

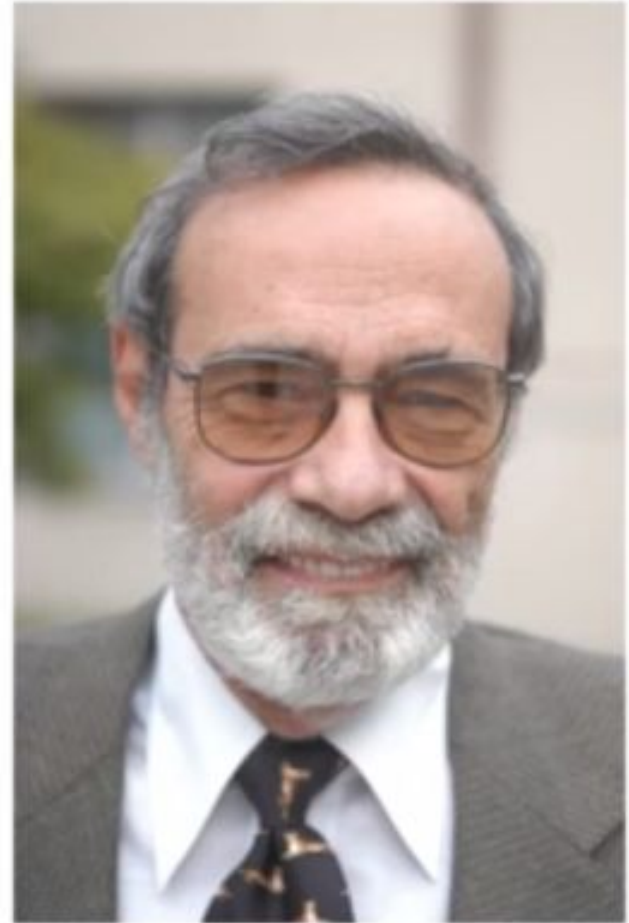
The Reasoned Action Approach
&
The Theory of Planned Behavior

The Reasoned Action Approach

- Initial authors

- Martin Fishbein, 1936-2009

- Fmr. Dir. of Annenberg School of Health Communication
 - Work cited in AIDS behavioral theory, public health, advertising, & psychology
 - Advisory work for National Institute of Mental Health AIDS Advisory, Nat'l Advisory of Mental Health, CDC



- Initial authors

- Martin Fishbein

- Icek Aizen

- Fmr. Student of Fishbein
 - Professor Psychology, U.Mass
 - Distinguished speaker, consultant on designing behavior interventions



Fishbein and Ajzen's Theory of Reasoned Action

- Originally developed in 1967; further developed during the 1970's.
- By the 1980's, very commonly used to study human behavior
- Fishbein (U of I) and Ajzen (U Mass) were both working on similar concepts to explain human behavior, and eventually collaborated to create and publish the model in 1980.



Assumptions of the Model

- Human behavior is under the voluntary control of the individual
- People think about the consequences and implications of their actions behavior the decide whether or not to do something.
- Therefore, intention must be highly correlated with behavior.
 - Whether or not a person intends to perform a health behavior should correlate with whether or not they actually DO the behavior

Components of the Model

- Behavior is a function of 2 things:
- Attitudes toward a specific action
 - What will happen if I engage in this behavior?
 - Is this outcome desirable or undesirable
- Subjective norms regarding that action
 - Normative beliefs: others expectations
 - Motivation to comply: do I want to do what they tell me? How much? Why?

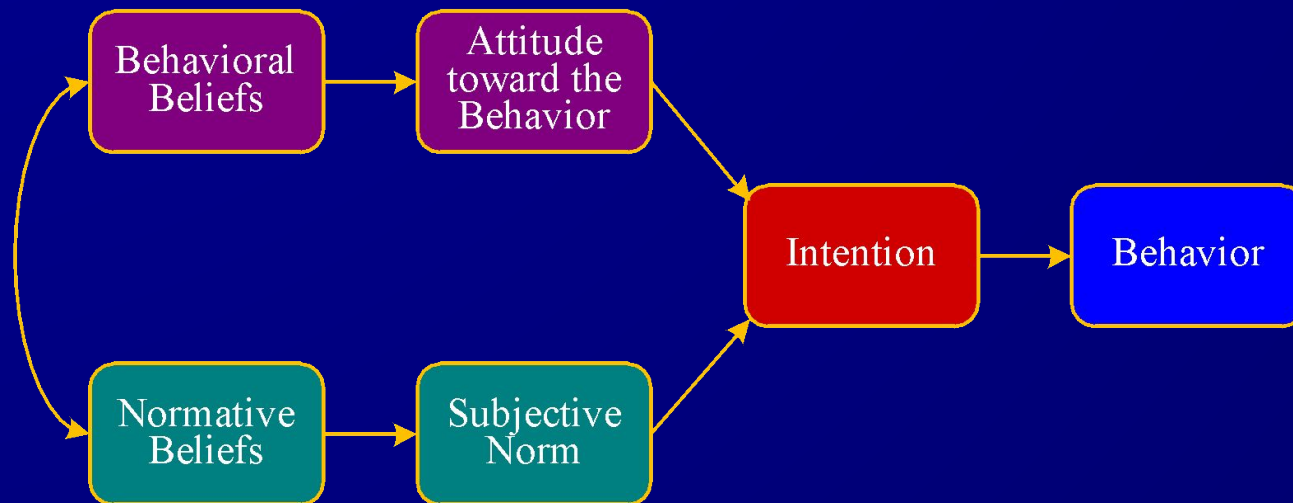
Theory of Reasoned Action (Ajzen & Fishbein (1980))

Behavioral beliefs means person's opinion about positivity or negativity of this kind of behavior.

Behavioral beliefs forms attitude toward the behavior.

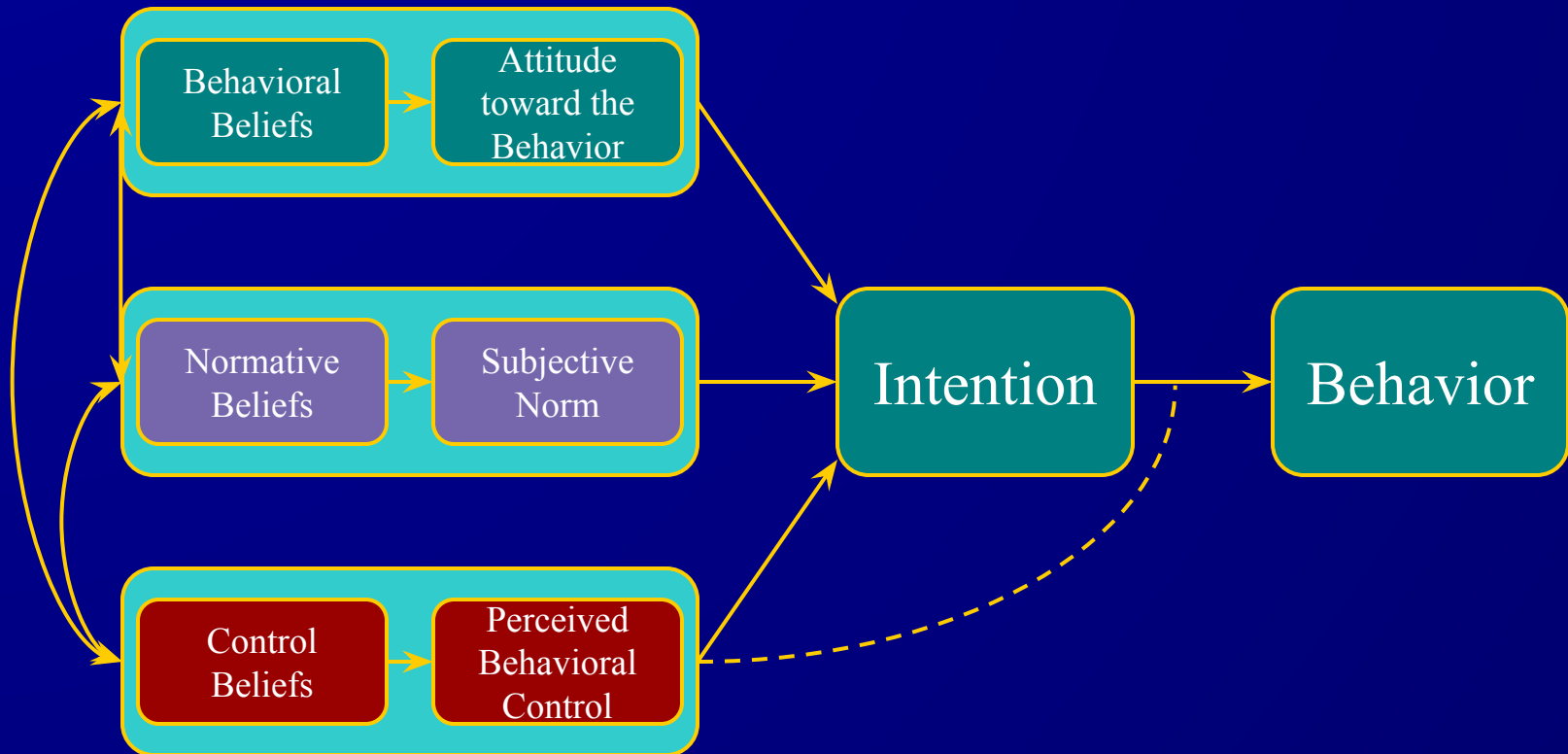
Normative beliefs means person's opinion about others peoples' opinion about this kind of behavior.

Normative beliefs form subjective norm.



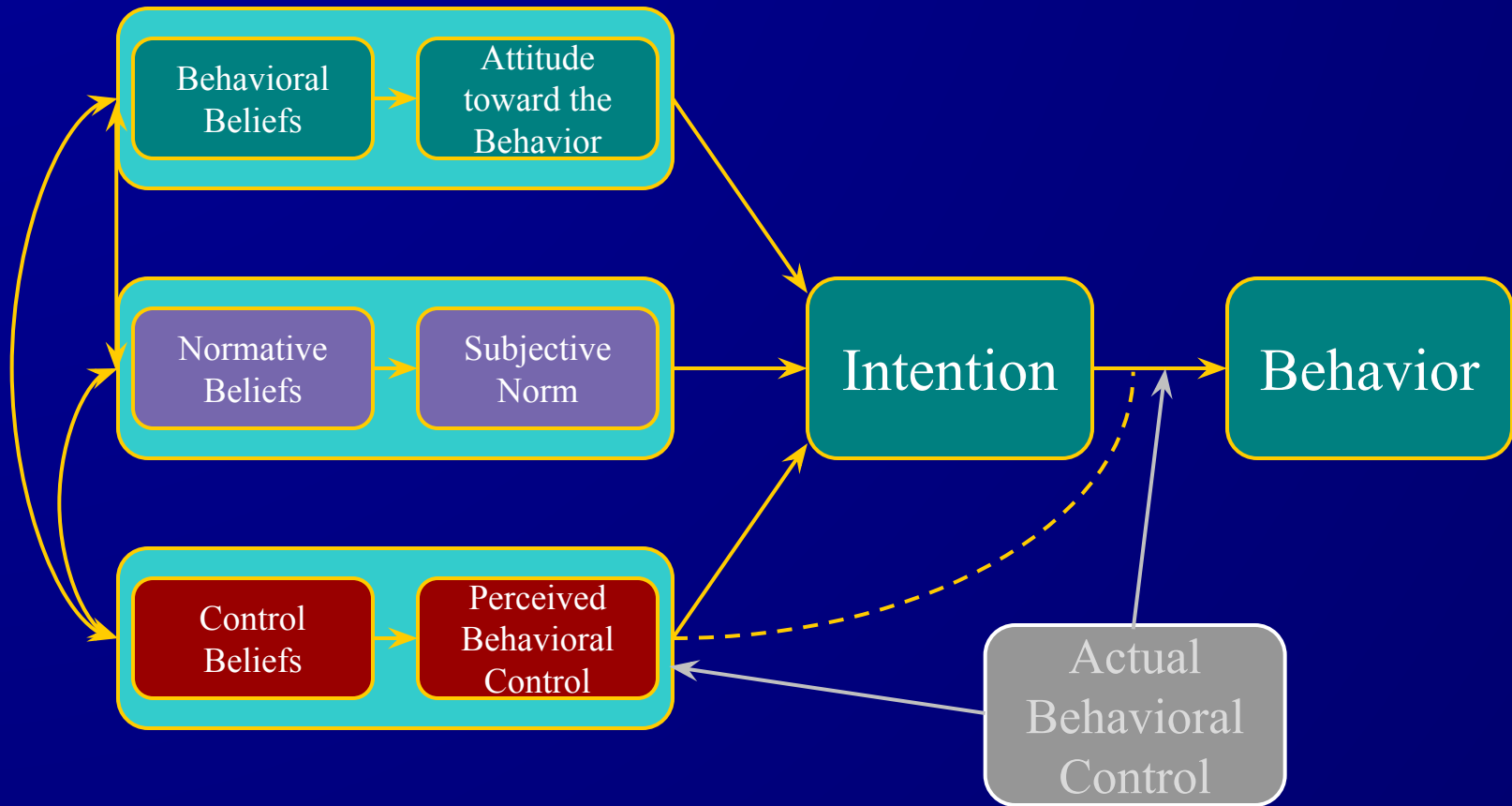
The Theory of Planned Behavior

Ajzen (1991)

