The Cognitive Perspective on Social Interaction

Fall 2015

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Webcast Now Available

2

Social Psychology
is the Science of Mind in Action

Doctrine of Mentalism
"Mental States are to Action as Cause to Effect"

In order to understand
an individual's social behavior,
we must understand the social situation
from that individual's point of view.

3

Social Cognition in
To Kill a Mockingbird
Harper Lee (1961)

"You never really understand a person until you consider things from his point of view – until you climb into his skin and walk around in it."

Atticus Finch to Scout,
after her first day at school

4

Lewin's "Grand Truism"
Lewin (1933/1935)
Quote from Jones (1985)

$$\mathbf{B} = f(\mathbf{P}, \mathbf{E})$$

where

B = Behavior
P = Factors Internal to Person
**E** = Factors in External Environment

5

Two Cultures in
Personality and Social Psychology
After C.P. Snow (1959, 1963)

- Personality: **B = *f*(P)**
  – Traits, Attitudes, Emotions, Motives, Values
  – Correlations Between Predictors, Criteria
  – Environment as Noise to be Averaged out
- Social Psychology: **B = *f*(E)**
  – Physical and Social Environment
  – Experimental Manipulations of IVs, DVs
  – Persons as Noise to be Averaged Out

6

Independence of Personal and Environmental Factors

P •

Traditional Personality Psychology

$B = f(P + E)$

• B

Traditional Social Psychology

E •
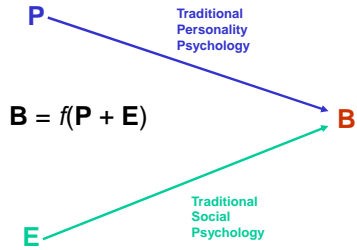
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The Behaviorist Revolution
Watson (1913, 1919)

- Humans are Behaving Organisms
  - Behavior, Conditions Under Which It Occurs,
    - Can Be Objectively Described
- Mental States Are Not Causally Efficacious
  - Behaving Organisms React to Environmental Stimuli
- Psychology a Natural Science
  - Predict Behavior to Advance Scientific Theory
  - Control Behavior to Promote Human Welfare 8

Social Psychology and Behaviorism
F. Allport (1924)

- Two Forms of Social Behavior
  - Behavior that Occurs in Response to the Stimulus of Another's Behavior
  - Behavior that Serves as a Stimulus to Another's Response
- Personality is "the individual's characteristic reactions to social stimuli" (p. 101).
- Attitudes as "preparations for response set up in the neuro-muscular system" (p. 320).
- All "behavior phenomena of groups are reducible to mechanisms of individual behavior in the social environment" (p. 382).

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Social Psychology as Functional Behaviorism

Environmental Control = Stimulus Control

- Cross-Situational Variability
  – Reinforcement History
  – Conditioned Stimuli
  – Discriminative Stimuli
- Emphasis on Objective Situation
  – The Situation Controls Behavior

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The Doctrine of Situationism
Skinner (1953)

"The free inner man who is held responsible for the behavior of the external biological organism is only a prescientific substitute for the kinds of causes which are discovered in the course of a scientific analysis. *All these alternative causes lie outside the individual* [emphasis added].

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The Doctrine of Situationism
After Skinner (1953)

- Important Causal Factors in Behavior are External to the Person
  – Reside in Environment
- No Mediation between Environmental Stimuli and Person's Response to Them
  – Eliciting Stimuli
  – Discriminative Stimuli
  – Reinforcement History

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4

Social Psychology as the Psychology of Social Influence
Allport (1954, p. 5)

- "With few exceptions, social psychologists regard their discipline as *an attempt to understand and explain how the thought, feeling, and behavior of individuals are influenced by the actual, imagined, or implied presence of other human beings.*"

- "[S]ocial psychology wishes to know how any given member of a society is affected by all the social stimuli that surround him."

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The Power of the Situation Reasserted
Lieberman (2005), p. 746

"If a social psychologist was going to be marooned on a deserted island and could only take one principle of social psychology with him it would undoubtedly be the 'power of the situation'. All of the most classic studies in the early days of social psychology demonstrated that situations can exert a powerful force over the actions of individuals."

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"Situation Blindness"
Lieberman (2005), p. 746

"If the power of the situation is the first principle of social psychology, a second is that people are largely unaware of the influence of situations on behavior, whether it is their own or someone else's behavior."

