which asked why people approved or disapproved of their best friend's romantic relationship (Felmlee, 2001). Felmlee found the reasons for approving of these relationships were generally related to personal characteristics of the friend's dating partner (e.g. "nice guy," "a great girl"). The reasons for disapproving a relationship were related to the perceived negative effects on their friends (e.g. "causes her low self-esteem," "she wants him to convert to her religion"). Another study found that couple's progress in relationship's status (e.g. moving in together, proposing) may increase network approval (Sprecher & Felmlee, 2000). Relatedly, Etcheverry and his colleagues (2013) showed that a friend's approval of the romantic relationship was based on that friend's perceptions of satisfaction within that relationship and if that friend believed that there were any better alternative partners for his/her friend instead. Using an experimental manipulation of the friends' perceived relationship satisfaction, Etcheverry, Le, and Hoffman (2013) found that the higher satisfaction condition led to greater reports of approval of the relationship than lower satisfaction conditions. Therefore, based on these studies, it appears that a friend's perception of romantic relationship qualities (e.g.,

satisfaction, progression, stability, benefits) may determine the friend's approval or disapproval of that relationship. However, qualities of the relationship may not be the only determinant.

Making sense of relationships

Friends can learn about these relationship qualities through their own observations, but they also likely learn about relationship qualities through their interaction with couple members, particularly their friend involved in the relationship. After all, Parks (2007) argues that friends serve as the primary source of advice during "relational sense-making." Relational sense-making is when members of a relationship attempt to discern 1) the reasons why events within their relationship are occurring, 2) what, if any, strategies can be employed to maintain or develop the relationship, and 3) what future outcomes for the relationship may be. Goldsmith (2004) found that sense-making was the common reason that people disclosed information about their romantic relationships to their friends.

For example, Agnew, Loving, and Drigotas (2001) conducted a three-wave longitudinal study that measured couple members' perceived commitment while simultaneously asking third-parties (i.e., friends of the couple) to likewise estimate the commitment within the romantic relationship. They found perceptions of commitment from the friends of the female partner predicted the breakup better than the couple members' own perceptions. At the same time, consistent with within-dyad idealization (i.e., relationship partners tending to view their own relationship in a positively biased way, (Martz et al., 1998)); they found a friend's perception of relationship state was significantly more negative than those held by couples. Lastly, Agnew and his

colleagues (2001) found that couple disclosure moderated the association between a friend's prediction of commitment and relationship dissolution. This moderation effect of couple disclosure implies that a friend may develop his/her impression of the relationship quality through hearing the couple's relationship stories or during periods of advice-seeking.

Implicit theory of relationships

However, a friend is not merely a blank slate in which one can confide. Each individual has different beliefs about how relationships develop and what makes for a good relationship. Those relationship beliefs have implications for the relationship process (Knee & Bush, 2008; Franiuk et al., 2002). One such belief system was proposed by Knee (1998). He applied the construct of implicit theories to romantic relationships and developed the Implicit Theory of Relationships (ITR). "Implicit theories refer to personal constructs or naïve assumptions about the self and the social world that help guide how people perceive and interpret events" (Knee & Canevello, 2006, p.162). More specifically, implicit theories are knowledge structures involving specific beliefs about the stability of a character or attribute (such as personality, intelligence, and morality) (Dweck & Leggett, 2000).

The ITR has two components---Destiny beliefs and Growth beliefs--- both of which involve perceptions of the changeability of romantic relationship attributes. Destiny beliefs consist of the perception of the initial stability of a match and the inherent compatibility between partners (Knee, 1988). For example, people high in destiny beliefs tend to think the initial feeling of compatibility between partners is fixed. So they perceive early interactions in the relationship as an accurate test of potential relationship

success. They think that a couple is either a match or not a match right from the start and that finding your match is the way to have a successful relationship.

In contrast, growth beliefs are about the stability of romantic relationship despite problems. People high in growth beliefs tend to believe that the success of a relationship is determined by each partner's ability to overcome difficulties. Couples will grow closer to one another by overcoming relationship challenges together.

The ITR scale, developed by Knee (1988), attempts to measure where people stand on destiny and growth beliefs. People could be high on one belief, but low on the other belief or people could be high on both beliefs (Knee, 1988). Knee et al (2001) defined four orientations based on the strength of destiny beliefs and growth beliefs as shown in Figure 1. People high in growth beliefs, but low in destiny beliefs are defined as having a *cultivation orientation*. Whereas, people high in destiny beliefs, but low in growth beliefs are defined as having an *evaluation orientation*. A person high in both beliefs is labeled as having an *optimization orientation* and a person low in both beliefs is said to have a *helplessness orientation*. It is the former two orientations – cultivation and evaluation – that have been the focus of research thus far, and were of interest to the present project.

		Growth Beliefs	
		Low	High
Destiny Beliefs	Low	Helplessness Relationships cannot be diagnosed and problems cannot be overcome	Cultivation Relationships cannot be diagnosed and problems can be overcome
	High	Evaluation Relationships can be diagnosed and problems cannot be overcome	Optimization Relationships can be diagnosed and problems can be overcome

Figure 1. Relationship Orientations (from Knee et al., 2001)

There is limited research linking ITR and relational-sense making. Specifically, Abbott and Lannutti (2007) investigated the association between a person’s ITR and how that person consoles a friend going through a relationship breakup. Quality of comforting, as the dependent variable in this study, was assessed by asking all participants to respond to the same hypothetical situation in which their same sex friend had been dumped by their relational partner and was looking for consolation from them. The open-ended responses to this hypothetical situation were coded by evaluating the degree to which participants acknowledged their friend’s feelings and the extent to which they tried to make sense of these feelings and offer advice. Those open-ended responses were coded using Applegate’s coding scheme found in Tighe’s (1997) study. The sensitivity of Applegate’s scheme was related to “degree of responsiveness, trying to change the topic, providing polite sympathizing, giving advice, trying to calm the confederate, asking questions, relating to own experience, and offering sincere advice or

sympathy” (Abbott & Lannutti, 2007, p.19). At the end, they found a positive correlation between growth beliefs and quality of comforting. At the same time, they also found a significant negative correlation between quality of comforting and destiny beliefs. This result showed that people high in growth beliefs make a great effort to understand the situation, provide support, and give constructive advice compared to others.

Accordingly, there is some evidence to suggest an individual’s ITR can affect the quality of the comfort afforded a friend involved in a relationship crisis. However, I was interested in how ITR might affect the content of the feedback provided. Do ITR help explain attributions made for relationship events?

Attributional process in romantic relationships

In social psychology, while explaining how lay people “make sense” of the world around them, we often raise the issue of “attributions.” Attribution theory was developed by Heider (1958) to understand how social perceivers use information to form explanations for the causes of events. At the most basic level individuals can make internal (e.g., characterological) attributions for events or external (e.g., situational) attributions for events. For example, failure on a test could be attributed to the test-taker’s ineptitude (internal) or the test’s difficulty (external). Attributions can also differ to the extent laypersons perceive the cause of an event as global vs. specific (e.g., the test-taker’s ineptitude affects his performance on an array of things vs. it is limited to taking tests), stable vs. unstable (e.g., the test-taker has always be inept vs. the test-taker has done well in the past), and controllable vs. uncontrollable (e.g., if the test-taker applied himself he would be less inept vs. there is little the test-taker could do to improve his knowledge). Attributions differ from implicit theories as implicit theories are chronic

belief systems coloring perceptions of multiple things whereas attributions are judgments made in the moment regarding specific instances.

Attribution theory was refined by Fincham and Bradbury (1992) in their Relationship Attribution Model (RAM) as having the following dimensions: Causal attributions measure to what extent the cause of a relationship event is attributed to the partner (internal locus), is likely to change (stability), and influence other areas of the marriage (globality). Responsibility-blame attributions assess the intention, motivation and blameworthiness of the partner behaviors. In developing a measure to assess relationship attributions, Fincham and Bradbury identified a high score on RAM measure (RAMM) as an internal, stable, global, intentional, selfish, and blameworthy attribution pattern. In contrast, a low score on RAMM indicates an external, unstable, unintentional, unselfish, and non-blameworthy attribution pattern.

These different attribution patterns can affect and are affected by relationship qualities (Bradbury & Fincham, 1990; Thompson & Snyder, 1986). More specifically a relationship-damaging attribution pattern is one where negative relationship events are considered to have an internal cause and are stable, global, intentional, and selfish. Likewise, positive relationship events are attributed to external causes, and are viewed as unstable, specific, and unintentional. In contrast, relationship-enhancing attribution patterns are the inverse (e.g., internal attributions for the positive events, external attributions for the negative as shown in Figure 2).

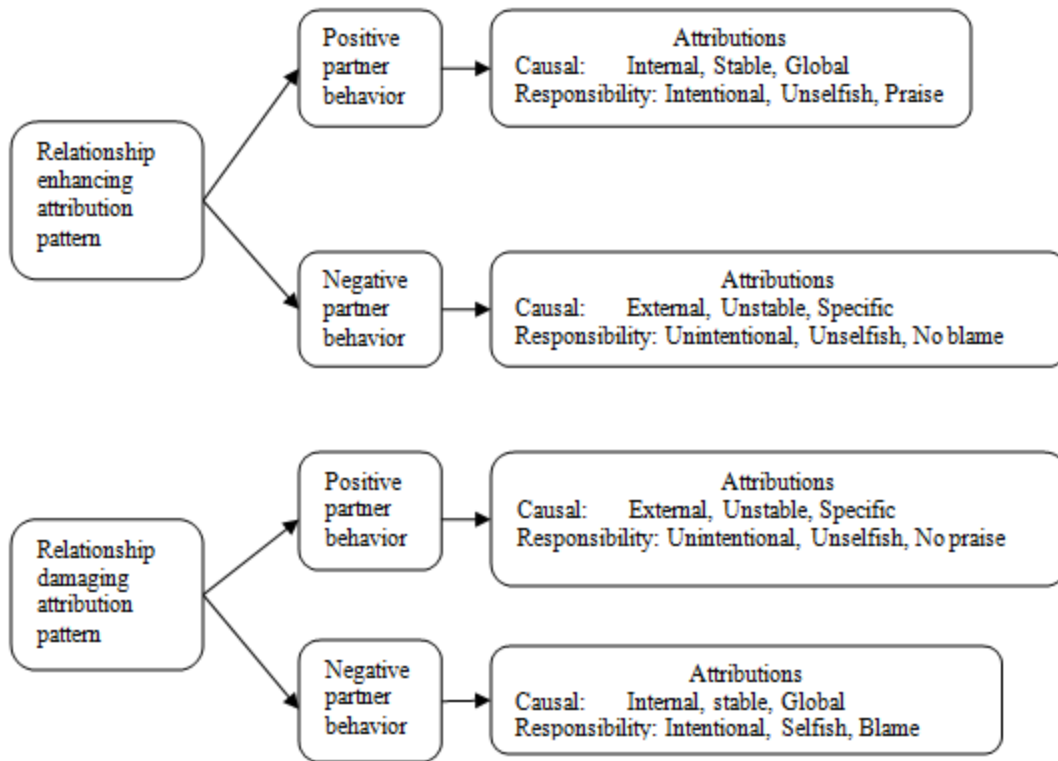


Figure 2. The relation between relationship satisfaction and attribution pattern for interactive behaviors within close relationships (Fletcher & Fincham, 1991).

