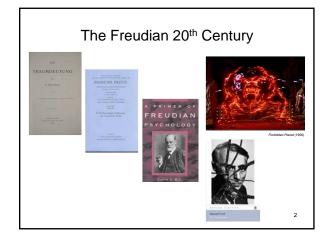
"Freud in 21st-Century America"

# The Unconscious Mind: Kinder and Gentler Than That

John F. Kihlstrom
Department of Psychology
University of California, Berkeley



## The Discovery of the Unconscious









Petites Perceptions Leibniz (1704/1981); Ellenberger (1970)

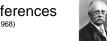


At every moment there is in us an infinity of perceptions, unaccompanied by awareness or reflection.... That is why we are never indifferent, even when we appear to be most so.... The choice that we make arises from these insensible stimuli, which... make us find one direction of movement more comfortable than the other.

# The Limen

 One of the older ideas can... be completely driven out of consciousness by a new much weaker idea. On the other hand its pressure there is not to be regarded as without effect; rather it works with full power against the ideas which are present in consciousness. It thus causes a particular state of consciousness, though its object is in no sense really imagined.

# Unconscious Inferences Helmholtz (1866/1968)



The psychic activities that lead us to infer that there in front of us at a certain place there is a certain object of a certain character, are generally not conscious activities, but unconscious ones. In their result they are the equivalent to conclusion.... But what seems to differentiate them from a conclusion, in the ordinary sense of that word, is that a conclusion is an act of conscious thought.... Still it may be permissible to speak of the psychic acts of ordinary perception as unconscious conclusions....

## The Philosophy of the Unconscious

Hartmann (1869); Ellenberger (1970)

- · Universe Ruled by The Unconscious
  - Absolute Unconscious
  - Physiological Unconscious
  - Relative Unconscious
    - Forms and Preserves the Organism
    - · Instinct for Self-Preservation
    - · Sexual and Maternal Love
    - · Guides Action
    - · Inspires Conscious Thought
    - · Engenders Feelings of Beauty
  - "The Unconscious can really outdo all the performances of conscious reason"



# Critiques of Hartmann Ebbinghaus (1873); James (1890)

"Wherever the structure is touched, it falls apart.... What is true is alas not new; the new not true"



"Hartmann fairly boxes the compass of the universe with the principle of unconscious thought. For him there is no namable thing that does not exemplify it. But his logic is so lax and his failure to consider the most obvious alternative so complete that it would, on the whole, be a waste of time to look at his arguments in detail."



8

# The Contradiction of the Unconscious Kant, Anthropology from a Pragmatic Point of View (1798)

# To have ideas, and yet not be conscious of them. --

there seems to be a contradiction in that; for how can we know that we have them, if we are not conscious of them?



Nevertheless, we may become aware indirectly that we have an idea, although we be not directly cognizant of the same.

# A Tumbling-Ground for Whimsies?

James, Principles of Psychology (1890), p. 163



The distinction... between the unconscious and the conscious being of the mental state... is the sovereign means for believing what one likes in psychology, and of turning what might become a science into a tumbling-ground for whimsies.

10

# The Unconscious in Psychodynamic Theory

- Conflict Engenders Anxiety
  - Primitive Sexual and Aggressive Impulses
  - Demands of External Reality
  - Demands of Conscience
- Repression Reduces Anxiety
  - Supplemented by Other Defenses
- Symbolic Expressions Persist
  - Dreams, Symptoms

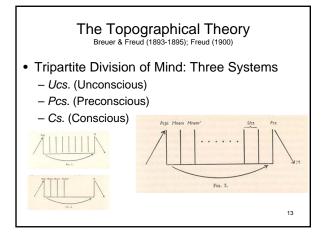
11

## "Hysterics Suffer from Reminiscences"

Breuer & Freud (1893-1895)



- Psychoanalysis Leads to Insight
  - Unconscious Determinants
- Insight Allows Rational Coping
- Classical Psychoanalysis
  - Theory of Infantile Sexuality
  - Ego, Id, Superego
- "Neo-Freudian" Theories
  - Objects-Relations
  - Ego-Psychology



