

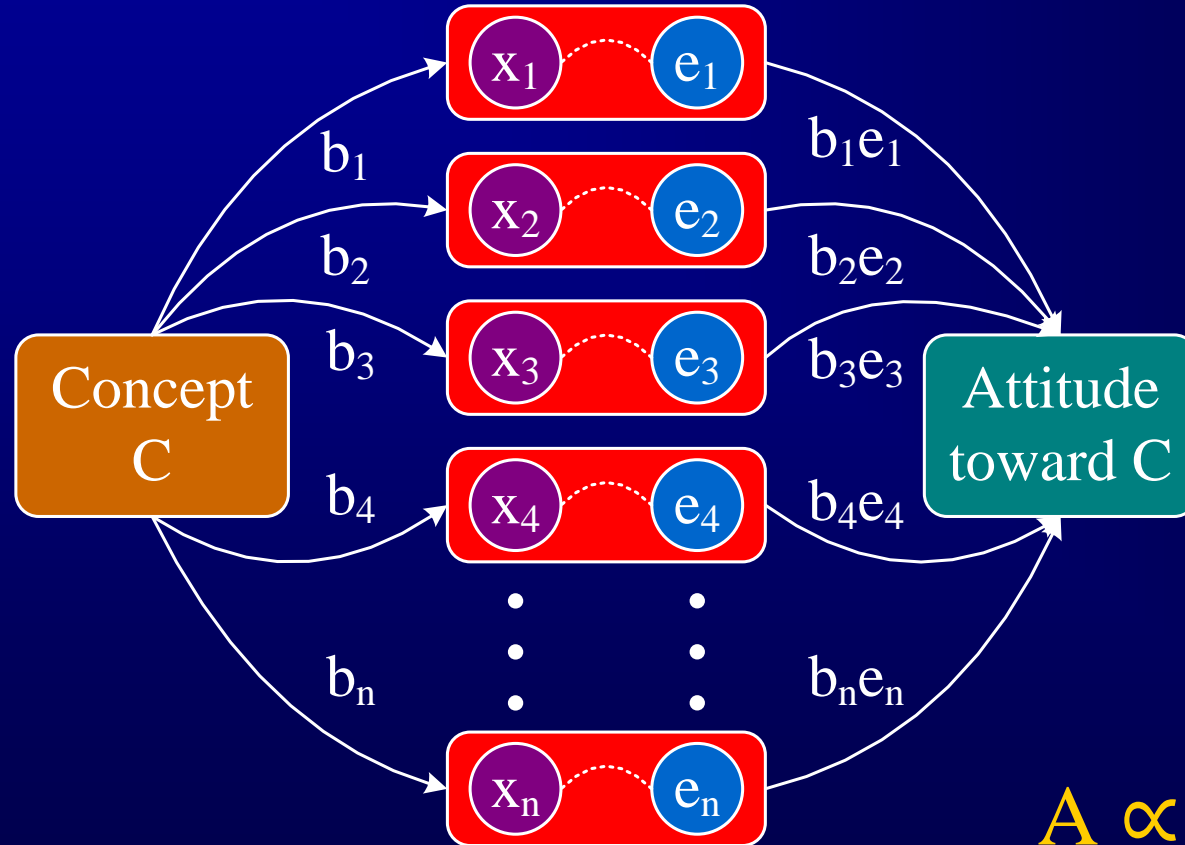


*Martin Fishbein's Legacy:
The Reasoned Action Approach*

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Expectancy-Value Model of Attitude (Summation Model)



$$A \propto \sum b_i e_i$$



Expectancy-Value Model: Research Example (Fishbein, 1963)

Salient belief about black people	Mean belief strength
• dark skin	2.66
• curly hair	2.43
• musical	1.92
• athletic	2.24
• friendly	1.20
• tall	1.02
• uneducated	.97
• unintelligent	.30
• hard workers	.57
• lazy	.50

$$A \propto \sum b_i e_i \quad r = .80$$



EV Model: Anti-Abortion Beliefs & Attitudes

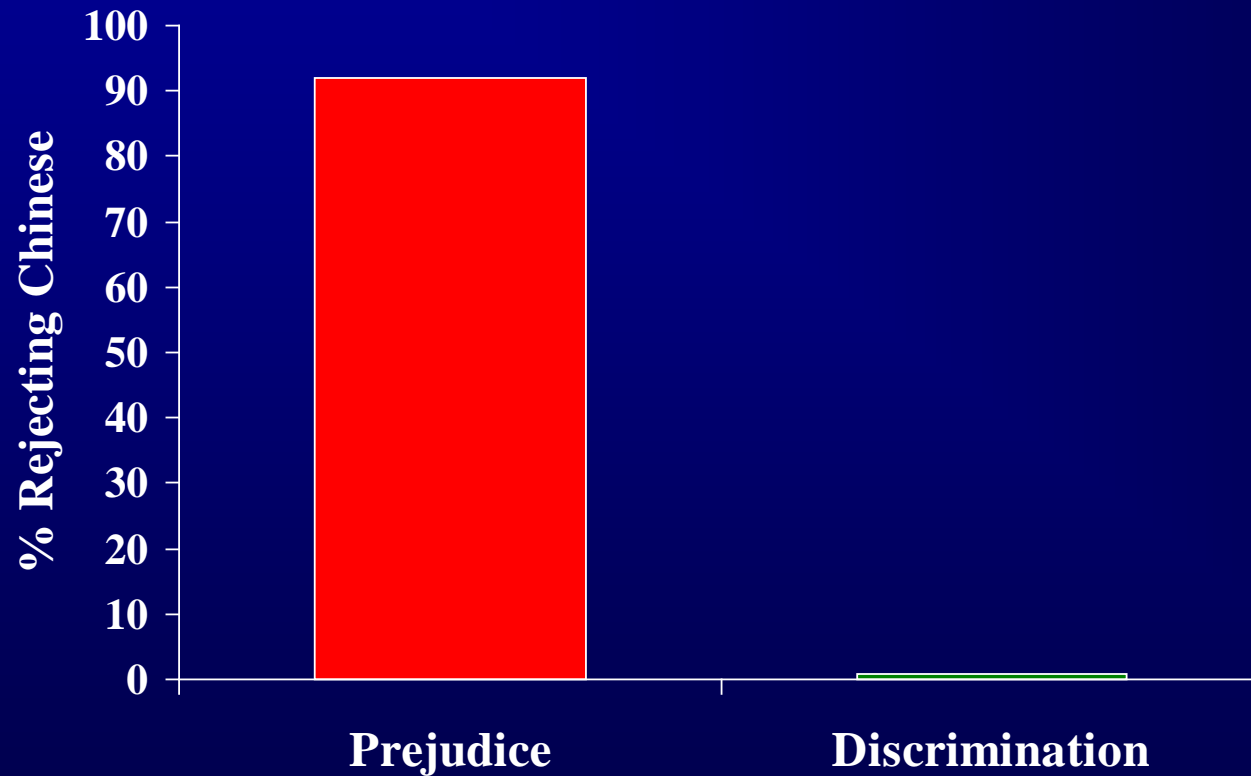
(Petkova, Ajzen, & Driver, 1995)