What happens in an attributional process? Fletcher and Fitness (1993) proposed a model of attributional processing that emphasizes the contribution of individual general relationship beliefs in this attributional process. First, an attributional process is started by an eliciting event (a partner behavior) in a person's life (Fletcher & Fitness, 1993) (see the model in Figure 3). More attributions tend to be produced for a negative partner behavior than a positive partner behavior (Holtzworth-Munroe, & Jacobson, 1985). Second, after an eliciting event is present, an attributional process may occur at both automatic and controlled processing levels (Fletcher & Fincham, 1991). Since motivated,

explicit, attributional activities are prevalent in close relationships (Fletcher, 1993), and the RAMM assesses attributions through controlled cognitive processes, we care more about the controlled attribution processes. It is during these controlled cognitive processes that knowledge structures (such as layperson theories/knowledge of personal relationships) can be activated from long term memory to affect this attributional process (Fletcher & Fitness, 1993). Finally, the outcome of this process could be cognition, affect, and/or behaviors, or a combination of the three which then may feedback to the individual's knowledge structure in terms of changing/strengthening it.

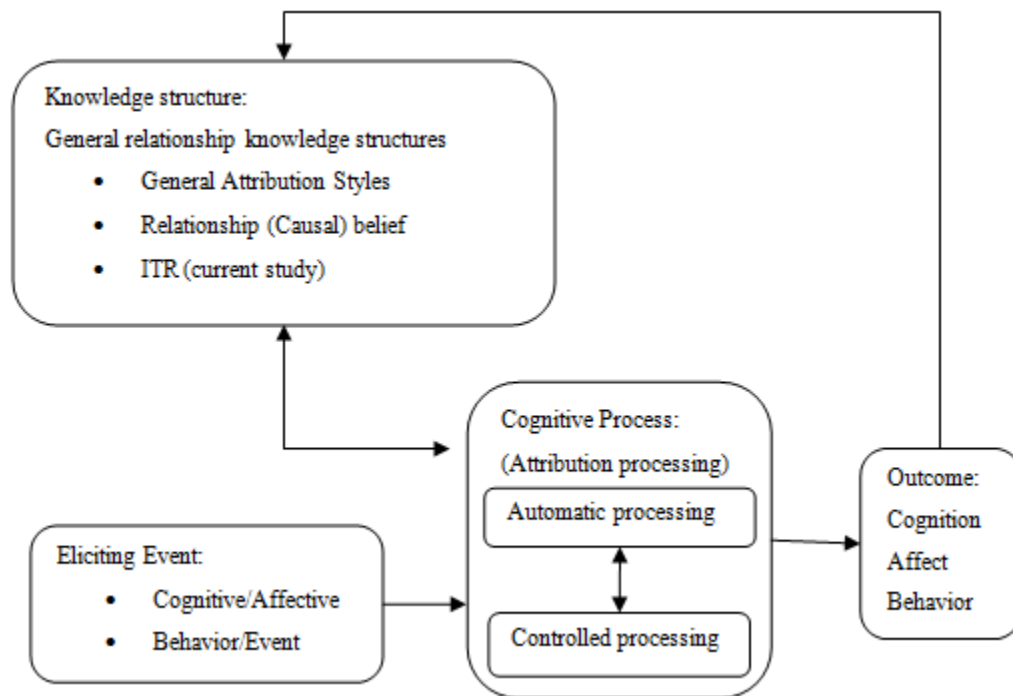


Figure 3. Adapted model of knowledge structures and attributional processing within close relationships (Fletcher & Fitness, 1993; Fletcher & Fincham, 1991).

As a general relationship knowledge structure, ITR has implications for making attributions about partners' behaviors. Yet to date only one published study has examined the relationship between attributions and ITR. Wunderer and Schneewind (2005) had 663 first-marriage (mean duration of marriage=27.4 years) couples from Western Germany complete ITR, RAMM, and marital satisfaction measures. This study found that growth beliefs were positively correlated with relationship-enhancing attributions and that attributions also mediated the association between the husband's growth beliefs and marital satisfaction. However, this result was not confirmed for the wife in the relationship. Unfortunately, this study used cross-sectional data, and the association between attributions and implicit theories was explored with correlations. Therefore, the direction of effects between ITR and attributions could not be inferred. Lastly, this study examined the effects of ITR on married couple members' attributions within their own relationship, but how third-party ITR may influence dating relationship dynamics was not examined. Given the lack of studies investigating the possible predicting effect of ITR on attributions from a third party perspective, the current study used a quasi-experimental design to test whether people's ITR could predict attributions when exposed to information about others' relationships.

Therefore it is proposed that ITR as a general knowledge structure may contribute to the third party's attribution process and further determine the outcomes of this attributional process (as shown in Figure 3.). This present study tested whether ITR can predict the outcome of an attribution process about a friend's romantic relationship. The design can also be described in the framework of the attributional process model (Figure 3.) by Fletcher and Fitness (1993). First, general relationship beliefs were measured by

the two subscales (growth belief and destiny belief subscales) of ITR which were used as predicting variables. Second, the eliciting event of this attributional process was controlled with scenarios, where information of about a hypothesized friend's romantic relationship was manipulated as an independent variable. Third, the RAMM was adapted to measure the cognitive outcome –attributions—resulting from this attribution process by asking participants to indicate their attribution dimensions specifically for the partner's behavior provided in the scenarios. So the result of RAMM was a dependent variable in my design. Further, we assessed another two possible outcomes of this attributional process from participants: the approval level of and the perceived relationship satisfaction of this hypothesized friend's romantic relationship as dependent variables. In summary, we expected ITR to influence the outcome of the attributions made for a friend's romantic partner's behavior, as well as judgments of relationship quality (e.g., satisfaction) and level of approval.

Current Study

The current study started with assessing participants' destiny beliefs and growth beliefs. Then we provided relationship specific information describing a couple to participants with a hypothetical scenario where participants pretended to be friends with one of the couple members. Then we used vignettes describing a conversation where the participants' friend (one of the couple members) tells a story about his/her partner's behaviors. The four behaviors described were manipulated to be all negative, all positive, or mixed in valence (2 negative, 2 positive), forming three conditions. After reading the scenarios that were randomly assigned to them, participants' attributions toward this hypothesized friend's partner's behaviors were measured. Then the participants

completed degree of approval/disapproval of the relationship measures. At the end of survey, participants predicted the couple's relationship satisfaction (See Figure 4.

Research Design).

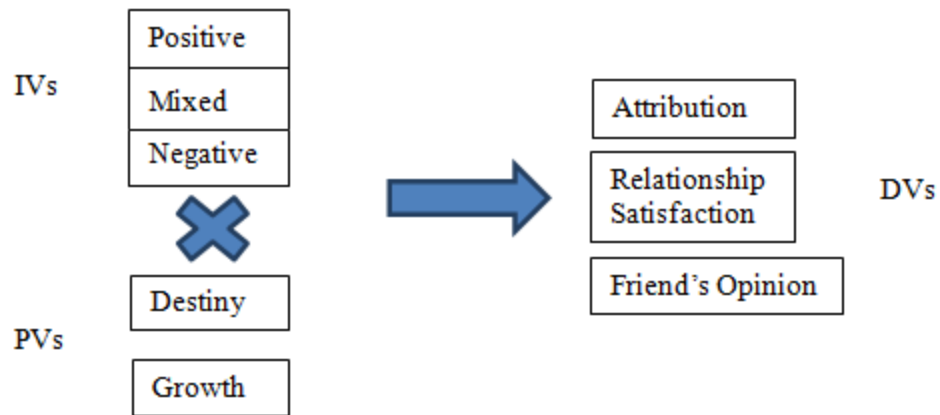


Figure 4. Research Design

Hypothesis 1: Main Effect of partner behaviors

When exposed to more negative partner behaviors, participants will show higher relationship-damaging attributions, lower approval, and lower perceived romantic relationship satisfaction.

Hypothesis 2: 2-Way Interaction of growth beliefs and destiny beliefs

Compared to people with low destiny beliefs and high growth beliefs, people high in destiny beliefs and low in growth beliefs will make more relationship-damaging attributions, exhibit lower approval, and perceive the relationship as less satisfied.

Hypothesis 3: 3-Way Interaction of growth beliefs, destiny beliefs and partner behavior

When exposed to more negative partner behaviors, compared to people with low destiny beliefs and high growth beliefs, people high in destiny beliefs and low in growth beliefs should exhibit higher relationship-damaging attributions, lower approval, and lower estimates of romantic relationship satisfaction.

