# Social Judgment and Inference

Fall 2015

Midterm Exam Wednesday, October 21, 2015

Review in Class (Q&A Format) Monday, October 19

Narrative Review Now Posted to Course Website

DSP Students Information on Accommodations Forthcoming

# Covers August 26 - October 14, Inclusive

- Introduction
- Cognitive Perspective on Social Interaction
   Fiske & Taylor Chs 1-2; Zerubavel Ch 1

- Social Perception - F&T Chs 3, 9-10; Z, Chs 2-3
- Social Memory - F&T, Ch 4; Z, Ch 6
- Social Categorization - F&T, Chs 11-12; Z, Chs 4-5
- Social Judgment & Inference
   F&T, Chs 6-8

# Format of Exam

- Exactly 15 Questions
   3-5 Points Each
   50 Points Total
- Short Answers

   No More Than 3-5 Sentences
- Answer on Exam Itself
   No "Blue Books" Required
  - Write Answers in Ink
    If Pencil, No Re-Evaluation

### **Exam Preparation**

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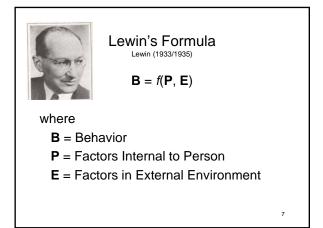
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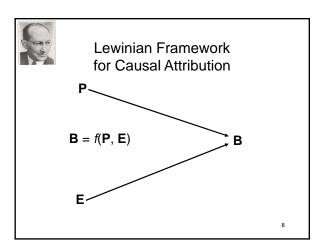
- "Exam Information" Page on bCourses
   "Philosophy of Exams"
  - Information on Scoring
  - Narrative Review
  - All Old Exams (with Scoring Guide)
- Lecture Illustrations
- Lecture Supplements
- · Post Questions to bCourses Forum
  - "Comments and Queries"
  - Deadline: Tuesday, October 20, 12:00 Noon<sub>5</sub>

# Tasks of the Social Perceiver

- Impression Formation
   Mental Representations of Social Stimuli
- Social Categorization – Similarity Judgment
- Causal Attribution
  - Explanations of Social Events
  - Sufficient Reasons
- Moral Judgment

   When Outcome Attributable to a Person





# Fritz Heider (1896-1988)



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### • Basic Writings

- "Social Perception and Phenomenal Causality" (1944)- The Psychology of Interpersonal Relations (1958)
- Lewin: B = f(P, E)
  - Possible Causes of Behavior
    - Something About Person (Actor)
    - Something About the Environment (Situation)
  - Actual vs. Perceived Causes
    - Professional vs. Naïve Psychologist

#### **Covariation Model of Causal Attribution** Kelley (1967, 1971)



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- Statistical Model: Analysis of Variance - Multiple Observations of Behavior
- Principal Causes (Main Effects)
  - Actor
  - Target
  - Context
- Joint Causes (Interaction Effects)
  - Actor x Target - Target x Context

Actor x Target x Context

Actor x Context

### Information for Causal Attribution Kelley (1967, 1971) Consistency Across Contexts - Actor's Behavior Toward Target

- High vs. Low
- Distinctiveness of Across Targets - Actor's Behavior In Context · High vs. Low
- Consensus Among Actors
- Behavior Toward Target in Context • High vs. Low
  - $2 \times 2 \times 2 = 8$  possible combinations 11

# Naïve Experiment

- Vary One Cause, Keep Others Constant
- Phenomenal Cause
  - Element which Covaries with Behavior
- · John laughed at the comedian
  - Behavior: Laughing
  - Actor: John
    - Comedian
  - Target: - Context: Performance

# *Why* did John Laugh at the Comedian?

- Something about John
- Something about the Comedian
- Something about the Situation
- Something about John and the Comedian

- Interaction

- Both Necessary Causes
- Neither Cause Is Sufficient

Event Descriptions

McArthur (1972)



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- Event: John Laughed At the Comedian
- Consensus Information
   Almost everyone vs. Hardly anyone...
   ...who heard the comedian laughed at him.
- Consistency Information
   In the past, John has almost always vs. has hardly ever...
   ...laughed at the comedian.
- Distinctiveness Information
   John rarely vs. almost always...
  - ...laughs at other comedians
- Control
  - No Consensus, Consistency, or Distinctiveness Information