# The Structural Theory

- Three Mental Functions
  - Id (Seat of Instincts)
    - Mostly Unconscious
    - Emotions Conscious
  - Ego (Cognitive, Defensive)
  - Mostly Conscious (through Pcs.)
  - Defenses Unconscious
  - Superego (Conscience, Norms)





#### Three Meanings of "Unconscious" Freud (1915)

- Descriptive
  - Thoughts, Feelings, Desires Not in Awareness
- Systematic
  - Preconscious Ideas Available to Consciousness
- Dynamic
  - Precluded from Consciousness by Repression

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## Problems with Freud's Clinical Evidence Grunbaum (1984, 1986); Von Eckardt (1986) Universal generalizations Suggestibility Tally Argument Consilience Argument Introspective Access Treatment Success 6. Slips and Dreams7. Free-Association Slips of the tongue Interpretation Overdeterminism eports of consciou feelings toward analyst and other Memory reports Introspection one

## The Freudian Defense Mechanisms

After Suppes & Warren (1975)

- "I love my mother"
- "I hate [fear] my father"
  - Castration Anxiety
- · Must repress love of mother, fear of father
  - Render it Unconscious
  - Find Acceptable Substitute
    - Permit it Conscious Representation

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#### The Freudian Defense Mechanisms

After Suppes & Warren (1975)

· Conflictual affect

· "I love my mother"

- 1

- Actor - Action

- Love

- Object

- My Mother

 Displacement - Change object

· "I love my father"

#### The Freudian Defense Mechanisms

After Suppes & Warren (1975)

- · Conflictual affect
  - Actor, Action, Object
- DisplacementChange object
- "I love my father"

· "I love my mother"

- Reaction Formation
  - Change action
- "I hate my mother"

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#### The Freudian Defense Mechanisms

After Suppes & Warren (1975)

- Conflictual affect
  - Actor, Action, Object
    - , Object
- Displacement
  - Change object
- Reaction Formation
  - Change action
- "I hate my mother"

· "I love my mother"

• "I love my father"

- Projection
  - Change actor
- "Saddam loves my mother"

 $2^3 = 8$  Transformations = 44 Defense Mechanisms

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#### The Freudian Defense Mechanisms

After Suppes & Warren (1975)

• "I love my mother"

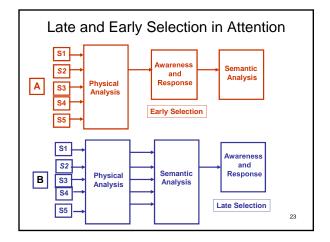
• "I love my father"

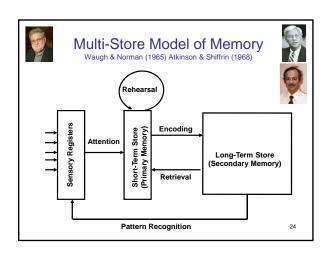
• "I hate my mother"

- · Conflictual affect
  - Actor, action, Object
- Displacement
- Change object
- Reaction Formation
  - Change action
- Projection
- Change actor
- "Trifecta" Defense
  - Change all three
- "Saddam loves my mother"
  - "Saddam hates my dad"

# The Waxing and Waning of the Unconscious

- · Popularity of the Psychodynamic View
  - Including "High", Popular Culture
- · Behaviorist Revolution
  - Unconscious Mental Life Doubly Unobservable
- Cognitive Revolution
  - Helmholtz: Unconscious Inferences in Perception
  - Chomsky: Unconscious Grammatical Knowledge
  - Multistore Model of Memory
    - Unconscious as Wastebasket
    - Preconscious = Preattentive