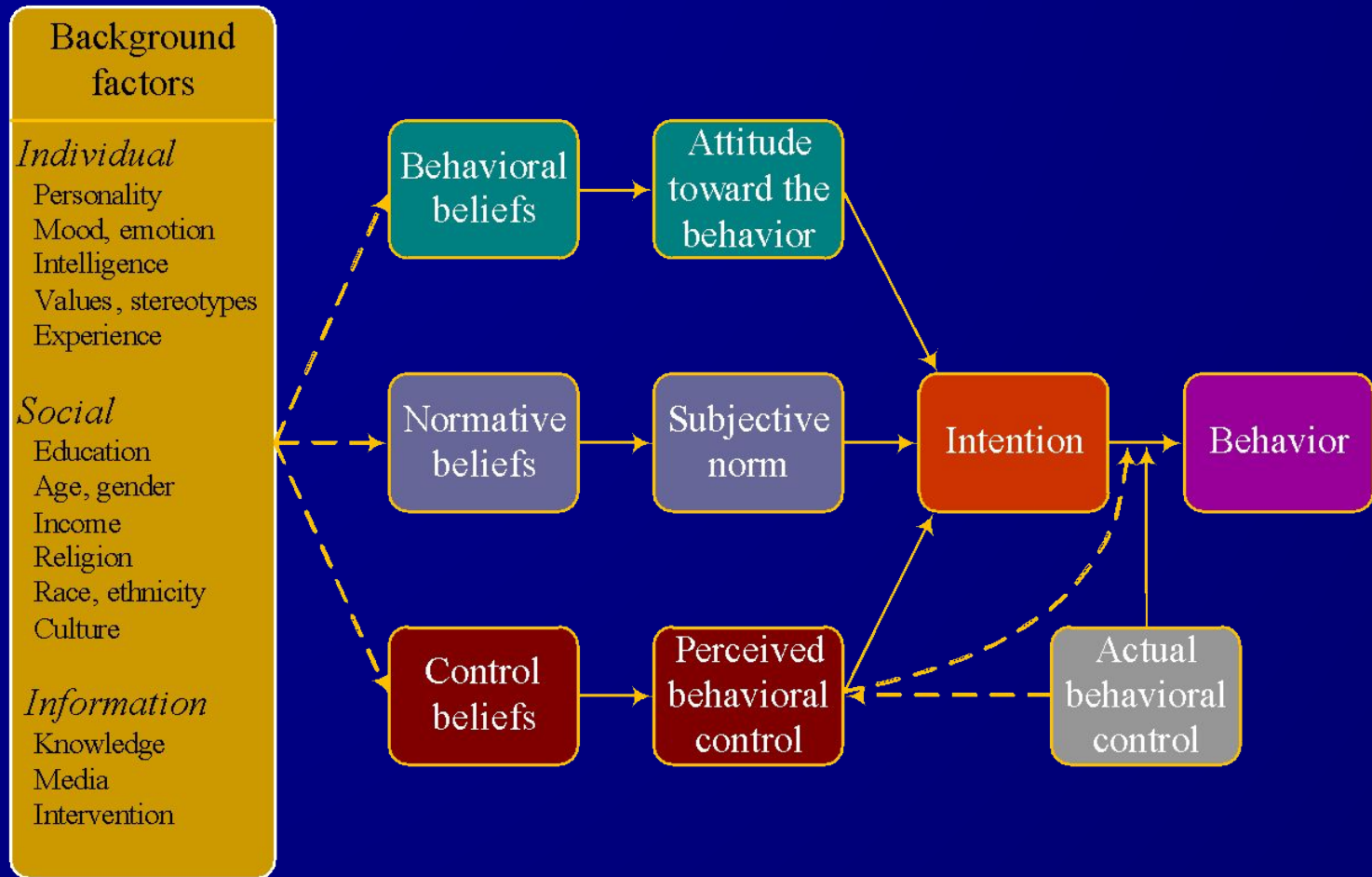


The Theory of Planned Behavior

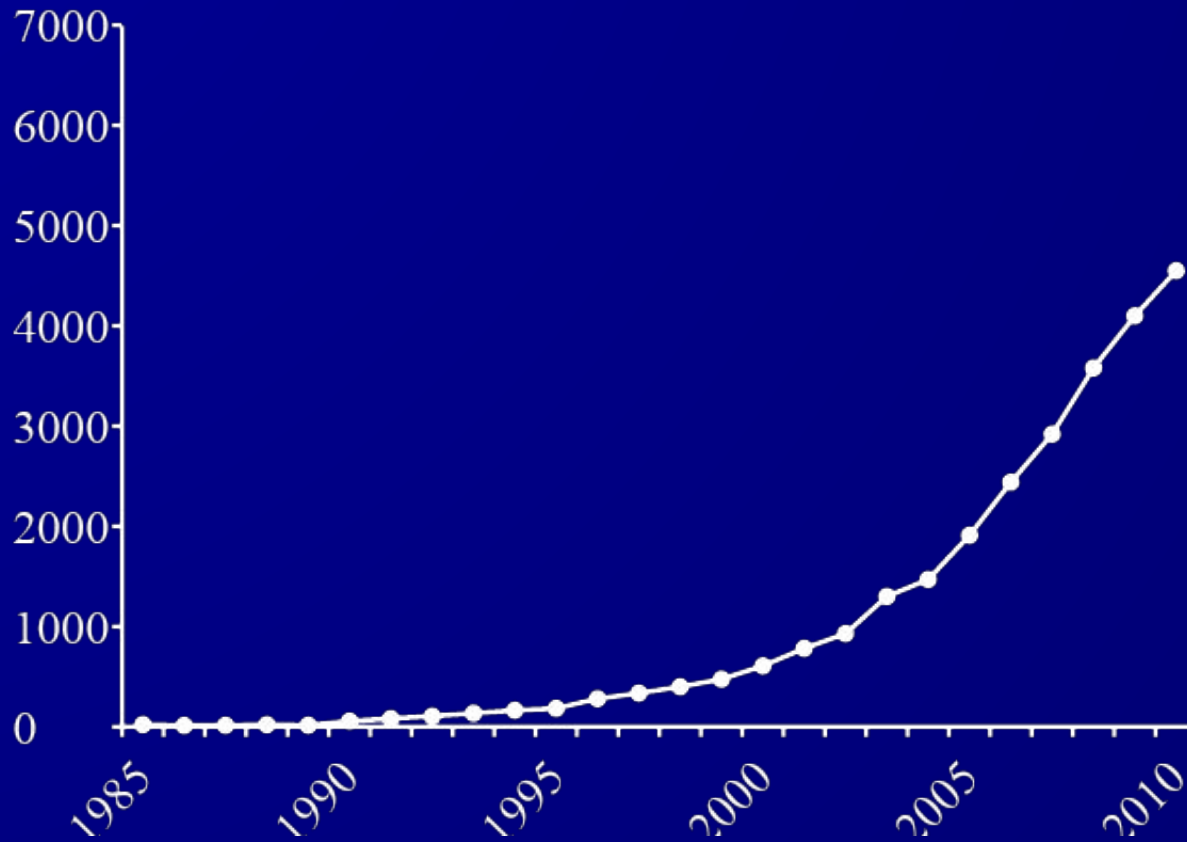
Ajzen (1991)



Background Factors



References to TPB in Google Scholar



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

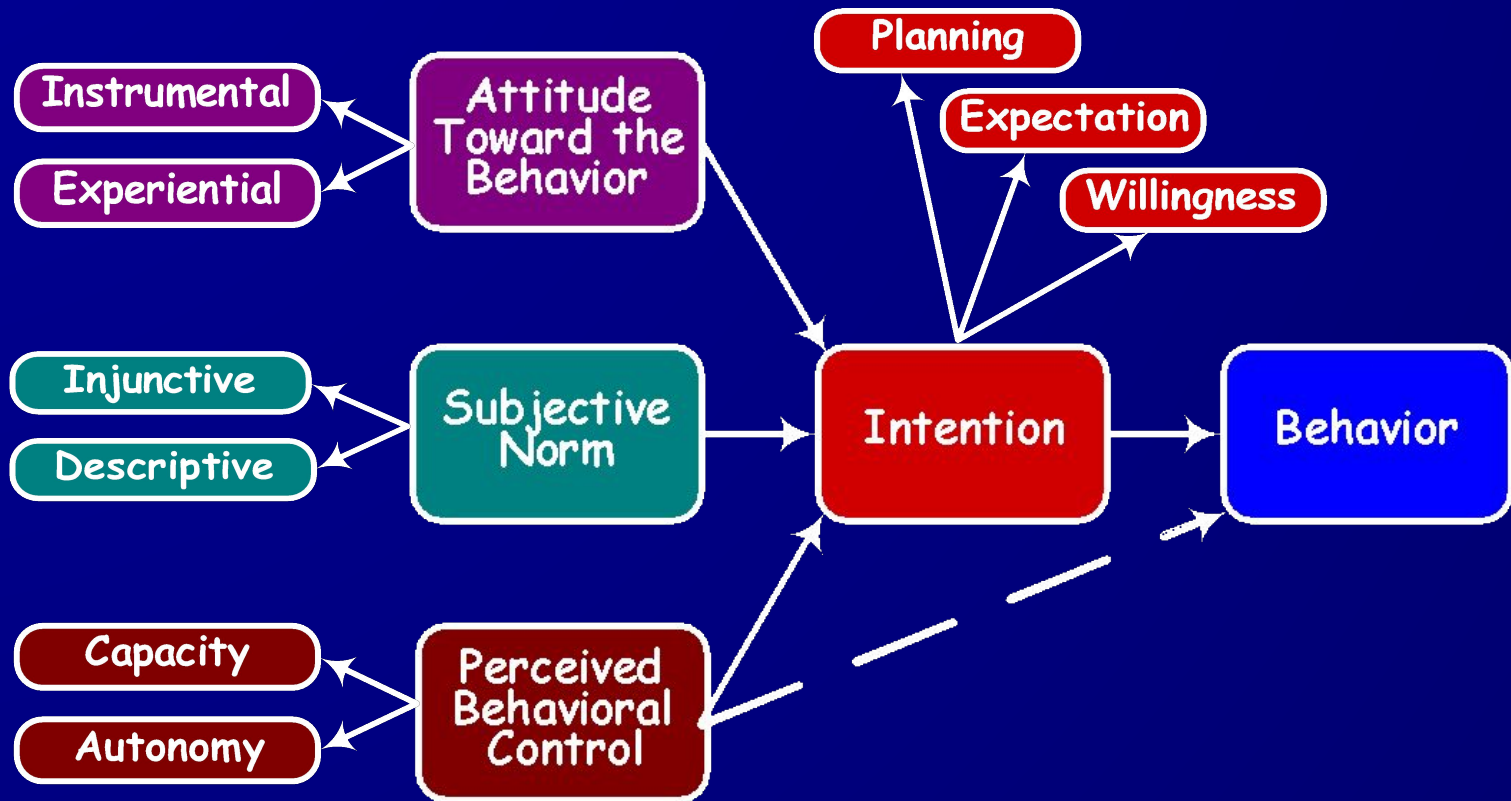
Job-search behavior
Academic performance
Choice of travel mode
Shoplifting
Taking physics classes
Extramarital relations
Voting
Anti-nuclear activism
Attending church
Recycling
Applying for promotion
Employment decisions
Conserving water
Studying for an exam
Technology acceptance
Gift-giving
Using safety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