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Analyzing Social Interaction
Lewin (1940/1951), p. 25

$$B = f (P, E)$$

The basic statements of a field theory are that (a) behavior has to be derived from a totality of coexisting facts, (b) these coexisting facts have the character of a "dynamic field" in so far as the state of any part of this field depends on every other part of the field….

In principle it is everywhere accepted that behavior (B) is a function of the person (P) and the environment (E)… and that P and E in this formula are interdependent variables.

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Denying the Primacy of Persons or Situations
Bowers (1973)

"Both behavior and reinforcement are subject to selection by biocognitive structures.

These structures include the biological substrates of mental processes; and the cognitive system which organizes them.

Interactionists agree that a person's behavior is determined by the situation in which it occurs. But they also assert that the situation itself is largely determined by the person."

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The Doctrine of Interactionism
Bowers (1973)

- "An interactionist or biocognitive view denies the primacy of either traits or situations in the determination of behavior….
- More specifically, interactionism argues that *situations are as much a function of the person as the person's behavior is a function of the situation*."

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Interaction between the Person and the Situation
Bowers (1973)

P

$B = f(P \times E)$ B

E

19
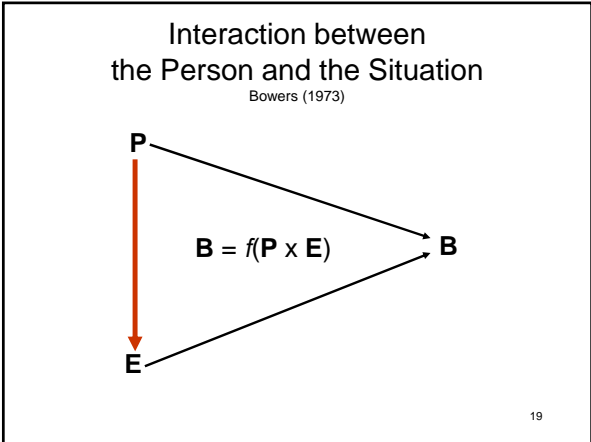
How Persons Construct Environments

- **Through *Overt* Behavior**
  - **Evocation**
    - Person Evokes Response From Environment
  - **Selection**
    - Person Chooses to Enter Environment
      - Or, Environment Selected for Person
  - **Behavioral Manipulation**
    - Person Creates or Modifies Objective Environment
      - Through Overt Behavior
- **Through *Covert* Behavior (Cognitive Activity)**
  - **Cognitive Transformation**
    - Person Creates or Modifies Mental Representation of Environment.   20
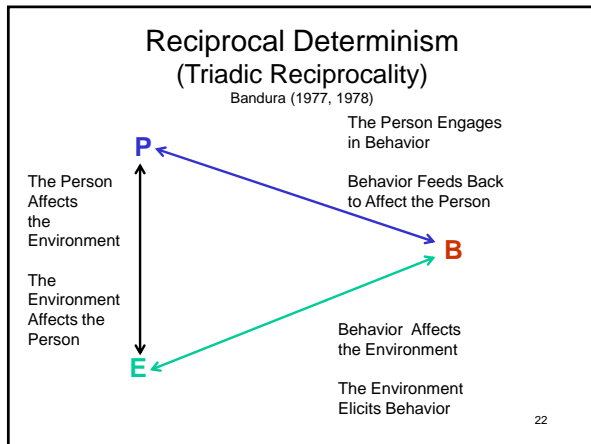
Doctrine of Reciprocal Determinism
Bandura (1978)

"[E]xplanations of human behavior have generally favored unidirectional causal models emphasizing either environmental or internal determinants of behavior.

In social learning theory, causal processes are conceptualized in terms of reciprocal determinism."

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Reciprocal Determinism
(Triadic Reciprocality)
Bandura (1977, 1978)

P

The Person Engages in Behavior

The Person Affects the Environment

Behavior Feeds Back to Affect the Person

B

The Environment Affects the Person

Behavior Affects the Environment

E

The Environment Elicits Behavior

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Objective and Subjective Environments

- People Can Manipulate the Objective Situation Through Their Overt Behavior
- Final Determinant of Behavior is the Actor's Mental Representation of the Situation
- People Can Transform the *Subjective* Situation Through Mental Operations
- Mental Representation of the Situation Leads to Overt behavior
  – This Overt Behavior Can Manipulate the Objective Situation

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## The Thomas Theorem
Thomas (1923); Thomas & Thomas (1928)