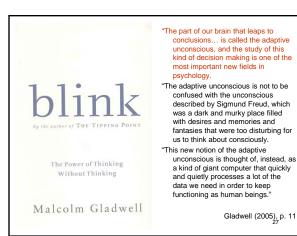
## **Automaticity Defined**

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

- Inevitable Evocation
- Incorrigible Completion (Ballistic)
- Efficient Execution
- Parallel Processing
- Unconscious in the Strict Sense of the Term
  - Operate outside phenomenal awareness
  - Operate outside voluntary control

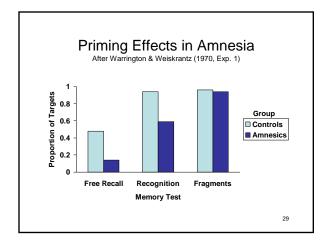
25

RED	BLUE	RED	BLUE	
GREEN	GREEN	GREEN	GREEN	The Stroop Interference Experiment Stroop (1935)
GREEN	BLUE	GREEN	BLUE	
BROWN	RED	BROWN	RED	
BLUE	BROWN	BLUE	BROWN	
GREEN	BROWN	GREEN	BROWN	
RED	BLUE	RED	BLUE	
BROWN	GREEN	BROWN	GREEN	
RED	BLUE	RED	BLUE	
GREEN	BROWN	GREEN	BROWN	
RED	BROWN	RED	BROWN	
BROWN	BLUE	BROWN	BLUE	
BROWN	GREEN	BROWN	GREEN	26



# "Intentionality is the Mark of the Mental" Brentano (1874); Russell (1912) Mental States are Representational • Propositional Attitudes - I know that P - I believe that P Mental States - Cognitive Faculties - Perception - Memory

- I feel [that] P
  - I desire [that] P
- Learning
- Thinking
- Noncognitive Faculties
  - Emotion (Affect)
  - Motivation (Conation)



# **Explicit and Implicit Memory**

After Schacter (1987)

- Explicit Memory
  - Conscious Recollection
    - Recall, Recognition
- Any effect of a past event on subsequent experience, thought, or action
  - Absence of Conscious Recollection
    - [Independent of Conscious Recollection]

## Dissociations Between Explicit and Implicit Memory

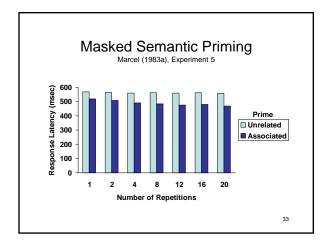
- Amnesic Syndrome
- Electroconvulsive Therapy
- General Anesthesia (?)
- · Conscious Sedation
- · Normal Aging, Dementia
- · Posthypnotic Amnesia
- · Dissociative Disorders
  - Psychogenic Amnesia, Fugue, Multiple Personality

### **Explicit and Implicit Perception**

After Kihlstrom, Barnhardt, & Tataryn (1992)

- Explicit Perception
  - Conscious Perception
    - Detection, Distance, Motion, Form
    - · Identification, Categorization
- Any effect of a current event on experience, thought, or action
  - Absence of Conscious Perception
    - [Independent of Conscious Perception]

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# Dissociations Between Explicit and Implicit Perception

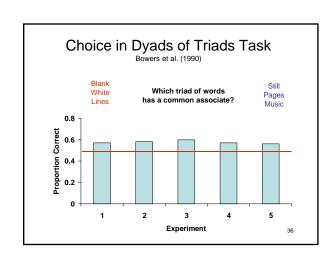
- "Subliminal" Perception
  - Intensity, Duration, Masking
- · General Anesthesia
- · Blindsight, Visual Neglect, Prosopagnosia
- Hypnotic Blindness, Deafness, Anesthesia
- Conversion Disorders ("Hysteria")
- · Preattentive Processing
  - Parafoveal Vision, Dichotic Listening
- Inattentional, Attentional Blindness
  - Repetition Blindness, Attentional Blink

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# **Explicit and Implicit Thought**

After Kihlstrom, Shames, & Dorfman (1996); Dorfman, Shames, & Kihlstrom (1996)