List of references on the Web:

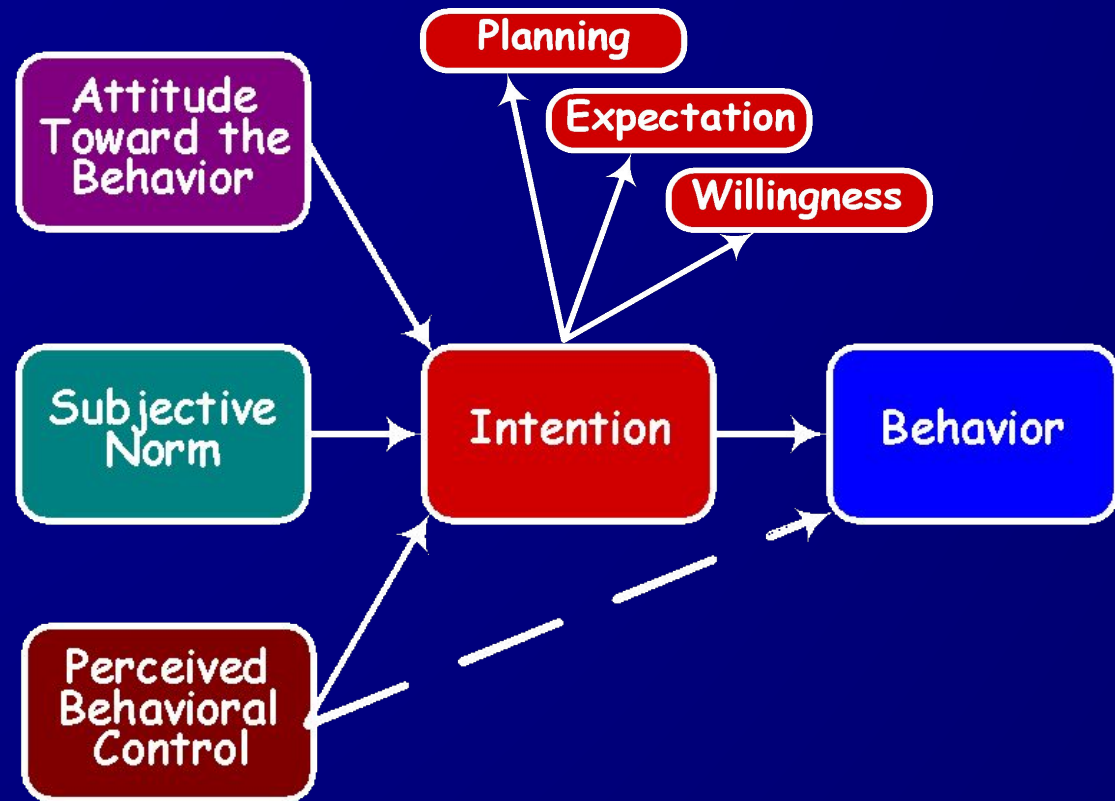
<http://www.people.umass.edu/aizen/tpbrefs.html>

Direct Assessment of TPB Components

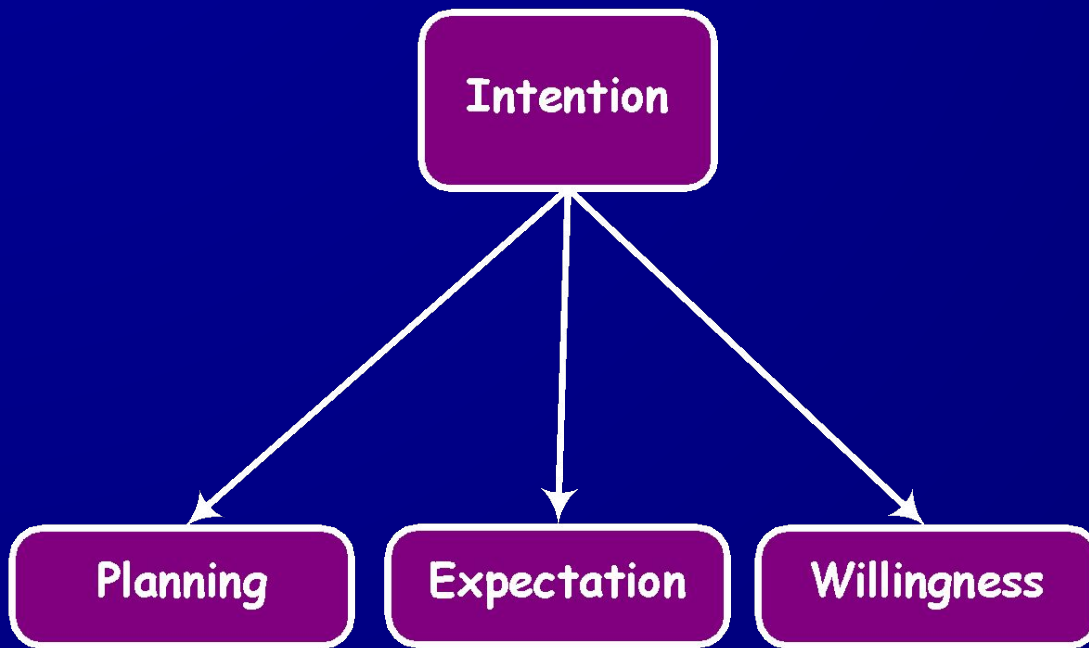
Nature of the Theory's Components



Nature of the Theory's Components



Intention



Planning

I intend to...

I am planning to...

Expectation

I expect to...

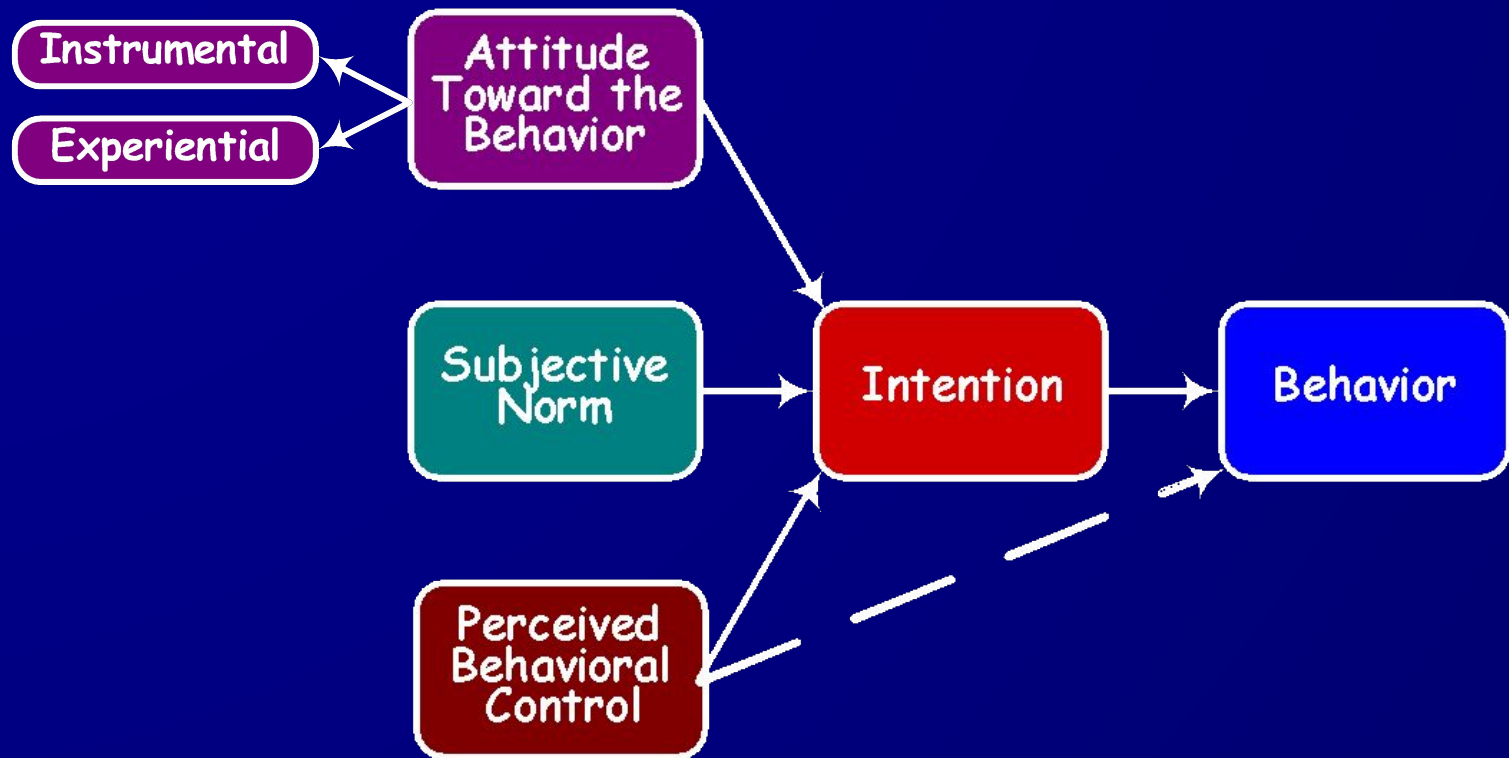
I will...

Willingness

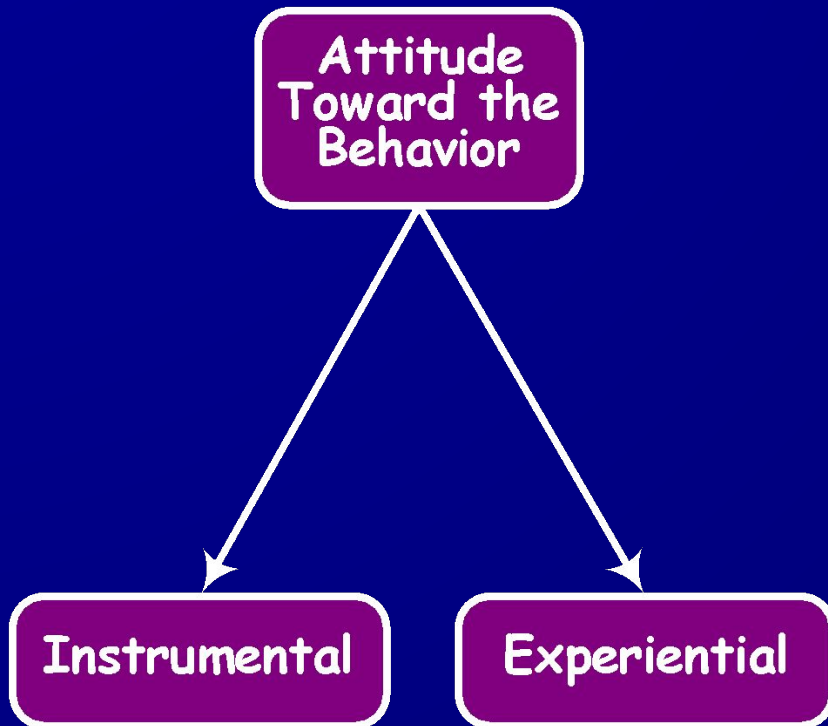
I would...