CHAPTER II

METHOD

Participants

Four hundred and seventeen undergraduate students from Mississippi State University were recruited through an online registration program. Students were from psychology classes who participated in studies for class credit. Students had to be more than 18 years old in order to participate in our study. The sample was 66.7% female and 33.3% male, with an average age of 19.5 ($SD= 2.70$, Range=18 - 57). Participants were 70.7% Caucasian, 22.1% African American, 2.4% Asian-American or Pacific Islander, 1.4% Hispanic or Latino, 1.7% Bi-racial or Mixed Race, and 1.6% other. Most of the sample were single (48.7%), 28.3% were dating one person seriously, 14.1% were dating one person casually, and 8.8% fell in to other relationship categories (e.g., married). After screening for missing data and also participants who gave same answers to all the questions, totally 400 participants were entered into the final data analysis.

Procedure

All the materials were presented online using Qualtrics online survey software and participants completed all measures in one sitting. Initially, participants' demographic information was collected. Then they completed the Implicit Theories of Relationships Scales (growth beliefs subscale and destiny beliefs subscale). Secondly,

the participants were randomly assigned to read one of three vignettes about a fictitious friend's romantic relationship. Third we assessed participants' relationship-damaging attributions (Adapted Relationship Attribution Measurement), degree of relationship approval (Adapted Social Network Opinion Scale), perceptions of relationship satisfaction (Adapted Satisfaction Scale), and perceptions of relationship commitment (Adapted Commitment Scale) for the relationship presented in the scenarios. Then participants were shown closing text. All participants were granted credit automatically by the SONA systems upon survey completion.

Materials

Demographics

First of all, participants provided their own demographic information, including age, sex, and relationship history and status. Sample items included "What is your ethnicity?" and "What is your relationship status?"

Predictor Variables-growth and destiny subscales of the Implicit Theories of Relationships Scale

Knee's (1998) scale consists of 22 items, with 2 subscales, destiny and growth beliefs. The scale implements a 7-point Likert scale with possible scores ranging from 1= "*strongly disagree*" to 7= "*strongly agree*." Eleven items assessed destiny beliefs (e.g. "If a potential relationship is not meant to be, it will become apparent very soon.") and eleven items assessed growth beliefs (e.g. "Problems in a relationship can bring partners closer together."). The reliability for the destiny sub-scale was $\alpha=.86$. The reliability for the growth sub-scale was $\alpha=.83$.

Independent Variables-vignettes

All vignettes started with the instructions shown below and provided some basic demographics about a same gender friend's (i.e., men read about male friends, women read about female friends) hypothetical relationship.

Directions: Below is a scenario involving a young romantic couple.

Imagine you are a friend of Britney. Please read this section carefully, as you will be asked questions THROUGHOUT THE REMAINDER OF THE SURVEY regarding this relationship:

Below is some basic information about Britney, Brandon and their relationship.

Name:	Britney	Brandon
Age:	22	23
Height:	5'4''	5'10''
Smokes	No	No
Drinks	Yes, in social situation	Yes, in social situation
Education	Currently in College	Currently in College

Length of Relationship: 9 months

Meeting: Met in their General Psychology class where they were assigned to be partners for a group project.

Common Interests: Watching football, collecting and listening to a variety of music, reading novels, and are both psychology majors.

Favorite Couple Activities: going to the movies, going to parks, going to the gym together, going to sporting events and hanging out with their friends. (See Appendix B, p. 59)

Then participants read a scenario described their hypothetical friend discussing recent events in their relationship. All scenarios described four behaviors but the ratio of positive to negative partner behaviors varied across three conditions. The negative condition presented four negative behaviors; the positive condition presented four positive behaviors; and the mixed condition presented two positive behaviors and two negative behaviors selected from another two conditions.

The partner behaviors used in the scenarios were selected based on a pilot study. Thirty-nine possible partner behaviors were selected from lists of relationship norms identified by Argyle and Henderson, 1985 (see also Felmlee, Sweet, & Sinclair, 2012) and the Spouse Observation Checklist (Wills, Weiss, & Patterson, 1974). Seventy undergraduates rated 39 positive behaviors and 39 corresponding negative behaviors with a seven point scale. The instruction asked participants: “If your romantic partner engaged in the following behavior, how positively would you view your relationship with him/her?” We selected the four corresponding positive and negative behaviors that had the most extreme scores (e.g. the positive behaviors were rated as the most positive and where the inverse negative behaviors were rated as the most negative) and lowest standard deviations. These behaviors were then balanced in the mixed condition, using only the two that scored the most negative and the two that scored the most positive.

Sample vignette of negative condition with a female hypothetical friend and a scenario presenting four negative partner behaviors is available below:

Imagine you are a friend of Britney. One day, you are hanging out with your friend. She begins to talk with you about her relationship. During the conversation, your friend tells you that her partner criticized her behind her back. Also she feels her partner didn't trust her enough to confide in her. At the same time, she feels her partner didn't give her the support she needed. In that her partner didn't comfort her when she was upset.

Then positive condition replaced the content in the parentheses as "[complimented her to others even when she was not present. Also she feels her partner trusted her enough to confide in her. At the same time, she feels her partner gave her the support she needed. In that her partner comforted her when she was upset.]"

In the mixed condition, the content in the parentheses was replaced by "[her partner criticized her behind her back. Also she feels her partner didn't trust her enough to confide in her. But, she feels her partner gave her the support that she needed. In that her partner comforted her when she was upset.]" (See Appendix B, p. 59)

Manipulation Check

After reading the vignettes, we asked one question to check the efficacy of the valence manipulation of vignettes. Participants responded on a 7-point Likert scale to

“Thinking about what you already know about your friend Britney and her boyfriend Brandon’s relationship so far, please indicate how negative/positive you think their relationship is?” Possible scores from 1= “*extremely negative*”, 4= “*neutral*”, to 7= “*extremely positive*.”

Dependent Variable 1–Adapted Relationship Attribution Model Measurement (RAMM)

We modified Fincham and Bradbury's (1992) Relationship Attribution Model Measurements (RAMM) to assess attributions that participants make for a conflict (i.e., “an eliciting event”) happening between the hypothetical couple members. The relationship conflict event is depicted below. After reading the conflict described, participants completed the RAMM (reliability $\alpha = .82$) which had three items assessing causal attribution dimensions (causal locus – internal vs. external -, stability, and globality) and three items assessing partner’s intent, motivation, and blame. For example, participants indicated, on a seven point scale, how much they agree with the statements: “Your friend’s partner’s behavior was due to something about him/her (e.g. the type of person he/she is, the mood he/she was in).” The scale was scored such that high scores represented relationship-damaging attributions and low scores represented relationship-enhancing attributions.

Directions: Please read the second scenario carefully and answer the following questions accordingly.

Couples often have small fights with each other. Another day, right before you got to spend some time with your friend, Britney, she had

a small fight with her partner about their dating plans. During your conversation, your friend says that her partner made dinner plans at a place that he knew that she didn't like. Her partner said that he forgot that she didn't like the restaurant, but maybe they could try it again because he really enjoys the food there. Your friend tells you that sometimes she feels that her partner doesn't give her the consideration she needs. Keep their relationship in mind, indicating how much you agree with each of the following statements, where 1 = strongly disagree 4 =neutral, and 7 = strongly agree.) (See Appendix C, p. 63)

Dependent Variable 2-Adapted Social Network Opinion Scale

Social Network Opinion Scale (Sinclair, , 2015) was adapted to assess participants' opinion of the hypothetical couple's relationship. The scale consisted of 5 items assessing friend approval and 5 items assessing friend disapproval. For example, "How supportive are you of their romantic relationship?" Possible scores ranged from 1 ("*not at all*") to 7 ("*very much*"). By reversing scores of the disapproving items, it became a 10-item (reliability $\alpha = .84$) scale of overall friend opinion. Higher scores indicated approval, lower scores represented disapproval.

Dependent Variable 3- Adapted Satisfaction Scale

Participants were given three questions to assess their perceptions of the hypothetical friend's satisfaction with his/her relationship from the vignettes. The items were the same with what Etcheverry et al.'s (2013) study used to access friend perceived satisfaction. Those items were based on the Investment Model Scale (Rusbult, Martz, &

Agnew, 1998), which included “My friend is likely satisfied with his/her relationship,” “My friend’s relationship seems much better than others’ relationships,” and “My friend’s relationship is close to ideal” with a scale from 1 (“do not agree at all”) to 9 (“agree completely”). The reliability for the scale was $\alpha = .86$.

Dependent Variable 4-Adapted Commitment Scale

We employed the adapted (adapted to ask about predictions about one’s friend’s relationship as opposed to one’s own) 10-item (5 reversed) Lund (1985) Commitment scale which asks individuals to make concrete predictions of the relationship’s likelihood to last (e.g., “How likely do you think it is that Britney will want to continue the relationship?”). Possible scores were from 1 (“very unlikely”) to 7 (“very likely”). The reliability for the scale was $\alpha = .87$. Higher scores indicate higher perceived commitment

CHAPTER III

RESULTS

Three hierarchical regressions were performed by using scores on relationship attributions, approval, and satisfaction scales separately as the dependent variables. For each hierarchical regression, centered scores on the destiny and growth beliefs scale were entered as predictor variables and the conditions were entered as the independent variable in the first step to test for main effects. The three conditions of partner's behaviors were contrast coded into one variable with positive behaviors coded as 1, mixed behaviors coded as 0, and negative behaviors coded as -1 (West, Aiken, & Krull, 1996). Next, interactions were created by multiplying the centered predictor variables and the independent variable (Aiken & West, 1991). Then two-way interactions between these three variables were entered as the second step, and the three-way interaction of these three variables were entered in the third step. Below, the test of each hypothesis is summarized for each dependent variable. In our exploratory analysis section, we provided an analysis using commitment as a dependent variable and presented a further exploration using a MANOVA comparing participants from different orientation groups (created by mean splits on the growth and destiny scales) in their reactions to the different partner behavior conditions.

Before proceeding to hypothesis testing, however, it is important to present descriptive statistics for each inventory and the correlations between the variables (See

table 1). The correlation between destiny beliefs and growth beliefs was not significant as .08, which was confirmed with the results from the past research: those beliefs were two independent variables (Knee, 1998).

Table 1

Means, standard deviations, and correlations of all the variables.