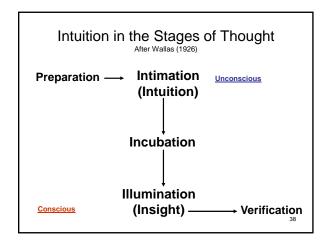
- Explicit Thought
  - Conscious Cognitive Activity
    - · Reasoning, Problem-Solving
    - Judgment, Decision-Making
- Any effect of an idea (or image) on experience, thought, or action
  - Not itself a percept or (episodic) memory
    - Nor recent learning
  - Absence of Conscious Access to Idea



## Dissociations Between Explicit and Implicit Thought

- "Dyads of Triads" Paradigm
  - Semantic Priming
- · Risky Choices
  - Damage to Prefrontal Cortex
- · Insight Learning

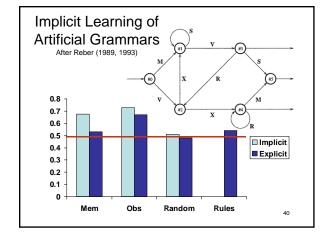
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## Explicit and Implicit Learning

After Reber (1967, 1993)

- Explicit Learning
  - Conscious Access to Knowledge
    - · Semantic, Procedural
  - Acquired Through Experience
    - Not Merely Incidental Learning
- Any effect of new knowledge on experience, thought, or action
  - No Conscious Awareness of Knowledge
    - Not Source Amnesia
      - Episodic Knowledge



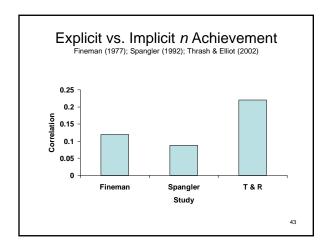
# Dissociations Between Explicit and Implicit Learning

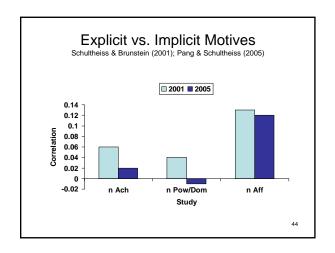
- · Artificial Grammar Learning
- Categorization
- · Covariation Detection
- Sequence Learning
- · Control of Complex Systems

# Explicit and Implicit Motivation

- After McClelland, Koestner, & Weinberger (1989)
- Explicit Motivation
  - Conscious Drive, Need, or Goal
    - nAchievement, nAffiliation, nIntimacy, nPower
- Any effect of a drive or goal on experience, thought, or action
  - Absence of Conscious Awareness of Motive

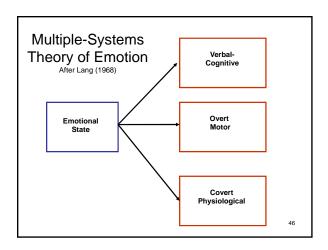
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#### **Dissociations Between Explicit and Implicit Motivation** Spangler (1992); Schultheiss & Pang (2007)

- "Projective" vs. "Objective" Correlations
  - Thematic Apperception Test
    - Picture-Story Exercise
  - Personality Research Form
    - EPPS, CPI
- Relate to Different Aspects of Behavior
  - Verbal vs. Nonverbal Cues
  - Performance vs. Nonperformance Behaviors



#### Explicit and Implicit Emotion After Kihlstrom, Mulvaney, Tobias, & Tobis (1996)

Explicit Emotion

- Subjective mood, Affect, or Feeling
- Any effect of an emotional response on experience, thought, or action
  - Overt Motor Response
    - Facial Expressions
  - Covert Physiological Response
    - Autonomic Nervous System

# Dissociations between **Explicit and Implicit Emotion**

- Desynchrony of Components of Emotion
- Affective Priming of Consummatory Behavior
- Implicit Association Test (?)