I am willing to...

Nature of the Theory's Components



Instrumental vs. Experiential Attitudes



Instrumental

Good – Bad

Useless – Useful

Harmful – Beneficial

Valuable – Worthless

Experiential (Affective)

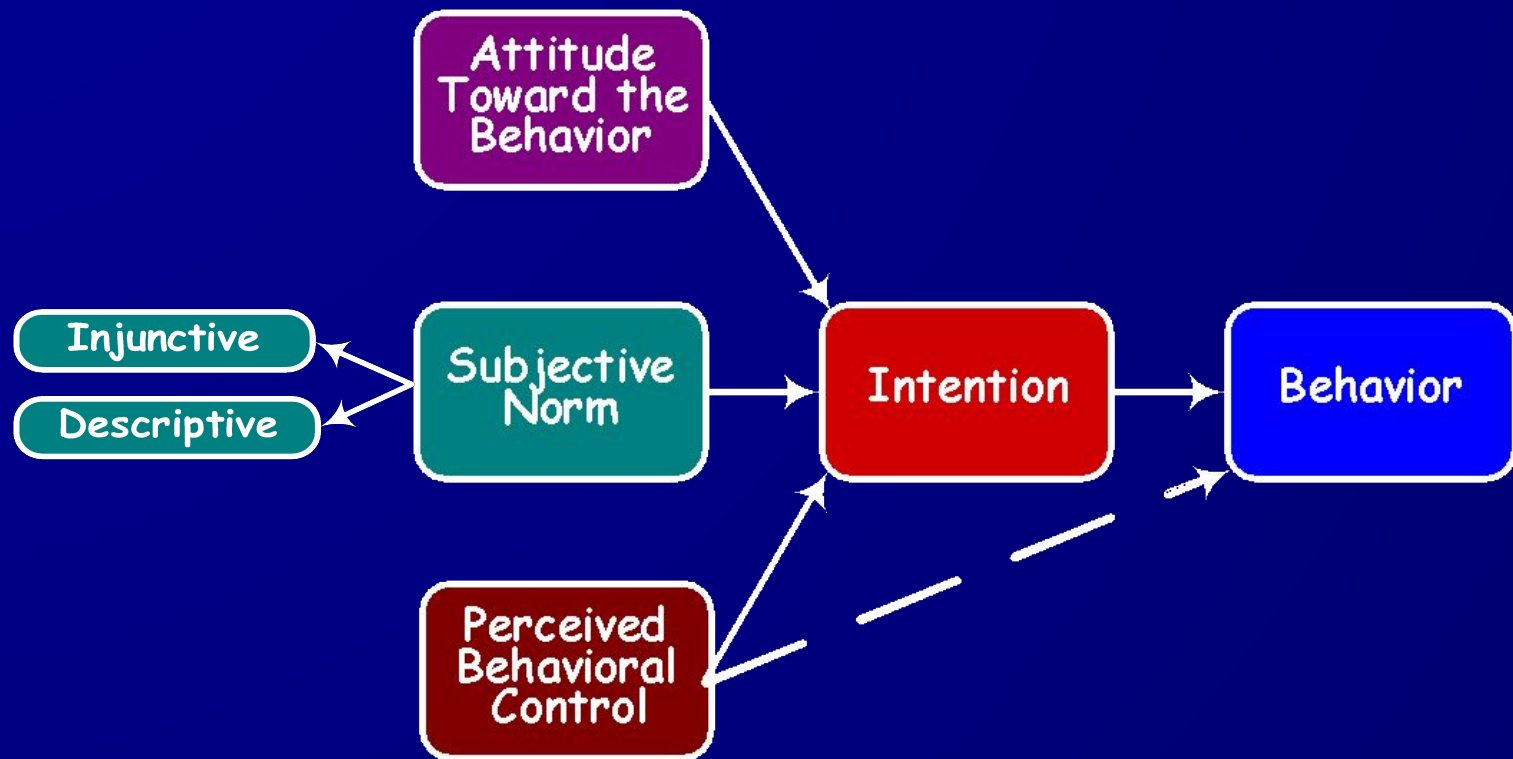
Dull – Exciting

Painful – Enjoyable

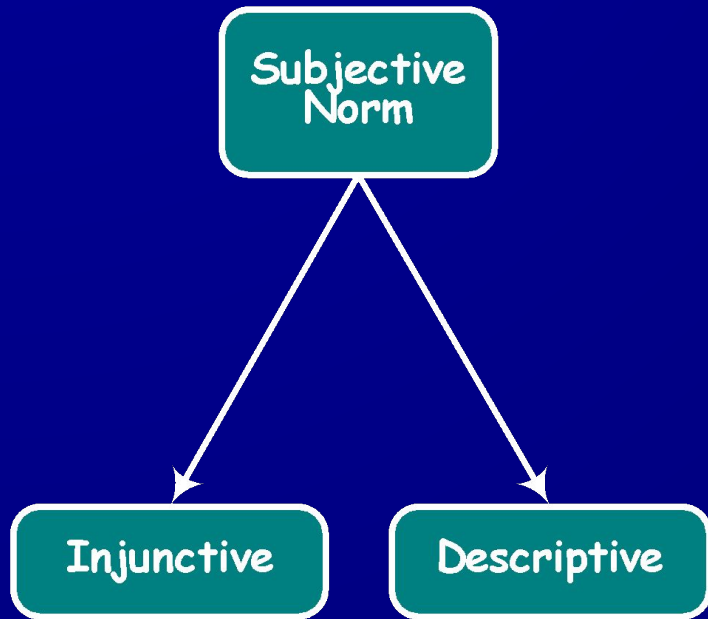
Pleasant – Unpleasant

Boring – Interesting

Nature of the Theory's Components



Injunctive vs. Descriptive Norms



Injunctive

Most people who are important to me think I should...

Most people whose opinions I value would approve...

Most people I respect think it is appropriate for me to ...

It is expected of me that I ...

Descriptive

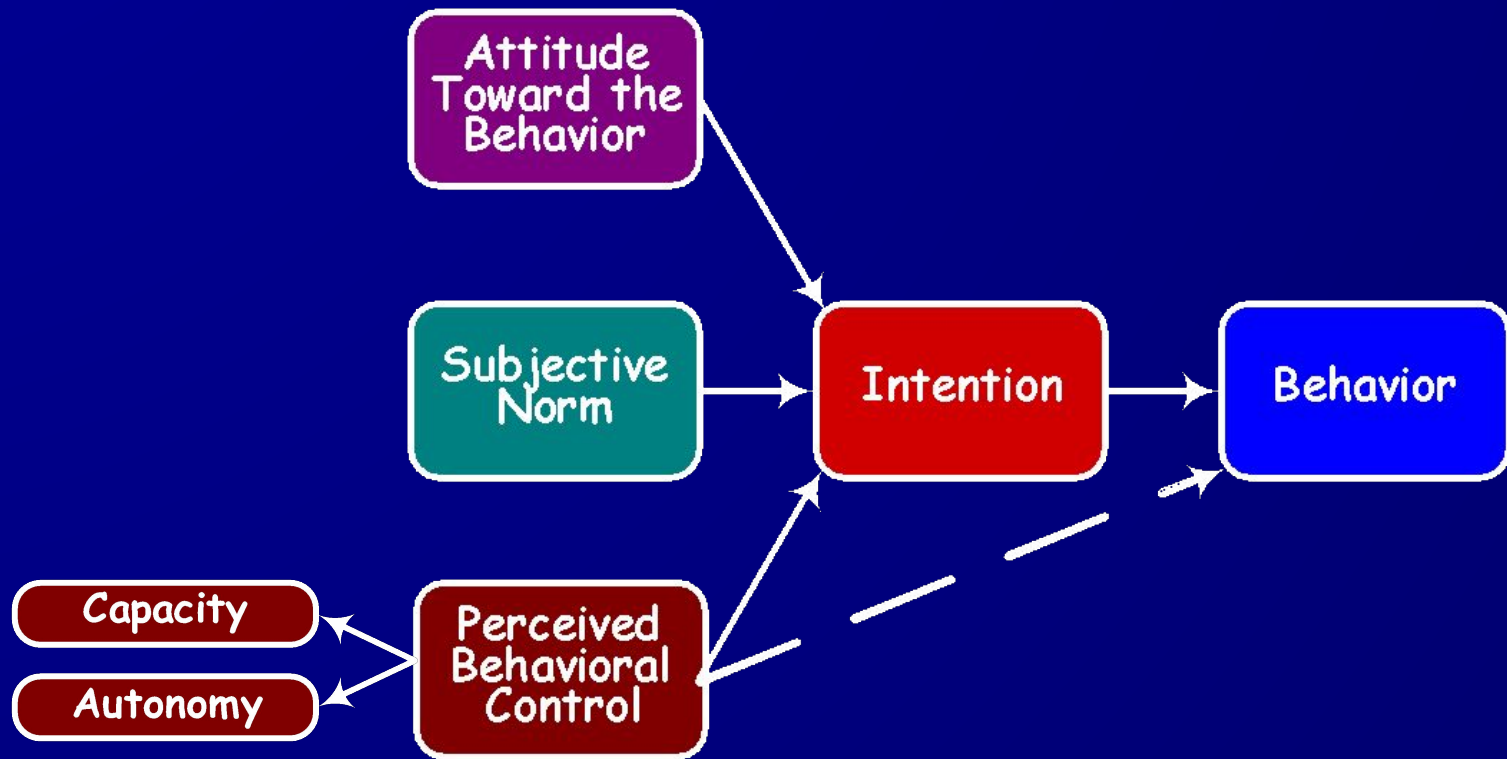
Most people who are important to me engage in...

Most people like me perform...

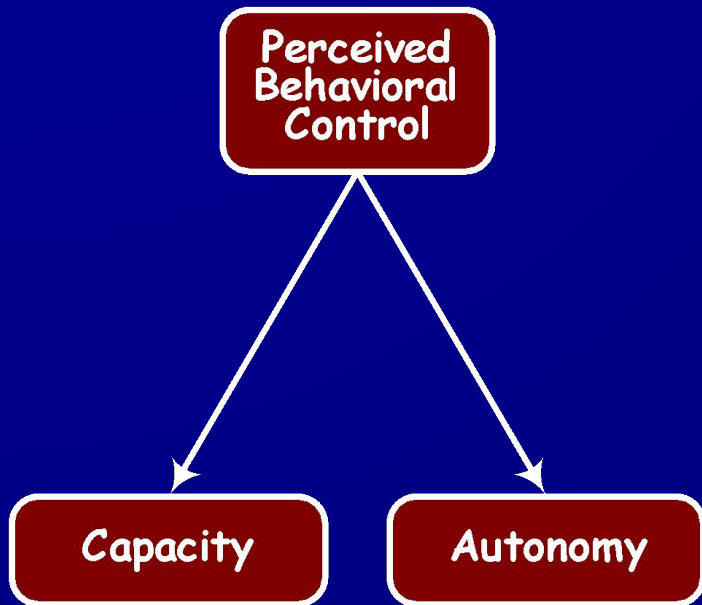
Most people in my situation engage in ...

Most people similar to me perform...

Nature of the Theory's Components



Capacity vs. Autonomy Aspects of Perceived Control



Capacity

I have the ability to...

I am capable of...

I am confident that I can...

If I wanted to I could easily...

Autonomy

I have complete control over...

It is entirely up to me whether I...

There are few outside events that could prevent me from...

Doing X is beyond my control...

Drinking Alcohol: TPB Attitude Measure
(5-point scales) - Ajzen, Joyce, Gilbert Cote, & Sheikh (2011)

For me to drink alcohol this semester would be...

