

Using Dissonance Induction Techniques in Health-Related Interventions

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Key Questions

- How do we form our beliefs and attitudes?
- Do attitudes guide behavior?
- Does behavior guide attitudes?
- How can attitudes be influenced and behavior changed?
- How does dissonance theory inform health behavior change strategies?

Attitudes

- What are attitudes?
 - Evaluation that is positively or negatively valenced
 - 3 main components
 - Affect (feelings)
 - Behavior (intentions)
 - Cognitions (thoughts)

Attitudes

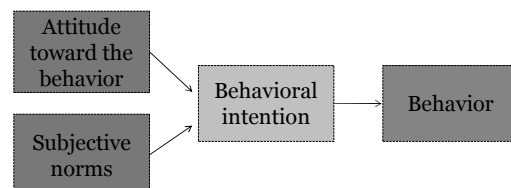
Jane believes that smoking is unhealthy, feels disgusted when people smoke around her, and avoids being in situations where people smoke.

Attitudes

- How do we form our beliefs and attitudes?
 - Theory of Reasoned Action
 - Theory of Planned Behavior

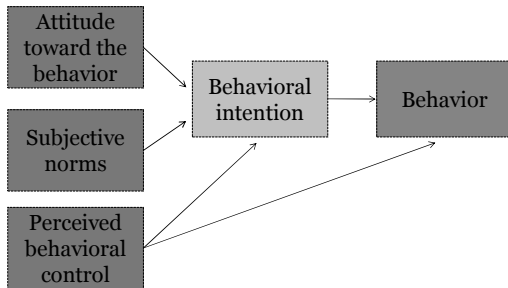
How Attitudes Guide Behavior

Theory of Reasoned Action (Fishbein & Ajzen, 1975)



How Attitudes Guide Behavior

Theory of Planned Behavior (Ajzen, 1988)



Attitudes and Behavior

- Do attitudes predict behavior?
 - Yes
 - Well, sometimes...
 - More likely to guide behavior when:
 - Attitude and behavior are measured at the same level of specificity
 - Attitude is made more salient or immediate
 - Other influences on behaviors and expressed attitudes are minimized
 - Attitude is personally relevant

Attitudes and Behavior

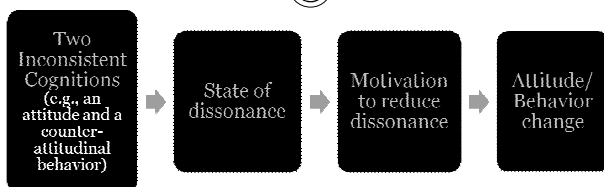
- How can attitudes be influenced and behavior changed?
 - Key element of most health interventions
 - Effect of persuasive appeals
 - Most people already agree with health-related messages
- Are there other ways to influence attitude and behavior change?



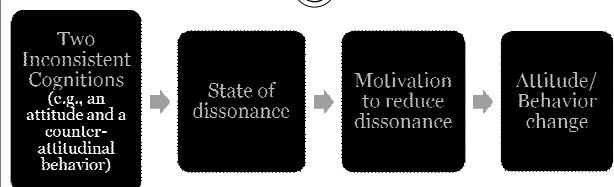
Attitudes and Behavior

- Can behavior actually influence attitude?
 - Self-Presentation Theory
 - Desire to *appear* consistent
 - Self-Perception Theory
 - When unsure, we examine our behavior
 - Cognitive Dissonance Theory
 - Desire to *be* consistent

Dissonance Theory



Dissonance Theory



C1: Smoking cigarettes is hazardous to your health.

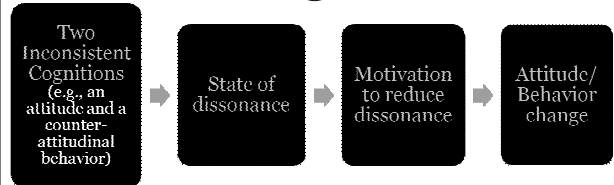
C2: I smoke cigarettes.

Dissonance Theory

• How is dissonance resolved?

- Change the behavior
- Change the attitude

Dissonance Theory



C1: Smoking cigarettes is hazardous to your health.

C2: I smoke cigarettes.