# Dissociations Between Explicit and Implicit Attitudes

Greenwald & Banaji (1995) Banaji & Greenwald (2013)

- Explicit Attitude
  - Affective Disposition to Favor/Oppose
    - Pro/Anti, Like/Dislike, Positive/Negative
  - Assessed by Self-Report Scales
- Implicit Attitudes
  - Effect on Experience, Thought, or Action
    - Physiology or Behavior
  - Attributable to Attitude
  - Independent of Awareness of that Attitude

#### Implicit Attitude Test

Greenwald et al. (1998); Banaji & Greenwald (2013)

- Make Dichotomous Judgment
  - Phase 1: Is X a Swedish or Finnish name?
     Aaltonen, Eriksson, Haapakoski, Lind, Nurminnen, Sundqvist
  - Phase 2: Is Ya Good or a Bad Thing?
    - Admiration, Aggression, Caress, Abuse, Freedom, Crash
- Then Superimpose Tasks
  - Swedish-Finnish Alternates with Good-Bad
    - Phase 3: Swedish Shares Key with Good
       Finnish Shares Key with Bad
    - (Phase 4 is a Control Condition)
    - Phase 5: "Swedish" Shares Key with "Bad"

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# Pattern of Responses Reveals Implicit Associations

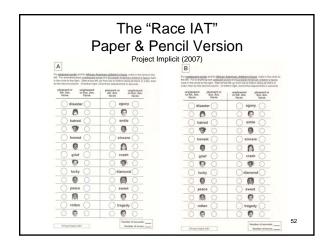
Greenwald et al. (1998)

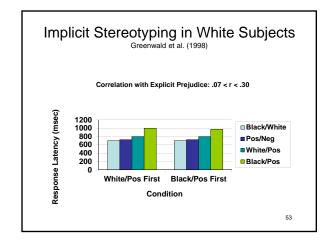
#### Stimulus-Response Compatibility

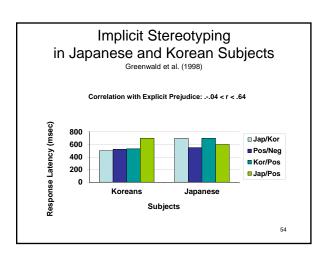
Fitts & Seeger (1953), after Small (1951)

Faster Responses when Compatible with Stimulus "Left" with Left key, "Right" with Right

- · Implication of S-R Compatibility
  - Same Response to Swedish Names, Positive Words
    - Faster Latencies: Association **Swedish** ↔ **Good**
  - Same Response to Finnish Names, Negative Words
    - Faster Latencies: Association  $Finnish \leftrightarrow Bad$







## The "Blindspot"

Banaji & Greenwald (2013)

- Hidden biases we all carry from a lifetime of exposure to cultural attitudes
  - Age, gender, race, ethnicity, religion, social class, sexuality, disability status, nationality
- Perceptions of social groups without our awareness or conscious control – shape our likes and dislikes and our judgments about people's character, abilities, and potential

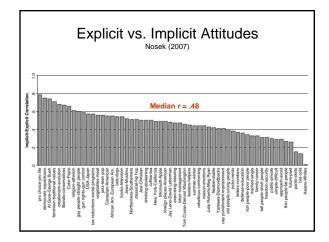
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#### Problems with the IAT

Arkes & Tetlock (2004); Levitin (2013)

- · Confounding Factors
  - Target Familiarity
  - Task Difficulty
  - Complementarity Assumption
    - Negative vs. "Less Favorable"
    - Positive vs. "More Favorable"
  - Associations vs. Attitudes
- Construct Validity
  - Predict External Criterion
  - Relevant Group Differences
    - "Would Jesse Jackson Fail the IAT?"

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## Problems with IAT

- Dissociation from Explicit Measure?
  - Significant Correlations Show Validity
  - Nonsignificant Correlations Show Dissociation
  - Correlations Usually Significant
    - Increase with Importance
    - · Decrease with "Social Sensitivity"
- The Psychologist's Fallacy (James, 1890)
  - Every Event has a Psychological Explanation
  - Psychologist's Explanation is the Right One

-0

## Balancing the Ledger

#### Strong Evidence

- Implicit Memory
- Implicit Perception

#### Weaker Evidence

- Implicit Learning
- Implicit Thought

#### Ambiguous Evidence

- Implicit Motives
- Implicit Emotions

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# Does the Cognitive Unconscious Support the Psychodynamic Unconscious?