#### Choice Among Alternative Causes McArthur (1972)

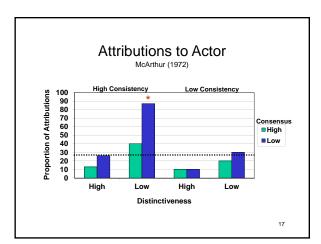
- Something About the Actor
- Something About the Target
- Something About the Circumstances
- Some Combination of Causes

## John Laughed at the Comedian... Case 1

- Consistency High

   In the Past, John has Almost Always Laughed at this Comedian
- Distinctiveness *Low* – John *Also* Laughs *at* Other Comedians
- Consensus Low
   Hardly Anyone Laughed at this Comedian
   Conserved Attribution to John (Actor)
  - Causal Attribution to John (Actor)

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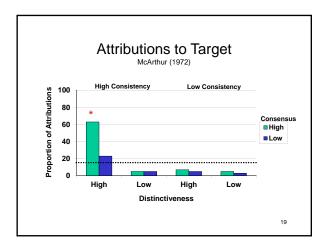




# John Laughed at the Comedian... Case 2

- Consistency Remains High
  - In the Past, John has Almost Always Laughed at this Comedian
- Distinctiveness Now High
   John Doesn't Laugh at Other Comedians
- Consensus Also High
  - Everyone Laughed at this Comedian

Causal Attribution to the Comedian (<u>Target</u>)



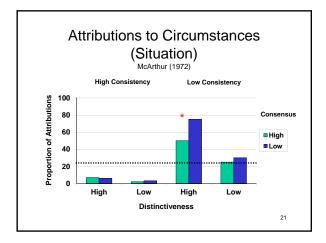


# John Laughed at the Comedian... Case 3

- Consistency Now Low

   In the Past, John has Almost Never Laughed at this Comedian
- Distinctiveness Remains *High* – John *Doesn't* Laugh at Other Comedians
- Consensus Also Remains High

   Everyone Laughed at this Comedian
   Causal Attribution to the Context (Situation)





	e Covariatio or Causal A After Kelley (1967), ar	ttribution	SL
Consistency	Distinctiveness	Consensus	Attribution
High	Low	Low	Actor
High	High	High	Target
Low	High	High	Context
High	High	Low	Actor x Target
			22



# The Covariation Calculus and Theories of Normative Rationality

- Person as Naïve Scientist
  - Designs Controlled Experiments
  - Takes Account of Confounding Variables
  - Statistical Analysis of Data
  - Logical Conclusions Given Premises
- Covariation Calculus as Rational
  - Algorithm for Combining Information
  - Always Gives the Correct Answer

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### Problems with Algorithms in Social Judgment Tversky & Kahneman (1974); Hastie & Dawes (2001, 2010)



- Algorithm Unknown
- Not Enough Information Available
- Available Information Cannot Be Used
  - Insufficient Time
  - Insufficient Motivation

Judgment Under Uncertainty

### Departures from the Covariation Calculus

### Despite Sufficient Information

- Fundamental Attribution Error (Ross, 1977)
  - Overestimate Role of Dispositions
  - Underestimate Role of Situations
- Actor-Observer Difference (Jones & Nisbett, 1972)
   Make Dispositional Attributions About Others
  - Make Situational Attributions About Self
- Self-Serving Bias (Hastorf et al., 1970; Greenwald, 1980)
  - Take Responsibility for Good Outcomes
  - Deny Responsibility for Bad Outcomes

## The Fundamental Attribution Error

- Changes in the environment are almost always caused by acts of persons in combination with other factors. The tendency exists to ascribe the changes entirely to persons. Heider (1944, p. 361)
- [T]he intuitive psychologist's shortcomings... start with his general tendency to overestimate the importance of personal or dispositional factors relative to environmental influences.... He too readily infers broad personal dispositions..., overlooking the impact of relevant environmental forces and constraints. Ross (1977, p. 183)



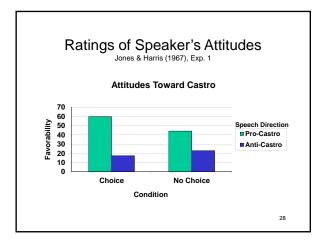
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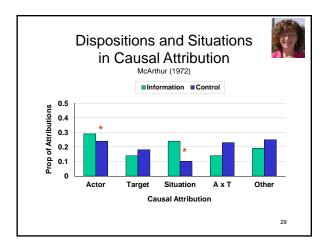
[T]he tendency to attribute behavior exclusively to the actor's dispositions and to ignore powerful situational determinants of the behavior. Nisbett & Ross (1980, p. 31)

