

Memory (Concl'd)/ The Psychology Of Learning Pt. 1



PSYCH 1101

DAY 17

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Flash-Bulb Memories

(Brown & Kulik, 1977)

- Asked individuals to report highly emotional events (80 participants)
- People reported having vivid, detailed memories of *surprising* and *important* events.
- They typically remember:
 - where they were
 - what was going on at the time
 - who told them the news
 - how others felt
 - how they felt
 - what happened next

Problem:

- The flashbulb memory study assumed that these memories were ACCURATE
- But the original Brown & Kulik study did not have a way to assess accuracy.

The Space Shuttle Challenger (1986)



SPACE SHUTTLE CHALLENGER LAUNCH, JANUARY 28, 1986

Memory For The Space Shuttle Disaster (Neisser & Harsch, 1992)

- Method:
 - 106 students recalled the space shuttle disaster the morning after it occurred and again 2.5 years later
- Results:
 - High confidence for memories
 - But low accuracy
 - Self-reported emotions did not correlate with accuracy

False Confessions

- About 25% of exonerated criminals actually confessed to their crimes
- Saul Kassin: false confession studies
 - Accuse subjects of pressing a computer key that they were instructed to avoid -or- accuse them of cheating on a task
 - Use a “bluff” technique—say that there is damning evidence when there is none
 - In one study, 43/71 participants confess to pressing the key (10% of those to an observer who has nothing to do with the study).

Memory Is A Guide To Action (That Can Fail Us In Predictable Ways)

- Memory serves us well, and is generally a reliable guide
- But we not only *forget* things, we remember things that *never happened*
- Our confidence in our own memory is often unjustified
- Knowing these “points of failure” can prevent us from silly (or serious) mistakes.

Summary So Far

- Started with the broad question: How do we know what we know?
 - Sensation
 - Perception
 - Attention
 - Memory
- At each stage, the mind filters out irrelevant/unnecessary information
- These are the building blocks of knowledge, and are the starting point for most of our psychology

The Psychology Of Learning (Pt. 1)

Brown & Benchmark Introductory Psychology Electronic Image Bank copyright © 1995 Times Mirror Higher Education Group, Inc.

Pavlov's Research Apparatus



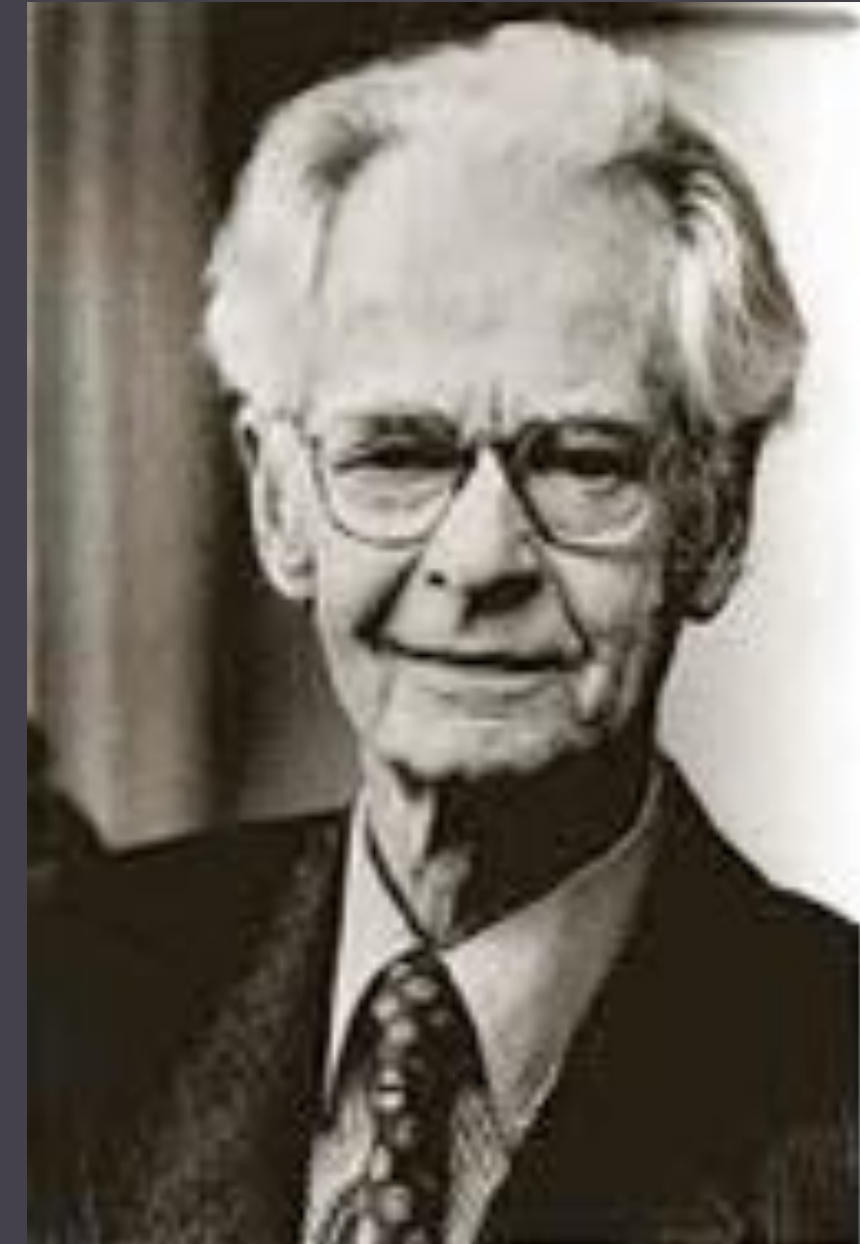
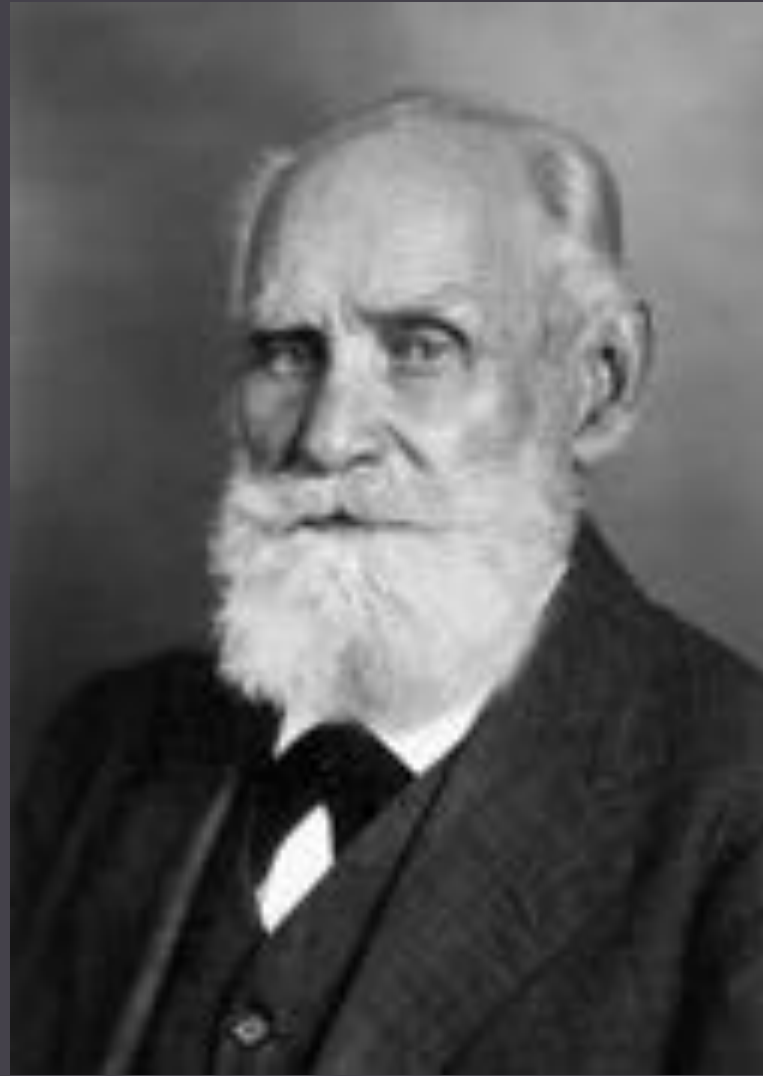
How Often Should You Text Someone Back If
You Like Them And Want Them To Stay
Interested/Keep Texting?