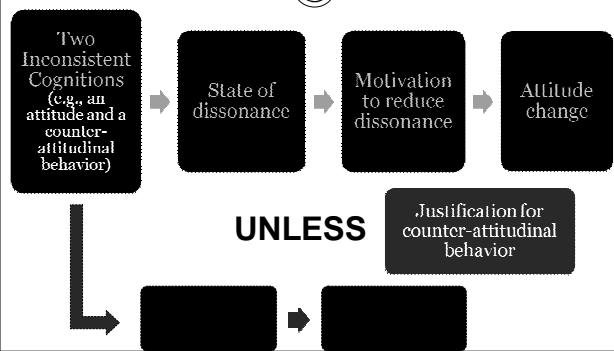
C1: The dangers of smoking are overrated.

C2: I smoke cigarettes.

Dissonance Model



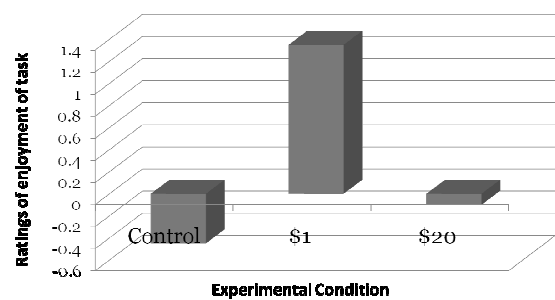
Dissonance Model



Festinger & Carlsmith (1959)

- Subjects engage in boring task
- Subjects paid to lie (\$1 or \$20)
- Subjects asked how they liked the task
- Cognitions
 - C1: This task is BORING.
 - C2: I said this task was INTERESTING (counter-attitudinal behavior)
 - ✦ Can't change behavior, so attitude changes
 - ✦ Greater liking in \$1 condition

Festinger & Carlsmith (1959)



Factors Affecting Dissonance

- **Effort Justification**
 - The tendency to reduce dissonance by finding reasons for why a person has devoted time, effort, or money to something
- **Insufficient Justification**
 - “Sweet lemons justification”-it’s really not so bad
- **Overjustification**
 - Rewarding people for activities they enjoy may backfire
 - Shift from intrinsic to extrinsic motivation

Factors Affecting Dissonance

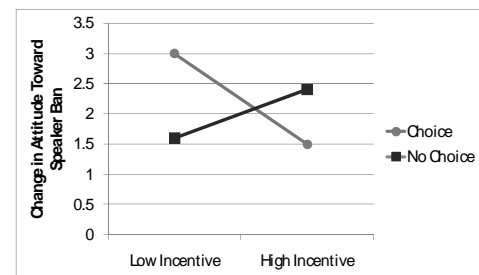
- **Factors affecting the magnitude of dissonance arousal**
 - Degree of discrepancy among cognitions
 - Number of discrepant cognitions
 - Number of consonant cognitions
 - Importance of the cognitions
 - Number and importance of pressures

Factors Affecting Dissonance

- **Factors that maximize the magnitude of dissonance arousal**
 - Voluntary

Factors Affecting Dissonance

Linder, Cooper, & Jones (1967)

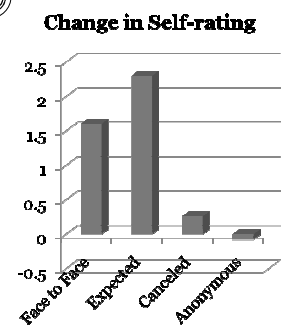


Factors Affecting Dissonance

- **Factors that maximize the magnitude of dissonance arousal**
 - Voluntary
 - Public statement

Factors Affecting Dissonance

- **Schlenker, Dlugolecki, & Doherty (1994)**
 - Strategic self-presentation to interviewer vs. private self-reflection
 - Influenced identity in a new situation with a new audience
 - Importance of public commitment in change in self-appraisal

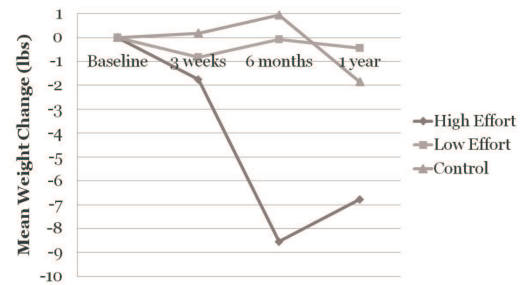


Factors Affecting Dissonance

- Factors that maximize the magnitude of dissonance arousal
 - Voluntary
 - Public statement
 - High effort expenditure