Variable	Mean	SD	1.	2.	3.	4.	5.
1.Destiny	3.74	.90					
2.Growth	5.18	.78	.08				
3.Attributions	4.07	.99	.23*	.09			
4.Approval	4.71	.93	-.17*	.16*	-.45*		
5.Satisfaction	3.87	1.31	.18*	.04	-.24*	.47*	
6.Commitment	3.79	.95	.02	-.03	-.27*	.47*	.68*

Note. * $p < .01$ (2-tailed)

Also, in order to verify that the partner behavior (Independent Variable) did effectively create conditions wherein the hypothetical relationship was viewed as more negative or more positive, we conducted an ANOVA. We found a significant difference among the three conditions, $F(2,405) = 114.90, p < .001$. Further, Tukey test demonstrated that the means of the three conditions were significant different from each other at the .05 level. See table 2 for a summary of descriptive statistics on the manipulation check for each condition.

Table 2

Means and standard deviations of manipulation check for each conditions.

Conditions	Mean	SD
Negative	3.62*	1.32
Mixed	4.06*	1.33
Positive	5.81*	1.05

Note. * $p < .05$, Tukey demonstrated that the mean was significant different at the .05 level.

Hypothesis Testing

DV: Relationship-Damaging Attributions

See Table 3 for a summary of results of the hierarchical regression with relationship-damaging attributions as the dependent variable. We found main effects of partner behaviors ($b = -.24$, $SE = .06$, $\beta = -.19$, $p < .001$) and destiny beliefs ($b = .27$, $SE = .05$, $\beta = .25$, $p < .001$) in step 1, $F(3,398) = 14.59$, $p < .001$, $R^2 = .10$. The main effects of partner behaviors were consistent with hypothesis one; the greater the number of negative partner behaviors depicted in the scenario, the more relationship-damaging attributions the participants made. Further, participants high in destiny beliefs were more likely to make relationship-damaging attributions compared to those individuals low in destiny beliefs. No main effect of growth beliefs was found. However, we found a significant 2-way interaction of growth beliefs and partner behaviors ($b = -.18$, $SE = .07$, $\beta = -.12$, $p < .05$) in step 2, $\Delta R^2 = .02$, $p < .05$. See Figure 5 for details. The greater the number of negative partner behaviors presented in the scenario, participants low in

growth beliefs were more likely to make relationship-damaging attributions compared to participants high in growth beliefs.

DV: Relationship Approval

When conducting the hierarchical regression with relationship approval as the dependent variable, we found main effects of partner behavior ($b = .378, SE = .05, \beta = .33, p < .001$), destiny beliefs ($b = -.21, SE = .05, \beta = -.20, p < .001$), and growth beliefs ($b = .17, SE = .06, \beta = .15, p < .01$) in Step 1, $F(3,397) = 25.42, p < .001, R^2 = .16$. See Table 3 for details. However no 2-way interactions were found. So the main effect of partner behaviors was consistent with hypothesis one. The fewer negative partner behaviors, the more likely it was that the participant would approve the couple's relationship. Further, those participants high in destiny beliefs were less likely to approve the relationship compared to those participants low in destiny beliefs. In contrast, participants high in growth beliefs were more likely to approve the couple's relationship, compared to those individuals low in growth beliefs despite a tendency to make more relationship-damaging attributions when the partner was acting negatively.

DV: Relationship Satisfaction

When conducting the hierarchical regression with perceptions of relationship satisfaction as the dependent variable, we found main effects of partner behaviors ($b = .77, SE = .07, \beta = .47, p < .001$) and destiny beliefs ($b = .21, SE = .06, \beta = .14, p < .001$) in Step 1, $F(3,397) = 44.29, p < .001, R^2 = .25$. See Table 3 for details. Again, the main effect of partner behaviors confirmed hypothesis one; the fewer negative partner behaviors, the more likely it was that the participants would think the couple was in a

happy relationship. Surprisingly, those participants high in destiny beliefs were more likely to think the couple's relationship is happy compared to those participants low in destiny beliefs (yet were still less likely to approve of it and more likely overall to make relationship-damaging attributions). No main effect of growth beliefs was found.

However, when 2-way interactions were entered ($\Delta R^2 = .02, p < .05$ for step 2), a significant interaction of partner behaviors and growth beliefs emerged again ($b = .20, SE = .09, \beta = .10, p < .05$). See Figure 6 for a graphical representation of the interaction effect. Higher growth beliefs were associated with more extreme reactions (e.g., lower and higher ratings on satisfaction) to the valence of partner behaviors than those lower in growth beliefs – as if being higher in growth made them more sensitive to the ratio of positive vs. negative behaviors. So participants high in growth beliefs perceived a lower relationship satisfaction when more negative behaviors were presented in the scenarios compared to less negative behaviors were presented.

Table 3

Summary of Hierarchical Regression Analysis of effects of Partner Behaviors (PB), Growth Beliefs, and Destiny Beliefs on the Relationship-Damaging Attribution, Relationship Approval, and Relationship Satisfaction (N=402)

DV: Relationship-Damaging Attribution									
Variable	Step 1			Step 2			Step 3		
	B	SE(B)	β	B	SE(B)	β	B	SE(B)	B
PB	-.235	.059	-.191***	-.234	.059	-.190***	-.237	.059	-.192***
Destiny	.274	.053	.249***	.260	.054	.237***	.260	.054	.236***
Growth	.119	.061	.094	.130	.061	.103*	.129	.061	.102*
PB x Destiny				.038	.067	.027	.031	.069	.022
PB x Growth				-.184	.074	-.119*	-.179	.075	-.115*
Destiny x Growth				.090	.056	.079	.091	.056	.079
PB x Destiny x Growth							-.029	.069	.021
DV: Relationship Approval									
Variable	Step 1			Step 2			Step 3		
	B	SE(B)	β	B	SE(B)	β	B	SE(B)	β
PB	.378	.054	.325***	.378	.054	.326***	.380	.054	.327***
Destiny	-.209	.048	-.202***	-.207	.049	-.200***	-.206	.049	-.199***
Growth	.174	.055	.145**	.173	.056	.145**	.174	.056	.145**
PB x Destiny				-.086	.061	-.065	-.080	.063	-.061
PB x Growth				.128	.068	.087	.124	.069	.085
Destiny x Growth				-.030	.051	-.028	-.031	.051	-.028
PB x Destiny x Growth							-.022	.063	-.017

Table 3 (Continued)

Variable	DV: Relationship Satisfaction								
	Step 1			Step 2			Step 3		
	<i>B</i>	<i>SE(B)</i>	β	<i>B</i>	<i>SE(B)</i>	β	<i>B</i>	<i>SE(B)</i>	β
PB	.767	.071	.471***	.764	.071	.469***	.756	.057	.464***
Destiny	.205	.063	.141**	.181	.065	.125**	.179	.065	.123*
Growth	-.049	.073	-.029	-.026	.074	-.016	-.029	.074	-.017
PB x Destiny				-.141	.080	-.076	-.164	.083	-.089*
PB x Growth				.199	.089	.097*	.216	.091	.106*
Destiny x Growth				.085	.068	.056	.088	.068	.058
PB x Destiny x Growth							-.094	.083	.051

Note. * $p < .05$ ** $p < .005$, *** $p < .001$.

Relationship-damaging Attribution: $R^2 = .11$ *** for Step 1; $\Delta R^2 = .01$ *, for Step 2, [$F(6,396) = 9.04, p < .001, R^2 = .12$]; $\Delta R^2 = .001$, for Step 3, [$F(7,395) = 7.77, p < .001, R^2 = .12$].

Relationship Approval: $R^2 = .16$ *** for Step 1; $\Delta R^2 = .01$, for Step 2, [$F(6,395) = 13.74, p < .001, R^2 = .17$]; $\Delta R^2 = .001$, for Step 3, [$F(7,394) = 13.74, p < .001, R^2 = .17$]. Relationship Satisfaction: $R^2 = .25$ *** for Step 1; $\Delta R^2 = .03$ *, for Step 2, [$F(6,394) = 23.94, p < .001, R^2 = .27$]; $\Delta R^2 = .00$, for Step 3, [$F(7,393) = 20.71, p < .001, R^2 = .27$].

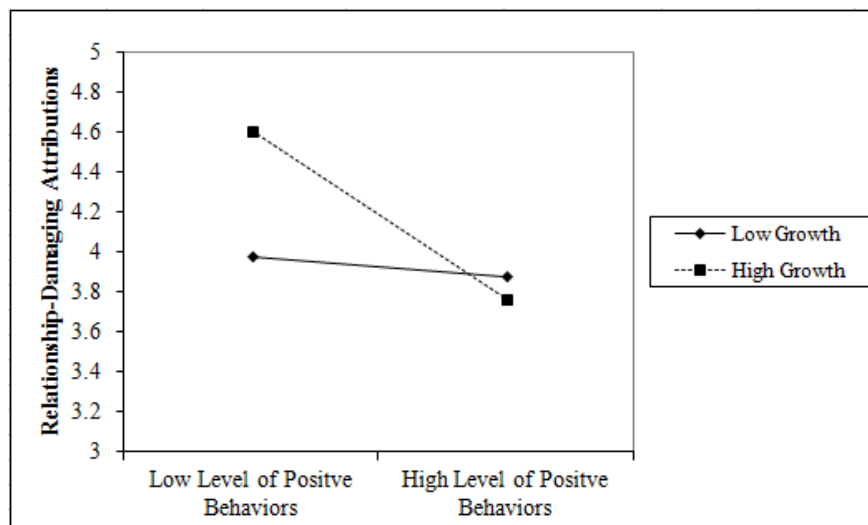


Figure 5. Interaction between partner behaviors and growth beliefs on relationship-damaging attributions