Learning = a change in behavior as a result of experience

“Behaviorism” And The “Psychology Of Learning”

- *Behaviorism* was/is a “grand theory,” that emerged in the mid-1900s as a response to the rampant non-scientific and non-rigorous methods that were being used to understand the mind.
 - As a “grand theory,” it sought to explain everything with a few simple mechanisms
 - Reacting to *introspectionism* and *Freudianism* in particular
- The *psychology of learning* is what we use to refer to the collective set of basic mechanisms that we understand very well (largely because of work that was started/emphasized by behaviorism).

Behaviorism: The Science Of Learning



What Is Behaviorism?

- A collection of theories that emphasize *learning*
- (“learning” defined as a change in the organism’s response as a result of experience)
- Rejection of “mentalism” as unscientific
 - unscientific = desires, wishes, goals, beliefs, emotions, etc.
 - scientific = observables: stimulus, response, environment, etc.
- Same learning mechanisms operate across species
 - understanding how rats, pigeons, and dogs learn can give us insight into how humans learn

Nature Vs. Nurture Round 1

- This is one of the first examples of the many heated debates in the field about how much of our psychological experience is *innate* (instinctual or otherwise unlearned), and how much is due to the environment.
 - Nativism vs. Empiricism
- This debate will rear its head repeatedly

The Optimism Of Behaviorism



JOHN B. WATSON
1878-1958

"Give me a dozen healthy infants, well-formed, and my own specified world to bring them up in and I'll guarantee to take any one at random and train him to become any type of specialist I might select--doctor, lawyer, artist, merchant-chief, and, yes, even beggarman and thief, regardless of his talents, penchants, tendencies, abilities, vocations, and race of his ancestors."

How Can Behaviorism Explain The Scope Of Psychology?

- Three basic learning mechanisms proposed to explain everything
 1. Habituation (*non-associative*)
 2. Classical (Pavlovian) Conditioning (*associative*)
 3. Operant (Instrumental) Conditioning (*associative*)

1. Habituation

- The decline in the tendency to respond to stimuli that are familiar due to repeated exposure
 - e.g., clock ticking, traffic noise, trains
- This mechanism keeps us focusing on new objects and events
- It is an example of *non-associative* learning (i.e., it does not require the pairing of two different stimuli)
- Distinct from *sensory adaptation* (a fairly rigid neural mechanism in which cells no longer fire in response to the same stimuli)

2. Classical (Pavlovian) Conditioning

- The learning of an association based on repeated presentation of paired stimuli
 - An *Unconditioned Stimulus* (US or UCS) such as food or shock that causes a reflexive response
 - Paired with a neutral stimulus that does not normally cause a reflexive response, the *Conditioned Stimulus* (CS)
 - After enough pairings, the *Conditioned Stimulus* causes the response without need for the *Unconditioned Stimulus*