Westen (1998, p. 35)

"The notion of unconscious processes is not psychoanalytic voodoo, and it is not the fantasy of fuzzy, muddle-headed clinicians. It is not only clinically indispensable, but it is good science. At this point, I believe that the question of whether unconscious cognitive, affective, and motivational processes exist is no longer interesting or informative and that we would do better to turn our attention to the *implications* of their existence and the mechanisms by which they influence information processing and behavior."

## The "Metapsychology" of Psychoanalysis

Rapaport (1959, 1960); Rapaport & Gill (1959)

- Empirical
  - The Subject Matter of Psychoanalysis is Behavior
- - Behavior is Integrated and
- Organismic
  - No Behavior Stands in Isolation
- Genetic
  - All Behavior is Part of a... Temporal Sequence'
- Topographic
  - The Crucial Determinants of Behaviors are Unconscious

- Dynamic
  - The Ultimate Determiners of All Behavior are the Drives
- Economic
  - All Behavior... Is Regulated by Psychological Energy
- Structural
  - All Behavior Has Structural Determinants
- Adaptive
- All Behavior Is Determined by Reality
- Psychosocial
  - All Behavior Is Socially Determined

# The Topographic Point of View Rapaport (1960)

- The Crucial Determinants of Behaviors [including Thoughts, Feelings, and Desires] are Unconscious
- Specific Hypotheses
  - Unconscious Mental States Exist
    - Mental Contents, Not Just Mental Processes
  - They Are the Crucial Determinants of Behavior

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# A Hierarchy of Psychoanalytic Propositions About the Unconscious

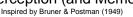
After Rapaport & Gill (1959) and Hilgard (1952, 1968)

- - Unconscious Mental Contents Differ from Conscious Mental Contents
- Specific
  - Unconscious Mental Contents Are Related to Infantile Sexual and Aggressive Instincts
  - Unconscious Ideas Are Kept Out of Consciousness by Repression
- Empirical
  - Unconscious Conflict and Repression Explain Infantile and Childhood Amnesia

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# The "New Look" in Perception (and Memory)





- Recognition of "Taboo" Words
  - Tachistoscopic Presentation
  - The "Judas Eye"
- Memory for Familiar Words, Tasks
  - Recall: Positive > Negative
  - Recall: Completed > Uncompleted

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#### Repression: Not "Merely Unpleasant" Rappaport (1942)

- "To forget the disagreeable" implies that what is forgotten is consciously disagreeable, since the term disagreeable obviously refers to conscious content; thus, it does not fit the Freudian conception of the unconscious motivation of forgetting and parapraxis.
- "To avoid the awakening of pain through memory" refers directly to those unconscious motivating factors whose awakening is prevented by the forgetting of ideas which stand even in a distant relation to them.

#### Repression: Not Merely "Disagreeable" Rappaport (1942, p. 169)

"The survey of the pertinent psychoanalytic literature has shown us the fallacy of the widespread notion that Freud taught the forgetting of the disagreeable. What Freud discovered was the function preventing the emergence into consciousness of an unconscious idea which, if it became conscious, would give rise to a conflict.'