Accessible outcomes (12)	Belief strength (b)	Outcome evaluation (e)	b x e
Preventing women from using abortion as a method of birth control	-0.59	0.80	.26
Giving birth to unwanted children	1.74	-1.55	.25
Holding people responsible for the consequences of their actions	1.06	1.45	.56
Reviving the idea of life as a precious gift	-0.39	1.41	.49
Women seeking "back alley" abortions	2.43	-2.86	.57
Making more babies available for adoption	1.05	1.68	.31
.			
.			
Saving the lives of defenseless unborn babies	0.90	0.93	.61

$$A \propto \sum b_i e_i \quad r = .77$$



Attitude vs. Behavior: Rejection of Chinese Couple (LaPiere, 1934)





Attitudes Toward Blacks and Signing Releases of Photographs With A Black Person (Linn, 1965)

Attitude	No. signed agreements		
	High (6-7)	Med (3-5)	Low (0-2)
Low prejudice (+)	7	6	10
High prejudice (-)	1	2	8

$X^2 = 3.79, n.s.$



Wicker's Narrative Review of over 50 studies on the Attitude-Behavior Relation

- "Taken as a whole, these studies suggest that it is considerably more likely that attitudes will be unrelated or only slightly related to overt behaviors than that attitudes will be closely related to actions. Product–moment correlation coefficients relating the two kinds of responses are rarely above .30, and often are near zero."
- "The present review provides little evidence to support the postulated existence of stable, underlying attitudes within the individual which influence both his verbal expressions and his action."

Alan Wicker (1969)



Recent Meta-Analysis of Attitude-Behavior Relation (Greenwald, Poehlman, Uhlmann, & Banaji, 2009)

All Behavioral Domains

Explicit attitude measures ($k = 156$): Mean $r = .36$

Implicit attitude measures ($k = 184$): Mean $r = .27$

Prejudice and Discrimination

Explicit attitude measures ($k = 28$): Mean $r = .12$

Implicit attitude measures ($k = 32$): Mean $r = .24$



Dulany's (1968) Theory of Propositional Control

$BI \rightarrow B$

RHd = Hypothesis of the distribution of reinforcement.

RSv = Subjective value of the reinforcer.

BH = Behavioral hypothesis.

MC = Motivation to comply.

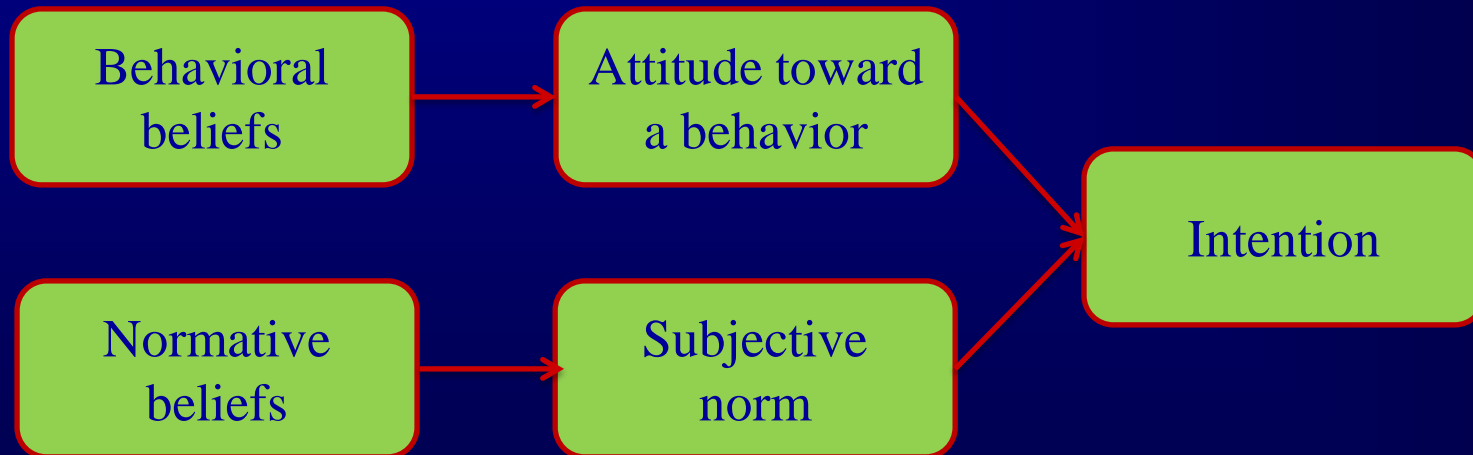
$$BI = (RHd) (RSv) + (BH) (MC)$$



Multiple Outcomes and Referents: The Theory of Reasoned Action

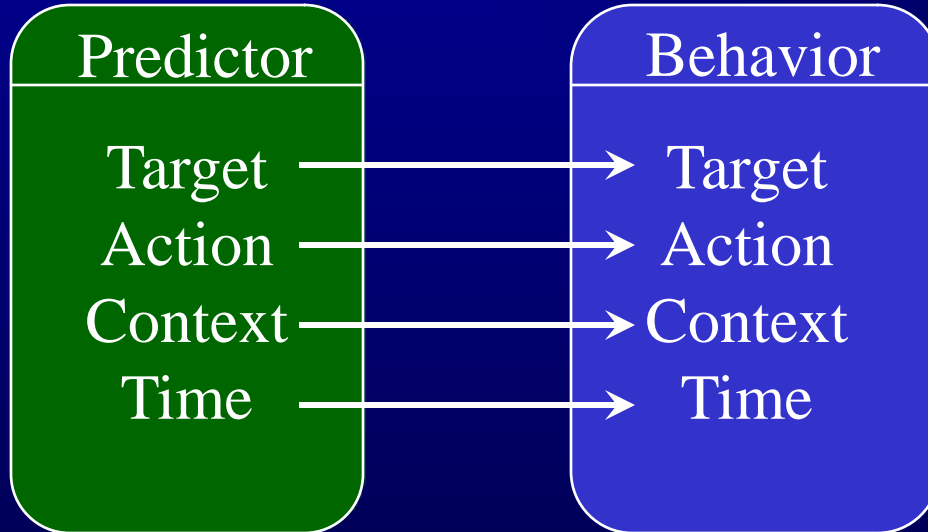
Attitude toward a behavior: $A_B \propto \sum b_i e_i$