#### Attitude Attribution Paradigm Jones & Harris (1967)

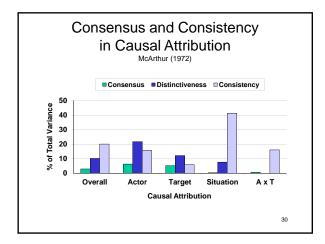
- Read Transcripts of Pro/Con Speeches – Castro, Racial Segregation
  - "Con" Side is Normative
- Evaluate Attitudes of Speech-Writers
- Choice vs. Assignment

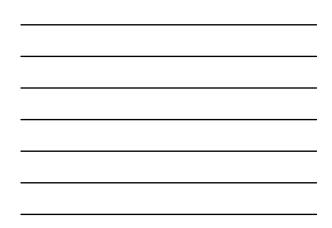














# The Actor-Observer Difference in Causal Attribution



The person tends to attribute his own reactions to the object world, and those of another, when they differ from his own, to personal characteristics [of the other]. Heider (1958, p. 157)

[T]here is a pervasive tendency for actors to attribute their actions to situational requirements, whereas observers tend to attribute the same actions to stable personal dispositions. Jones & Nisbett (1972, p. 80)

Also known as the Self-Other Difference in Causal Attribution

# Illustrating the Actor-Observer Difference



in Causal Attribution Jones & Nisbett (1972, p. 79)



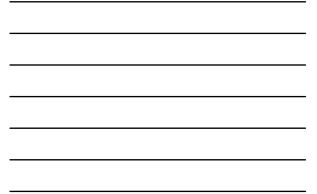
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When a student who is doing poorly... discusses his problems with a[n] adviser, there is often a fundamental difference of opinion between the two.

The student... is usually able to point to environmental obstacles such as a particularly onerous course load, to temporary emotional stress..., or to a transitory confusion about life goals....

The adviser... is convinced... instead that the failure is due to enduring qualities of the student -- to lack of ability, to irremediable laziness, to neurotic ineptitude.

Aspects of the Actor-O	
Attributions re: Self	Situations > Traits
Attributions re: Others	Traits > Situations
Attributions to Traits	Other > Self
Attributions to Situations	Self > Other
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# The Self-Serving Bias in Causal Attribution



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That reason is sought that is personally acceptable. It is usually a reason that flatters us, puts us in a good light, and it is imbued with an added potency by the attribution. Heider (1958, p. 172)

We are prone to alter our perception of causality so as to protect or enhance our self esteem. We attribute success to our own dispositions and failure to external forces. Hastorf, Schneider, & Polefka (1970, p. 73)

Also known as the Ego, Ego-Defensive, or Ego-Protective Bias



### The Totalitarian Ego Greenwald (1980), p. 604

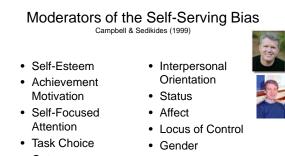
- · Conservatism
  - The Self-Concept is Characterized by "Resistance to Cognitive Change"
- Egocentricity
  - People Perceive Themselves as "More Central to Events" Than They Really Are
- Beneffectance
  - People Perceive Themselves as
     "Selectively More Responsible for Desired, but not Undesired, Outcomes.

# Illustrating the Self-Serving Bias

in Causal Attribution Greenwald (1980, p. 605)

- In asking students to judge an examination's quality as a measure of their ability to master course material, I have repeatedly found a strong correlation between obtained grade and belief that the exam was a proper measure.
- Students who do well are willing to accept credit for success;
- those who do poorly, however, are unwilling to accept responsibility for failure, instead seeing the exam (or the instructor) as being insensitive to their abilities.



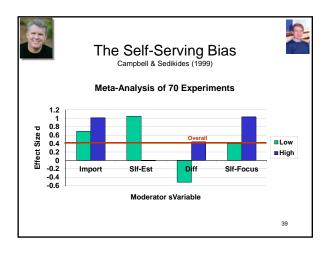


- Outcome Expectancies
- Task Difficulty



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- Task Type





# Normative Model of Human Rationality

- When Reasoning About Events...
   People Follow Normative Principles of Logic
- Judgments, Decisions, Choices...
   Based on Rational Self-Interest
- Rational Self-Interest...
  - Expressed as Principle of Optimality
    Maximize Gains, Minimize Losses
  - Also Expressed as Principle of Utility
    Achieve Goals as Efficiently as Possible

Expressions of Normative Rationality: Covariation Calculus for Causal Attribution