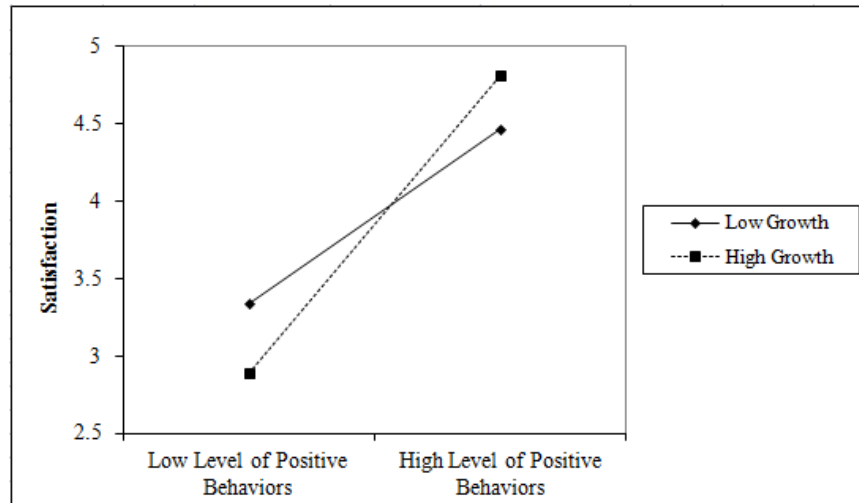


Figure 6. Interaction between partner behaviors and growth beliefs on relationship satisfaction

Exploratory Analyses

DV: Relationship Commitment

To explore our data set further, we also conducted hierarchical regression with perceptions of relationship commitment as the dependent variable. See Table 4 for a summary of results. We found a main effect of partner behaviors ($b = .54, SE = .05, \beta = .46, p < .001$) in step 1, $F(3,397) = 34.38, p < .001, R^2 = .21$. The main effect of partner behavior on commitment yielded a similar conclusion as hypothesis one; the fewer negative partner behaviors, the more likely the participants were to think the couple was committed to their relationship. No main effects of either growth beliefs or destiny beliefs were found. However a two-way interaction between partner behaviors and growth beliefs ($b = -.17, SE = .07, \beta = .11, p < .05$) on the perceptions of relationship commitment was found to be significant, $\Delta R^2 = .02, p = .027, F(6,394) = 19.01, p < .001, R^2 = .23$. To further look into this interaction, see Figure 7 for the interaction between

partner behaviors and growth beliefs on commitment. Consistent with what was found with regard to other dependent variables, higher growth beliefs were associated with lower perceived commitment as the presence of negative partner behaviors increased. Thus, save for one dependent variable, the impact of growth beliefs on relationship judgments hinged on the history of behaviors within that relationship, whereas effects of destiny did not.

Table 4

Summary of Hierarchical Regression Analysis for Predicting Partner Behaviors (PB), Growth Beliefs, and Destiny Beliefs on the Perceptions of Relationship Commitment (N=402)

Variable	Step1			Step2		
	B	SE(B)	β	B	SE(B)	β
PB	.534	.053	.453***	.534	.053	.453***
Destiny	-.004	.047	-.004	-.015	.047	-.014
Growth	-.078	.054	-.065	-.071	.055	-.060
PB x Destiny				-.104	.059	-.079
PB x Growth				.181	.065	.126*
Destiny x Growth				.017	.047	.017

Note. * $p < .05$ ** $p < .005$, *** $p < .001$. $R^2 = .20$ *** for Step 1; $\Delta R^2 = .02$ * for Step 2; [$F(6, 395) = 18.88, p < .001, R^2 = .22$].

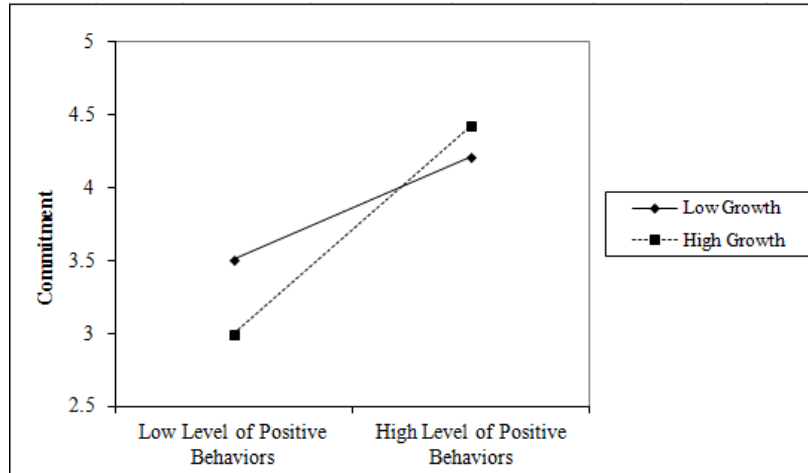


Figure 7. Interaction between partner behaviors and growth beliefs on the perceptions of relationship commitment

Overall Group Differences

Since our three conditions are not only different in terms of the number of negative partner behaviors, but also different in terms of the number of positive behaviors. To get a picture of all levels of our independent variable, we wanted to explore interactions of the condition with the different ITR orientations. We conducted a 3x4 between subjects Multivariate Analysis of Variance (MANOVA), with the 3 levels of partner behaviors and 4 levels of relationship orientations (i.e. helplessness orientation, cultivation orientation, evaluation orientation, and optimization orientation). We separated the participants into these four orientations based on participants' level of ITR. For example, participants were identified as having high destiny beliefs when they had above average scores on the destiny subscales, while those with below average scores were said to have low destiny beliefs. Then if they were high on destiny beliefs and below average on growth beliefs, they were classified as having an evaluation orientation.

Because the average scores of the destiny and growth subscales were not ingredients In addition, Tukey's HSD post hoc tests were conducted not only on three conditions, but also the interactions between the three conditions and four orientations.

We found significant main effects of partner behaviors on four dependent variables: relationship damaging-attributions, $F(2,396) = 6.472, p = .002$, relationship commitment, $F(2,396) = 54.21, p < .001$, relationship satisfaction, $F(2,396) = 57.50, p < .0005$, and relationship approval, $F(2,396) = 25.76, p < .001$. We also found significant main effects of four orientations on relationship damaging-attributions, $F(3,396) = 4.91, p = .002$, relationship satisfaction, $F(3,396) = 5.88, p = .003$, and relationship approval, $F(3,396) = 4.05, p = .007$. However, we did not find significant difference among the perceived relationship commitment from different orientation groups. Also no interaction between orientations and partner behavior conditions was found.

See Figure 8 for a comparison of dependent variable means in each partner behavior group. In terms of perceptions of relationship satisfaction and commitment, the participants responded to three conditions of negative partner behaviors significantly differently. However, the participants could not distinguish well between the mixed condition and the negative condition based on their responses on attributions and approval, where two negative behaviors appear to be just as bad as four. When it comes to attributions, this may be because, with the addition of the conflict, the "bad behavior" is becoming higher in consistency (Kelley, 1973) – a metric not included in the RAMM. So participants made similar amount of relationship-damaging attributions once there was any negative behaviors, regardless the number of negative behaviors is more or less.

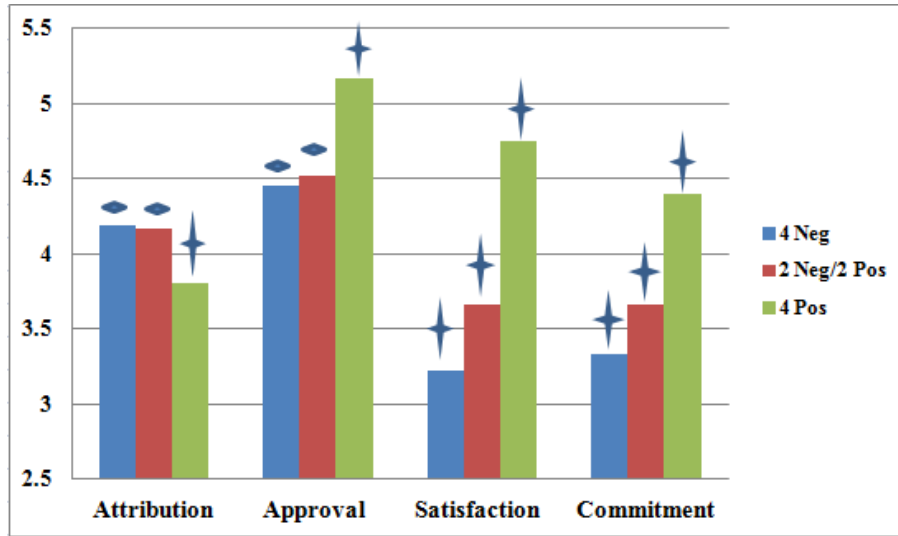


Figure 8. Comparing attribution, approval, satisfaction, and commitment levels in the three conditions of partner behaviors

Note. The star on the top of the bar presented that the group mean is significantly different from other group means on the same dependent variable. The diamond presented the group is not significant different from each others.

Although no significant interaction was found between partner behaviors and orientations, we conducted simple effects comparisons to see if any orientations stood out. Note, this analysis was conducted merely for illustrative purposes. See Figure 9 for a detailed picture comparing our dependent variable means from different partner behavior groups and different orientation groups. In terms of perception of relationship satisfaction and commitment, only the participants with cultivation orientations responded to all three conditions of partner behaviors significantly differently. However, with regard to relationship satisfaction, the participants with the other three orientations responded similarly to mixed and positive behavior conditions based on their perceptions of relationship satisfaction. Furthermore, regarding commitment, participants with

optimization orientations and helpless orientations could not distinguish mixed and negative behavior conditions well. In contrast, participants with evaluation orientations rated commitment levels significantly lower only when four negative partner behaviors were present. Based on the relationship damaging attributions, only participants with cultivation orientations and optimization orientations show differences across partner behavior conditions.