## The Trauma-Memory Argument

Kihlstrom (1995, 1996, 1997, 1998, 2006)

- Trauma Victim
  - Invokes Repression as a Defense
    - Or Dissociation
  - Amnesia for Trauma
- Representation of Trauma Encoded in Memory
  - Affects Experience, Thought Action
    - Outside Conscious Awareness/Control
- Recovered Spontaneously/Therapeutically
- Williams (1994): 38%

# Problems with the Trauma-Memory Argument

- · Confounding Factors
  - Infantile and Childhood Amnesia
  - Ordinary Forgetting
  - Brain Injury, Drugs, Alcohol
  - Conscious Avoidance
- Reliance on Retrospective Studies
  - Lack Evidence of Abuse
  - Lack Evidence of Amnesia!
- Prospective Studies Fail to Confirm
  - Goodman et al.: 15.5% → 8% → 3.6% → 1.5%<sup>8</sup>

## Subliminal Psychodynamic Activation

Silverman (1976); Silverman & Weinberger (1985); Weinberger & Silverman (1990)

- "Subliminal" Presentation
  - Stimuli Relevant to "Unconscious Wishes"
    - · Verbal, Nonverbal
- Oral-Aggressive: Cannibal Eats Person
  - Symptoms in Schizophrenia, Depression
- Incestual: F\*\*k Mommy
  - Homoerotic Tendencies in Homosexuals
- Anal: Go S\*\*t
  - Speech Dysfluencies in Stutterers

# Subliminal Symbiotic Activation Silverman (1976); Silverman & Weinberger (1985); Weinberger & Silverman (1990)

- Symbiotic: Mommy and I Are One
  - · Control: People Are Walking
  - Diminished Symptoms in Schizophrenics
  - Reduced Anxiety, Defensiveness in Homosexuals
  - Improved Task Performance in "Normals"
    - · E.g., Dart Throwing in Israeli Business Students
- Oedipal-Sanctioning: Beating Dad is OK
  - Improved Task Performance in "Normals"

## Critiques from Without and Within

- · Methodological
  - Threshold-Setting Procedures
  - Prime-Task Duration Too Long
- · Misinterpretations of Psychoanalytic Theory
- Psychoanalytic Formulations Invalid
- Limitations of Subliminal Perception
  - Temporal: Duration of Subliminal Priming
  - Analytic: Extent of Meaning Analysis
    - · Greenwald, Affective Priming
      - Friend Peace
      - Enemy Loses Peace

Electrophysiology of Unconscious Conflict Shevrin (1988); Shevrin et al., (1992, 1996, 2012)

- Individual Psychodiagnostic Assessments
- Identify Stimulus Words
  - Patient's Conscious Understanding
    - e.g., Social Phobia
  - Hypothesized Unconscious Conflict
    - e.g., Exhibitionistic Fantasies
- Controls: Positive and Negative Words
- Event-Related Potentials, EEG Alpha
  - Sorted by Complex Time-Frequency analysis
    - Correct: Subliminal > Supraliminal

- Especially for "Repressors"

#### Plusses and Minuses

- Methodological
  - Improved Threshold Setting (Too Improved?)
  - Single Words, Short Durations
- Avoids Vulgar Freudianisms
- "Conflicts" Far Removed from Classic Freud
- How to EEG Findings Map On To Theory?
- Is Conflict Really Unconscious?
- Is Psychoanalytic Theory Necessary?

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# The Contradiction of the Unconscious Kant, Anthropology from a Pragmatic Point of View (1798)

# To have ideas, and yet not be conscious of them, --

there seems to be a contradiction in that; for how can we know that we have them, if we are not conscious of them?



Nevertheless, we may become aware indirectly that we have an idea, although we be not directly cognizant of the same.

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# A Tumbling-Ground for Whimsies?

James, Principles of Psychology (1890), p. 163



The distinction... between the unconscious and the conscious being of the mental state... is the sovereign means for believing what one likes in psychology, and of turning what might become a science into a tumbling-ground for whimsies.

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#### The Bottom Line

- · What is True is Not New
  - Unconscious Mental Life
  - Automatic Processes
  - Unconscious Ideas
    - Percepts, Memories, Thoughts, Knowledge
    - Motives, Emotions
- What is New Remains Unproven
  - Primitive Sexual/Aggressive Motives
  - Conflict and Defense

7/

#### Written Version:

http://socrates.berkeley.edu/~kihlstrm/OLLI\_Freud\_2013.html