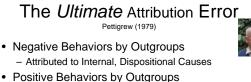
- Logical, Systematic Rules for Judgment, inference
  - Specifies All Necessary Information
  - How Information is Combined
- Problems Soluble
  - Appropriate Algorithm Inevitably Leads to Correct Solution
- Rational Thought Employs Algorithms
  - Guaranteed to Reach Correct Answer

Departures from the Covariation Calculus as Departures from Normative Rationality

- Fundamental Attribution Error (Ross, 1977)
- Actor-Observer Difference (Jones & Nisbett, 1972)
- Self-Serving Bias (Hastorf et al., 1970 ; Greenwald, 1980)

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- Attributed to Variable / Situational Causes
  - Good Luck / Special Advantage
  - High Motivation
  - Exceptional Cases
- Positive Behaviors by Ingroups
  - Attributed to Internal, Dispositional Causes
- Negative Behaviors by Ingroups
  - Attributed to Variable / Situational Causes
  - Bad Luck / Special Disadvantage, etc.

Human Inference: Strategies and Shortcomings of Social Judgment Nisbett & Ross (1980), p. 273



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"We have identified a number of shortcomings in everyday inference – shortcomings that, for the most part, can be traced either to people's over-reliance on primitive judgmental heuristics or to their inattentiveness to conventional normative considerations."

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How We Know What Isn't So: The Fallibility of Human Reason in Everyday Life Gilovich (1991), pp. 2-3



"[M]any questionable and erroneous beliefs have purely cognitive origins, and can be traced to imperfections in our capacities to process information and draw conclusions.... They are the products, not of irrationality, but of flawed rationality."

A Little List of Erro After Krueger & Funde	
Overconfidence Bias     Fundamental Attribution Error     False Consensus Effect     Positivity Bias     Confirmation Bias     Justice Bias     Hot-Hand Fallacy     Self-Serving Bias     Self-Serving Bias     Optimistic Bias     Optimistic Bias     Sinister Attribution Error     Ingroup-Outgroup Bias     Self-Image Bias     Self-Image Bias     Systematic Distortion Effect     Asymmetric Insight Illusion     Dispositional Bias     Clouded Judgment Effect     Empathy Neglect	Gambler's Fallacy     Hindsight Bias



### The "People Are Stupid" School of Psychology Kihlstrom (2004)

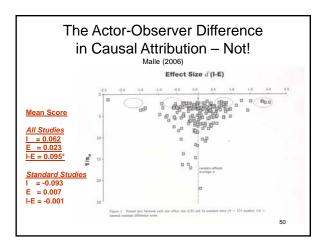
- People Are Fundamentally Irrational
- People Act on Automatic Pilot
- Behavior is Unconscious
- We Don't Know What We're Doing
- Unconscious Thought Is Superior
- We Don't Know How Stupid We Are – Lack Appreciation of Errors and Biases

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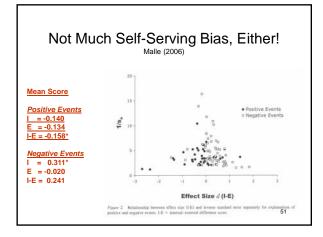
# Self-Other Difference in Causal Attribution

- Internal vs. External Attributions
- Is It an Error?
  - Contrast with Fundamental Attribution Error
     Informational Differences
- Limited Evidence
  - Self-Enhancing but not Self-Protective
  - Greatest Under Conditions of High Self-Threat

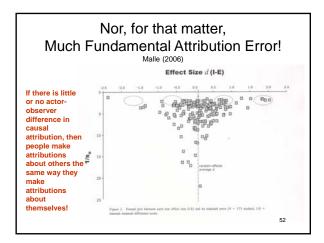




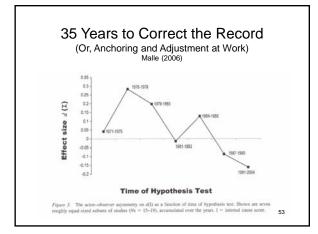


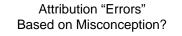












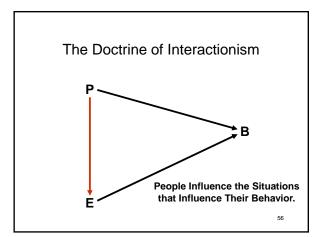
• Lewin: B = f(P, E)