1. Very unpleasant --- Very pleasant
2. Extremely undesirable --- Extremely desirable
3. Extremely bad --- Extremely good
4. Drinking alcohol this semester is something I would
Strongly dislike --- Strongly like

$$\alpha = .92$$

Drinking Alcohol: TPB Subjective Norm Measure (5-point scales)

1. People whose opinions I care about approve of my drinking alcohol this semester.
2. People who are close to me would approve of my drinking alcohol this semester.
3. Most people who are important to me will drink alcohol this semester.
4. People who are close to me expect me to drink alcohol this semester.

Strongly disagree --- Strongly agree

$$\alpha = .85$$

Drinking Alcohol: TPB Perceived Behavioral Control Measure

1. If I wanted to, I could easily drink alcohol this semester.
Strongly disagree --- Strongly agree
2. For me to drink alcohol this semester is
Very impossible --- Very possible
3. It will be difficult for me to drink alcohol this semester.
Strongly disagree --- Strongly agree
4. I should have no trouble drinking alcohol this semester.
Strongly disagree --- Strongly agree

$$\alpha = .71$$

Drinking Alcohol: TPB Intention Measure

1. I am planning to drink alcohol this semester.
Strongly disagree --- Strongly agree
2. I intend to drink alcohol this semester.
Definitely will not --- Definitely will
3. I will probably drink alcohol this semester.
Definitely will not --- Definitely will
4. I expect I will drink alcohol this semester.
Strongly disagree --- Strongly agree

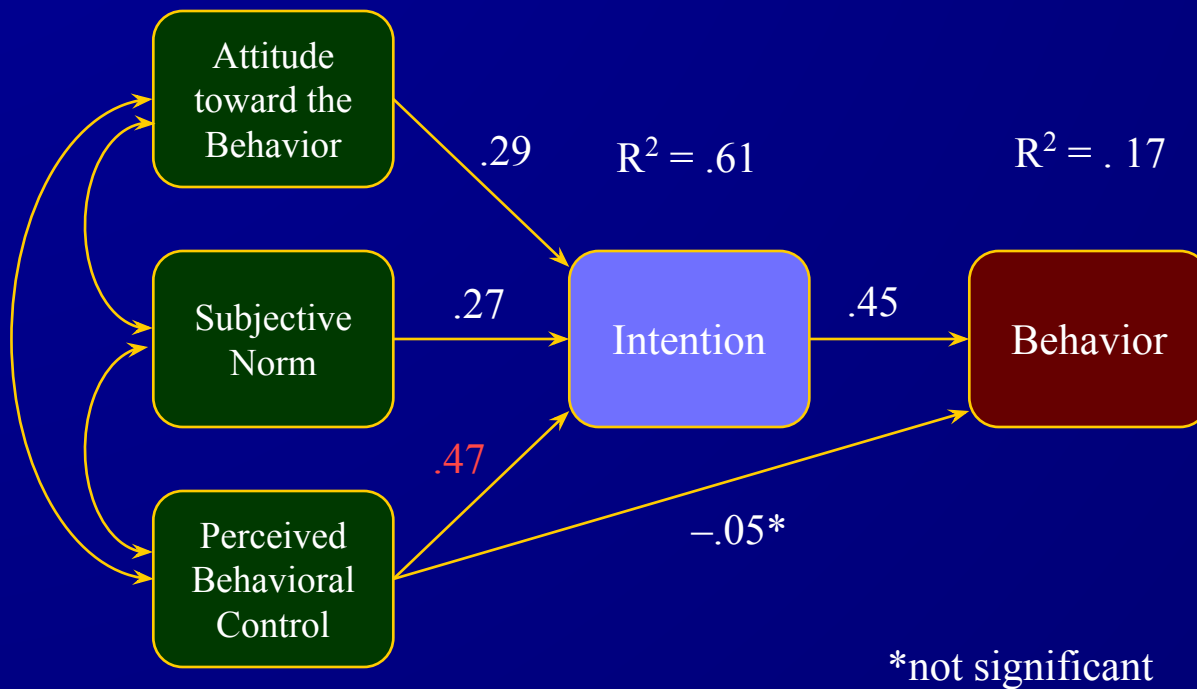
$$\alpha = .98$$

Drinking Alcohol: Current Behavior Measure

1. Please rate how often you drink alcohol
Never 1 2 3 4 5 6 7 Virtually every day
2. How many drinks do you typically consume on one occasion?
_____ drinks
3. How would you describe yourself in terms of your current use of alcohol?
_____ abstainer _____ moderate drinker
_____ infrequent drinker _____ heavy drinker
_____ light drinker _____ chronic alcohol abuser
4. On how many occasions have you had one or more drinks in the past 30 days?
_____ none _____ 6 to 9 occasions
_____ 1 to 2 occasions _____ 10 to 15 occasions
_____ 3 to 5 occasions _____ more than 16 occasions

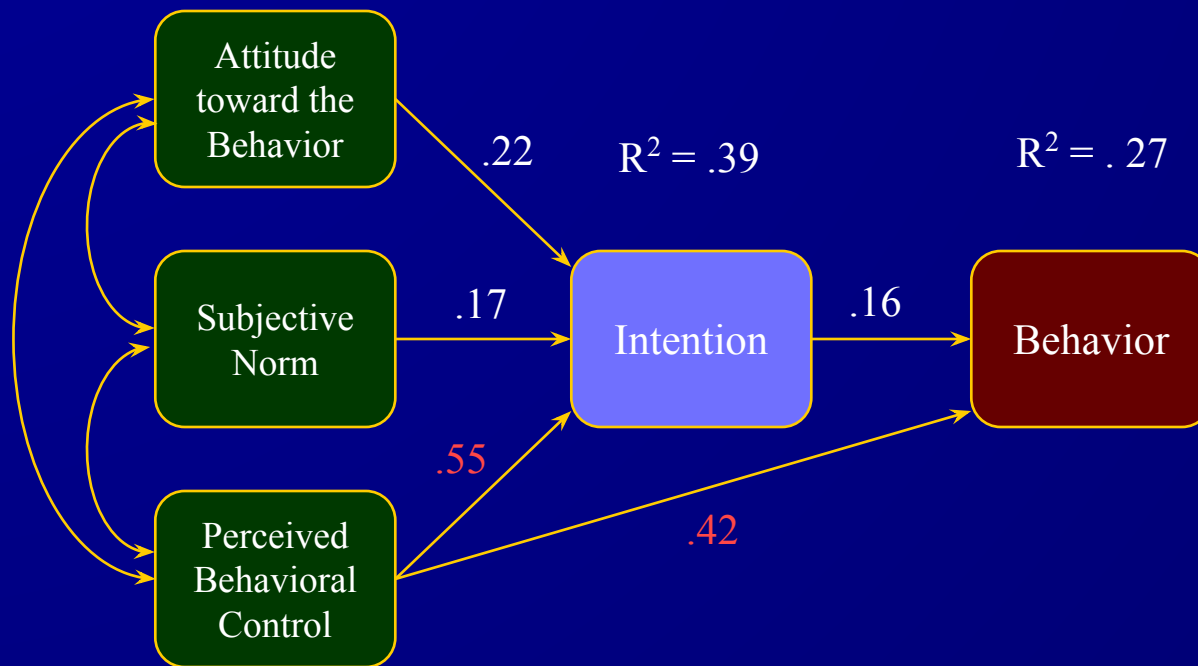
$$\alpha = .79$$

Sample Application: Physical Activity With Spinal Cord Injury – Latimer & Martin Ginis (2005)



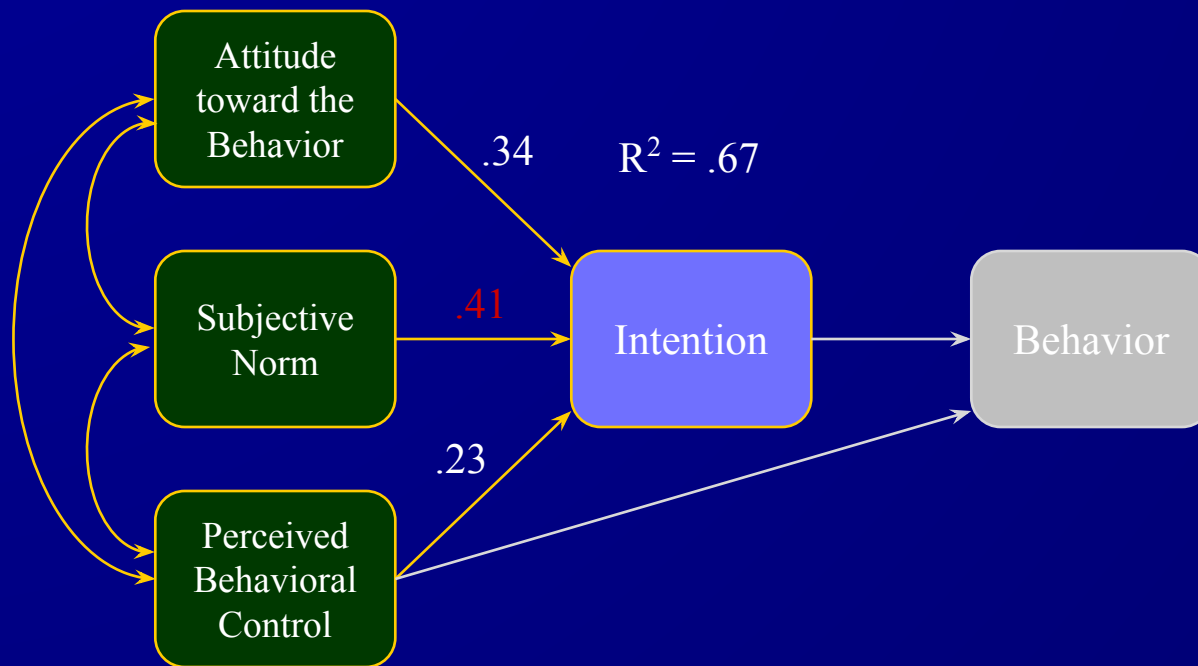
Sample Application: Not Smoking

(Godin, Valois, Lepage, & Desharnais, 1992)



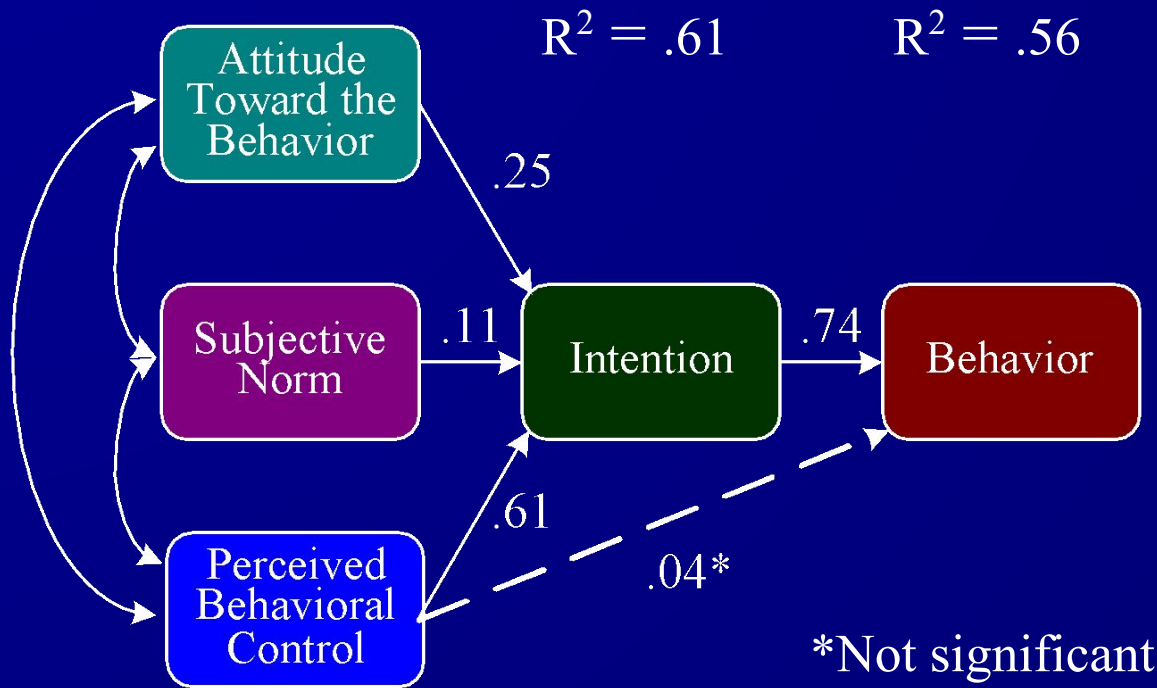
Sample Application: Driving After Drinking

