Understanding marriage: From the mainstream to where angels fear to tread





Frank
Fincham
and the many faces
of problem oriented
research

Thanks to 60+ collaborators/co-authors

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Thanks to 60+ collaborators/co-authors

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Outline

- √ The legacy of Burgess (and contemporaries)
- Demonstrate research strategy via attribution studies
- Bipolar Disorder in Marital Research
- ✓ Move on to forgiveness
- ✓ Move on upstream to pre marriage
- ✓ Move on (again) to where angels fear to tread
- ✓ Conclusions

Goal: Demonstrate continuity in change in research and how to avoid pitfalls en route.

Detours: Good or bad? You decide



A mainstream research program



- Overall strategy
 - Establish phenomenon (replication)
 - Rule out artifacts
 - Explain phenomenon (mechanisms, direction of Second effects etc)
- > Starting point
 - Predicting Success or Failure in Marriage
 Burgess & Cottrell (1939)
 - Does spousal cognition predict?

The attribution hypothesis

- Investigated via attribution dimensions
 Spouses rate
 - causes on underlying dimensions (e.g. locus, stability);
 - responsibility attribution dimensions (more relevant to marriage: blame and fault)

Causal attribution: who or what produced an event Responsibility attribution: who is accountable

The attribution hypothesis: Example

Event: partner is late from work

Benign exp: "there was more traffic than usual" (external, unstable and specific explanation with no liability for blame)

Minimizes impact

(relationship enhancing)

Nonbenign exp: "s/he is self-centered and never thinks of me" (internal, stable and global with liability for blame)

Accentuates impact (conflict promoting)

Attribution & marital satisfaction: Some findings

	No of studies	Full/partial support	No support	
Causal attribution				
Locus	13	69%	31%	
Stability	11	63%	36%	
Globality	10	100%	0%	
Responsibility attrib				
Intent	6	67%	33%	
Motivation	3	100%	0%	
Blame	8	63%	37%	

- Arguably most robust marital phenomenon.
- But is it an artifact? Need to rule out plausible alternative hypotheses

Ruling out alternative hypotheses

ASSOCIATION IS NOT DUE TO:

- A. Relation between marital distress and depression
 - -- True for sub-clinical and clinical depression
- B. Relations between marital distress and violence
 - -- true for nonviolent samples and for violent

Can never definitively rule out competing hypotheses

A correlate: So what?

Even though attributions are an unusually well documented correlate of marital quality recall that;

"Early on ...Every individual characteristic ... [was correlated]... With marital success, producing an <u>r</u> of about .50...We have not progressed much beyond that point in 50 years"

(Nye, 1988, <u>J. Marr. & Family</u>)

Two assumptions vital

- Attributions initiate/maintain marital distress
- Attributions influence responses to partner behavior. Specifically, attributions may mediate behavior exchanges.

SECOND GENERATION RESEARCH

- Direction of effects
 - Lack of research reflects practical and ethical difficulties of conducting experiments in this domain. Longitudinal studies may be the most viable means of addressing a possible casual relation between attributions and marital satisfaction
- Four longitudinal studies
- 1. Attributions predict later satisfaction(not vice versa)
- 2. Rules out depressive symptoms as explanation
- Extends findings to newlyweds and rules out violence as an explanation

WHY DOES THE ASSOCIATION EXIST?

- These data are only correlational. At best, they provide evidence consistent with a particular casual inference
 - -- Still begs the question of why a relation exists
- At the very least, we need to examine the relation between attributions and behavior. Return to the assumption that attributions mediate behavior exchanges between spouses.
 - The task here can be broken down into a two-step process:
 - -- Examine whether there is an association between attributions and marital behavior. If an association is found....
 - -- Examine whether attributions influence marital behavior

Are attributions related to marital behavior?

Partial correlations between attributions and behavior in a problem-solving discussion (marital satisfaction partialled out of association)

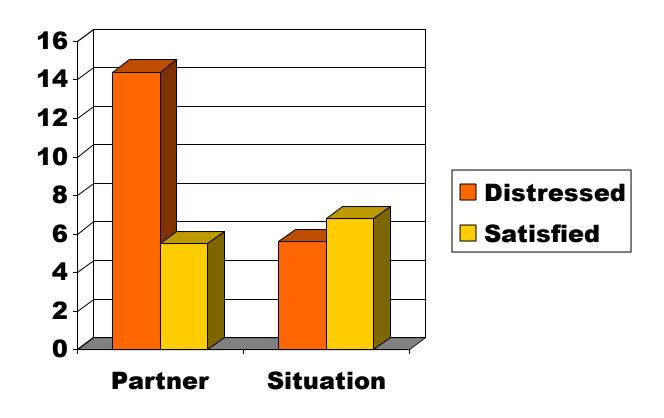
	<u>Behaviors</u>		
Attributions	Negative	Positive	
<u>Wives</u>			
Causal	.62**	55**	
Responsibility	.59**	44**	
<u>Husbands</u>			
Causal	.27 *	08	
Responsibility	.45**	25	

To control for variance across spouses in number of speaking turns, all values were computed using the proportion of turns falling into each behavioral category. * \underline{p} < .05, ** \underline{p} < .01

Are attributions related to marital behavior?

Do attributions influence behavior?

One study has attempted to manipulate attributions and examine the impact on negative behavior



Conceptual Hygiene: Time for a good scrub?

Sounds good. Might even say, "Nice research program"

...But what exactly are we trying to explain?

Marital success/adjustment/satisfaction is the most widely researched construct in the marital literature, and so one might expect that it would be easy to answer this question,

BUT

Symptoms of a dysfunctional construct

Plethora of measures (and labels)

Satisfaction, adjustment, success, happiness etc (synonyms of "marital quality"?) but few linked to theory

Disjuncture between theory and measures

- -- Where link it can be confusing
- -- Use of diverse items (evaluations, behavioral reports, hypothetical situation)
- -- Content overlap

Result

-- Unknown number of spurious findings

Symptoms of a dysfunctional construct

Empirically derived measures? (few - problem of appropriate criterion groups)

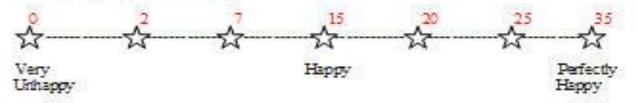
Calls to abandon the construct (e.g., Trost)

Interpreting marital ??????

What do scores mean? How to interpret?

-- Clue in weighting (22% vs. 6.6%)

Check the star on the line scale below which best describes the degree of happiness, everything
considered, of your present marriage.



- -- Burgess & Cottrell chose, and weighted, items based on corr with rated happiness in marriage (1 item).
- -- Then validity of scale score was determined by correlating it with marital-happiness rating (.92). Hello?
- -- Still today used to establish validity (e.g., global distress scale in MSI).

Implication One

- Why measure subjective evaluation of marriage under other guises?
 - ✓ Leads to interpretational ambiguity
 - Gives rise to problem of content overlap between construct and presumed correlates (e.g., communication).
- Net result is marital literature plagued by spurious findings

Implication One

Restrict construct to subjective evaluation of marriage: MARITAL QUALITY

Problem solved....

No, because of...

Sentiment Override

- Spouses respond noncontingently to partner behavior or questions about the marriage.
- ➤ Instead they respond in terms of their dominant feeling or sentiment about the relationship and this is reflected "in as many tests as one chooses to administer" (Weiss & Heyman, 1990, p. 92).
- Attempts to explain variance in relationship satisfaction using self-reports seen as "invalid from a scientific standpoint" (Gottman, 1990, p. 79).

NO. But.....

Implication Two: Need a new standard

- Recognize that every variable has the potential to be a proxy for relationship quality.
- Show that construct studied does more than capture variance in commonly used measures of relationship quality.
- Test of "surplus conceptual value" (can be provided by controlling statistically relationship quality)
- Brings us to bipolar disorder (in the literature)

Bipolar Disorder Defined

Bipolar



Disorder



Bipolar disorder by example

John and Joan

Both spouses list great sex and having a lot of fun together as some of the good things in their relationship. However, they have concerns about the physical fights they get into and the frequent yelling that occurs in the front of the children.