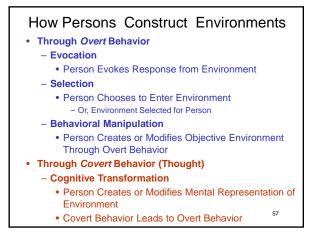
- Common Assumption that P, E Independent of Each Other
- But P and E are Interdependent
- (As Lewin Clearly Understood) P Constructs E
- Through Behavior
- Through Mental Activity
- Behavior Caused by *Perception* of the Situation
   Perception is Internal to the Person

### Analyzing Social Interaction Lewin (1939/1951), p. 140

# B = F[P,E] = F[L Sp]

The psychological environment has to be regarded functionally as a part of one interdependent field, the life space, the other part of which is the person. This fundamental fact is the keynote of the field-theoretical approach.





# A False Distinction Between the Person and the Environment

- Perceived Situation Causes Behavior

   Perception Always a Feature of the Person
- Action is Intentional
   Intentions Are Also Features of the Person
- From a Psychological Viewpoint, Correct Attributions are Always to the Person

   Doctrine of Mentalism
  - Mental States : Action :: Cause : Effect

# A New Framework for Causal Attribution

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- Folk-Conceptual Theory - Back to Heider (1944)
- Abandons Model of Naïve Scientist
- How People Actually Reason About Behavior
- Generating Factors
  - Reasons (Rational Connection)
  - Mere Causes (Mechanical Connection)

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### Intentional vs. Unintentional Behavior

- Intentional Behavior Explained by Reasons
  - Actions
  - Beliefs, Desires, Values
    - Anne studied for the test all night because *she wanted* to do well.
  - Assumption of Rationality
- Unintentional Behavior Explained by Causes
  - Behaviors
  - No Assumption of Rationality
    - Ann was nervous about the test results because she wanted to do well. 60

### Types of Reasons

- · Beliefs and Desires
  - Mental State Necessary for Intentional Action
- Mental State Markers (vs. Unmarked)
  - She went to the café because she wanted an authentic cappuccino.
  - She went to the café because she thought they have authentic cappuccino.

### • Unmarked Mental States

- Can Confuse External with Internal Causes
- Assume Subjectivity, Rationality
  - She didn't speak up because the teacher was there.

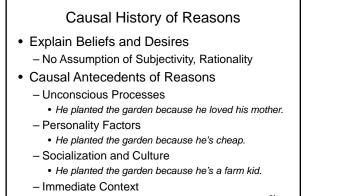
# Types of Causes

- Apply to Any Physical Event
- · Dimensions of Causality
  - Internal vs. External
    - The tree fell because its roots were shallow.
    - The tree fell because the wind was strong.
  - Stable vs. Unstable
    - The tree fell because the winds are strong here.
    - The tree fell because of a tornado.
  - Global vs. Local
    - The tree fell because the soil is bad here.
    - The tree fell because it was planted poorly.

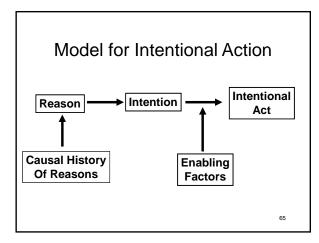
# **Enabling Factors**

- Skill
  - She got an A because she's very smart.
- Opportunity
  - She got an A because her date was cancelled.
- Removed Obstacles
  - She got an A because she found her notes.

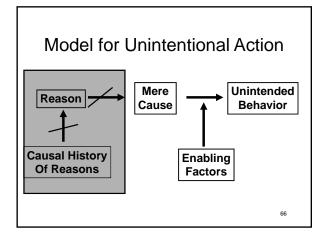
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- He planted the garden because he likes fresh fruit.  $^{\rm 64}$ 









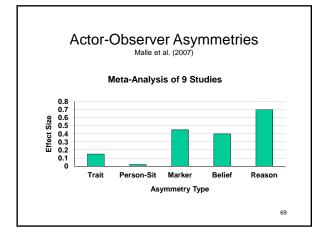
	determine whether	behavioral event is	intentional	
if unintentional		if intention		
situation cause	situation EF	valuing belief	desire	offer CHR situation C person CH
trait cause	trait EF	marked	marked	trait CHR



# Actor-Observer Asymmetries Revisited

- Reason Asymmetry
  - Actors Use More Reasons (Privileged Access)
  - Actors Use Fewer Causal Histories
- Belief Asymmetry
  - Actors Use More Belief Reasons
  - Actors Use Fewer Desire Reasons (Simulation)

- Marker Asymmetry
  - Actors Leave Beliefs Unmarked
    - Direct Representation of Beliefs





# Social Cognition as Folk Psychology

- How Do People Actually Reason?
- Person-Situation Framework Inappropriate
  - Treats All Causes as "Mere" Causes
    - Traits, Situational Factors
  - Ignores Reasons, Beliefs
    - How People Really Explain Things
- Folk Psychology Better for Science?