(Armitage, Norman, & Conner, 2002)



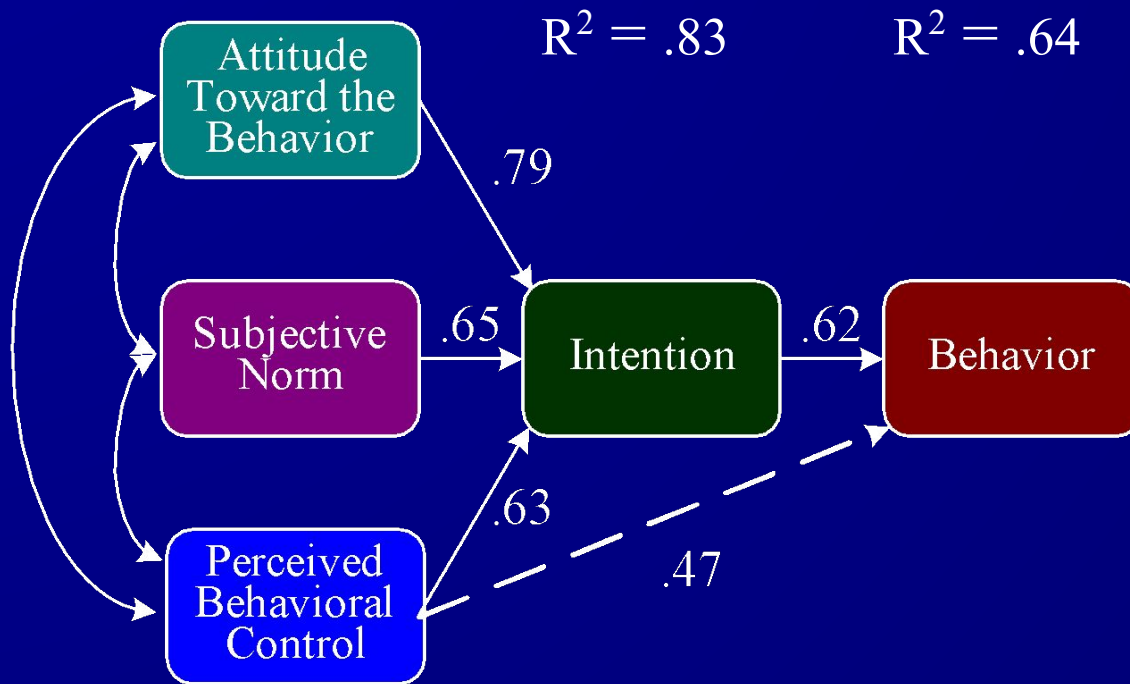
TPB: Donating Blood

(Giles & Cairns, 1995)

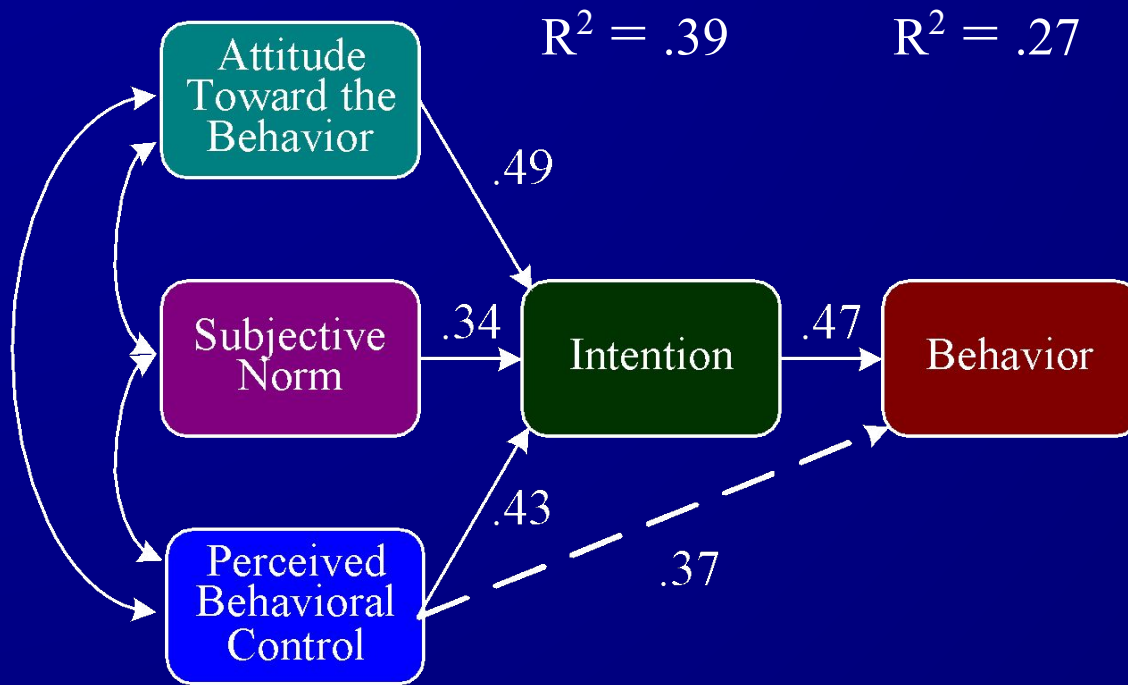


TPB: Energy Conservation

(Ajzen, Joyce, Sheikh, & Gilbert Cote, 2011)



Meta Analysis – Mean Correlations (K = 185)
(Armitage & Conner, 2001)



Changing Intentions and Behavior



Behavior Change Interventions: Uses of the TPB

- 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 TPB's predictor variables.

Influencing Intentions

- Intentions can be modified by changing the major determinants of intentions: Attitudes, subjective norms, and/or perceptions of behavioral control

Getting Information About Accessible Behavioral, Normative, and Control Beliefs

- Elicit accessible beliefs using open-ended questions
 - *Outcome evaluations*: Advantages & disadvantages; likes and dislikes associated with the behavior
 - *Normative referents*: People or groups who approve or disapprove; perform or do not perform the behavior
 - *Control factors*: Factors that make performance of the behavior easier or more difficult
- Construct lists of accessible personal or modal behavioral, normative, and control beliefs

Designing and Pretesting the Intervention

- The TpB provides general guidelines and suggests possible target beliefs. **Designing the details of an effective intervention depends on the investigator's experience and creativity.**

- Possible approaches
 - Persuasive communication (ads, flyers, lectures)
 - Face-to-face discussions

- Pretesting to establish that the intervention influences the beliefs it was designed to change, and that it does not have unanticipated (and undesirable) impact effects on other beliefs

*Evaluating Intervention Effectiveness
by Means of the TPB*

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

- *Population:* College students at the University of Giessen, Germany.
- *Behavior:* Self-reported bus use to get to the campus.

Choice of Travel Mode in the Theory of Planned Behavior: The Roles of Past Behavior, Habit, and Reasoned Action

Sebastian Bamberg

*Department of Psychology
Universität Giessen, Germany*

Icek Ajzen

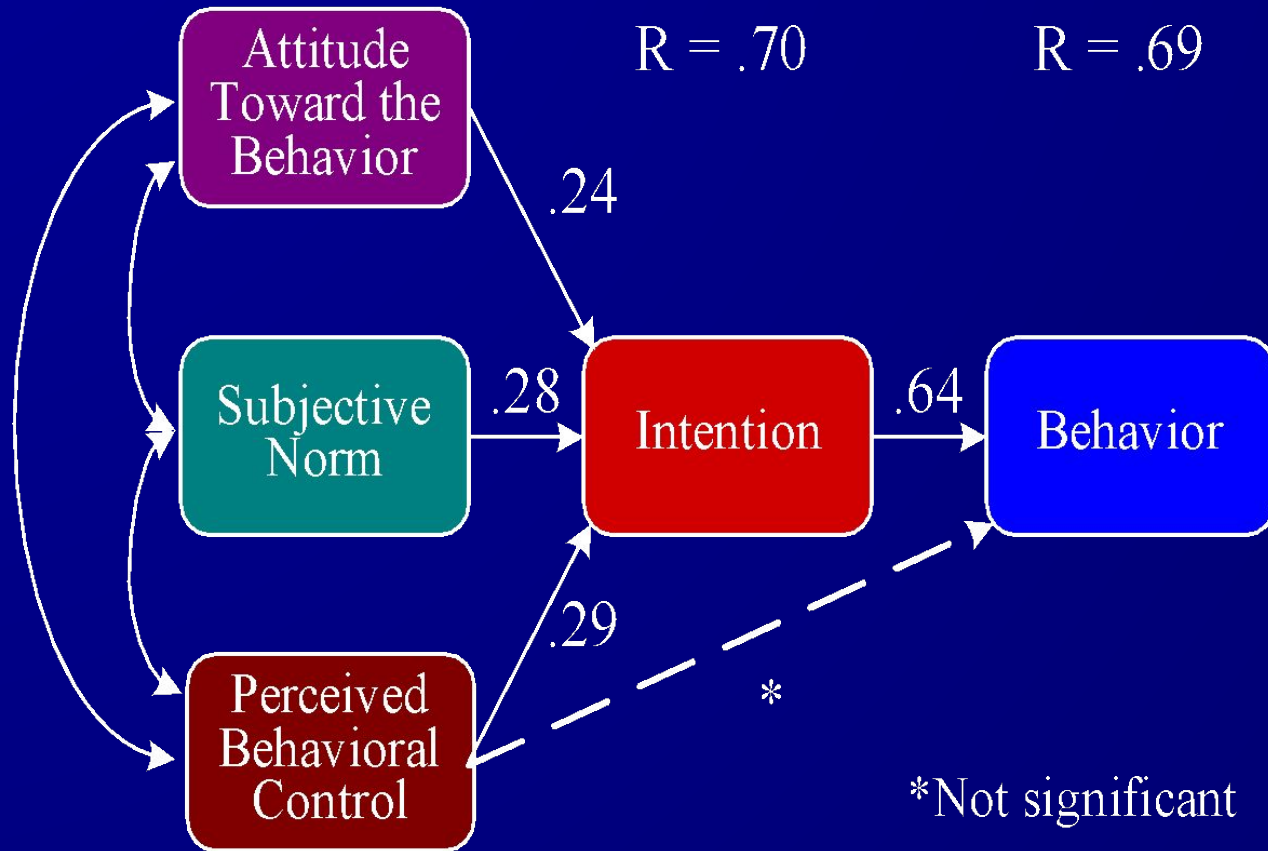
*Department of Psychology
University of Massachusetts–Amherst*