"Preliminary to any self-determined act of behavior there is always a stage of examination and deliberation which we may call *the definition of the situation*"

"If men define situations as real, they are real in their consequences"

"The single most consequential sentence ever put in print by an American sociologist"
(Merton, 1976)

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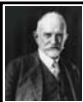
Symbolic Interactionism
George Herbert Mead (1934); Blumer (1937, 1989)

- "Human beings act toward things on the basis of the meaning that the things have for them."
  - "Meaning… arises out of social interaction
  - Meanings are… modified through an interpretive process
- "The human being is an object to himself"
- "Action is conduct rather than response"

Interactions Are "Symbolic" Because They Occur in the Mind Before They Occur in Reality
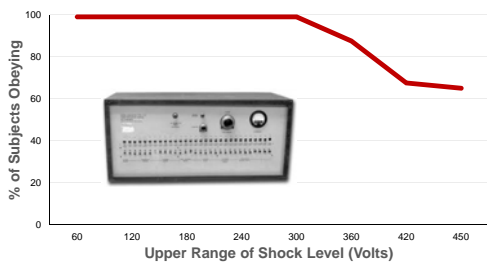
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The Milgram Experiment
Milgram (1963, 1965)

- "Study of Memory and Learning"
  - Effect of Punishment
- "Random" Assignment to Roles
  - Teacher (True Subject)
  - Learner (Confederate)
- Paired-Associate Learning
  - Punish Mistakes with Increasing Shocks
    - "Slight" to "Danger: Severe Shock" to "XXX"
  - Learner Fakes Distress
    - Experimenter Requires Teacher to Continue

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Obedience as a Function of Shock Level
Milgram (1963)

Y-axis: % of Subjects Obeying (0, 20, 40, 60, 80, 100)
X-axis: Upper Range of Shock Level (Volts) (60, 120, 180, 240, 300, 360, 420, 450)

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Situational Control of Obedience
Milgram (1963, 1964, 1968)

- "The sheer strength of obedient tendencies manifested in this situation"
- Factors Influencing Obedience
  - Presence of Authority
  - Proximity to Victim
  - Proximity of Authority
  - Institutional Context

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Critique of Milgram
Orne & Holland (1968)

In any psychological experiment, the subject's knowledge and beliefs about the study may have significant effects upon his behavior. In order to obtain undistorted responses, it is often felt necessary to disguise the purpose of an experiment…. How the subject perceives the experiment in general, and how plausible the deception manipulation is for him in particular, must be evaluated before meaningful inference can be drawn from the experiment to life outside the laboratory.

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Analysis of Milgram Experiment
Orne & Holland (1968)

- Purpose of Experiment
  - Effect of Punishment on Learning
  - What is the "Teacher" Doing There?
- Behavior of Experimenter
  - "The Experiment Requires That You Continue"
  - Inappropriate Passivity of Experimenter

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"From the Subject's Point of View"
Orne (1962, 1970, 1973)

- Human Subject is Volunteer
  - Implicit Contract between Subject, Experimenter
- Experiment is Episodic
- Subjects as Sentient Beings
  - Engaged in "Effort After Meaning"
- Demand Characteristics
  - Totality of Cues in Experimental Situation
  - Communicate Design, Hypotheses, Predictions
- Pact of Ignorance

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Cognition Mediates Between Individual and Environment

- Individual Gives Meaning to Situations
  - Response to *Subjective* Situation
- Response Determined by the Meaning of Situation
  - Individual's Knowledge, Beliefs, Expectations
  - Cognitive/Behavioral Skills
- Knowledge Acquired Through Learning
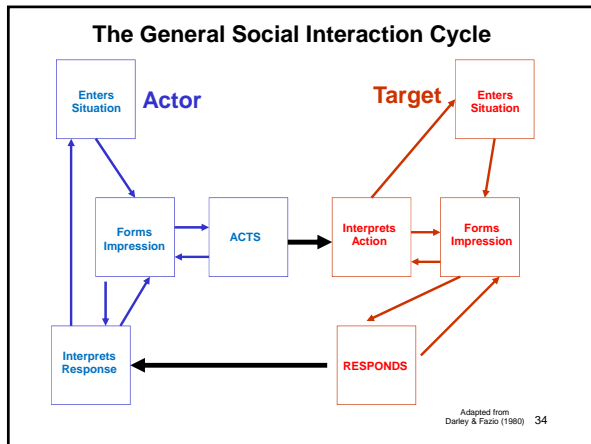 - Direct Experience
  - Vicarious Experience