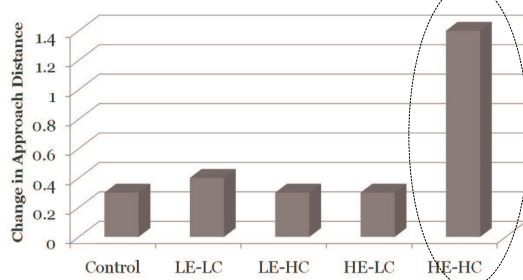
Factors Affecting Dissonance

Axson & Cooper (1985)



Factors Affecting Dissonance

Axson (1989)



Dissonance Induction Techniques

CREATING INCONSISTENCY

Dissonance Induction Techniques

- Induced Compliance
- Induced Hypocrisy
- Strategic Self-Presentation
- Motivational Interviewing

Dissonance Induction Techniques

- Induced Compliance
 - Conditions:
 - ✦ Person says or behaves in a way contrary to an attitude or belief
 - Techniques:
 - ✦ Counter-attitudinal essay
 - ✦ Foot-in-the-Door / Low-Ball Technique
 - ✦ Door-in-the-Face

Dissonance Induction Techniques

• Induced Hypocrisy

- Conditions:
 - ✦ Person must be personally responsible for making the pro-attitudinal statement.
 - ✦ Person's prior discrepant behavior needs to be brought to their attention (i.e., made accessible)

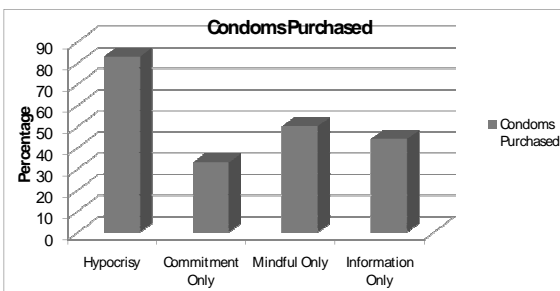
Dissonance Induction Techniques

• HIV Prevention (Stone et al., 1994)

- Recruited sexually active college students
- Asked to make a videotape advocating safe sex practices
- Made mindful of past failures to engage in safe sex practices
- Condoms available for purchase in private

Dissonance Induction Techniques

Induced Hypocrisy (Stone et al., 1994)



Dissonance Induction Techniques

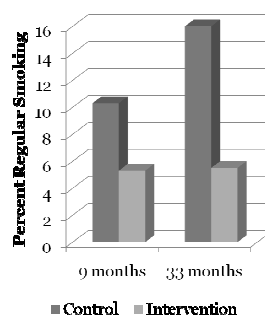
• Strategic Self-Presentation

- Influence of public self-presentation on private appraisals of self
- Self-presentations that are discrepant with one's self-conception arouses dissonance
- Can be resolved by changing one's private self to reflect public behavior

Dissonance Induction Techniques

• Smoking Prevention (Killen, 1985)

- Used role plays (form of strategic presentation)
- Adolescents practiced skills for refusing offers to try cigarettes
- 7 sessions over 9 months

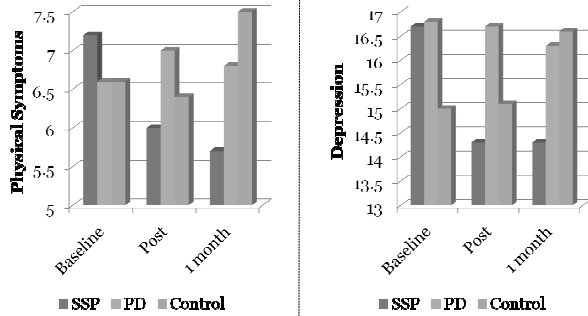


Dissonance Induction Techniques

• Adjustment to Chronic Illness (Leake, Friend, & Wadha, 1999)

- End-stage renal disease patients
- 3 conditions
 - ✦ Strategic self-presentation (SSP)
 - ✦ Problem disclosure (PD)
 - ✦ Control
- Presented self as able to cope for video
 - ✦ Goal of focusing more on strengths and less on incapacities

Dissonance Induction Techniques



Dissonance Induction Techniques

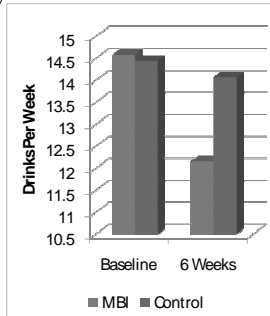
• Motivational Interventions

- Directive, client-centered, non-confrontational approach
- Focus on enhancing discrepancy between actual and ideal behaviors
 - ✦ Build motivation for change
 - ✦ Strengthen commitment to change