Subjective Norm: $SN \propto \sum n_i m_i$



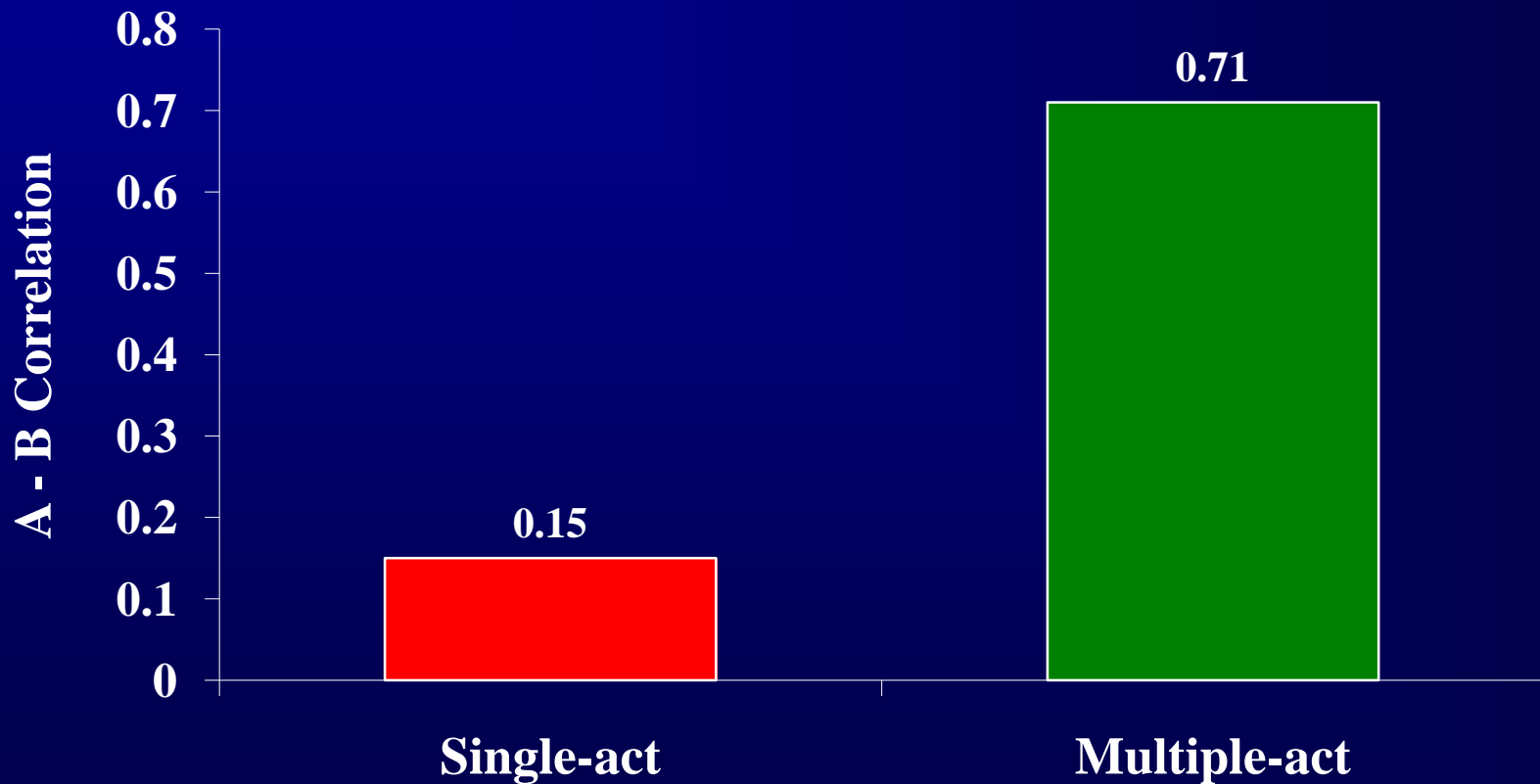


Principle of Compatibility





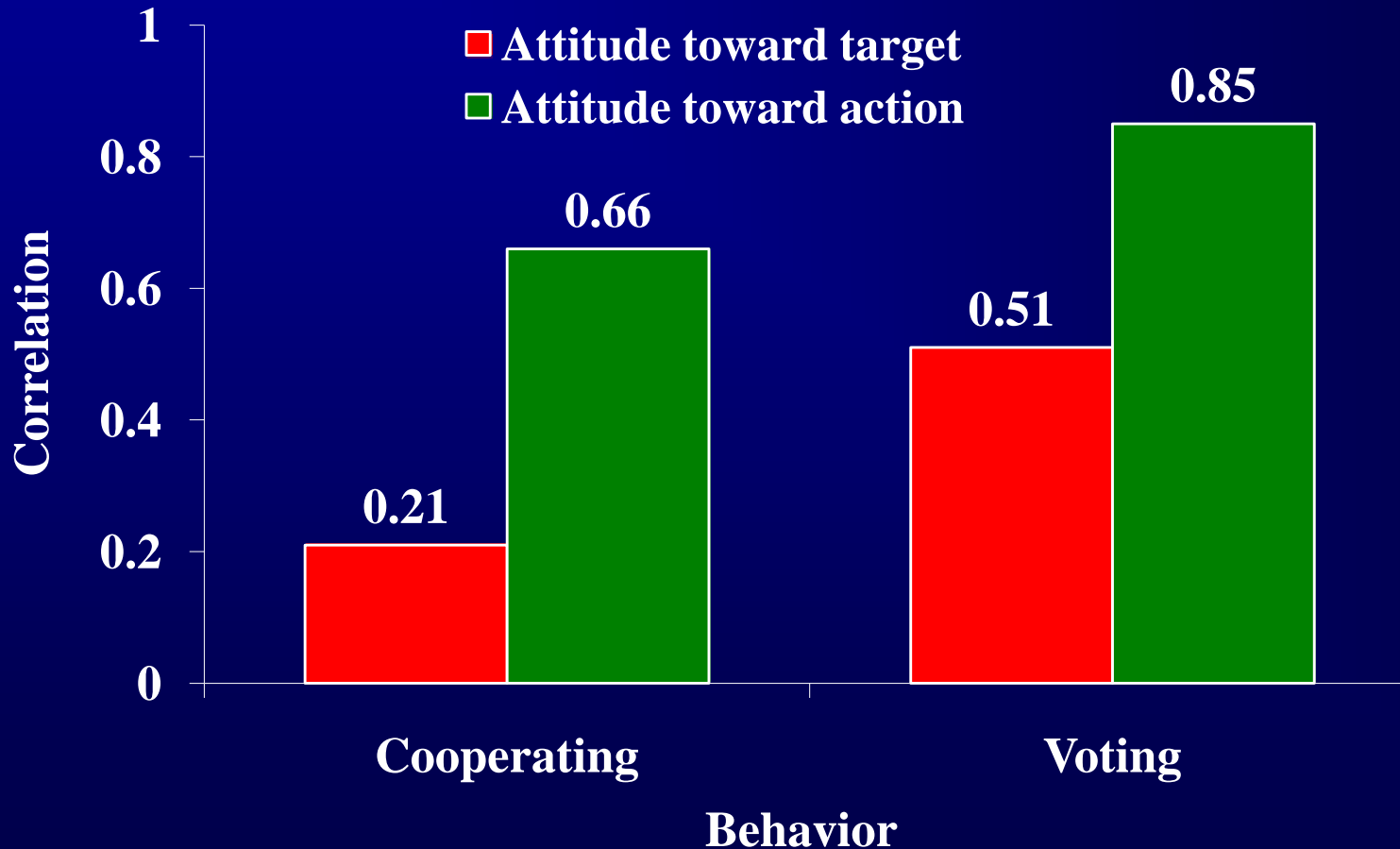
Compatibility of Religious Attitudes and Behavior: Effect of Aggregation (Fishbein & Ajzen, 1974)