In therapy, it is observed that moments of affection/tenderness are sometimes followed very closely by negative affect and vice versa.

Bipolar disorder by example

Pam and Paul

Report a very steady, but uneventful life together. They tend to always agree on things and nothing particularly positive or negative ever happens between them. Each spouse wonders if this is all marriage has to offer.

In therapy, the spouses showed flat affect and were difficult to engage about the marriage

What is at issue?

- > Logic
 - Potential error in logic by use of "inverse compensation" heuristic.
- > Interpretational ambiguity
 - What do responses at the midpoint mean?

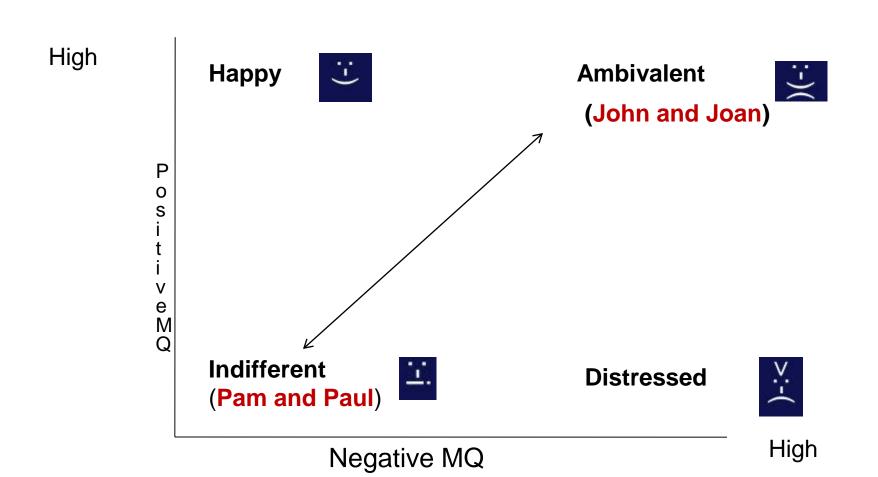
Remember 2 couples:

John and Joan same as Pam and Paul?

Roughly same relationship satisfaction score (mid-range)

Does it matter? Show me the data

Conceptual Overview



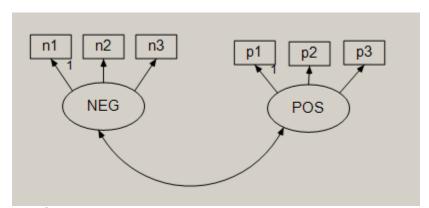
Do data yield two relatively distinct dimensions?

HOW TO INVESTIGATE?

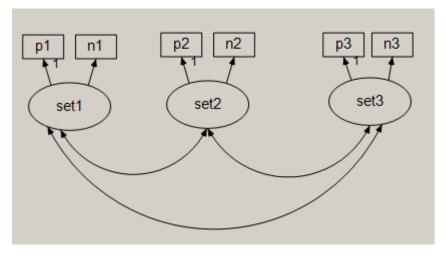
- > Simple minded approach doesn't work
- > Measuring attitudinal ambivalence
 - Considering only the positive qualities of your spouse, and ignoring the negative ones, evaluate how positive these qualities are.
 - Considering only the negative qualities of your spouse, and ignoring the positive ones, evaluate how negative these qualities are.
 - Used 3pairs of such items

First Married Sample

Proposed model



Question structure model



Fits data (one factor does not) But better fit? YES husbands, $\Delta X^2 = 122.94$; Wives, $\Delta X^2 = 94.01$

Does not fit.

Conclusion

Positive and negative items define separate, but related, factors :

r = -.37; husbands r = -.39, wives

Show me it matters!

Investigated two most robustly documented correlates of marital quality

- behavior (prior week and preceding discussion)
- attributions

Hypotheses

- 1. PMQ and NMQ scores would account for significant variance in reports of behavior and attributions for partner behavior beyond that which could be attributed to MAT scores.
- 2. The association between PMQ and NMQ and known correlates of marital quality does not simply reflect general affectivity

Hypothesis 1

Unique Variance in Behaviors and Attributions Explained by Measures of Marital Quality

	MAT		PMQ and NMQ	
Variable	ΔR^2	F	ΔR^2	F
			Husbands	
Behavior				
Discussion				
Self	.00	<1	.13	6.07**
Partner	.01	1.11	.05	2.27
Week				
Self	.02	2.15	.06	4.34*
Partner	.07	14.66**	.07	6.93**
Attributions				
Cause	.10	16.82**	.02	1.29
Responsibility	.04	5.86*	.04	2.85
			V	Vives
Behavior				
Discussion				
Self	.00	<1	.07	2.93
Partner	.00	<1	.13	6.18**
Week				
Self	.04	6.57*	.10	9.38**
Partner	.03	5.86*	.10	9.23**
Attributions				
Cause	.03	4.30*	.08	5.85**
Responsibility	.01	<1	.06	3.74*

Note. MAT = Marital Adjustment Test; PMQ = positive marital quality; NMQ = negative marital quality. *p < .05. **p < .01.

Hypothesis 2 supported: Adding affectivity does not change findings

Ambivalence vs. Indifference

- 3. Ambivalent (high PMQ and high NMQ) and indifferent (low PMQ and low NMQ) spouses will not differ in MAT scores
- 4. Ambivalent spouses will report relatively more negative behaviors and more negative attributions than indifferent spouses

Hypothesis 3: MAT

Marital Adjustment Test Scores of Groups Formed on the Basis of Positive and Negative Marital Quality Dimensions

Spouse and group	М	SD	n
Husbands			
Distressed	87.5 _a	30.1	35
Indifferent	113.8 _b	9.8	16
Ambivalent	111.7 _b	14.6	26
Нарру	126.9 _c	13.0	26
Wives			
Distressed	90.7	28.2	32
Indifferent	120.6 _b	17.5	22
Ambivalent	115.6 _b	17.4	24
Нарру	129.2 _c	12.6	24

Note. Within gender, groups with the same subscript do not differ significantly (p < .05) from each other.

Hypothesis 4: Attributions and behavior

Variable	Ambiva M	alent SD	Indiffer M	ent SD	t (45)	р
Behavior						
Self	0.5	0.2	0.3	0.2	3.64	.001
Partner	0.4	0.2	0.2	0.1	3.54	.001
Attributions						
Cause	46.2	5.1	38.7	9.8	3.23	.001
Responsibility	33.1	8.8	27.7	9.58	1.98	.027

Conceptual Replication

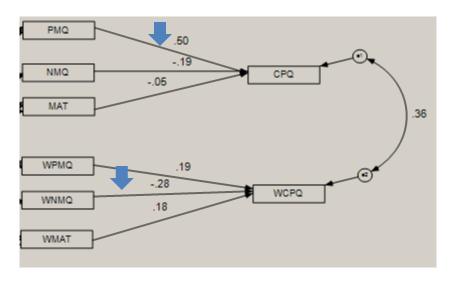
➤ Sample 2 – 96 established married couples

➤ Examined Constructive Communication Q (r = .70 with observed behavior, Hahlweg et al., 2000)

> SEM includes both spouses (not APIM)

➤ Surplus value test

Constructive Communication



Husbands – PMQ

Wives - NMQ

Sex difference?

PMQ, $\Delta X^2 = 3.9 p < .05$

Currently using IRT to develop a measure based on adjective ratings

Precision: Item Response Theory

- Offers the chance to quantify the precision of measurement (lack of noise)
- Noise in measurement obscures significant and meaningful results in smaller samples
- > Imagine thermometer accurate to +/- 0.1 degrees or +/- 10 degrees?
- Measures temperature, converging results BUT... .1 vs 10 degrees?