The Fundamental Attribution Error

Attributing Behavior to the Person

It's Not An Error!

But It Is Fundamental!

Legitimizes Moral Judgments

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# Automaticity and Control in Social Interaction

### Cognitive Perspective in Social Psychology

- Traditional Focus on Conscious/Deliberate Thought
  - Impression Formation (Person Perception)
  - Attribution Theory (Causal Explanation)
  - Impression Management (Strategic Self-Presentation)
  - Social Exchange
- Reactions to "Cold, Rational" View
  - "Hot" Cognition (The "New Look")
    - Emotion, Motivation
  - Automaticity
    - Social Interaction Constrained by Situational Influences
  - Interpretation of Situational Influences as Priming
  - Most Social Cognition Is Automatic in Nature

# Automaticity: Situationism Revived

After LaBerge & Samuels (1974); Posner & Snyder (1975); Schneider & Shiffrin (1977); Schiffrin & Schneider (1977)

- Inevitable Evocation by Stimulus
- Incorrigible Completion (Ballistic)
- Efficient Execution (No Resources)
- Parallel Processing (No Interference)
- <u>Unconscious</u> in the Strict Sense of the Term – Operate Outside Phenomenal Awareness
  - Operate Outside Voluntary Control

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# Mechanisms of Automaticity

Innate

- Reflex, Taxis, Instinct
- Acquired Through Extensive Practice

   Conditioned Responses, Habits

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### Automaticity in Social Behavior

- Most Social Behavior is Automatic
  - Triggered by Environment
  - Preattentive/Preconscious Processing
- Internal Mental Representations of the Situation are Constructed Automatically
  - Perception "Dumped" in Consciousness
- Behavior Follows Automatically from Cognition

"The Automaticity of Everyday Life" Bargh (1984)

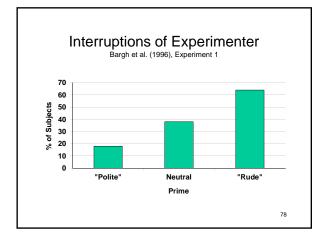
"As Skinner argued so pointedly, the more we know about the situational causes of psychological phenomena, the less need we have for postulating internal conscious mediating processes to explain these phenomena."



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# Interruptions of Experimenter Bargh et al. (1996), Experiment 1

- Cover task: Scrambled sentences
  - "Rude" Primes
    - aggressively, rude, bother, disturb, intrude
  - "Polite" Primes
    - respect, honor, considerate, appreciate, patiently
  - "Neutral" Primes
    - exercising, flawlessly, occasionally, rapidly, gleefully
- Experimenter Engaged with Confederate
  - Ignores Waiting Subject
- Interruptions During 10-minute waiting period





#### The Automaticity Juggernaut Kihlstrom (2008)

- Social Behavior Largely Automatized
  - Conscious Percepts, Goals, Emotions Irrelevant
     Automatically Triggered by Preconscious Analysis
- Consciousness is an Afterthought
   Give Plausible/Acceptable Reasons for Behavior

### • We Are All Zombies After All

- Not Because Zombies are Conscious Too
   Dennett
- But Because Consciousness is Epiphenomenal
   Plays No Causal Role in Behavior 79

### "The Automaticity of Everyday Life" Bargh (1997, p. 1)

"[T]he more we know about the situational causes of psychological phenomena, the less need we have for postulating internal conscious mediating processes to explain these phenomena....

[I]t is hard to escape the forecast that as knowledge progresses regarding psychological phenomena, there will be less of a role played by free will or conscious choice in accounting for them....

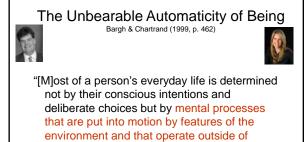
That trend has already begun..., and it can do nothing but continue."



### "Is Consciousness Riding into the Sunset?" Bargh (1997), p. 50, 52



- "Automaticity pervades everyday life, playing an important role in creating the psychological situation from which subjective experience and subsequent conscious and intentional processes originate....
- I emphatically push the point that automatic, nonconscious processes pervade all aspects of mental and social life, in order to overcome what I consider dominant, even implicit, assumptions to the contrary.



conscious awareness and guidance."