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The General Social Interaction Cycle
Cantor & Kihlstrom (1987),
after Darley & Fazio (1980) Jones (1986)

- Dyadic Social Interaction
  - Can be generalized
- Assigned Roles (Arbitrary)
  - Actor
    - Initiates Interaction
  - Target
    - Object of Actor's Action

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The General Social Interaction Cycle

Adapted from
Darley & Fazio (1980)   34

The Actor Enters the Situation

- Interaction Goal
  - Mundane or Monumental
- Fund of Social Knowledge
  - Concerning Self, Target
  - Generic Information
    - Relevant to Interaction Goal
  - Repertoire of Skills
   - Cognitive, Motoric

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The Actor Forms an Impression

- Entire Situation
  - Specific Target
  - Immediate, Global Context
- Sources of Impression
  - Information Extracted from Stimulus
  - Knowledge Stored in Memory
- Impression Determines Action
  - Target Must Respond


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The Target Must Respond

- Target Has Entered Situation
  - Actively, Passively
- Carries Own Fund of Social Intelligence
  - Knowledge, Beliefs, Skills
- Has Own Interaction Goals
- Also Forms Impression
  - Revised by Actor's Action
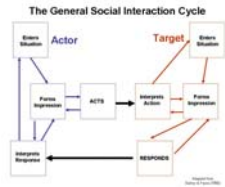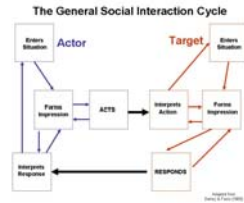

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The Target Responds

- Based on Overall Impression of Situation
- Focus Shifts Back to Actor
- Interprets Response
  - Revises Impression
- Actor Responds to Target
  - Focus Shifts Back to Target
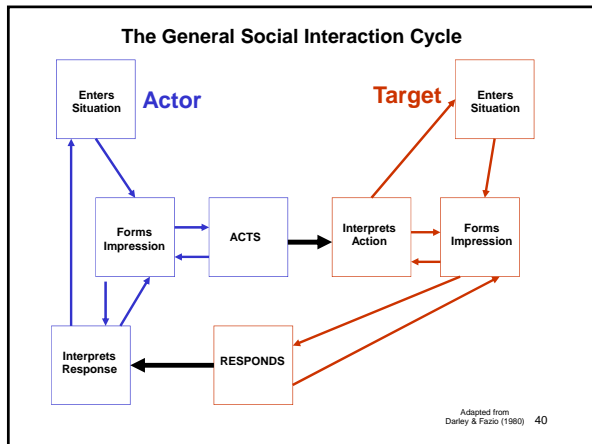- Cycle Continues
  - Until Interaction Concludes
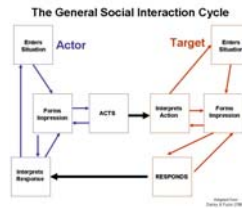
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Cycles *Within* Participants

- Behavior Feeds Back to Actor
  - Revises Impression of *Self*
- Each Participant's Behavior is Determined by His/Her Construal of...
  - Self
  - Other
  - Situation
  - Own and Other's Behavior

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The General Social Interaction Cycle

Actor — Target

Enters Situation → Forms Impression → ACTS → Interprets Action → Forms Impression → RESPONDS → Interprets Response

Adapted from Darley & Fazio (1980)   40

The Self-Fulfilling Prophecy
Merton, 1947, 1958

"Definitions of a situation... become an integral part of the situation and thus affect subsequent developments....

The self-fulfilling prophecy is, in the beginning, a *false* definition of the situation evoking a new behavior which makes the originally false conception come *true*.

The specious validity of the self-fulfilling prophecy perpetuates a reign of error. For the prophet will cite the actual course of events as proof that he was right from the very beginning.