Peter Schmidt

*Department of Sociology
Universität Giessen, Germany*

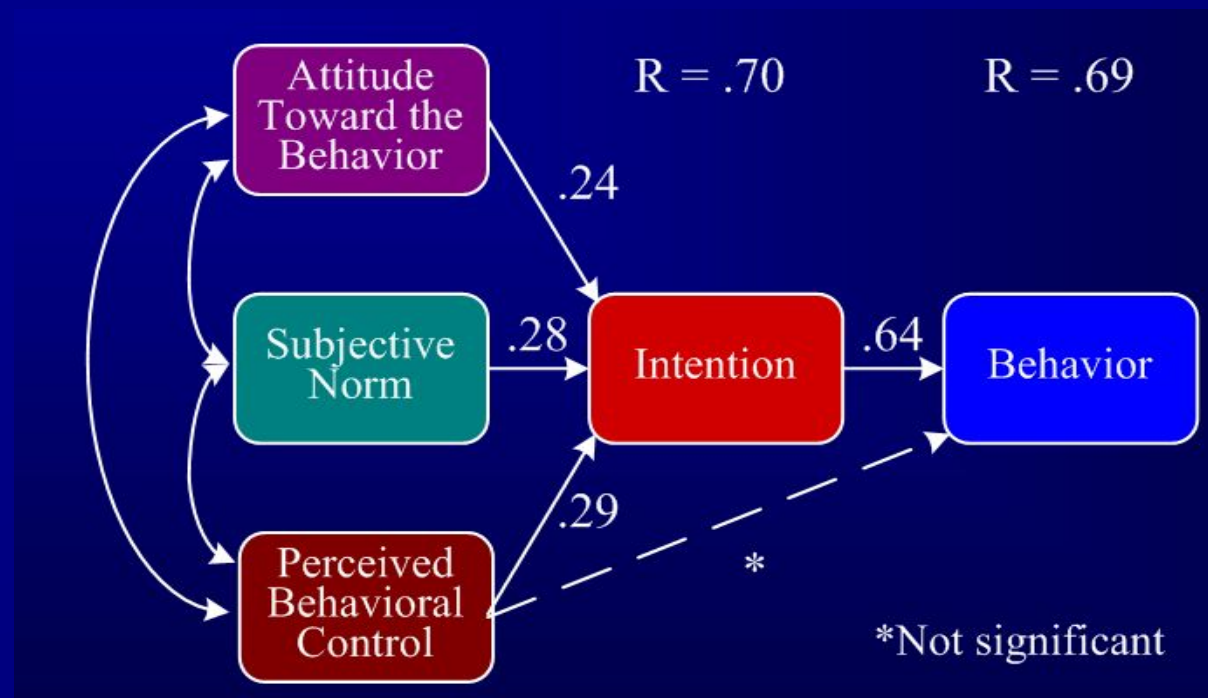
Relying on the theory of planned behavior (Ajzen, 1991), a longitudinal study investigated the effects of an intervention—introduction of a prepaid bus ticket—on increased bus use among college students. In this context, the logic of the proposition that past behavior is the best predictor of later behavior was also examined. The intervention was found to influence attitudes toward bus use, subjective norms, and perceptions of behavioral control and, consistent with the theory, to affect intentions and behavior in the desired direction. Furthermore, the theory afforded accurate prediction of intention and behavior both before and after the intervention. In contrast, a measure of past behavior improved prediction of travel mode prior to the intervention, but lost its predictive utility for behavior following the intervention. In a test of the proposition that the effect of past on later behavior is due to habit formation, an independent measure of habit failed to mediate the effects of past on later behavior. It is concluded that choice of travel mode is largely a reasoned decision; that this decision can be affected by interventions that produce change in attitudes, subjective norms, and perceptions of behavioral control; and that past travel choice contributes to the prediction of later behavior only if circumstances remain relatively stable.

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



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

- *Intervention*: Prepaid semester bus ticket, accompanied by an extensive informational campaign.



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

	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*

*Individual Social Capital and the
Implementation of Entrepreneurial
Intentions: the case of Russia*

Individual social capital and the implementation of entrepreneurial intentions: The case of Russia

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¹Higher School of Economics (HSE), National Research University, Moscow, Russia, and ²Justus Liebig University of Giessen, Giessen, Germany

The current research hypothesized that individual social capital facilitates the implementation of one's intention to start a business. The research samples were drawn from a sample of 2061 adult respondents: a sub-sample of 269 adults who stated their intention to start their own business during the next two years ('intenders') and a matching sub-sample of 270 who said they did not intend to do so ('non-intenders'). The study shows that the 'intenders' possessed greater individual social capital. These resources had a positive indirect impact (through increased perceived behavioural control and attitude) on their intention to start their own business.

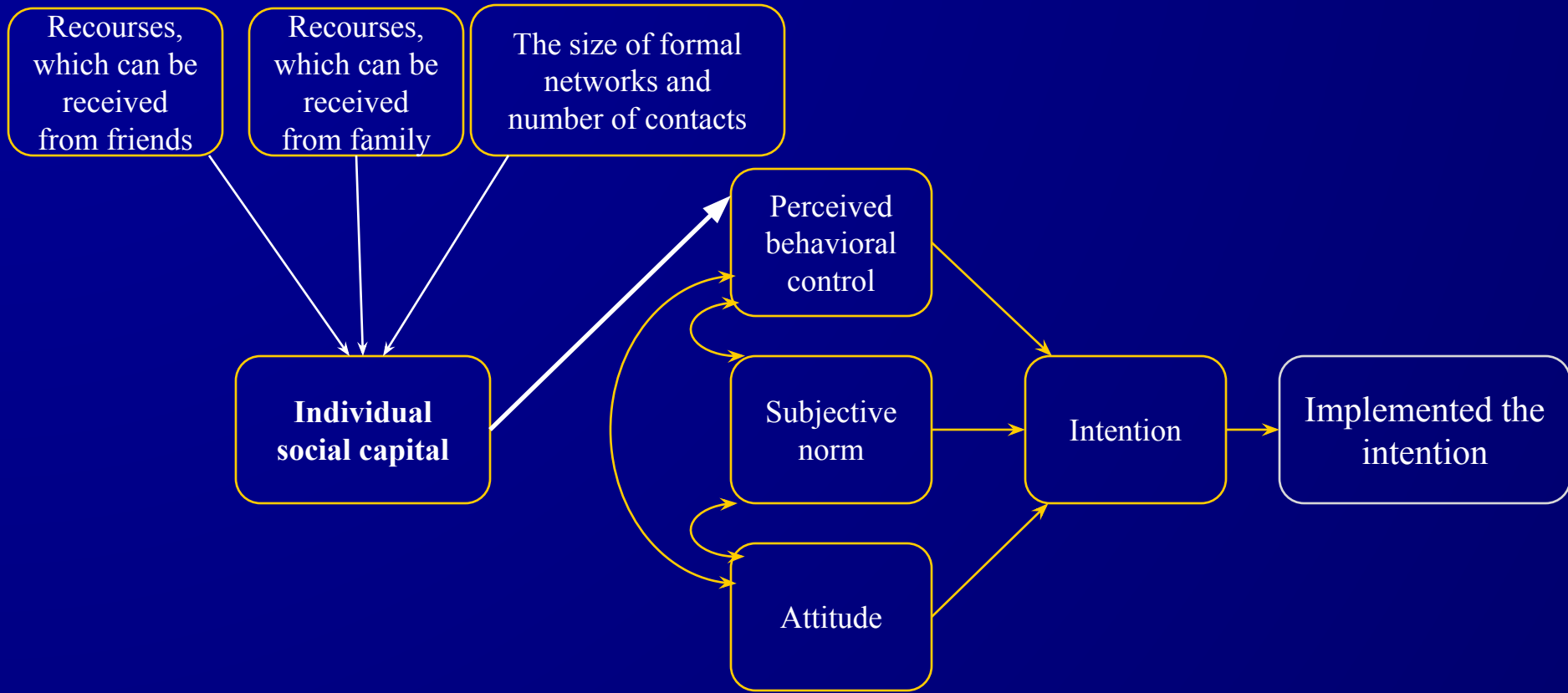
Key words: entrepreneurial intention, individual social capital, perceived behavioural control, social support, theory of planned behaviour.

Introduction

This paper aims to examine and explain the psychological mechanism underlying the influence of individual social

capital on entrepreneurial intentions. Social capital is one of the most important non-economic facilitators of progress (Fukuyama, 2002; Helliwell & Putnam, 1995; Knack & Keefer, 1997). Social

Figure 1. The theoretical mechanism of the influence of individual social capital on the intention to open one's own business



Sampling procedure

- 1) We ordered a survey to Institute for Comparative Social Research Ltd. (CESSI, Russia) in the third quarter 2012. The CESSI applied a multistage (3-stage) area sample.

- 2) The *effective total sample size* was 2,061 respondents:
 - **1,024** respondents where interviewed in the **Central Federal District including Moscow**
 - **1,034** respondents where interviewed in the **North Caucasian Federal District.**

3) Furthermore, those respondents were selected from this sample, those who were (or not) planning to start a new business in the next 2 years.

For this purpose the respondents were asked the following question: “Are you thinking about starting your own business within the forthcoming two years?” The options of answers were following: “Yes”, “Maybe/Not sure” and “No”.

- The sample of “intenders” (n=269) included those respondents who answered this question either “Yes”, or “Maybe/Not sure”.

Entrepreneurial behavior evaluation using the TPB.

Behavior intention was measured by 2 items:

“How likely is it that you would start a business within the forthcoming two years?” (Very unlikely: -3-2-1 0 1 2 3 Very likely)

“I expect to start a new business within the forthcoming two years” (Strongly disagree: -3-2-1 0 1 2 3 Strongly agree).

- We measured *behavioral attitude* ($\alpha=0.86$) using two statements:
 - (1) “The idea of starting a business within the next two years is for me...” with answers ranging on a 7-point Likert scale from “very inappropriate” (-3) to “very appropriate”
 - (2); “The idea of starting a business within the next two years is for me...” with answers ranging on a 7-point Likert scale from “very bad” (-3) to “very good” (3) .
- We measured *subjective norm* ($\alpha=0.60$) using two items:
 - (1) “Most people who are important to me think I should start my own business within the next two years”;
 - (2) “Many people I know would like to start their own business in the next two years.” For both questions answers ranged on a 7-point Likert scale from “strongly disagree” (-3) to “strongly agree” (3).

- We measured *perceived behavioral control* ($\alpha=0.93$) using two items:

(1) “For me to start a business within the next two years is...” with answers ranging on a 7-point Likert scale from “very difficult” (-3) to “very easy (3);

(2) “To start a business within the next two years is beyond my control” with answers ranging on a 7-point Likert scale from “strongly disagree” (-3) to “strongly agree” (3)(reverse coded).

- We measured *implementation intention* ($\alpha=0.73$) using three items:

(1) “Have you thought about an idea that could serve as a basis for starting your own company?”

1- No, I don't have any idea yet;

2- I don't have a certain idea, only general thoughts;

3- I have some ideas, but they are not clear yet;

4- I have an idea, but it still requires elaboration;

5- Yes, I have a specific well thought-out idea);

- We measured *implementation intention* ($\alpha=0.73$) using three items:

(2) “Are you currently developing a product/service?” with answers ranging on a 5-point Likert scale from “No, I am not” (1)-- to-- “I have been actively doing this/have already done this” (5);

(3) “Are you currently saving money for your intention to start a business?” with answers ranging on a 5-point Likert scale from “No, I am not” (1) --- to --- “I have been actively doing this/have already done this.” (5).