Item Response Theory: Data

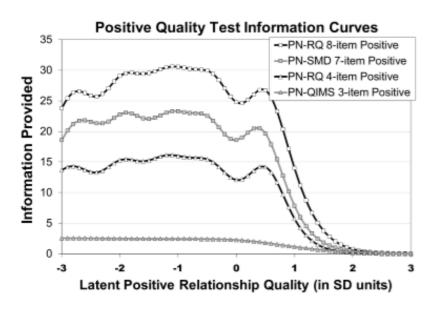
> Used:

- √20 positive (e.g., enjoyable, pleasant, alive)
- ✓ 20 negative (e.g., bad, empty, lifeless) adjectives

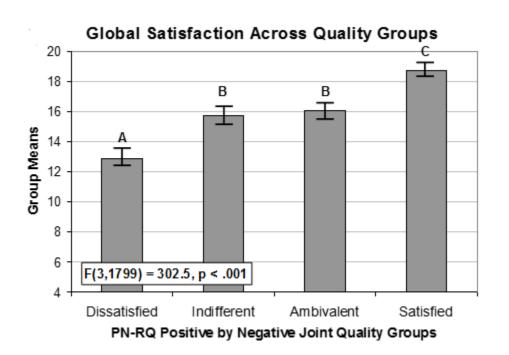
> IRT identifies

- √8 and 4 items most effective for assessing posqualities (PRQ)
- √8 and 4 items most effective for assessing neg qualities (NRQ).

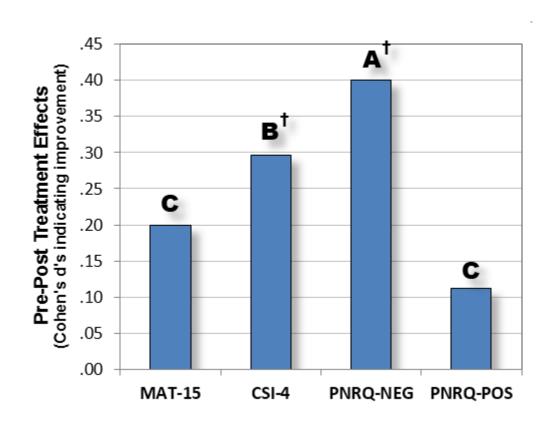
Example of Test Information Curve



Marital Quality (CSI)



Sensitivity to Treatment



Different letters suggest significant differences in effect sizes

Item Response Theory: Data Summary

- PRQ-4 and NRQ-4 offered unique information beyond CSI-4 in understanding:
 - ✓ positive interactions,
 - ✓ negative interactions,
 - ✓ satisfaction with sacrifice,
 - change following an intervention,
 - ✓ hostile conflict behavior, and
 - √ disagreement tolerance Change content domain

Back to the future ...

In Western culture love is engine of marriage (at least ideally). And

- "If we really want to love, we must learn how to forgive." --Mother Theresa
- "A happy marriage is the union of two good forgivers." -- Robert Quillen (the Garrison Keillor of his day)

Reports of spouses from longstanding happy marriages concur

What is forgiveness?

Misconceptions abound

Forgive and forget

"Forgive your enemies, but never forget their names."

John F. Kennedy

Forgiveness is only possible in the face of a remembered wrong

Forgiveness is a sign of weakness

"The weak can never forgive. Forgiveness is the attribute of the strong" Mahatma Ghandi

So forgiveness is not

 giving up the right to protect from future occurrences of the injurious behavior.

Forgiving =/= denial or foolishness.

Forgetting

(passive removal of the offence from consciousness)

Condoning

(no longer viewing the act as a wrong and removing the need for forgiveness)

What is forgiveness?

Forgiveness is a response to being wronged that entails a change of heart in which justified anger, resentment or indignation is given up.

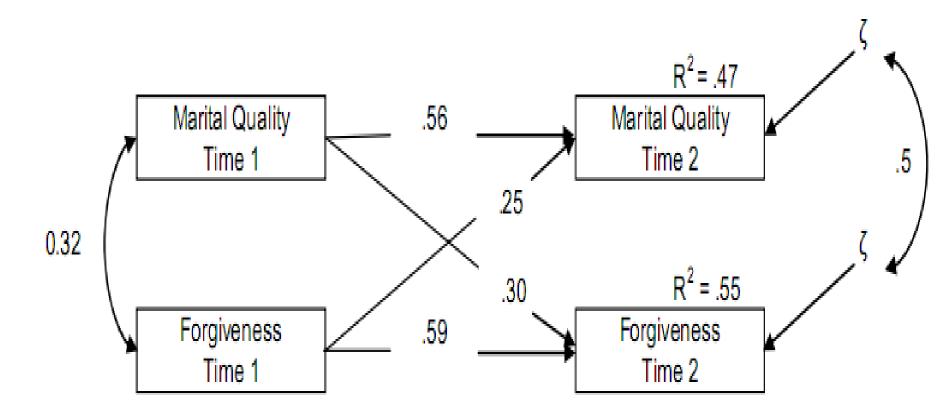
To forgive entails a struggle to overcome the negative feelings that result from being wrongfully harmed. Not easily achieved

Burgess again: Remembering our starting point

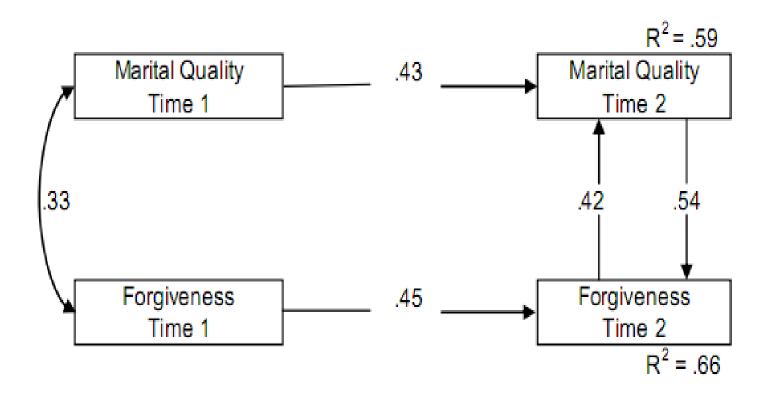
Positive association between marital quality and forgiveness

Causal flow seems to be bidirectional

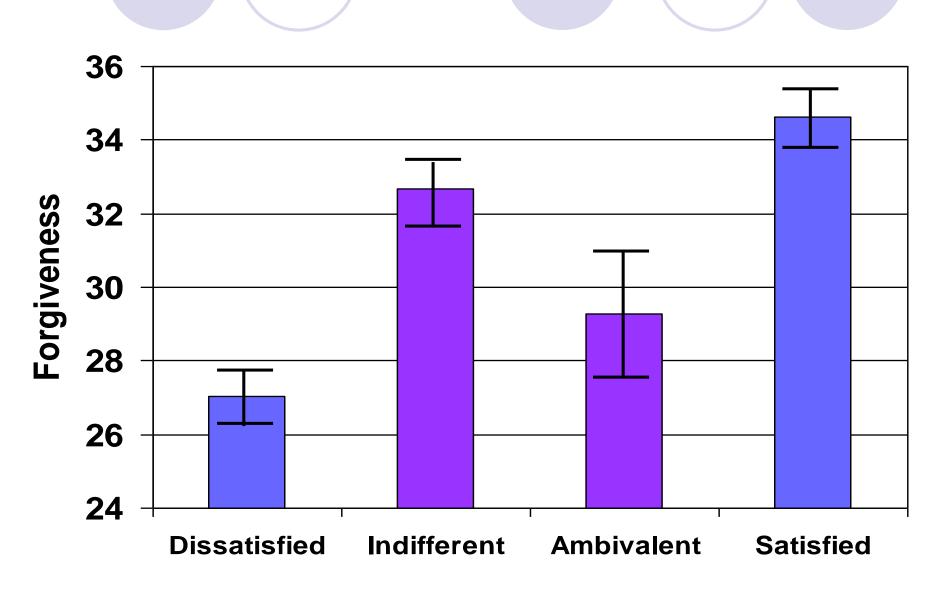
Recursive model



Non-recursive model



Forgiveness



Mechanism: Marital conflict?