Such are the perversities of social logic."   41

The Self-*Sustaining* Prophecy
Salomon (1981)

• Original Definition Need Not Be *False*
• Correct Definition Also Leads to Behavior
  – Keeps the Situation As It Is
  – Intensifies Its Characteristics
  – Prevents It From Changing

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Pygmalion in the Classroom
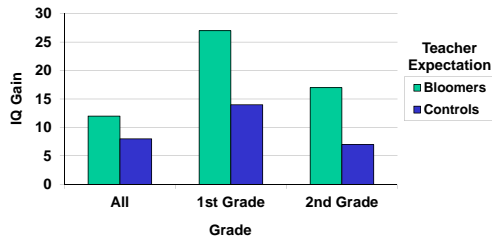### Rosenthal & Jacobson (1968)

- Earlier Work on Experimenter Bias
- Public Elementary Schools
  - "Oak City" (South San Francisco)
- IQ Pretest
  - Identify Random 20% as "Late Bloomers"
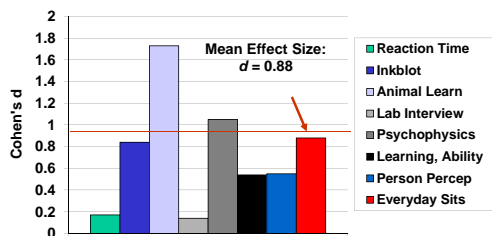- IQ Retest
  - Gains in IQ: Late Bloomers > Controls

Pygmalion and Galatea,
(Ovid, *Metamorphoses*)
Hamilton, *Mythology*

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IQ Gains
Rosenthal & Jacobson (1968)

Teacher Expectation
- Bloomers
- Controls

(Bar chart: IQ Gain by Grade — All, 1st Grade, 2nd Grade)

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Magnitude of "Pygmalion Effect"
Rosenthal & Rubin (1978)

Mean Effect Size: $d = 0.88$

- Reaction Time
- Inkblot
- Animal Learn
- Lab Interview
- Psychophysics
- Learning, Ability
- Person Percep
- Everyday Sits

(Bar chart: Cohen's d)

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Pygmalion Effect:
Three-Stage Model
Brophy & Good (1974); Darley & Fazio (1980)

- Teachers Develop Expectations
- Teachers Treat Students Accordingly
- Students React by Confirming Expectations

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Mediators of the "Pygmalion" Effect
Rosenthal & Rubin (1978)

- Teachers' Overt Behavior   **Manipulation**
  - Socio-Emotional Climate
  - Feedback
  - Input
  - Output
- Origins of Behavior in Teachers' Mental States
  - Beliefs and Attitudes about Pupils   **Transformation**
  - Origins of Overt Behaviors

"The soft prejudice of low expectations"
G.W. Bush (2000)   47

Unpacking the 3-Stage Model

Jussim (1986)

48
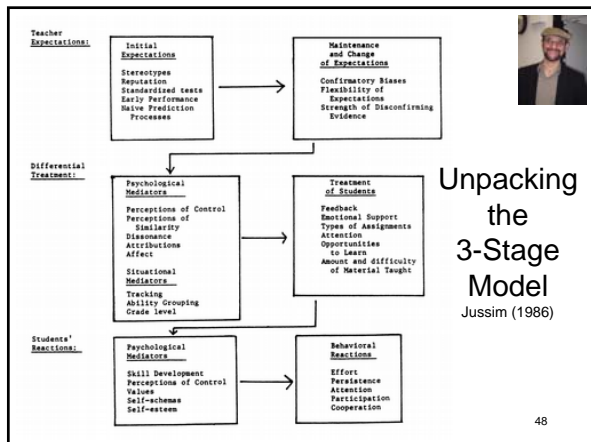
Stereotype Threat:
A Self-Fulfilling Self-Prophecy
Steele & Aronson (1995)

- Individual Awareness of Group Stereotype
- Performance Diagnostic of Personal Ability
- Stereotype Constitutes a Double Threat
  - Shame of Confirming Group Stereotype
  - Humiliation Attached to Personal Failure
- Increased Anxiety Impairs Performance
  - Category Salient
  - Domain Self-Relevant
  - Test Diagnostic

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Stereotype Threat
in African-Americans
Steele & Aronson (1995); Steele (1997)

- Stereotype of African-Americans
  - Relatively Low Intellectual Ability
    - Black-white SAT Differential
- Black and White College Students
- Difficult Test of Verbal Ability
  - Test Diagnostic of Personal Abilities
    - Challenged to Do Very Best
  - Test Not Diagnostic of Personal Abilities
  - Test Not Diagnostic of Personal Abilities
    - Still, Challenged to do Very Best