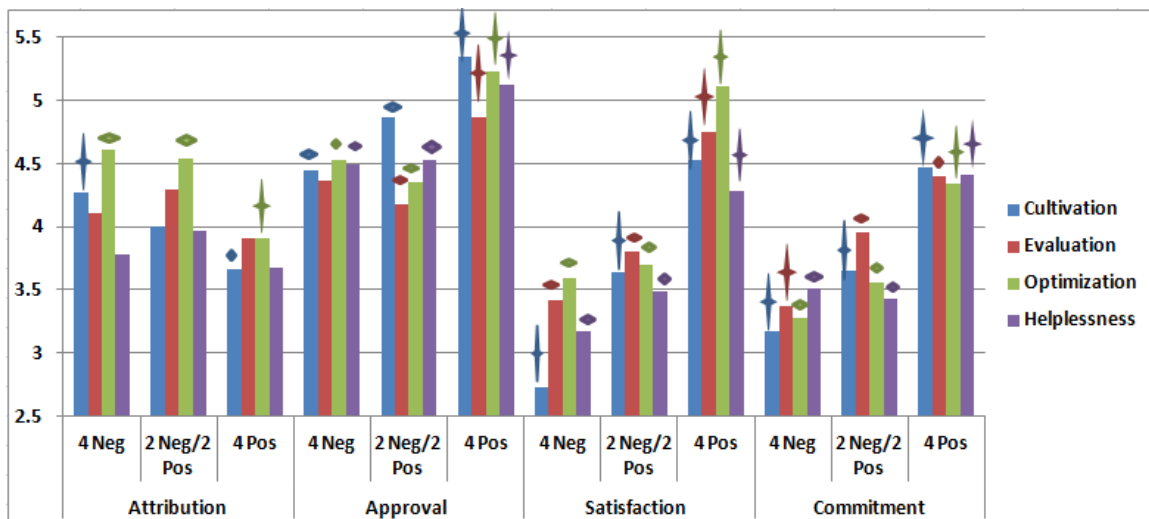


Figure 9. Compare attribution, approval, satisfaction, and commitment in three conditions of partner behaviors and with four orientations

Note. The star on the top of the bar indicates that the group mean is significantly different from other group means on the same dependent variable. The diamond indicates that the group is not significantly different from the others within the orientation type.

Summary

We found main effects of partner behaviors on our three dependent variables: relationship-damaging attributions, approval, and satisfaction. Thus, hypothesis 1 was confirmed, in that participants, who read more negative partner behaviors in the vignettes

also made more relationship-damaging attributions, expressed less approval, and perceived the couple as less satisfied and committed than those who read about positive behaviors. No two-way interaction of growth and destiny beliefs was found. So the second hypothesis that growth and destiny beliefs would interact to influence participants' responses was not supported. Also no three-way interaction of partner behaviors, growth beliefs, and destiny beliefs was found; thus the third hypothesis predicting that interaction was not supported.

However, we found main effects of destiny beliefs and growth beliefs on relationship approval. Participants high in destiny beliefs were more likely to approve of the relationship, but participants high in growth beliefs were less likely to approve of the relationship. In addition, we found main effects of destiny beliefs on relationship-damaging attributions and relationship satisfaction. Participant high in destiny beliefs were more likely to make relationship-damaging attributions, however, surprisingly thought the relationship as more satisfied. Furthermore, the interaction of growth beliefs and partner behaviors was found on relationship-damaging attributions, relationship satisfaction, and commitment. So when more negative partner behaviors were presented, participants high in growth beliefs made more relationship-damaging attributions and thought the relationship as more satisfied and committed.

CHAPTER IV

DISCUSSION

The present study contributed to the growing body of research on how social networks influence romantic relationships. As past literature has shown, a peer's opinion regarding a couple's relationship can affect relationship quality (Etcheverry et al., 2013; Etcheverry et al., 2008; Sprecher & Felmlee, 1992; Wright & Sinclair, 2012). However, few studies have tried to identify the factors that shape the opinions of these third parties in the first place (see Etcheverry et al., 2013 for an exception). The factor of interest to the present study was the third party's relationship belief system, including their layperson theory about how relationship should function. Within social psychology we refer to these layperson theories as ITR (Knee, 1988), which tends to break people into categories of those who believe either that couples are destined to be together or that couples learn to love each other over time. The present study explored how knowledge about a friend's partner behaviors and a person's own lay theories (i.e., endorsement of growth and destiny beliefs), influenced their assessments of another's relationship.

Limitations

Before moving onto a discussion of the implications of the findings, it is important to note that the present study has a few limitations that need to be addressed. The present study used hypothetical scenarios where participants pretended to be friends

with one of the couple members. Using hypothetical scenarios allowed us manipulate the types of relationship stories that a friend told participants. Although we tried to create a life-like scenario where a friend was talking about his/her relationship to the participants, there may be important differences between participants' reactions toward vignettes and real life situations. For example, some important factors contributing to real life relationship discussions between friends may be missing, such as closeness of their friendship, the knowledge about the friend's relationship history, or even the pre-existing impressions about the friend's partner. Thus future studies might invest in studying the live interactions of friends engaged in relationship sense-making (perhaps randomly assigned to discuss a problem or a happy event in their relationship, as couple studies often do) in order to get a better picture of the process. Also using actors and videotape can be another way to manipulate the couple's relationship information.

Further, the relationship type of the couple, such as marital, same-sex, or interracial relationship, is another important factor that may shape a third party's perception of that relationship as well. Given that the majority of our participants were young college students, we created a vignette about a common college dating relationship. So the results may have limited generalizability to older adults or married couples.

Also, marginalized (same-sex, interracial, or age-gap) relationships have been shown to be particularly affected by network opinion (Edmonds & Killen, 2009; Lehmler & Agnew, 2006; Reiter, et al., 2009). Further, Americans tend to see interracial relationships as more likely to fail (Gaines & Leaver, 2002). Thus, if future scenarios featured a marginalized couple, the presumption of the likelihood of failure

may be exacerbated by destiny beliefs coloring all of their evaluations. So maybe people high in destiny beliefs will be less likely to approve of an interracial relationship.

Therefore, the types of relationships are factors that should be included in any discussion of relationship perceptions as they shape individuals' perception of a friend's relationship.

The undistinguishable approval and attributions of participants from mixed conditions (2 negative behaviors) and negative conditions (4 negative behaviors) were worth addressing. Interestingly, there were distinguishable responses from these two conditions on our manipulation check and their estimation of the couple's relationship satisfaction and commitment. So it was reasonable to conclude that the same results showed on approval and attributions of those two conditions did not simply due to the ineffectiveness of the mixed condition. It also could be because that the bad behaviors have stronger effect than positive behaviors. According to Baumeister et al. (2001), "Bad is stronger than good." were supported by plenty of studies for close relationships. Gottman (1994) proposed that in order for a relationship to succeed, positive interactions must outnumber the negative ones by at least five to one. One negative behavior would be a lot powerful than one good behavior. Therefore, this could be a reasonable explanation for the "ineffectiveness" of our 2 negative behaviors for some dependent variables, compared to 4 negative behaviors. In the future study, it may be helpful to set up scenarios to account for this effect by adding some conditions with different proportion of negative and positive behaviors for a better manipulation. Also the order of the negative behaviors and positive behaviors in the scenarios should be taking into

account as well, since the present study presented the negative behaviors before positive behaviors in the mixed conditions.

Implications

The present study had a few implications. As predicted by hypothesis one, when participants read about a friend's partner's engaging in more negative than positive behaviors, they made more relationship-damaging attributions, expressed lower approval of the relationship, and perceived the friend's relationship as less satisfying and committed. So the main effect of the partner behaviors confirmed our argument that the individual's overall positive or negative opinion of a friend's romantic relationship is shaped by hearing about friend's relationship events. The previous studies on how social network opinion forms did not specifically manipulate the relationship events (Felmlee, 2001; Etcheverry et al., 2013). Even Etcheverry et al. (2013) only manipulated the perceptions of relationship quality by asking participants whether their friend's relationships were either similar or different from an ideal romantic relationship. Another manipulation they used was to ask participants to list either few or many reasons why their friend was happy with their current romantic relationship (Etcheverry et al., 2013). Therefore, the present study had a unique contribution to the literature in that the valence of partner behaviors was manipulated in order to demonstrate the effects of these behaviors on third-party opinions. If even the hypothetical friend's partner behaviors could influence an individual's perceptions of that relationship, similar events in real-life might carry even more weight.

In contrast to our expectations, we did not find a significant 2-way interaction of growth beliefs and destiny beliefs or a significant 3-way interaction of partner behaviors,

growth beliefs, and destiny beliefs. However, we found that the power to detect the 2-way interactions for the relationship-damaging attributions and approval was not enough. We entered the variance change explained by the 2-way interactions into G Power software (sample size=400, number of tested predictors=3, total number of predictors=7, $\alpha=.05$) with Post hoc tests to calculate the power of our data analysis for the four dependent variables. The power for relationship-damaging attributions and approval was .36, which was a little small. But the power for commitment was .66 and the power for satisfaction was .85, which seemed to be big enough. Further, based on the G power calculation, we found that the power for detecting the 3-way interaction was very small based on current sample and effect size. Therefore, Hypothesis 2 and 3, which both suggested people's growth and destiny beliefs interacted to form orientations that influence their perception of other's relationship were not supported. However, given the low power of detecting the effect on some dependent variables, it indicated the further confirmation by raising the power.

Nevertheless, the present study still suggested that individuals' ITR affect how they perceive friends' relationships, these effects just manifested dependent on the growth beliefs and destiny beliefs scales separately, not combined. So though we did not hypothesize main effects of the beliefs, we did find main effects of destiny beliefs and growth beliefs on participants' approval of a fictitious friend's relationship. Participants higher in growth beliefs were more likely to approve of the relationship than those low in growth beliefs. As mentioned before, people high in growth beliefs tend to believe that the success of a relationship is determined by each partner's ability to overcome difficulties (Knee, 1988). So people high in growth beliefs would think the negative

partner behaviors are the difficulties their friends need to overcome. In addition, Knee (1988) also found growth beliefs were related to more active and approaching coping strategies in response to negative relationship events. Then their relatively high approve of friends' relationships also show their approaching attitudes to their friend's relationship despite they see the relationship problems.

In contrast, those participants high in destiny beliefs were less approving of the relationship when compared to those participants low in destiny beliefs. As Knee (1988) argued that people high in destiny beliefs think that a couple is either a match or not a match right from the start and that finding your match is the key to having a successful relationship. So the obvious relationship problems are seen as a signal that the relationship will fail. In addition, people high in destiny beliefs tend to disengage from relationships when negative relationship events happen (Knee, 1988). That is probably why destiny beliefs make people less approving of their friend's romantic relationship as well, since they tend to have a more passive approach to relationship issues.