Behavior -- It's Involuntary Park (American Psychologist 1999), p. 461



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"We perceive ourselves to have far more control over our everyday behavior than we actually do....

[T]he source of behavioral control comes not from active awareness but from... mental activations of which we are unaware and environmental cues to which we are not consciously attending that have a profound effect on our behavior.

[T]hese articles represent... fundamental breakthroughs in the understanding of motivations, free will, and behavioral control."

# "Naturalization" and Freud's Sorrow

(1915-1916)

- Copernicus
  - Earth is not Center of Universe
- Darwin
- Man is Just Another Animal
- Freud
  - Man is Fundamentally Irrational
- Bargh (and Wegner)

   Man is (Virtually) a Conscious Automaton



### Automaticity Pervades Social Cognition Bargh et al. (2012)



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- Preconscious Automaticity
  - Unconscious Inputs to Conscious Processes
  - Direct Activation of Goal Pursuit/Social Behavior
- Postconscious (Goal-Dependent) Automaticity

   Dependent on Prior Conscious/Intentional Thought



"Conscious Shyness"
 – Epiphenomenalism



"The consciousness of brutes would appear to be related to the mechanism of their body simply as a collateral product of its working, and to be completely without any power of modifying that working as the steamwhistle which accompanies the work of a locomotive engine is without influence upon its machinery." T.H. Huxley (1868) 86

### Sources of the Automaticity Juggernaut Kihlstrom (2008)

- Physics Envy
  - "Clockwork" or "Pinball" Determinism
  - "Free Will" Cannot Enter into Closed Causal Sequence
- Alliance of Social Psychology with Behaviorism
  - Traditional Definition as Study of Social Influence
  - Situationism
    - Explain Behavior in Terms of Stimulus
    - Avoidance of Mediating Conscious Processes

### The Automaticity Principle Huang & Bargh (2013)

- Doubts About Conscious Control

   Power of Situational Influences
  - Limits of Introspective Access
  - Dual-Process Models
- Effects of Unconscious Processes – How a Person Perceives the World
  - How a Person Behaves in Response

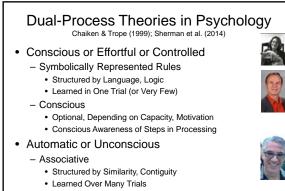
### A Softening of Views? Bargh et al. (2012)

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"Any process of sufficient complexity to be of interest to social psychologists involves a complex interplay between both controlled (conscious) and automatic processes." (p. 601)

"Conscious thought is causal and it often puts automatic processes into play; similarly, automatic processes regularly cause and influence conscious thought processes. These two fundamental forms of human information processing work together, hand in glove, and indeed one would not be able to function without the other." (p. 602)





Preconscious, with Conscious Awareness of Result

# Two Systems in Judgment and Decision-Making

Kahneman, Thinking, Fast and Slow (2011)

THINKING.

FAST-SLOW

DANIEL KAHNEMAN

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- System 1
  - Automatic, Fast, Unconscious
    Heuristic, "Hot"
    - Emotions, Stereotypes
- System 2
  - Controlled, Slow, Conscious
  - Algorithmic, "Cold"
    - Logical, Systematic
- System 1 Usually Wins the Race





"If there is one major trend in research on automaticity of the higher mental processes over the past few years, it is that the concept has now permeated nearly all psychological domains....

"[It] is now a staple and indispensable construct for the explanation and prediction of almost all psychological phenomena."

> The Latest Word 2 Bargh (2014), p. 37



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"Freud spent countless thousands of words in providing explanations as to why our unfulfilled wishes express themselves in the imagery and stories that populate our nightly dreams. The latest research provides a more pragmatic perspective on how thought and emotion just below the surface of our awareness shape the way we relate to a boss, parent, spouse or child. That means we can set aside antiquated notions of Oedipus complexes and accept the reality that the unconscious asserts its presence in every moment of our lives, when we are fully awake as well as when we are absorbed in the depths of a dream."