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Stereotype Threat in African-Americans
Steele & Aronson (1995)
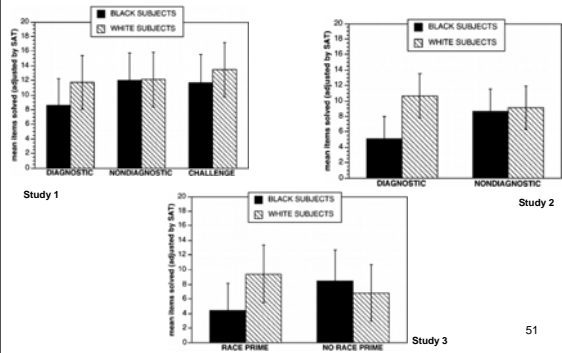
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Stereotype Threat in Women
Spencer, Steele, & Quinn (1999)

- Stereotype of Women
  - Relatively Low Mathematical Ability
- Male and Female College Students
- Difficult Test of Mathematical Ability
  - Study 1: Test Presented as Easy or Hard
  - Study 2: Test Characterized as Revealing Gender Differences
- All Subjects Challenged to do Very Best

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Stereotype Threat in Women
Spencer et al. (1999)
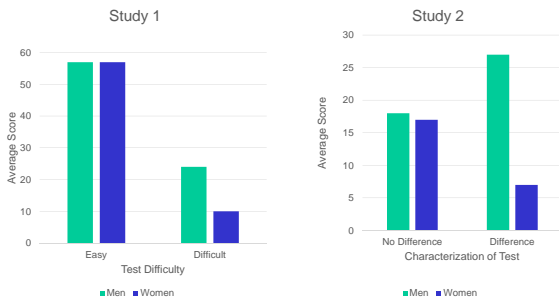
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Expectancy Confirmation Effects
Jones (1986)

- Behavioral Confirmation
  - Beliefs, Expectancies Cause Behavior
  - Elicits Behavior in Turn
- Perceptual Confirmation
  - Behavior Ambiguous
  - Beliefs, Expectancies Influence Interpretation

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Behavioral Confirmation Effects
Snyder & Swann (*JESP* 1978)

- Complete Personality Checklist
- "Noise Weapon" apparatus
  - Reaction-time game
  - Disrupt opponent's performance
- Labeling Perceiver
  - View Target as Hostile or Nonhostile
- Target
  - View own behavior as dispositional or situational

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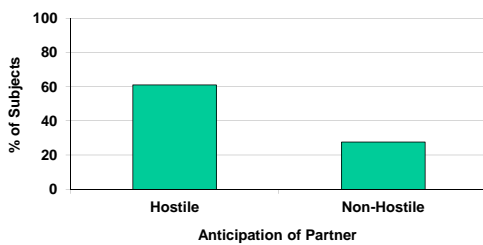## Phase 1

- Subjects Take Turns
  - 24 Trials
    - 8 Blocks of 3
- First Block of 3 Trials
  - Labeling Perceiver at Noise Weapon
  - Target at RT Apparatus

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Selection of High Intensity Noise by Labeling Perceiver
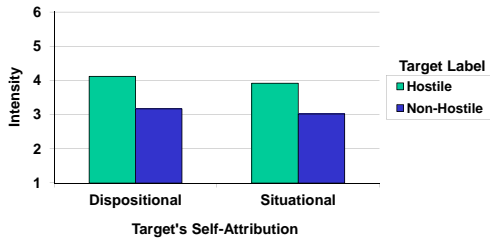Snyder & Swann (1978)

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Phase I Continues

- Subjects Exchange Places
  - Another Block of 3 Trials
- Labeling Perceiver at RT Apparatus
- Target at Noise Gun
  - Can Retaliate Against Labeling Perceiver

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Target's Retaliation
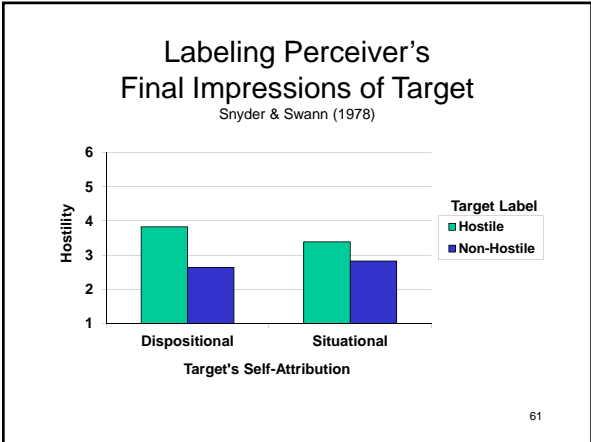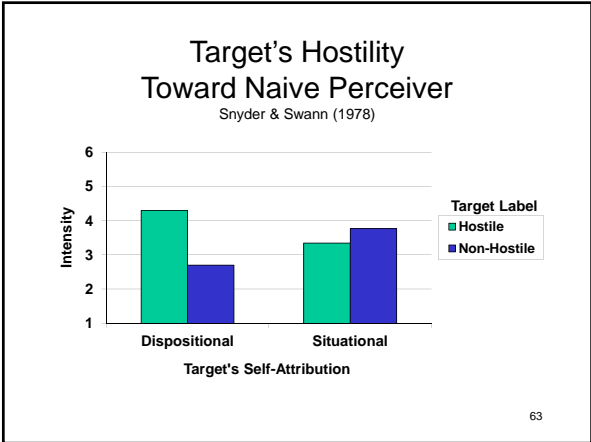## Toward Labeling Perceiver
Snyder & Swann (1978)