- Retaliation and avoidance among husbands linked to wives' reported ineffective conflict resolution
- Lack of forgiveness among wives linked to husbands' reported ineffective conflict resolution
- Wives' forgiveness predicts husband reported conflict resolution 12 months later
- unresolved conflict provides potential mechanism that links forgiveness and relationship satisfaction

Does it matter?

Transgression → fear (withdrawal)

→ anger (retaliation, revenge)

Unpleasant states that exact a physiological toll

When chronic, the anger and hostility that characterize ongoing vengeful rumination are linked to serious health consequences:

- -- heart disease
- -- death

Unforgiveness is nothing short of life threatening!

Life preserving ..really?

- Anger, hostility are cardiotoxic
- Is forgiveness cardioprotective?
- Three related studies to look at

incremental contribution to BP, cardiac autonomic modulation and aortic

hemodynamics

American Journal of Cardiology (2014)

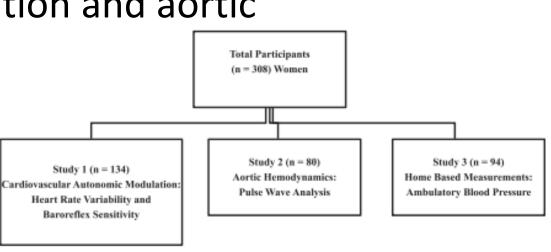


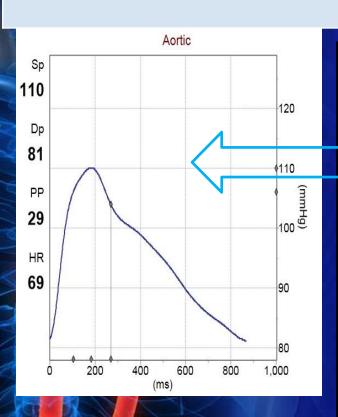
Figure 1. Participant allocation.

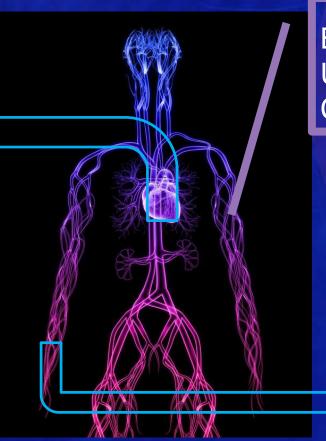


Peripheral Blood

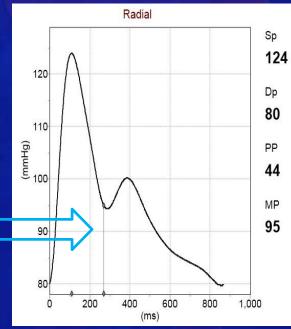
(Aortic)

(Radial/Brachial)



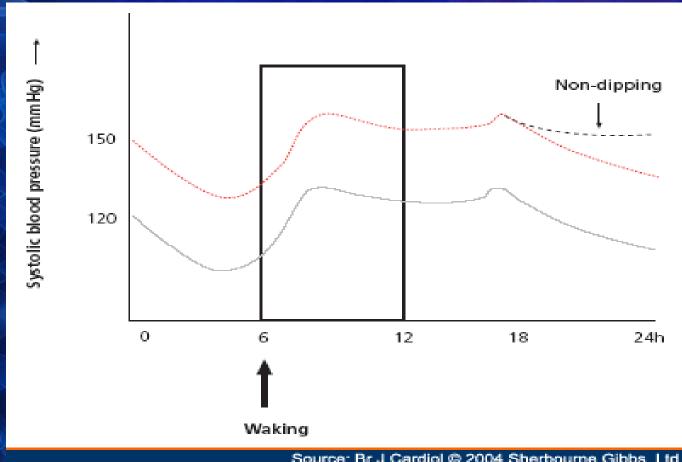


Brachial Pressure
Underestimates
Central Pressure



Central Pressure is a better predictor of cardiovascular morbidity & mortality than peripheral BP. (Wang et al. 2009; Vlachopoulos et al 2010.)

Ambulatory Blood Pressure Dipping



Source: Br J Cardiol @ 2004 Sherbourne Gibbs, Ltd.

Results

Controlling for anger forgiveness predicted...

Study 1

decreased sympathovagal tone

Study 2

decreased
ventricular work
decreased
myocardial oxygen
consumption

Study 3

increased night time BP dipping

Cardioprotective effect sizes similar to the effect sizes of known β blockers !!

Making sure ("replication")

Controlling for negative affect (anger, depression & anxiety)



- -- lower heart rate
- -- aortic systolic BP
- -- increased coronary blood flow



Δ Aortic mean BP

Δ coronary blood flow

Conceptual Hygiene

Focus in forgiveness research has been on the level of negative motivations (e.g., retaliation)
This misses the essence of forgiveness.
And that would be....?

"an attitude of real goodwill towards the offender as a person"

(Holmgren, 1993, p.34).

Conceptual Hygiene

Hypothesis

Predicted that responses to a transgression would reflect two forgiveness dimensions and that these dimensions of forgiveness for partner transgressions would, in turn, be related to conflict resolution.

Forgiveness. Recalled incident when they "felt most wronged or hurt by your partner." Rated

benevolent (eg. "I accepted my partner's humanness, flaws and failures") and

retaliatory (eg. "I retaliated or did something to get my own back") statements

Conceptual Hygiene

Results

Structure of forgiveness – one or two (retaliation & benevolence) factors?

- One factor solution rejected
- * Two factor solution provides better fit
- * Difference in fit for one and two factor solutions significant.

Marital Offence Forgiveness Scale
Psychological Assessment, 21, 194-209.

Moving on again ...

A new, but related, topic

Prompted by?

- Ongoing attempt to offer useful research
- Opportunity to influence large numbers

Healthy Marriage Initiative

- Hooking up
- FWB

Sensed culture of – chance to document (see articles in *Archives of Sexual Behavior*)