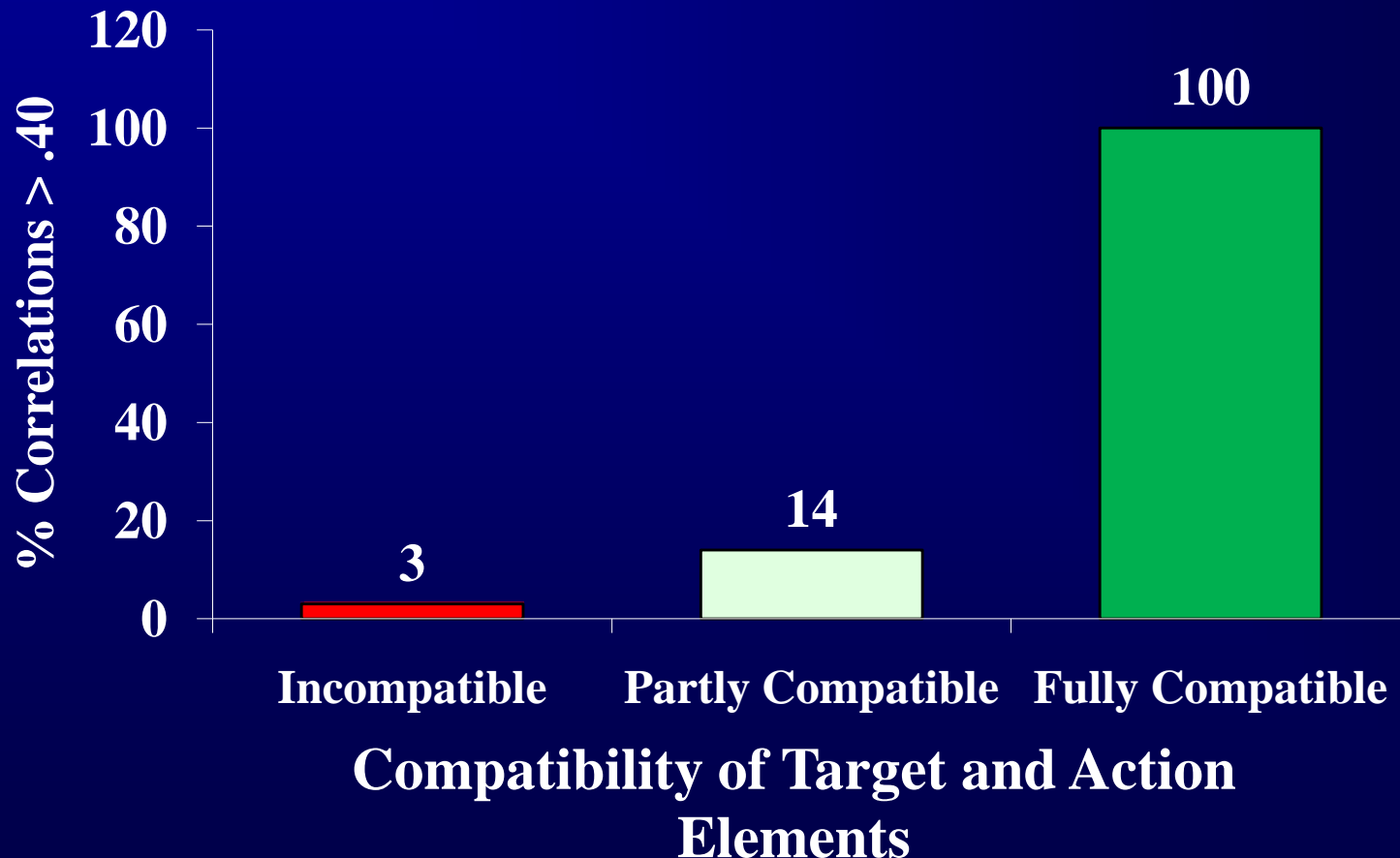
Compatibility of Action Elements

(Ajzen & Fishbein, 1970; 1980)