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Phase I Continues

- 7 More Blocks Each
- Labeling Perceiver Rates Target

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Labeling Perceiver's
Final Impressions of Target
Snyder & Swann (1978)

Hostility vs Target's Self-Attribution

Target Label:
- Hostile
- Non-Hostile

Dispositional — Situational

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Phase 2

- Labeling Perceiver Dismissed
- Target Continues with Naive Perceiver
  - No Labeling of Target
  - Target's Self-Attributions Reinforced
- Subjects Take Turns
  - 24 Trials (8 Blocks of 3 Trials)
- First Trial
 - Target at Noise Weapon
  - Naïve Perceiver at RT Ppparatus

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Target's Hostility
Toward Naive Perceiver
Snyder & Swann (1978)

Intensity vs Target's Self-Attribution

Target Label:
- Hostile
- Non-Hostile

Dispositional — Situational

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Phase II Continues

- 7 More Blocks Each
- Labeling Perceiver Rates Target

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Naive Perceiver's
Final Impressions of Target
Snyder & Swann (1978)
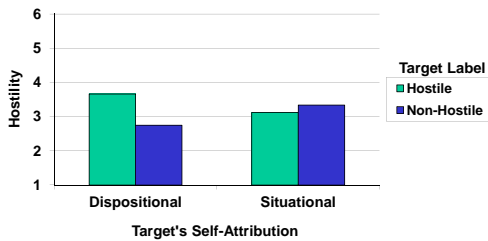
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When Belief Creates Reality
Snyder (1984, p. 298)

- "[W]hether individuals regard their beliefs as assumptions or as hypotheses, whether their beliefs concern themselves or other people, social beliefs can and do channel the remembering of past events and the unfolding of future events in ways that determine both the subjective and objective reality of their beliefs."

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Beliefs Create Reality
Snyder (1984)

- Labeling Perceivers Had Beliefs
  - Behaved Accordingly
- Elicited Behavior From Targets
  - Corresponding to Perceiver's Beliefs
- Targets' Behavior Persisted
  - In New Situation, New Partner
  - If Given Dispositional Self-Attribution

Beliefs About Others Are Powerful;
But So Are Beliefs About Ourselves.

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The "Mastermind" Experiment
Swann & Hill (1982)

- Women Play "Mastermind"
  - Codebreaking Game
- Self-Ratings of Dominance
  - Dominant vs. Submissive Self-Concept

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Phase I

- Paired with Partner Against Experimenter
  - Experimenter Sets Code
  - Subjects Try to Break It
- Alternate Role of Leader, Assistant
- Partner Actually a Confederate

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The "Mastermind" Experiment
Swann & Hill (1982)

- Phase II, Partners Choose Leader
- False Feedback from Confederate
  - "Forceful, Dominant Type" (Or Not)
  - Crossed with Self-Concept Condition

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Design of Experiment
Swann & Hill (1982)