Surprisingly, we found a positive main effect of destiny beliefs on perceptions of relationship satisfaction. So despite being less likely to approve of the relationship, personally, those high in destiny beliefs expected their friend to be satisfied with the relationship. It may be because people high in destiny beliefs tend to think couples who are together are destined to be together. The couple must be somewhat happy if they are still in this relationship. However, participants high in destiny beliefs were less likely to approve of the couple's relationship, suggesting that while they personally might not like the relationship they assume their friend would. This might indicate that destiny beliefs

have different consequences for predicting one's own perceptions (i.e., approval) versus meta-perceptions (e.g., guessing one's friends' feelings, thoughts, or behavior).

Therefore, looking at all the main effects of ITR on relationship approval and satisfaction together, these results suggested that individuals' relationship beliefs influenced their overall approval of friends' relationships and their perceptions of the friends' relationship satisfaction. This is another unique contribution of the present study to the literature. Relationship beliefs do influence perceptions and opinions of another couple's relationship.

Further, a two-way interaction of partner behaviors and growth beliefs on the perceptions of relationship quality was found. When more negative partner behaviors were described in the scenarios, participants high in growth beliefs perceived their friend as less satisfied and committed to the relationship. This is opposite to our argument that people high in growth beliefs should be less likely to be influenced by relationship problems, since they think relationship problems are opportunities to grow a relationship (Knee & Bush, 2008). Knee et al. (2004) found that people high in growth beliefs had less decrease in their relationship commitment than people low in growth beliefs after experiencing couple conflicts. Therefore, the present study suggested that ITR may not affect perception of another's relationship quality in the same way to affect perceptions of their own relationship quality. Growth beliefs did not buffer the negative effect of relationship difficulties on the evaluation of another's relationship as it did when people evaluate their own relationships.

While examining whether participants' ITR can help explain the attributions they made for a fictitious friend's relationship events, it was confirmed that ITR was linked to

relationship-damaging attributions. Regardless of the number of negative behaviors in the scenarios, participants high in destiny beliefs tended to make more relationship-damaging attributions when evaluating a relationship conflict when compared to participants low in destiny beliefs. Thus, destiny beliefs may be an important component in explaining why some people tend to make more negative interpretations of a friend's relationship events than others.

As evidence that those high in destiny beliefs are tougher critics than those low in destiny beliefs, we also found the positive effect of destiny beliefs on the participant's relationship-damaging attributions that was consistent with our arguments. People high in destiny beliefs tend to think the compatibility of a couple is constant, and tend to look for signals that the relationship is or is not "meant to be." So any relationship event tends to be diagnosed as an important signal of couple mismatch and interpreted as due to a characteristic of the partner that is unlikely to change, and that constant evaluation process alone can lead to a propensity for more critical assessments – as that is what they are looking for (Knee, 1988).

For those high in growth beliefs however, we found a 2-way interaction between partner behaviors and growth beliefs. Surprisingly, only in the conditions with more negative behaviors did participants high in growth beliefs make more relationship-damaging attributions to a friend's partner behavior than participants low in growth beliefs. This is surprising because those high in growth beliefs are supposed to be more forgiving of relationship difficulties, viewing them as opportunities for the relationship to grow instead of signs to terminate. Despite participants high in growth beliefs tending to think that relationship problems in general are changeable, they did not make fewer

relationship-damaging attributions than those low in growth beliefs in the present study. In fact, they made more. Thus the result presented here were inconsistent with the finding of Wunderer and Schneewind (2005), who found that individuals high in growth beliefs made fewer relationship-damaging attributions when studying people in a relationship. Individual high in growth beliefs do seem to make more relationship-damaging attributions to friend's partner behaviors when presented with evidence of bad behavior from that partner.

Maybe growth beliefs promote a realistic perception of another's relationship quality. People with higher growth beliefs may be more accurate in judging another's relationship qualities based on information they received. However, because forming opinions toward the relationship is still from participants' own perspective, growth beliefs still showed a similar protecting effect on approval as it did in peoples' own romantic relationships. This is also consistent with what Abbott and Lannutti (2007) found: people high in growth beliefs make a great effort to provide support to a friend going through relationship difficulties. So although growth beliefs help participants to be potentially more critically realistic while perceiving another's relationship quality, they still maintained more overall approval of the relationship, which would help them be more supportive toward a friend's relationship. These findings could tie back into research by Neff and Karney (2005) that shows that successful relationships are those where they balance global positive evaluations of the relationship/partner (e.g., "I love my partner") with specific level accuracy about partner/relationship (e.g., "But he is a terrible cook) that are then minimized so not to hurt the overall positivity toward the relationship. So admitting there may be a shortcoming in the relationship presently does

not mean the problem has to last. In fact, acknowledging where problems might exist is a necessary step to working on them.

Our results of comparing four orientation groups also supported the idea that growth beliefs may promote a realistic perception of another's relationship quality. Participants with a cultivation (high growth beliefs and low destiny beliefs) orientation tended to be more sensitive to levels of friend's partner negative behaviors than participants with other orientations. As we found participants with cultivation orientations showed corresponding drops in levels of perceived relationship satisfaction and commitment for the three conditions. Plus, cultivation participants' reactions showed more sensitivity to mixed and negative behavior conditions than other orientations. Therefore, a cultivation orientation may help participants to have a more realistic view of another's relationship qualities. It is possible that their view on another's relationship is more evidence-based. A possible future study would examine if people with a cultivation orientation were better at predicting another's relationship dissolution as compared to people with evaluation orientations, and to see what sorts of advice they provide when they acknowledge relationship shortcomings.

Conclusions

This study may imply that individuals should be careful about taking advice from a friend with higher destiny beliefs, because people high in destiny beliefs are more likely to interpret a friend's relationship events negatively regardless of the relationship events. Also it may be helpful to notice your friend's relationship beliefs, such as whether they hold destiny beliefs or growth beliefs. You can try to promote your friend's growth beliefs and decrease your friend's destiny beliefs. Then hopefully in the long run, you

may end up with a friend, who not only can provide evidence-based evaluations of your relationship, but also keep a relatively supportive opinion toward your romantic relationship to help you maintain it.

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APPENDIX A
DEMOGRAPHIC QUESTIONS

Directions: Please answer the following questions regarding YOUR personal demographics:

Gen. What is your gender?

1 Female

2 Male

3 Other _____

Age. What is your age? _____

Race. What is your race/ethnicity?

0 Caucasian or European-American

1 Black or African American

2 Asian-American or Pacific Islander

3 Hispanic or Latino

4 Native American

5 Middle Eastern or Arabic descent

6 Bi-racial or Mixed race

7 Other _____

Status. What is your current romantic relationship status?

1 Single

2 Dating one person casually

3 Dating more than one person casually

4 Dating one person seriously

5 Committed/engaged

6 Married or ceremonially committed

7 Separated from romantic partner

8 Broken-up/Divorced or in the process of breaking up

His. How many serious romantic relationships (dating length: 6 months or more) have you been in? _____

Relig. What is your religious affiliation? _____

Yearsch. What is your academic classification?

1 Freshman

2 Sophomore

3 Junior

4 Senior

5 Other _____

APPENDIX B
RELATIONSHIP VIGNETTE

(For Women)

Directions: Below is a scenario involving a young romantic couple. Imagine you are a friend of Britney. Please read this section carefully, as you will be asked questions THROUGHOUT THE REMAINDER OF THE SURVEY regarding this relationship: **Below is some basic information about Britney, Brandon and their relationship.**

Name:	Britney	Brandon
Age:	22	23
Height:	5'4"	5'10"
Smokes	No	No
Drinks	Yes, in social situation	Yes, in social situation
Education	Currently in College	Currently in College

Length of Relationship: 9 months

Meeting: Met in their General Psychology class where they were assigned to be partners for a group project.

Common Interests: Watching football, collecting and listening to a variety of music, reading novels, and are both psychology majors.

Favorite Couple Activities: going to the movies, going to parks, going to the gym together, going to sporting events and hanging out with their friends.

(Negative Condition)

Imagine you are a friend of Britney. One day, you are hanging out with your friend. She begins to talk with you about her relationship. During the conversation, your friend tells you that her partner criticized her behind her back. Also she feels her partner didn't trust and confide in her. At the same time, she feels her partner didn't give her the support she needed. In that her partner didn't comfort her when she was upset.

(Positive Condition)

Imagine you are a friend of Britney. One day, you are hanging out with your friend. She begins to talk with you about her relationship. During the conversation, your friend tells you that her partner complimented her when she was not present. Also she feels her partner trusted and confided in her. At the same time, she feels her partner gave her the support she needed. In that her partner comforted her when she was upset.

(Mixed Condition)

Imagine you are a friend of Britney. One day, you are hanging out with your friend. She begins to talk with you about her relationship. During the conversation, your friend tells you that her partner criticized her behind her back. Also she feels her partner didn't trust and confide in her. But, she feels her partner gave her the support that she needed. In that her partner comforted her when she was upset.

(For Men)

Directions: Below is a scenario involving a young romantic couple. Imagine you are a friend of Brandon. Please read this section carefully, as you will be asked questions THROUGHOUT THE REMAINDER OF THE SURVEY regarding this relationship: **Below is some basic information about Britney, Brandon and their relationship.**

Name:	Britney	Brandon
Age:	22	23
Height:	5'4"	5'10"
Smokes	No	No
Drinks	Yes, in social situation	Yes, in social situation
Education	Currently in College	Currently in College

Length of Relationship: 9 months

Meeting: Met in their General Psychology class where they were assigned to be partners for a group project.

Common Interests: Watching football, collecting and listening to a variety of music, reading novels, and are both psychology majors.

Favorite Couple Activities: going to the movies, going to parks, going to the gym together, going to sporting events and hanging out with their friends.

(Negative Condition)

Imagine you are a friend of Brandon. One day, you are hanging out with your friend. He begins to talk with you about his relationship. During the conversation, your friend tells you that his partner criticized him behind his back. Also he feels his partner didn't trust and confide in him. At the same time, he feels his partner didn't give him the support he needed. In that his partner didn't comfort him when he was upset.