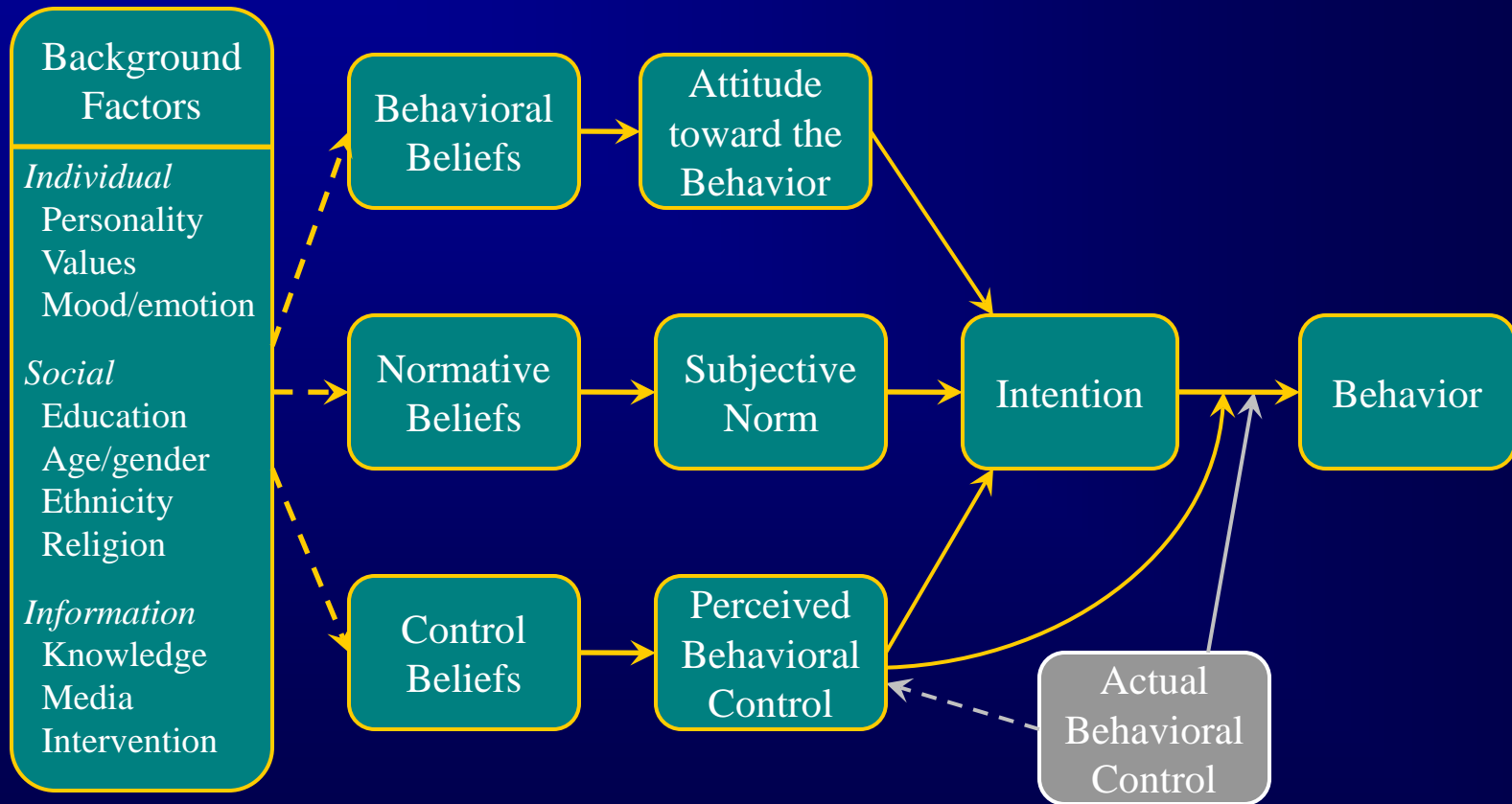


Attitude-Behavior Relations as a Function of Compatibility (N=142) (Ajzen & Fishbein, 1974)





The Theory of Planned Behavior / Reasoned Action Approach (Ajzen, 1991; Fishbein & Ajzen, 2010)





Theory of Planned Behavior: Sample Applications

Health-Related

Infant sugar intake
Smoking cessation
Condom use
Food choice
Living kidney donation
Physical activity
Testicular self-examination
Using illegal drugs
Donating blood
Medical decisions
Dental hygiene
Breast self-examination
Drinking alcohol
Eating low-fat diet
Weight loss
Eating fruit and vegetables
Medical compliance
Dieting

Physician referrals
Medical checkup
Using dental floss
Skin protection
Taking hormone replacements

Other

Playing basketball
Investment decisions
Playing video games
Seeking redress
Volunteering behavior
Political participation
Employment turnover
Driving violations
Using infant seats
Purchase decisions
Motorcycle safety
Environmental protection

Job-search behavior
Academic performance
Choice of travel mode
Shoplifting
Taking physics classes
Extramarital relations
Voting
Anti-nuclear activism
Attending church
Recycling
Applying for promotion
Employment decisions
Conserving water
Studying for an exam
Technology acceptance
Gift-giving
Using safety helmets
Hunting
Leisure behavior

List of references on the Web:

<http://www.people.umass.edu/aizen/tpbrefs.html>



Intention → Behavior

Correlation ($k = 422$) – (Sheeran, 2002)

➤ Mean $r = .53$

Intention & Behavior Change ($k = 47$) – (Webb & Sheeran, 2006)

Δ Intention: Mean $d = .66$

Δ Behavior: Mean $d = .36$



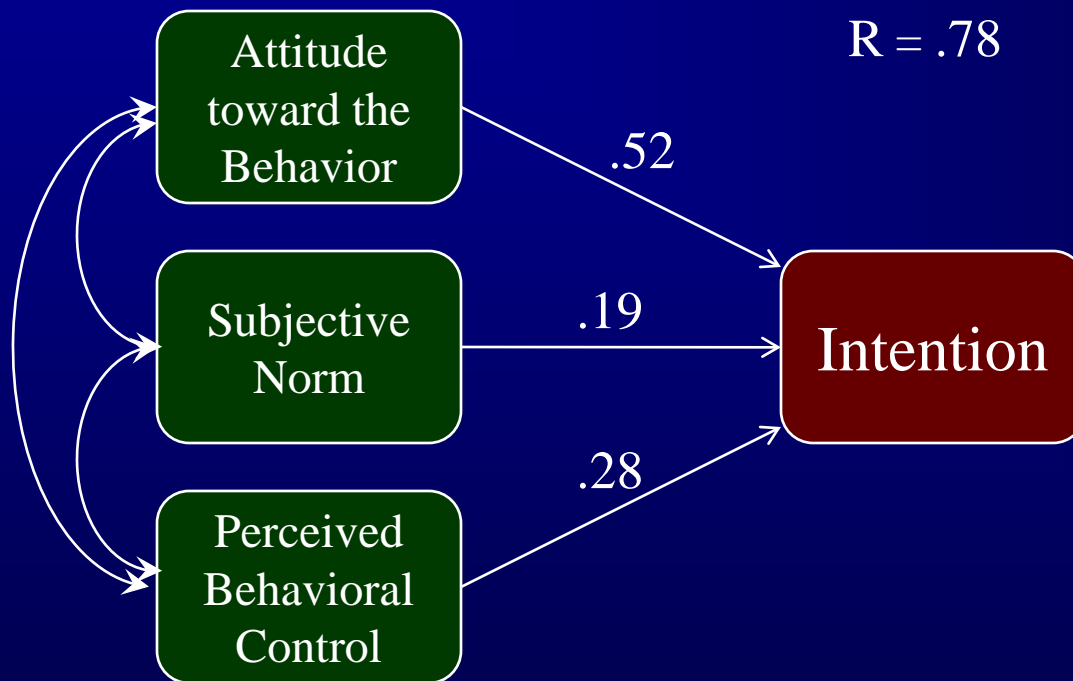
Causal Effect of PBC on Behavior: Empirical Evidence