Dissonance Induction Techniques

• Heavy Drinking (McNally, Palfai, & Kahler, 2005)

- Role and effects of drinking
- Feedback on current use, normative comparison, and consequences
- Formulate brief change plan



Dissonance Induction Techniques

APPLICATION TO COMPLEX INTERVENTIONS

Dissonance Induction Techniques

• Healthy Weight Management Intervention (Stice & Presnell, 2007)

- Foot-in-the-Door
 - ✦ Ask participants to make small modifications to diet and exercise
 - ✦ Once compliant ask for larger changes
- Strategic Self-Presentation
 - ✦ Have participants present themselves to group as someone who makes healthy choices
 - ✦ Discuss ways in which they have successfully improved their eating and exercise habits
- Motivational Enhancement

Dissonance Induction Techniques

• Dissonance-based Eating Disorder Prevention Program (Stice & Presnell, 2007)

- Target a previously-existing and strongly-held belief (thin-ideal internalization)
- Participants argue against this ideal in a series of verbal, written, and behavioral exercises

Key Dissonance-Induction Components

- Voluntary
- Verbal commitment
- Costs of the thin-ideal
- Public statement against thin-ideal
- Mirror exercise
- Letter to an adolescent girl
- Role-plays dissuading facilitator
- Verbal challenge to personal pressure to be thin
- Top ten list
- Behavioral activism
- Body challenge
- Quick comebacks
- Self-affirmation
- Compensation for survey completion only

Sample Dissonance Exercise

Please come up with at least three such examples from your life. These examples probably won't be how you actually responded to the pressure. Instead, they should be how you might respond *now* based on what you know about the thin-ideal.

1) *Situation:* A friend says that she thinks women's thighs shouldn't touch.

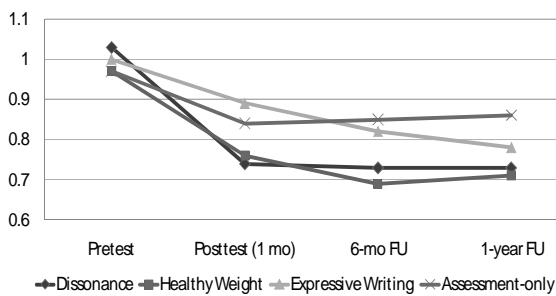
Verbal Response: Some people have bodies where it's natural for their thighs not to touch, but most women's thighs do touch naturally. Women's thighs are supposed to have muscle and fat. Besides, isn't that a silly thing to be worrying about anyway?

2) *Situation:* A coach tells you that you're starting to get too fat for the team.

Verbal Response: Teens go through many growth stages in life. I'm still able to play just fine, so it really shouldn't matter what I weigh or how much fat is on my body.

Does dissonance work?

Bulimic Symptoms

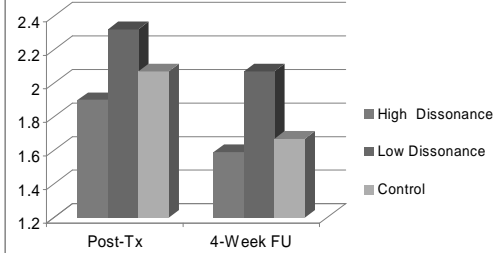


Dissonance-based Interventions

Study	TII	Body Dissat	Dieting	Neg Affect	Eating Pathology
Becker, Smith & Ciao, 2005		✓		--	✓
Matusek et al., 2004	✓		--		✓
Mitchell et al., 2007		✓			✓
Stice, Mazotti, et al., 2000	✓	✓		✓	✓
Stice, Trost, et al., 2003				✓	✓
Stice, Shaw, et al., 2006	✓	✓	✓	✓	✓
Stice, Rohde, et al., 2007	✓	✓	✓	✓	✓

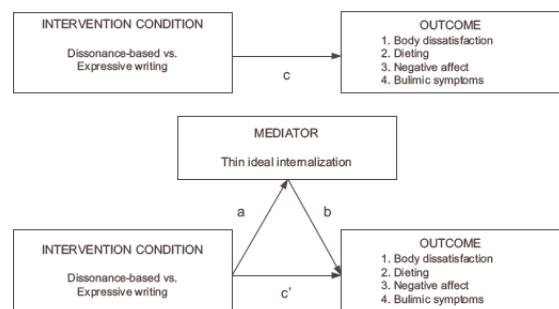
How does dissonance work?