2. Individual social capital.

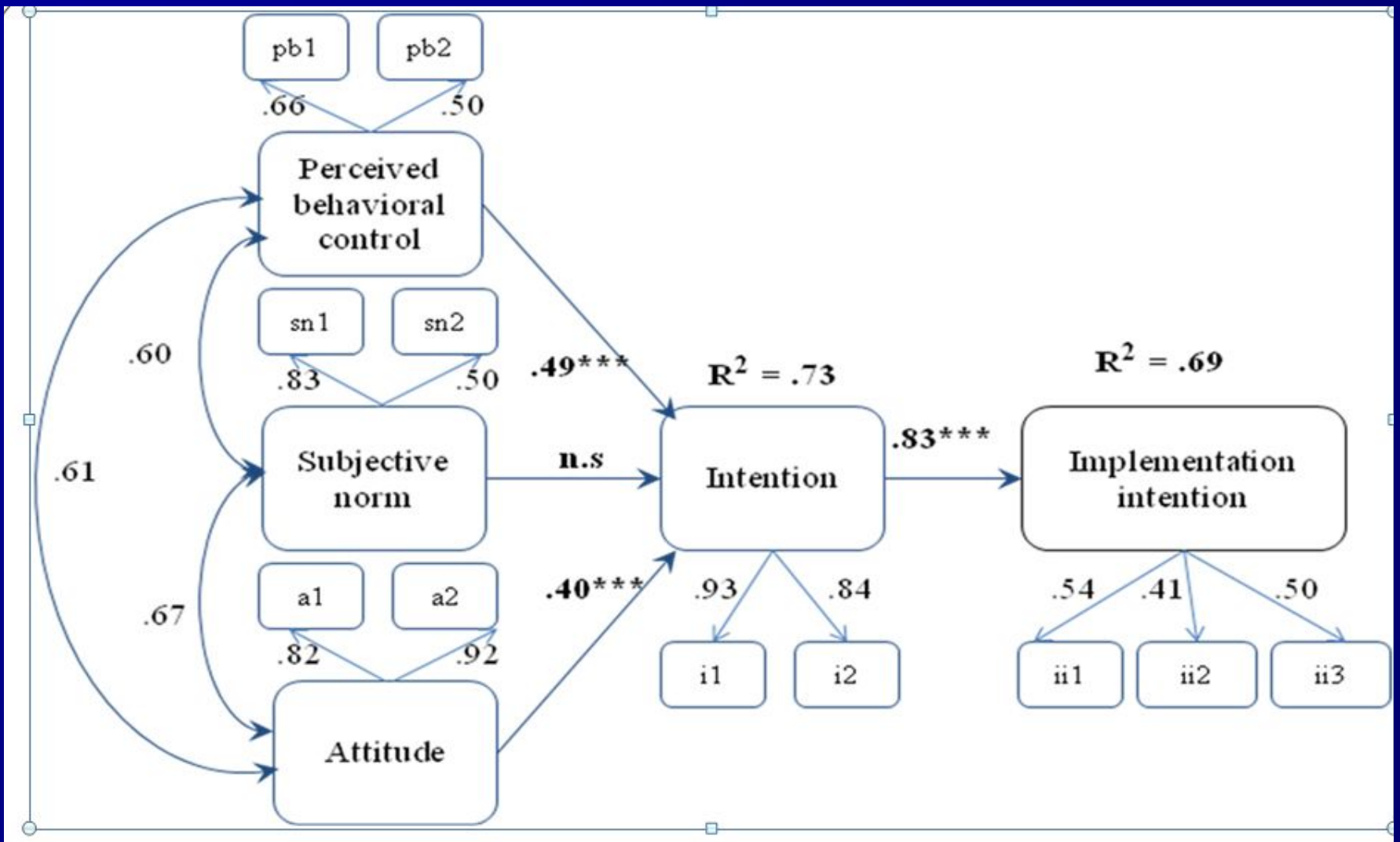
Resources, which can be received from informal networks (friends and family): from receiving help in house repair to legal and financial assistance (Häuberer, 2011; Gaag, 2005; Verhaeghe & Tampubolon, 2012).

This method shows how many family members and how many friends/acquaintances do the respondent have who are willing
“to help him/her with small repairs in he/her house or flat,”
“to advise him/her in case of personal problems,”
“to advise him/her about legal or bureaucratic problems,”
“to help him/her or another family member to find a job”.
etc.

2. Individual social capital.

- c) *The size of formal networks*: membership in organizations and associations (Yang, 2007; Beilmann & Realo, 2012; Häuberer, 2011).

We measured the formal network of organizational membership by asking the respondent about his/her membership to political party, trade union, professional association, church, religious, charity organizations, public beneficial organization, sport or interest organization, civic associations, non-governmental organization that he/she belongs to (cf. Häuberer, 2011).



The measures of goodness of global fit satisfactorily for Model: ($\chi^2 / df = 2.1$; CFI = .961; RMSEA = 0.064; PCLOSE = 0.117).

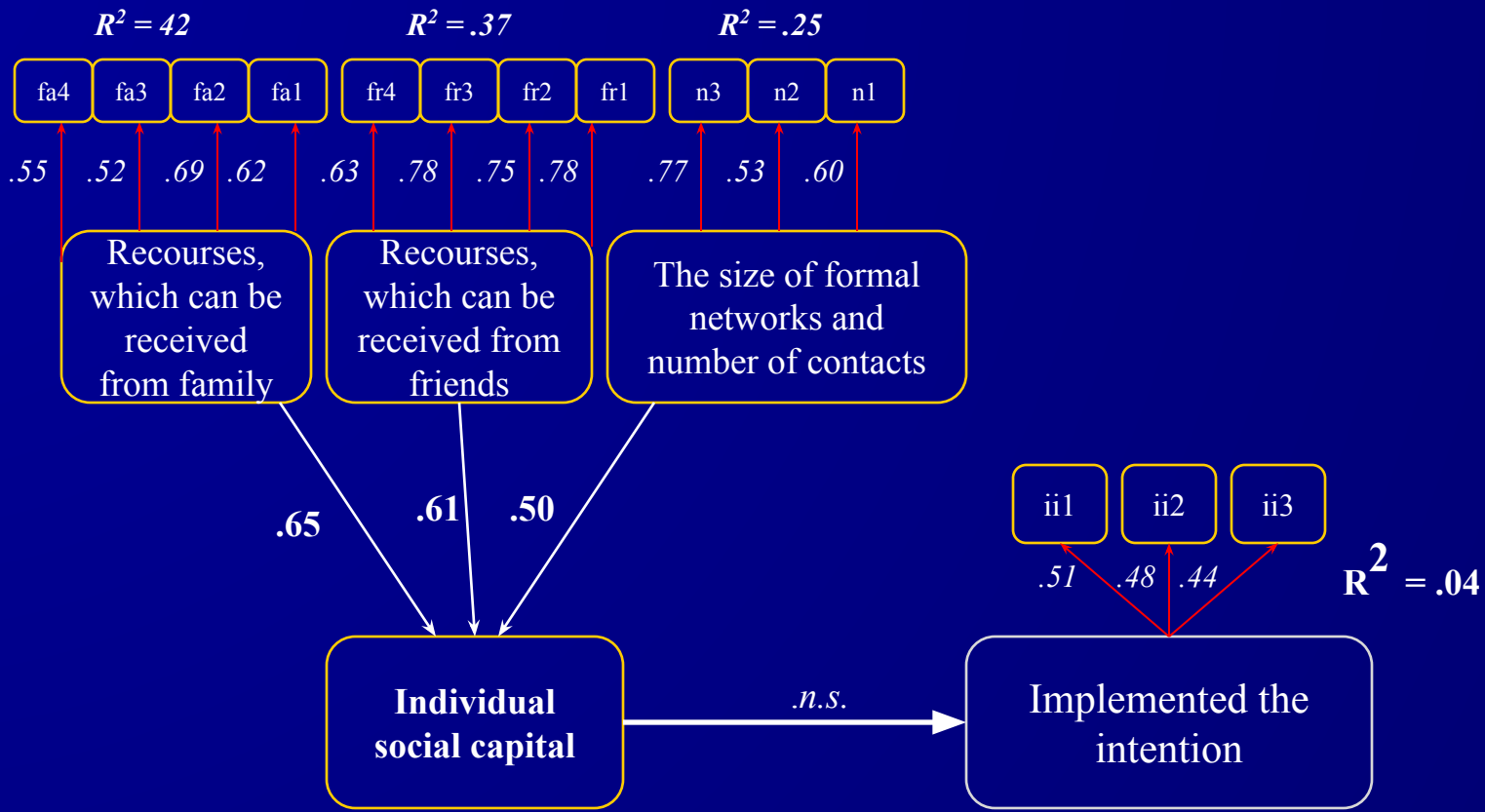
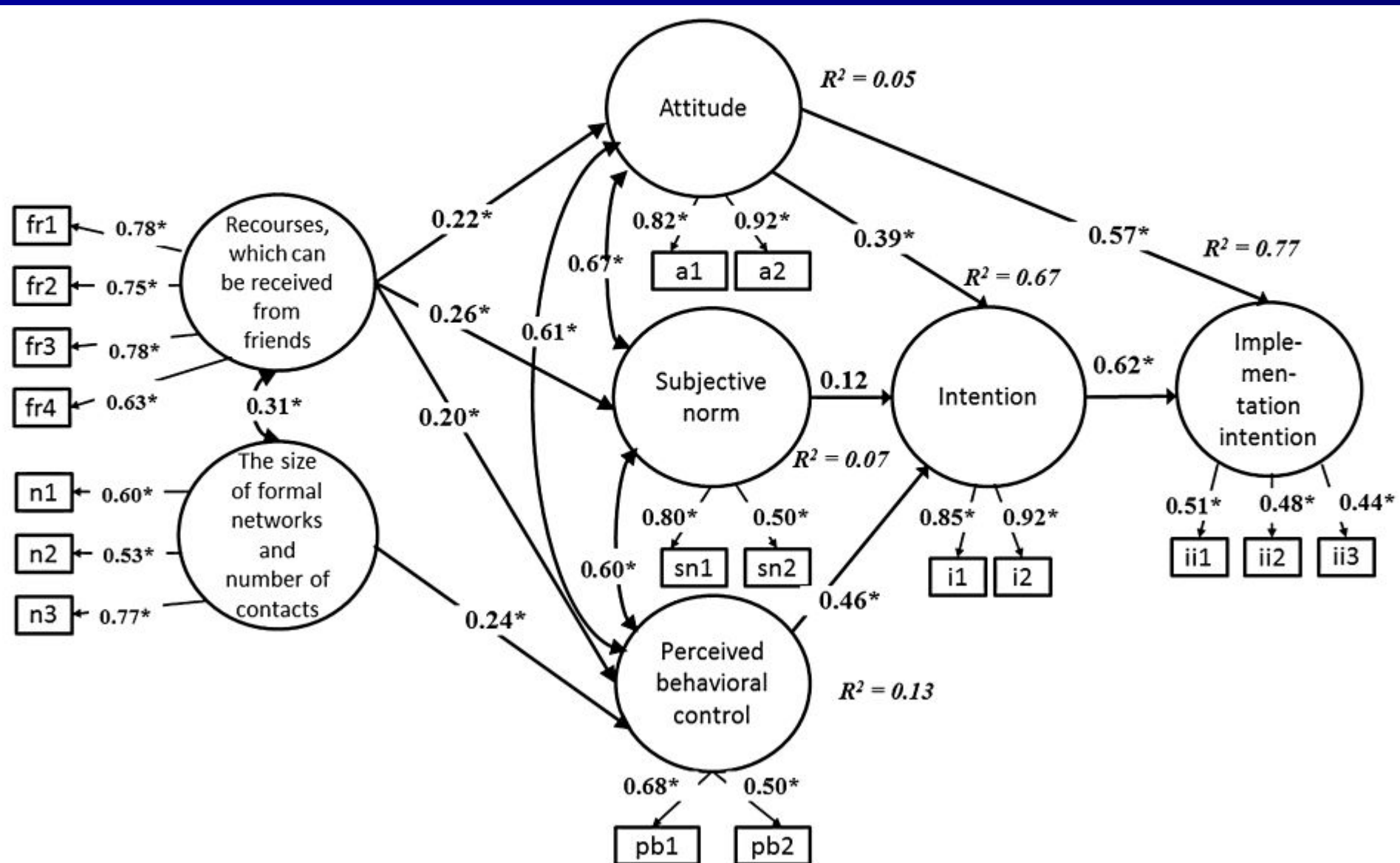


Figure 2 shows the direct effect of individual social capital on the implementation of entrepreneurial intentions (Model 1).

The measures of goodness of global fit are satisfactory ($\chi^2 / df = 1.6$; CFI = 0.933; RMSEA = 0.054; PCLOSE = 0.340).



The measures of goodness of global fit are satisfactorily ($\chi^2 / df = 1,35$; CFI = 0.958; RMSEA = 0.039; PCLOSE = 0.950).