*Experimental manipulation of self-efficacy (PBC)
(Bandura & Locke, 2003)*

- *Perseverance at intellectual puzzles*
- *Handling snakes*
- *Pain tolerance*
- *Physical endurance*

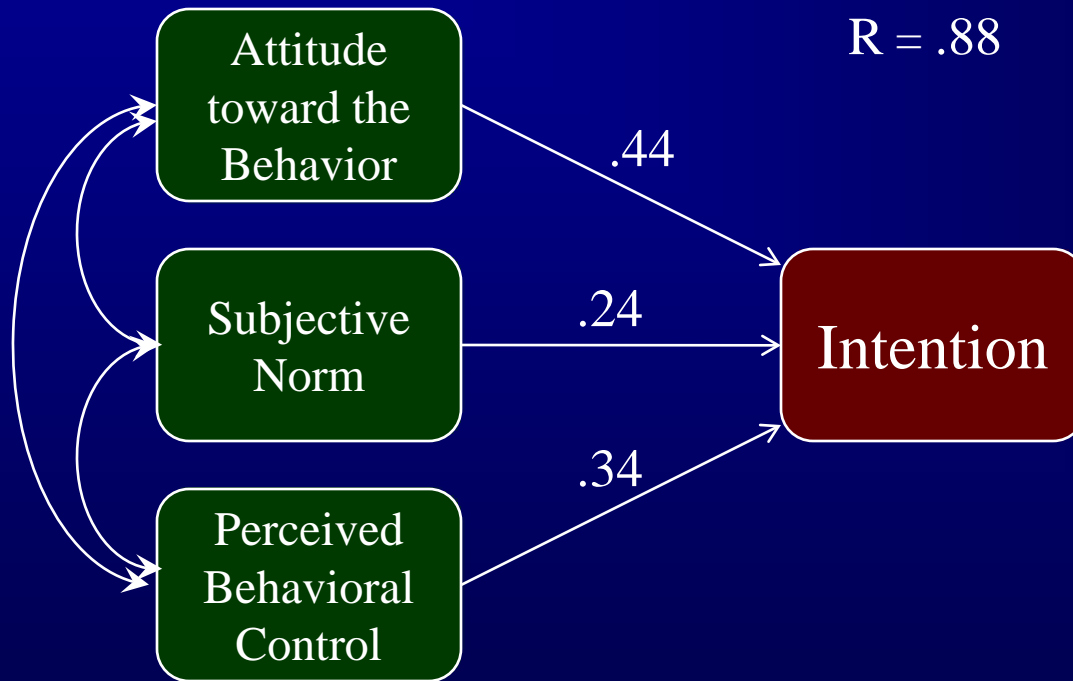


Consuming Soft Drinks (Kassem & Lee, 2004)





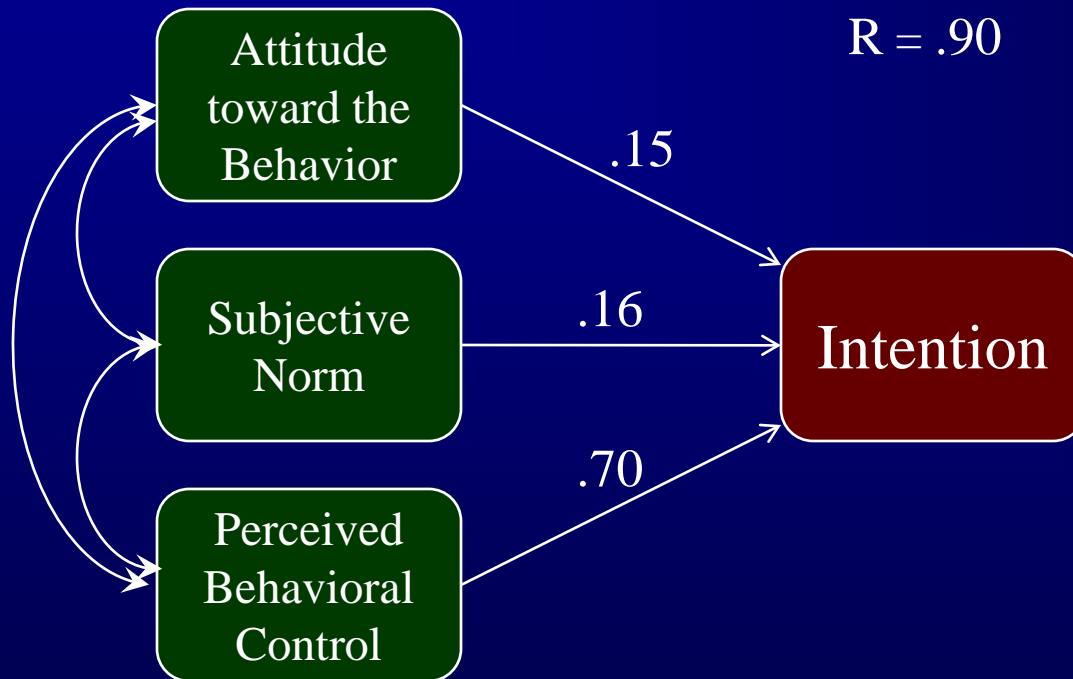
Using Ecstasy (Orbell et al., 2001)





Applying for Promotion

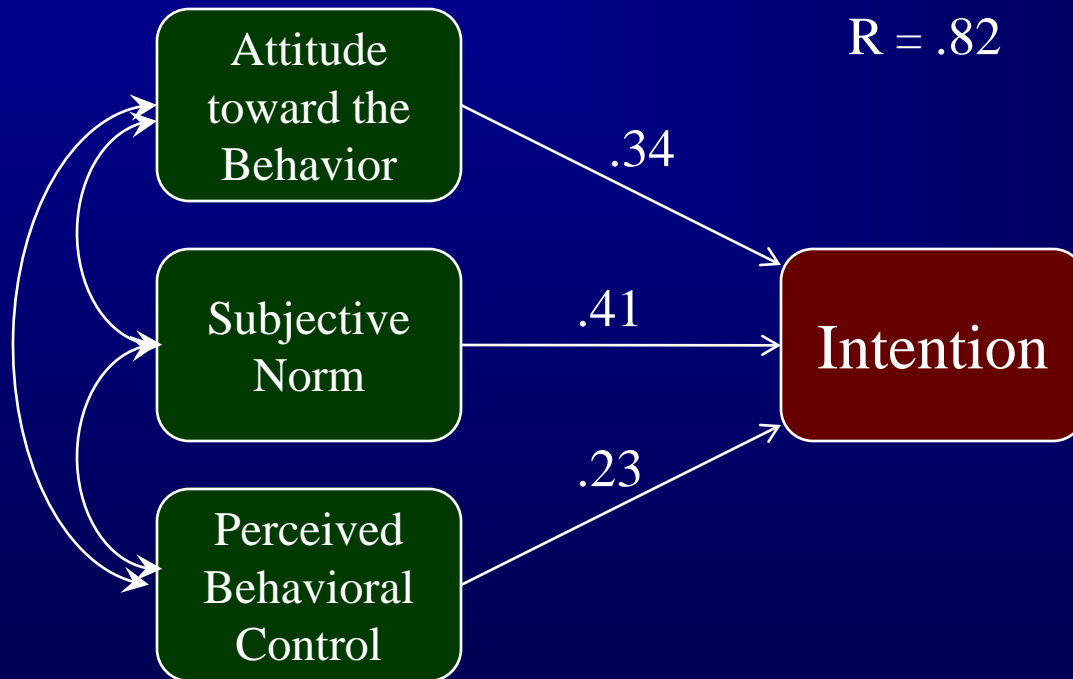
(Giles & Larmour, 2000)