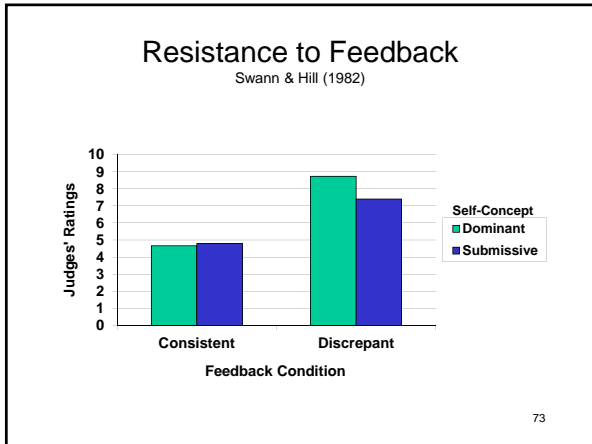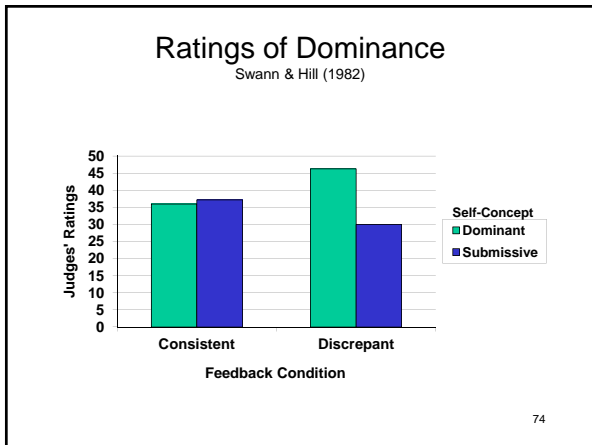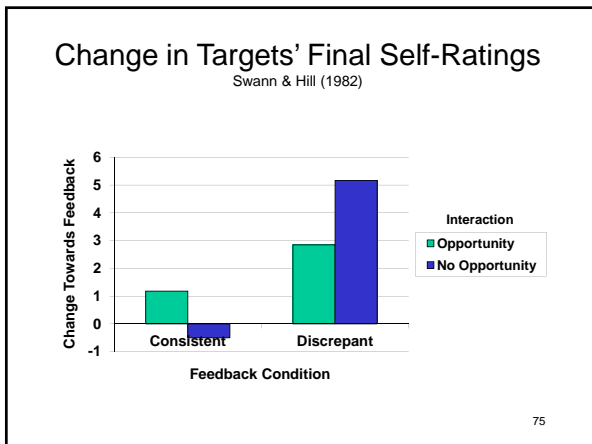| Confederate's Assertion	Subject's Self-Concept	
	Dominant	Submissive
Dominant	Consistent	Discrepant
Submissive	Discrepant	Consistent

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The "Mastermind" Experiment
Swann & Hill (1982)

- Manipulate Interaction Opportunity
  - React to Feedback
    - Protestations, Statements, Queries
  - Control Subjects: No Opportunity
- Interactions Rated by Blind Judges

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Resistance to Feedback
Swann & Hill (1982)

Self-Concept
- Dominant
- Submissive

Judges' Ratings (y-axis: 0–10)

Feedback Condition (x-axis: Consistent, Discrepant)

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Ratings of Dominance
Swann & Hill (1982)

Self-Concept
- Dominant
- Submissive

Judges' Ratings (y-axis: 0–50)

Feedback Condition (x-axis: Consistent, Discrepant)

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Change in Targets' Final Self-Ratings
Swann & Hill (1982)

Interaction
- Opportunity
- No Opportunity

Change Towards Feedback (y-axis: -1–6)

Feedback Condition (x-axis: Consistent, Discrepant)

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"A Battle of Wills"
Swann & Ely (1984)

- Expectancy Confirmation
  – Perceiver shapes Environment
    • Actor Shapes Target
- Self-Confirmation
  – Object Shapes Perceiver
    • Target Shapes Actor

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Social Construction and Social Cognition

- Beliefs Create Reality
  – Subjective, Objective
    • About Ourselves, Others
    • Situations, Behavior
- How Are These Beliefs…
  – Acquired (through Perception, Learning)
  – Stored (in Memory)
  – Altered (through Thought)
  – Communicated (through Language)

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Expectancy Confirmation Effects
Jones (1990)

- Behavioral Confirmation
  – Beliefs, Expectancies Cause Behavior
  – Elicits Behavior in Turn
- Perceptual Confirmation
  – Behavior Ambiguous
  – Beliefs, Expectancies Influence Interpretation
- Self-Verification
  – Challenge Expectancy-Confirmation Effects
  – Behavior Reinforces Self-Concept

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Classification of the Environment

- Objective Environment
  - "Third-Person" Description
- Subjective Environment
  - "First Person" Description

The Subjective Environment
Really Determines Behavior

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Cognitive Mediation of Social Interaction

- Perception
- Memory
- Belief
- Interpretation
- Frame of Reference

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