### Critique of Automaticity Kihlstrom (2009)

- Weak Operationalization
  - Failure to Apply Canonical Features
    - Inevitable Evocation
    - Incorrigible Completion
    - Efficient Processing
    - Parallel Processing
- Confusion Between Automatic and Incidental
- Demand Characteristics
- No Assessment of Comparative Influence
  - Automatic vs. Controlled Processes



Process-Dissociation Procedure Jacoby (1991); Yonelinas & Jacoby (2012)



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- Estimates Influence of Automatic and Controlled Processes
- Method of Opposition

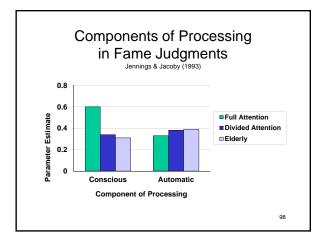
- Pits the Two Against Each Other

- Inclusion Condition
  - Automatic, Controlled Processes Work Together
     » Automatic Process Facilitates Performance
- Exclusion Condition
  - Automatic, Controlled Processes Oppose Each Other
     » Suppress of Automatic Process
  - 20-Year Retrospective of PDP Yonelinas & Jacoby (2012)
- Many Applications Beyond Memory
- Criticisms of "Process Independence"
  - Processes May be Redundant/Embedded
  - May Need Multinomial Model (>2 Processes)
- But Converging Evidence
  - Outcomes as Predicted by Process-Independence
  - Alternative Measures of A and C in Memory
    - Remember/Know Judgments
    - Signal-Detection Theory



#### The False Fame Effect Jacoby et al. (1989)

- Study List of Nonfamous Names
   Memory Test
- 24 Hours Later, Make Fame Judgments – Famous, Nonfamous Names
- Previously Studied Nonfamous Names are Now Judged to be Famous
  - "Becoming Famous Overnight"
- Explanation
  - Study Primes Names on Judgment Task
  - Priming Increases Availability
    - Biases Judgments of Fame
  - Influence of Priming is Automatic

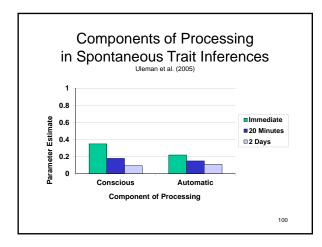




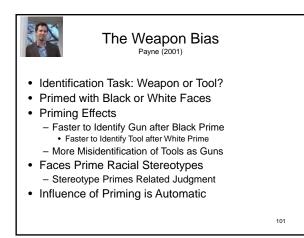
### Spontaneous Trait Inferences Uleman et al. (2005)

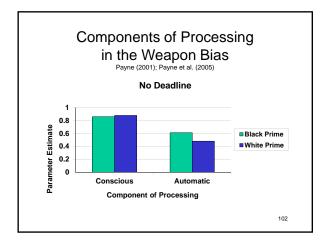
- Study Photos of Strangers – Paired with Behavioral Description
- 2 Days Later, Make Trait Judgments
   Old, New Photos
- Old Photos Receive Trait Attributions in Line with Behavioral Descriptions
- Behaviors Prime Relevant Traits
   Priming Increases Availability
- Influence of Priming is Automatic

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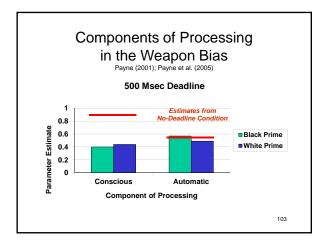










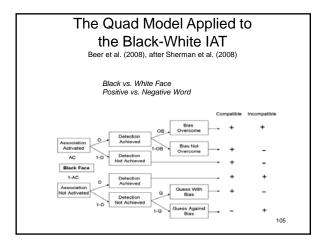




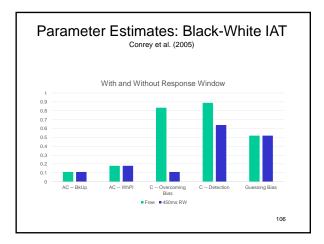


- Dual-Process Theory of Stereotyping

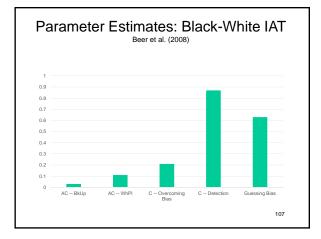
   Stereotypes/Prejudice Are Automatically Evoked
   Both Subject to Conscious Self-Regulation
- Models 4 Parameters, Not Just 2
  - Automatic Association Activation (AC) of Bias
  - Discriminability of Correct Response (D)
  - Overcoming Bias (OB) to Select D
  - Guessing (G) When D and AC Fail













# The Automaticity Argument Summarized

- Experimental Evidence: Automatic Processes Play Some Role, Under Some Conditions, in Social Cognition and Behavior.
- Theoretical Conclusion: Automatic Processes are Pervasive, and Consciousness Is Largely an Afterthought.
   But Does Not Follow From the Evidence