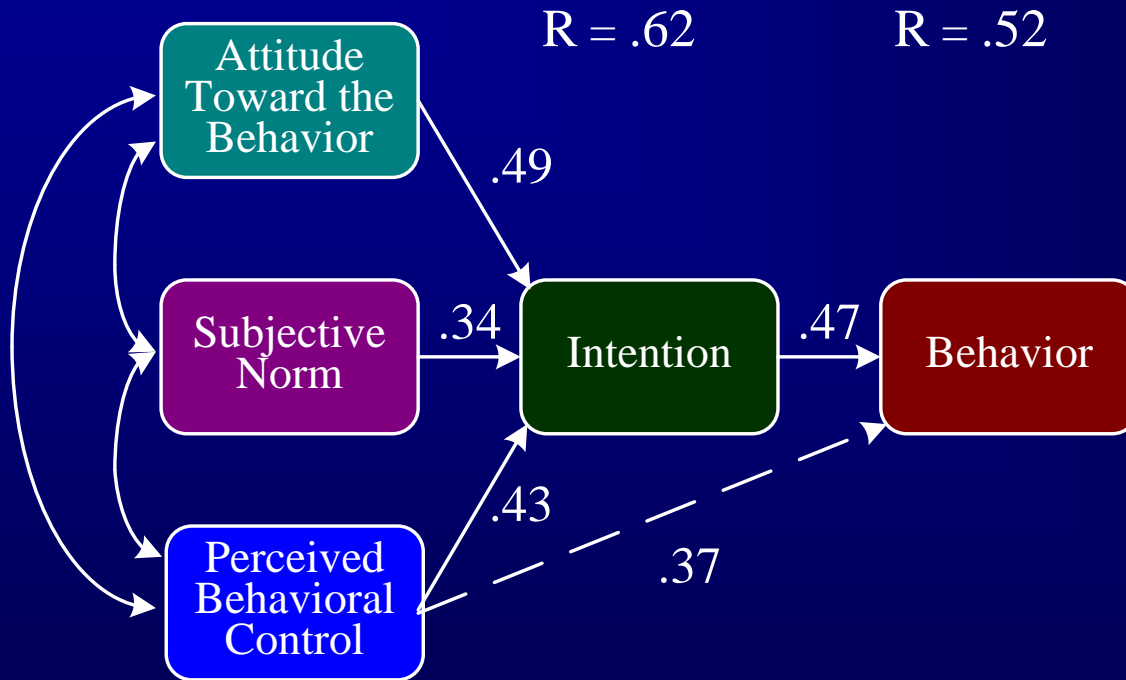
Driving After Drinking

(Armitage, Norman, & Conner, 2002)





Meta Analysis (Mean Correlations, $N = 185$) (Armitage & Conner, 2001)





Behavior Change Interventions: Uses of the Reasoned Action Approach

- **Motivating people to engage in a behavior**
 - Influencing intentions.
- **Helping people implement their intentions**
 - Overcoming obstacles to performance of the behavior.
- **Evaluating the success or failure of the intervention**
 - Tracing the effects of the intervention as mediated by the theory's predictor variables.



Testicular Self-Examination

(Brubaker & Fowler, 1990)

- *Population:* College students
- *Behavior:* Self-reported TSE 1 week and 4 weeks following intervention
- *Intervention*
 - *TPB-based:* 10-minute audiotaped message providing information about TSE and focusing on outcomes of TSE
 - *No-message control*



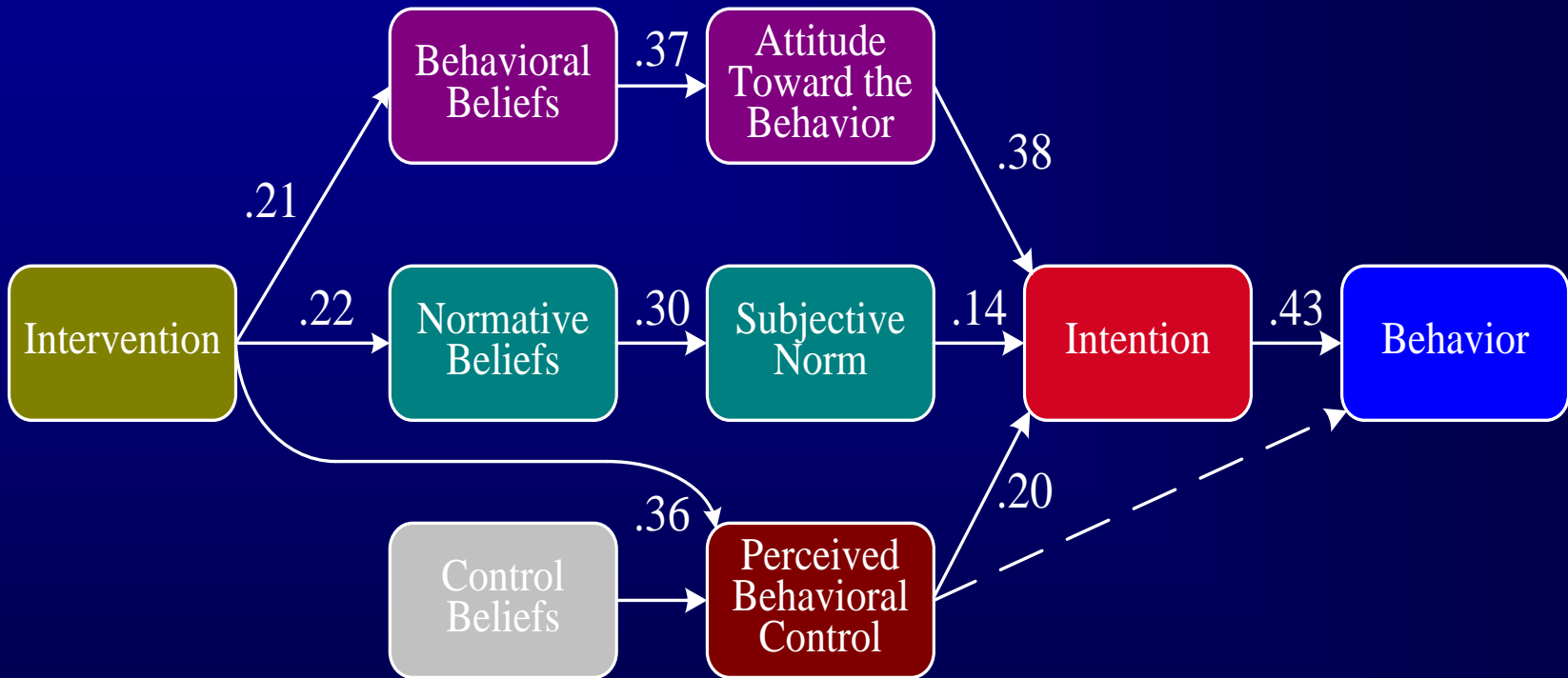
Testicular Self-Examination: Intervention Outcomes (Brubaker & Fowler, 1990)