- High vs. Low Dissonance Induction (Green et al., 2005)



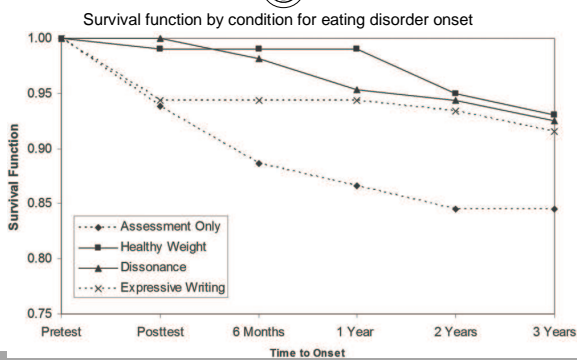
How does dissonance work?

DISSONANCE-BASED MODEL



Stice, Presnell, et al., 2006

Do the effects last?

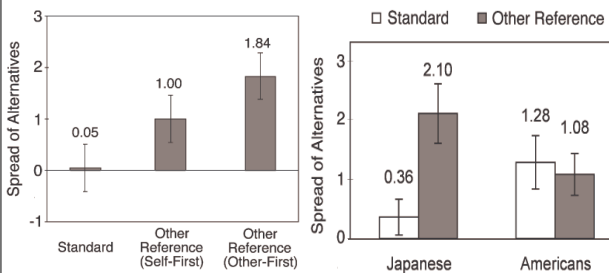


General Considerations

- Common pitfalls of applying dissonance techniques
 - Didactic presentation
 - Attempting to persuade by arguing
 - Allowing a group member to dissent
 - Using too much coercion
- Cultural influences on dissonance

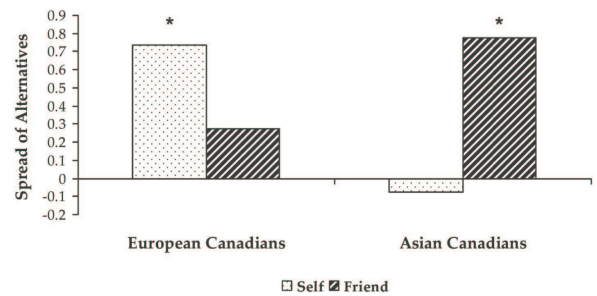
Cultural Influences

Kitayama et al. (2004)



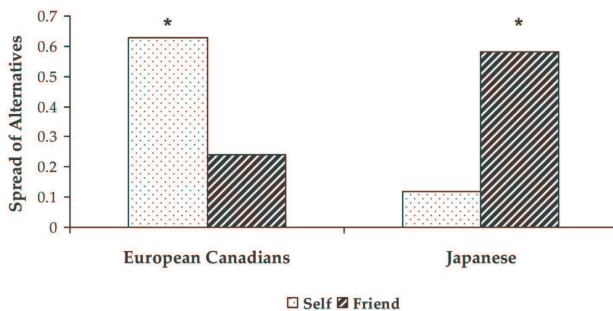
Cultural Influences

Hoshino-Browne et al. (2005)



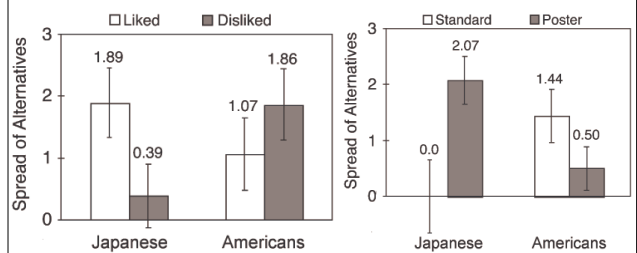
Cultural Influences

Hoshino-Browne et al. (2005)



Cultural Influences

Kitayama et al. (2004)



Conclusions



- Motivational theory
- Dissonance produces lasting changes
- Situations that create a discrepancy evoke negative affect
- Cognitive inconsistency of sufficient magnitude evokes cognitive and behavioral changes
- Dissonance techniques can be successfully incorporated into health-related interventions