(Positive Condition)

Imagine you are a friend of Brandon. One day, you are hanging out with your friend. He begins to talk with you about his relationship. During the conversation, your friend tells you that his partner complimented him when he was not present. Also he feels his partner trusted and confided in him. At the same time, he feels his partner gave him the support he needed. In that his partner comforted him when he was upset.

(Mixed Condition)

Imagine you are a friend of Brandon. One day, you are hanging out with your friend. He begins to talk with you about his relationship. During the conversation, your friend tells you that his partner criticized him behind his back. Also he feels his partner didn't trust and confide in him. But, he feels his partner gave him the support that he needed. In that his partner comforted him when he was upset.

APPENDIX C

ADAPTED RELATIONSHIP ATTRIBUTION MEASUREMENT

(For Women)

Directions: Please keep the first scenario in mind, read the second scenario carefully and answer the following questions accordingly.

Couples often have small fights with each other. Another day, right before you got to spend some time with your friend, Britney, she had a small fight with her partner about their dating plans. During your conversation with Britney, your friend says that her partner made dinner plans at a place that he knew that she didn't like. Her partner said that he forgot that she didn't like the restaurant, but maybe they could try it again because he really enjoys the food there. Your friend tells you that sometimes she feels that her partner doesn't give her the consideration she needs. Keep their relationship in mind, indicating how much you agree with each of the following statements, where 1 = strongly disagree 4 =neutral, and 7 = strongly agree.

AttriFin01. Your friend's partner's behavior was due to something about him (e.g. the type of person he is, the mood he was in).

AttriFin02. The reason your friend's partner didn't give your friend the consideration she needs is NOT likely to change.

AttriFin03. The reason your friend's partner didn't give your friend the consideration she needs is something that affects other areas of their relationship.

AttriFin04. Your friend's partner didn't give your friend the consideration she needs on purpose rather than unintentionally.

AttriFin05. Your friend's partner's behavior was motivated by selfish rather than UNSELFISH concerns.

AttriFin06. Your friend's partner deserves to be blamed for not giving the consideration your friend needs.

(For Men)

Directions: Please keep the first scenario in mind, read the second scenario carefully and answer the following questions accordingly.

Couples often have small fights with each other. Another day, right before you got to spend some time with your friend, Brandon, he had a small fight with his partner about their dating plans. During your conversation with Brandon, your friend says that his partner made dinner plans at a place that she knew that he didn't like. His partner said that she forgot that he didn't like the restaurant, but maybe they could try it again because she really enjoys the food there. Your friend tells you that sometimes he feels that his partner doesn't give him the consideration he needs. Keep their relationship in mind, indicating how much you agree with each of the following statements, where 1 = *strongly disagree* 4 = *neutral*, and 7 = *strongly agree*.

AttriFin01. Your friend's partner's behavior was due to something about her (e.g. the type of person she is, the mood she was in).

AttriFin02. The reason your friend's partner didn't give your friend the consideration he needs is NOT likely to change.

AttriFin03. The reason your friend's partner didn't give your friend the consideration he needs is something that affects other areas of their relationship.

AttriFin04. Your friend's partner didn't give your friend the consideration he needs on purpose rather than unintentionally.

AttriFin05. Your friend's partner's behavior was motivated by selfish rather than UNSELFISH concerns.

AttriFin06. Your friend's partner deserves to be blamed for not giving the consideration your friend needs.

APPENDIX D
ADAPTED SOCIAL NETWORK OPINION SCALE

Directions: After your conversation with your friend regards his/her partner, rate following sentence on a scale of *1=Not at all* to *7=Very much*.

SoOpin1. As a friend, how supportive would you be of their romantic relationship?

SoOpin2. As a friend, how much would you like his/her partner?

SoOpin3. As a friend, to what degree would you disapprove of their romantic relationship?

SoOpin4. As a friend, to what extent would you interfere in their relationship?

SoOpin5. As a friend, to what extent would you include his/her partner in things?

SoOpin6. As a friend, how much would you discourage him/her about continuing their relationship?

SoOpin7. As a friend, how much would you accept your friend's partner?

SoOpin8. As a friend, to what extent would you say negative things about his/her partner or his/her relationship?

SoOpin9. As a friend, how much would you encourage your friend to "keep your options open" (e.g. see other people, consider other alternatives to getting invested in the relationship)?

APPENDIX E
ADAPTED SATISFACTION SCALE

Directions: Thinking about Britney's and Brandon's relationship, as a friend, please rate how much you agree or disagree with statements below, where *1=do not agree at all* to *7=agree completely*.

Satis1. I think my friend is satisfied with his/her relationship.

Satis2. I think my friend's relationship is much better than others' relationships.

Satis3. I think my friend's relationship is close to ideal.

APPENDIX F
ADAPTED COMMITMENT SCALE

Directions: Thinking about the future of Britney’s and Brandon’s relationship, please respond by indicating how likely or unlikely you think any of the following outcomes may be.

1	2	3	4	5	6	7
Very Unlikely	Unlikely	Somewhat Unlikely	Undecided	Somewhat Likely	Likely	Very Likely

Commit 1. How LIKELY do you think it is that their relationship will be permanent?

Commit 2. How LIKELY do you think it is that they will be together in 6 months?

Commit 3. How LIKELY do you think it is that Britney or Brandon will want to continue the relationship?

Commit 4. How LIKELY do you think it will be that Britney or Brandon will pursue single life? ®

Commit 5. How LIKELY do you think it is for them to be together for an extended period of time (over the next year or more)?

Commit 6. How LIKELY do you think it will be that Britney or Brandon will be attracted to other partners? ®

Commit 7. How LIKELY do you think it will be that Britney or Brandon might decide to end this relationship sometime in the future? ®

Commit 8. How LIKELY do you think it will be that Britney or Brandon will view his/her partner as clearly part of his/her future plans?

Commit 9. How LIKELY do you think it will be that Britney or Brandon may not want to be with his/her current partner in a few years? ®

Commit 10. How LIKELY do you think it will be that Britney or Brandon would avoid making life-long plans for this relationship? ®

APPENDIX G
MANIPULATION CHECK

(For Women)

Manipw1. Please think about what you already know about your friend, Britney and her boyfriend, Brandon's relationship so far, please indicate how negative/positive do you think their relationship is?

1=extremely negative, 4=neutral, 7=extremely positive

Manipw2. Please think about what you already know about your friend, Britney and her boyfriend, Brandon's relationship so far, please indicate how many positive behaviors do you heard your friend Britney talked to you about her partner? Please also fill in the blank what behaviors they are.

0

1 _____

2 _____

3 _____

4 _____

5 _____

Manipw3. Please think about what you already know about your friend, Britney and her boyfriend, Brandon's relationship so far, please indicate how many negative behaviors do you heard your friend Britney talked to you about her partner?

0

1 _____

2 _____

3 _____

4 _____

5 _____

(For Man)

Manipm1. Please think about what you already know about your friend, Brandon and his girlfriend, Britney's relationship so far, please indicate how negative/positive do you think their relationship is?

1=extremely negative, 4=neutral, 7=extremely positive

Manipm2. Please think about what you already know about your friend, Brandon and his girlfriend, Britney's relationship so far, please indicate how many positive behaviors do you heard your friend Brandon talked to you about his partner? Please also fill in the blank what behaviors they are.

0

1 _____

2 _____

3 _____

4 _____

5 _____

Manipm3. Please think about what you already know about your friend, Brandon and his girlfriend, Britney's relationship so far, please indicate how many negative behaviors do you heard your friend Brandon talked to you about his partner? Please also fill in the blank what behaviors they are.

0

1 _____

2 _____

3 _____

4 _____

5 _____

Directions: Please indicate the extent to which you think the following behavior is a difficulty or a problem in a romantic relationship? Rate those behaviors on 7 point scale below.

1=not an important problem at all, 4=a moderately important problem, 7=an extremely important problem

RatPbeh1. One couple member criticized another one behind another one's back.

RatPbeh2. One couple member didn't trust and confide in another one.

RatPbeh3. One couple didn't give another one the support another one need.

RatPbeh4. One couple didn't comfort another one when another one was upset.

Directions: Please indicate the extent to which you think the following behavior is an important positive behavior in a romantic relationship? Rate those behaviors on 7 point scale below.

1=not important at all, 4=moderately important, 7=extremely important

RatNbeh1. One couple member complimented another one when the first one was not present.

RatNbeh2. One couple member trusted and confided in another one.

RatNbeh3. One couple member gave another one the support another one needed.

RatNbeh4. One couple member comforted another one when another one was upset.

APPENDIX H
IRB APPROVAL LETTER

June 30, 2014

Sining Wu

Psychology

Mailstop 9514

RE: HRPP Study #14-180: Implicit Theory of Relationship & Attribution

Dear Ms. Wu:

This email serves as official documentation that the above referenced project was reviewed and approved via administrative review on 6/30/2014 in accordance with 45 CFR 46.101(b)(2). Continuing review is not necessary for this project. However, in accordance with SOP 01-03 Administrative Review of Applications, a new application must be submitted if the study is ongoing after 5 years from the date of approval.

Additionally, any modification to the project must be reviewed and approved by the HRPP prior to implementation. Any failure to adhere to the approved protocol could result in suspension or termination of your project. The HRPP reserves the right, at anytime during the project period, to observe you and the additional researchers on this project.

Please note that the MSU HRPP accreditation for our human subject's protection program requires an approval stamp for consent forms. The approval stamp will assist in ensuring the HRPP approved version of the consent form is used in the actual conduct of research. Your stamped consent form will be attached in a separate email. **You must use the wording of the stamped consent form for obtaining consent from participants.**

Please refer to your HRPP number (#14-180) when contacting our office regarding this application.

Thank you for your cooperation and good luck to you in conducting this research project. If you have questions or concerns, please contact me at jroberts@orc.msstate.edu or call 662-325-2238.

Finally, we would greatly appreciate your feedback on the HRPP approval process. Please take a few minutes to complete our survey at <http://www.surveymonkey.com/s/YZC7QQD>.

Sincerely,

Jodi Roberts, Ph.D.

IRB Officer

cc: Carolyn Adams-Price (Advisor)

SONA