	No Message	TPB Message
Attitude	15.73	20.05*
Subjective norm	0.30	1.85*
Perceived control	4.32	6.05*
Intention	- 0.85	1.73*
TSE – 1 week (N = 97)	12%	23%*
TSE – 4 weeks (N = 89)	13%	31%*



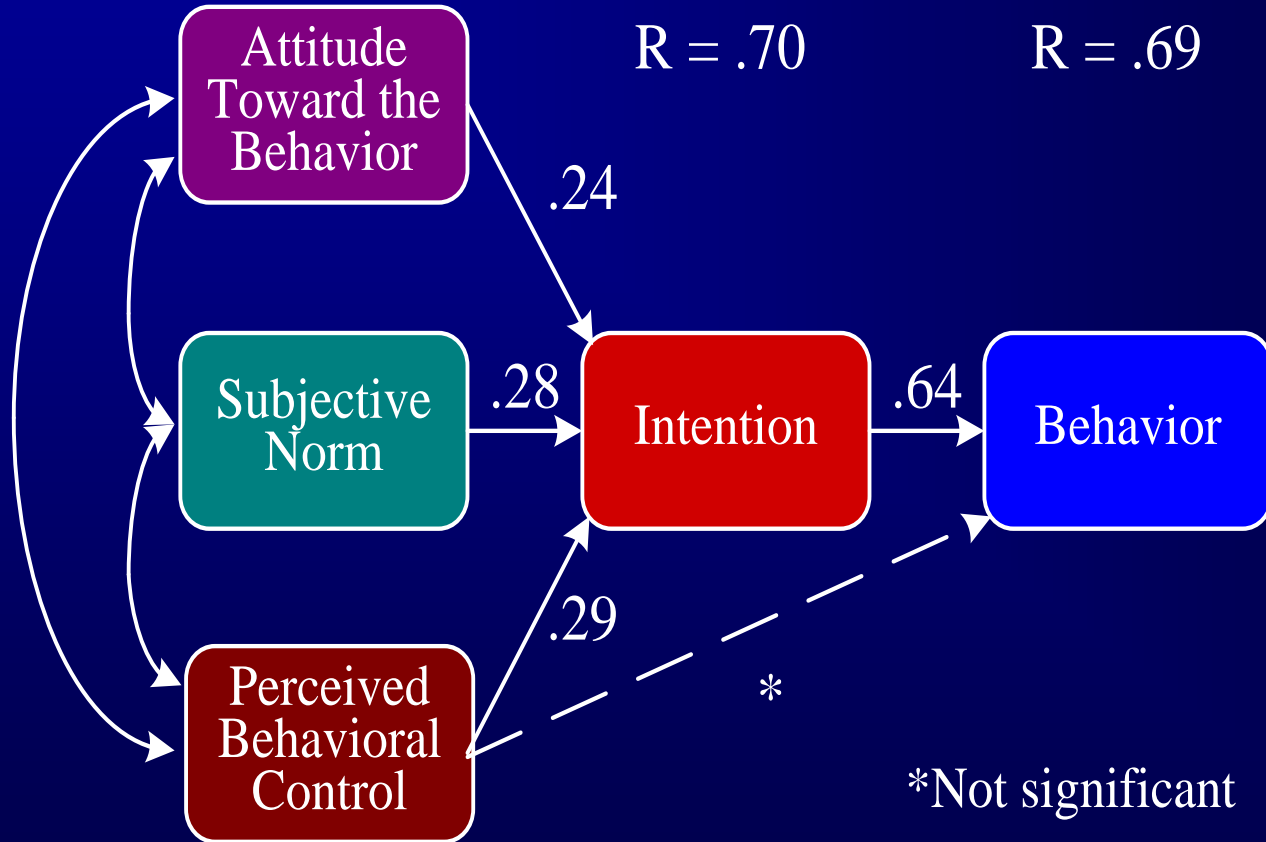
Testicular Self-Examination

(Brubaker & Fowler, 1990)





Taking the Bus to Campus (Bamberg, Ajzen, & Schmidt, 2003)





Taking the Bus to Campus: Intervention

- *Population:* College students at the University of Giessen, Germany
- *Behavior:* Self-reported bus use to get to the campus
- *Intervention:* Prepaid semester bus ticket, accompanied by an extensive informational campaign.



Taking the Bus to Campus: Intervention Outcomes

	1994	1995
Attitude	2.31	2.60*
Subjective Norm	2.24	2.46*
Perceived Behavioral Control	2.57	2.99*
Intention	1.65	2.11*
Behavior (%)	.15	.30*



Project RESPECT

(Kamb, Dillon, Fishbein, & Willis, 1996)

- Purpose: to increase consistent condom use to prevent AIDS.
- Brief or enhanced counseling to change either attitudes, subjective norms, or perceived control with respect to the behaviors.
- General education control group.
- Follow-ups over 12 months.



Project RESPECT: Selected Results *(Kamb, Dillon, Fishbein, & Willis, 1996)*

➤ Consistent condom use with main partner:

Control condition	51%
Brief counseling	56%
Enhanced counseling	60%



Conclusions

Marty's work has had a profound and lasting impact on our understanding of...

- attitude formation and change.
- attitude measurement.
- the attitude-behavior relation.
- prediction and explanation of behavior.
- behavior-change interventions.