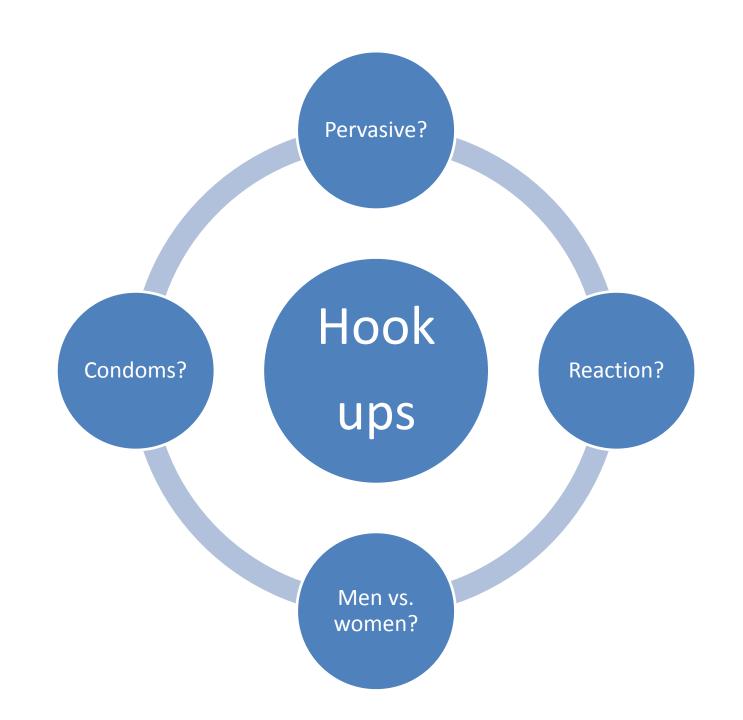
Emerging research on infidelity

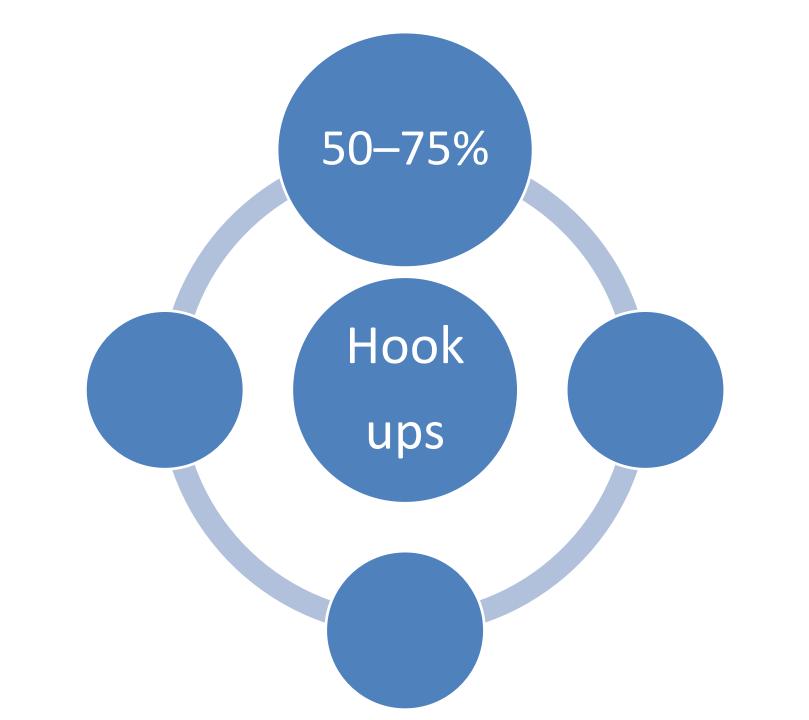


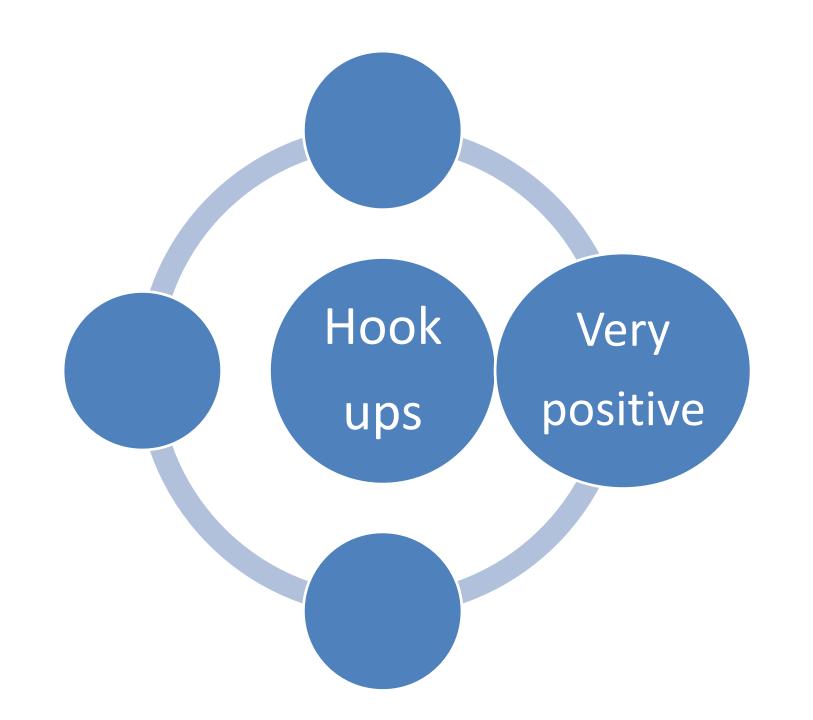


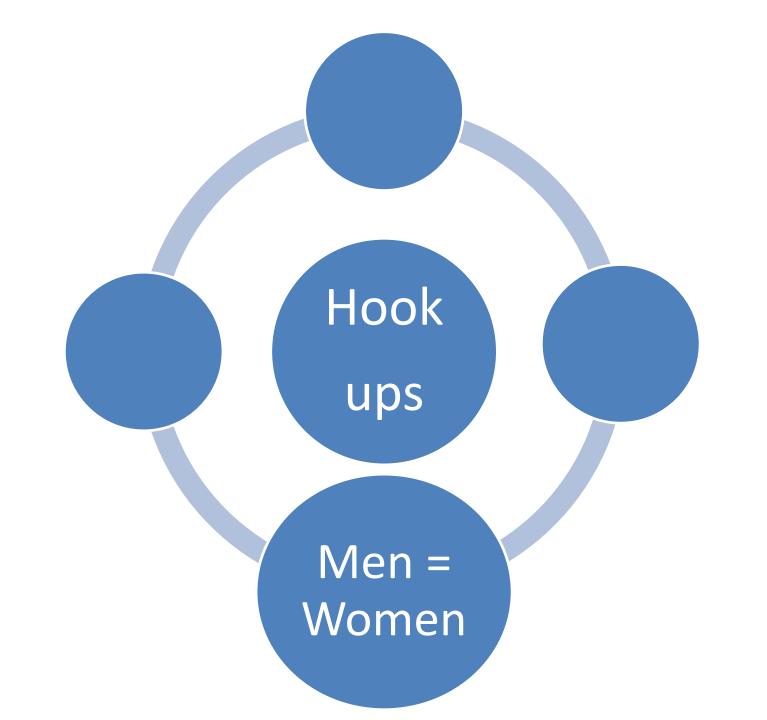


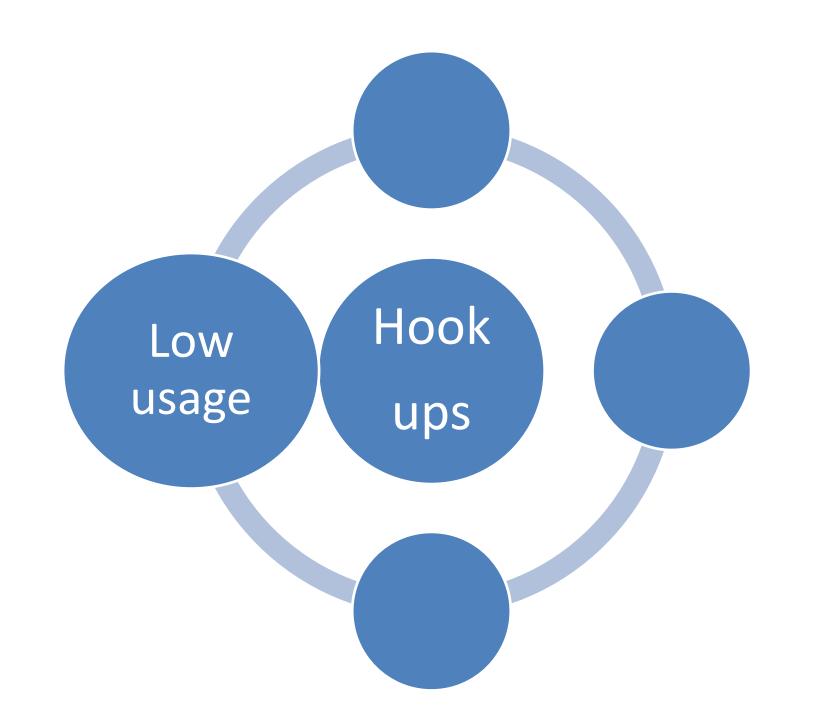
New Relationship Progressions













Brave new world

of

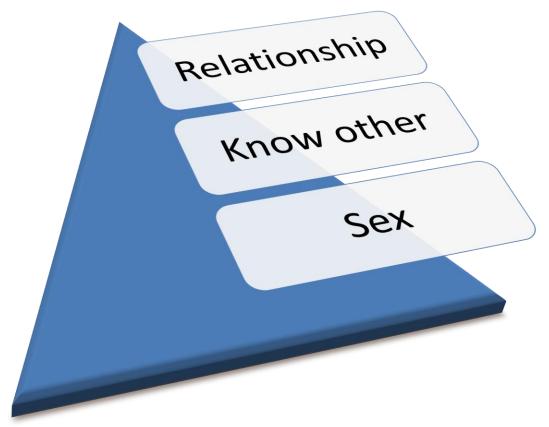


Relationships

66.5% began as a hook up

19.6% began as FWB

Contemporary Relationship Progression!?



Marriage?

2010 census shows majority of households headed by unmarried persons

Many implications

Need to go further downstream

Reframe messages

Engage on familiar ground



In Doing So We Address Two Key Problems

1. Usual methods do not optimally target those who need intervention

More flexible means of dissemination are needed

2. Gains diminish over time

A way to maintain gains is needed

ePREP



Two Campus Problems



#1 Substance abuse







Two Campus Problems



#1 Substance abuse

Each year:

- 1,400 college students die from alcohol-related unintentional injuries,
- Alcohol is involved in 500,000 unintentional injuries,
- Alcohol is involved in 600,000 assaults

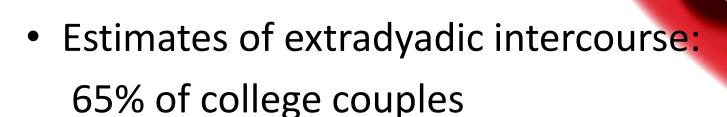


Campus Problems

#2 Intimate Partner Violence

- Rates range from 13% to 74%
- Consistently from 20-33%
- Each year on college campuses, alcohol is involved in 70,000 cases of sexual assault and acquaintance rape

Third Campus "Problem"?: Extradyadic Sexual Behavior Among College Students

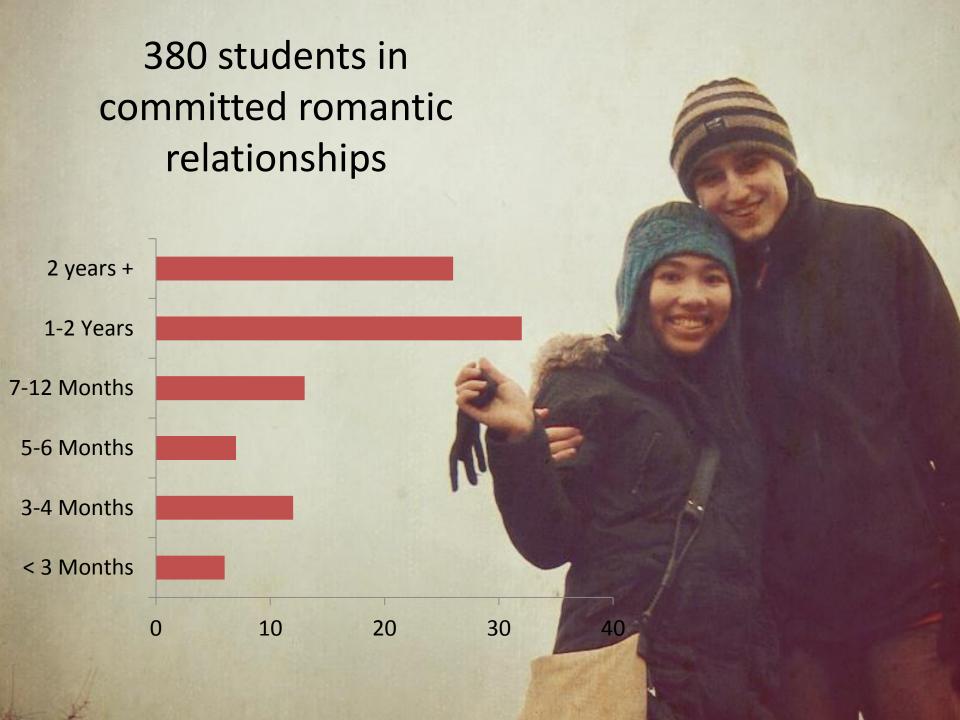


- Sexually transmitted disease direct and indirect risks
 - Condoms rarely used with extradyadic partners
- Public health issue

Relationship U

Relationship U

- Preventive relationship education
 Integrated into an existing college course
- Effectiveness study
 - No random assignment to condition
 - Closer to real world dissemination



Clinical Significance

Relationship-U

- Extradyadic sexual intercourse
 - 58% reduction
- Sexually intimate without intercourse
 - 50% reduction
- Extradyadic kissing
 - 52% reduction

Class as usual:

- Extradyadic sexual intercourse
 - 33% reduction
- Sexually intimate without intercourse
 - 50% INCREASE
- Extradyadic kissing
 - No change

Revisiting assumptions: Data matter

- Assumed...
 - IPV will not change with psychoeducational preventive intervention
 - Like everyone else, substantial (minimum 8 sessions) of intervention needed

But data tell a different story.....enter ePREP

How to enhance positive aspects of their relationship

ePREP

Communication techniques

Teaches how to recognize and combat dynamic risk factors that lead to relationship distress

How to enhance positive aspects of their relationship



Communication techniques

How to enhance positive aspects of their relationship

epre Communication techniques

How to enhance positive aspects of their relationship

ePREP

Communication techniques

How to enhance protective factors (e.g. enhancing friendship)

ePREP

Communication techniques

ePREP Braithwaite & Fincham, 2007

Individuals in committed dating relationships that had lasted 6 months or longer

ePREP

(Braithwaite & Fincham)

Results

- RelationshipVariables
- Virtually all improved
 - Physical Assault
 - d = -.61
 - Psych Aggression
 - d = -.42

Method

ePREP
(Braithwaite & Fincham)

Results

- Depression & Anxiety
 - Matched the performance of a computer based EST for these conditions

Method

ePREP
(Braithwaite & Fincham)

Will it replicate?

Does it work past follow up?

What if couples breakup?

Method

ePREP (Replication)

Journal of Family Psychology, 2009



articipants

- Individuals in committed dating relationships
 - •Mean = 1 year
 - •9% cohabiting

Summary of Findings

Measure	Effect Size	
Assault	25	
Psych Agg	20	
Negotiate	.50	
CPQ	.25	
BDI	19	
BAI	24	
Rel Sat	15	

Reduction in Physical Assault

ePREP condition decreased by 61% over 10 months

The control group decreased by only 29%

ePREP

(Braithwaite & Fincham)

Results

- Replicated!
- Relationship and mental health gains maintained at 10 months
- Durable to relationship dissolution with or without repartnering

Work with married couples ?

Method

ePREP (Marriage)

Behavior Research and Therapy, 2014



D rticipa <u></u>

- Married couples
 - Mean length of marriage =4.29 years
 - Mean age = 32.4 years
 - 80% earned less than the median national income

At One Year Follow-Up

Reduction in physical aggression?

YES

Reduction in psychological aggression?

YES

Problems with Preventive Relationship Education

1. Usual methods reach people who are at relatively low risk

More flexible means of dissemination are needed

2. Gains diminish over time

A way to maintain gains is needed

Potential Implications

ePREP has the power to overcome these obstacles

Can easily and cost-effectively be delivered to nearly any population

Ideal method for delivering "booster sessions"

Attractive alternative for other important populations

Future Directions: Dissemination

Long Waitlists/Relationship problems not primary

Couples separated by military service

Community colleges

High Schools

Moving on ...again!: Where angels fear to tread

A new, but related, topic Prompted by ?

- Higher levels of religiosity correspond with several markers of healthy functioning (e.g., blood pressure, immune function).
- 92% of Americans believe in God (Pew U.S.
 Religious Landscape Survey, 2008)
- Religious behaviors or self selection?

Prayer!!!





Quiz?



Prayer central to most widely practiced religions

Marriage (or equivalent) is pan cultural

What do we know about the impact of prayer on marriage?

"Social scientists have generally kept their distance from religion and spirituality." (Hill & Pargament, 2003, p. 65)

Program for Strong African American Marriages



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- Science & Religion
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Welcome

It is increasingly important that scientists and theologians be able to address each other's concerns and engage in a productive dialogue. The John Templeton Foundation supports activities that bring Science and Religion into just such a productive dialogue.



Making ProSAAM culturally sensitive

Being culturally sensitive requires recognition that in this community...

- ✓ Spiritual and religious context tends to be particularly pertinent
- √ 80% of African-Americans rate religion as important in their lives, and
- ✓ prayer is often a preferred way of dealing with adversity (Chatters et al., 2008)

Prayer elaborated

- ✓ All prayers were in keeping with the higher order goal of "helping you be a vehicle of God's love in your relationship."
- ✓ Participants also encouraged to pray on their partner's behalf regarding their partner's needs and aspirations.
- ✓ Participants discussed potential misuses of prayer especially "praying for God to change my mate."
- ✓ Given sample prayers to get started
 - "Properly understood and applied, [prayer] is the most potent instrument of action."

Mahatma Gandhi

Outcome = (Communication + satisfaction + positive intentions)

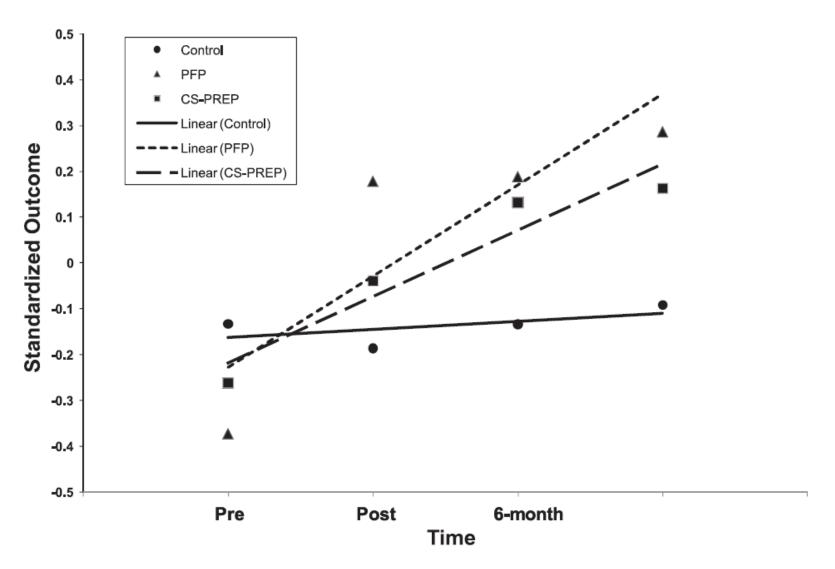


Figure 1. Level of standardized outcome at baseline, postintervention, 6- month and 12 month follow-up averaged across husbands and wives for PFP, CS PREP, and Control group.

What do we know about prayer?: Back to basics

Study 1: Single session (dating undergraduates)

Describe partner to parent

Pray for partner

Back to basics

Study 1: Single session (dating undergraduates)

Describe partner to parent

Less forgiving

Pray for partner

More forgiving

Back to basics

Study 2: 4 week diary study

Pray for partner Undirected prayer Positive thoughts

Back to basics

Study 2: 4 week diary study

Pray for partner

Greater forgiveness than both below

Undirected prayer

• Same forgiveness as below

Positive thoughts

Why?

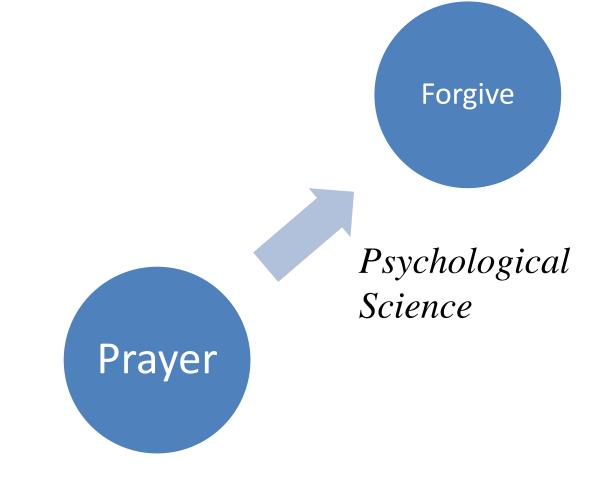
So, we hypothesized that other directed prayer that brings one into the presence of a selfless God induces selfless caring (agape).

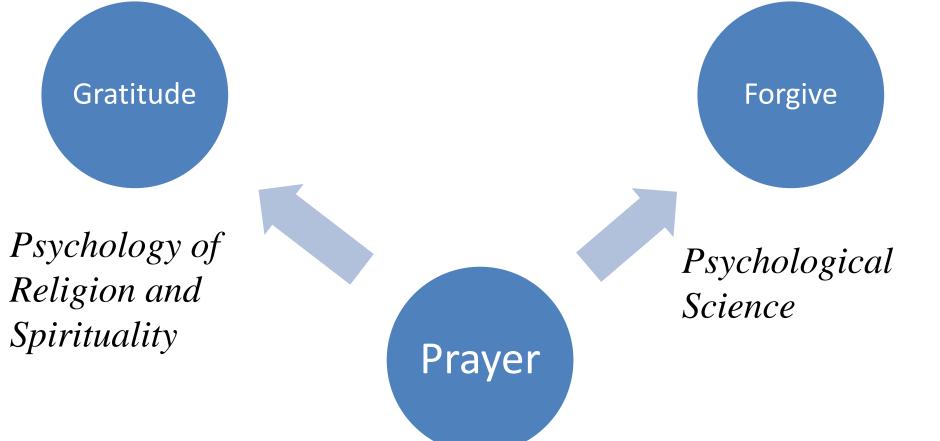
Why?

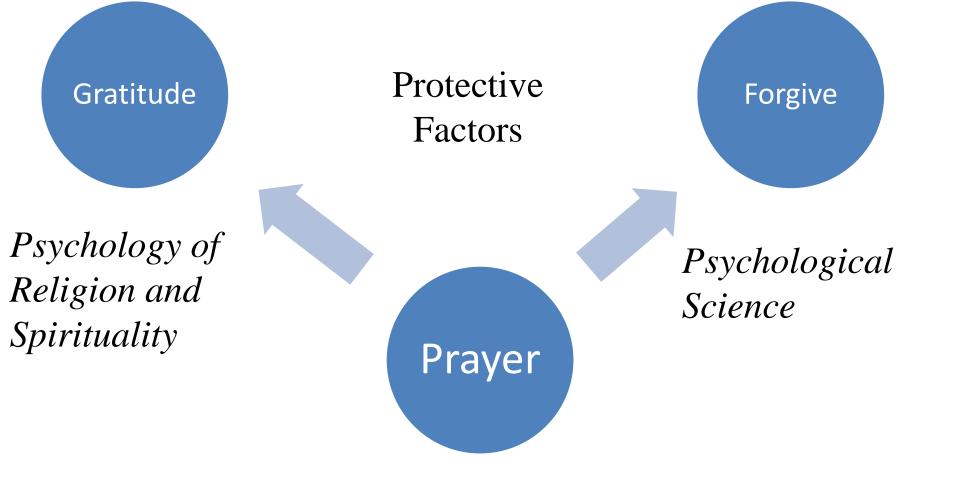
So, we hypothesized that other directed prayer that brings one into the presence of a selfless God induces selfless caring (agape).

And indeed this was found to mediate the effect I.E.









Risk Factors?

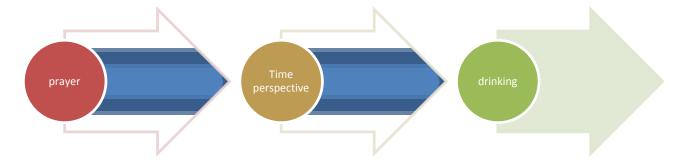
Does Talking to God Make People Less Inclined to Drink?

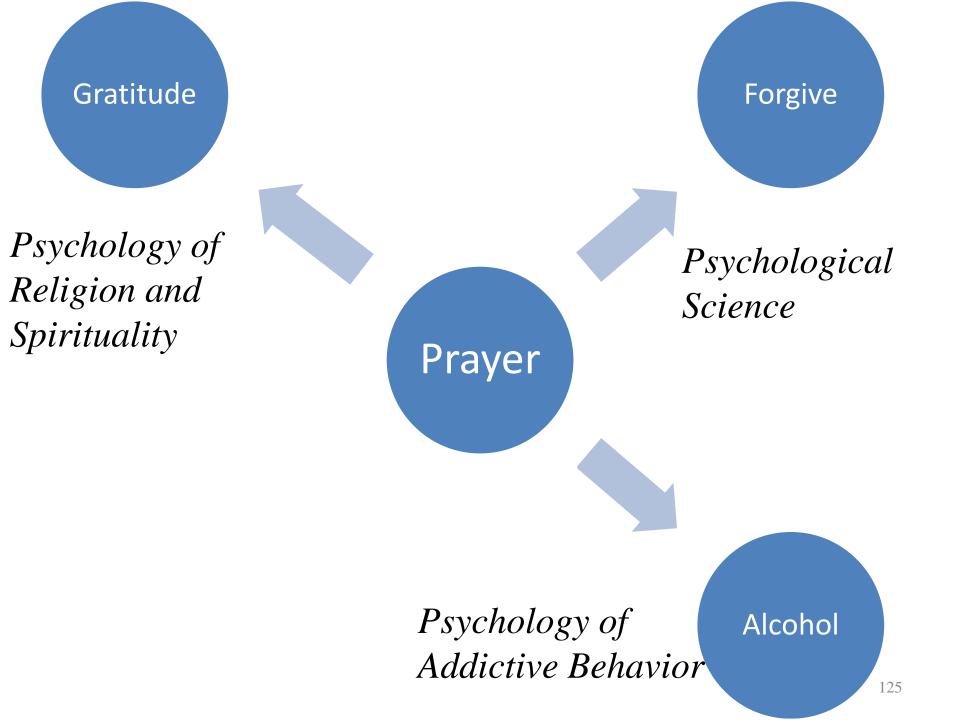


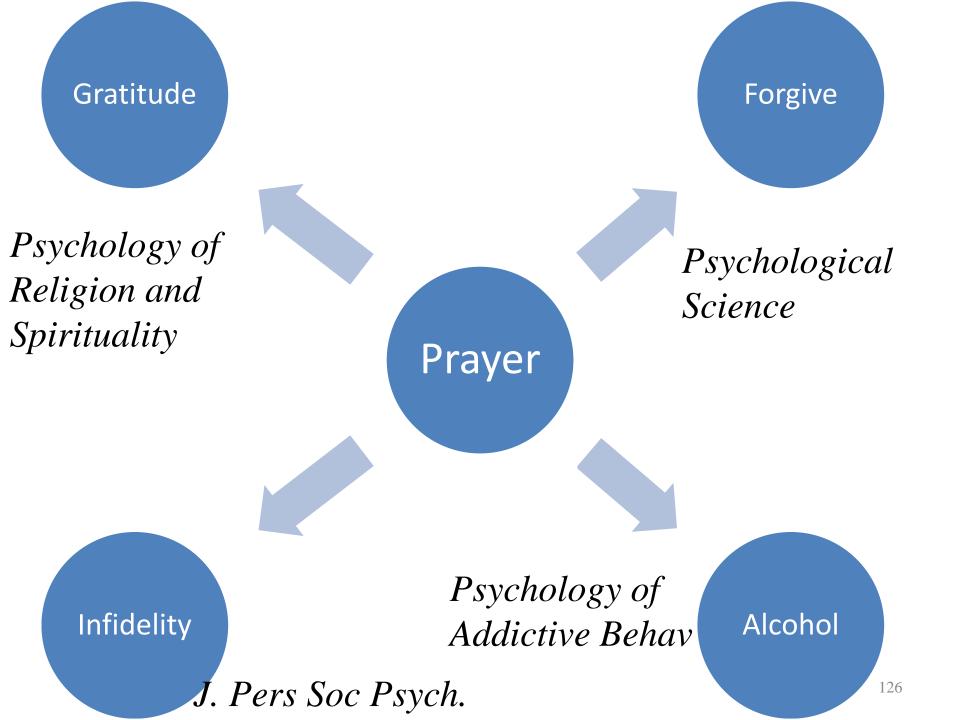
4 weeks prayer Alcohol 50%

Study 2—A Mechanism

- Method: As per last study but also completed a time-perspective measure.
- **Results:** Those in the prayer condition drank slightly more than half of the total amount of alcohol (M = 2.88, SD = 5.22) as those in the control condition (M = 4.75, SD = 7.14).
- In addition,







So what?: Isn't it all just about making yourself look good?

A fair and valid criticism!

✓ Important consideration in most research !!

What can be done?

- ✓ Use measures of social desirability
- ✓ Use lie scales

Better answer?

YES, YES and YES

BEHAVIOR

Observed by?

Partner

Trained observers

BEHAVIOR

Observed by?

Partner

 4 weeks of prayer→more forgiving relative to baseline

Trained observers

BEHAVIOR

Observed by?

Partner

 4 weeks of prayer→more forgiving relative to baseline

Trained observers

Coded as more committed

BEHAVIOR

Observed by?

Computer!

BEHAVIOR

Observed by?

Computer!

 3 minute prayer following partner transgression → more cooperative behavior in computer game with partner

BEHAVIOR

Observed by?

Computer!

 3 minute prayer following partner transgression → more cooperative behavior in computer game with partner

Trained observers again

BEHAVIOR

Observed by?

Computer!

 3 minute prayer following partner transgression → more cooperative behavior in computer game with partner

Trained observers again

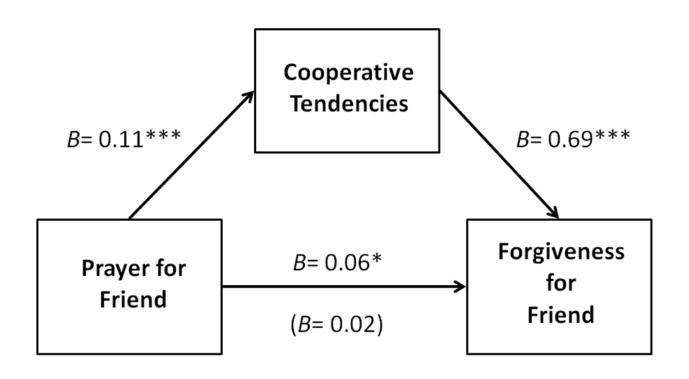
Coded as less vengeful in discussing hurt

And the Mechanism is...?

On days when a conflict arises between partners, is praying for the partner associated with more cooperative tendencies?

Is it this cooperative behavior that leads to forgiveness?

And the Mechanism is...?



Conclusion

- Started with attributions (correlate, impact etc.)
- But what happens then ?
- Forgiveness one relationship maintenance strategy
- ➤ How to increase forgiveness? → Prayer
- Hope you have experienced
 - Philosophy of research as much as
 - Research findings
- Seen dynamic nature of problem oriented research
 - Don't know where research will take you

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