9.00. Intro to Psychology

Professor John Gabrieli
9.00. Intro to Psychology

*Objective*: Scientific study of human nature/mind/behavior
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*Objective*: Scientific study of human nature/mind/behavior

- brain
- perception
- cognition
- emotion
- personality
- development
- social interaction
- psychopathology
A Psychocentric View

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*Objective:* Scientific study of human nature/mind/behavior

how our minds make our worlds
Objective: Scientific study of human nature/mind/behavior

how our minds make our worlds

what we see
Ebbinghaus
Checker-shadow illusion

Courtesy of Professor Edward H. Adelson. Used with permission.
Visual/Optical Illusions

Criss-Cross Effect

The Koffka Ring

White’s Illusion

Simultaneous Contrast Effect

From “Lightness Perception and Lightness Illusions.” MIT Perceptual Science Group.
Illusions cont’d

Shepard’s Tables

Stepping Feet

Shading, Depth, and Faces
Memory for a Picture

10 questions
Memory for a Picture

Group A:
You are going to look briefly at a picture and then answer some questions about it. The picture is a rough sketch of a poster for a trained seal act. Do not dwell on the picture. Look at it only long enough to “take it all in” once. After that, you will answer yes or no to a series of questions.
Group B:
You are going to look briefly at a picture and then answer some questions about it. The picture is a rough sketch of a poster for a costume ball. Do not dwell on the picture. Look at it only long enough to “take it all in” once. After that, you will answer yes or no to a series of questions.
In the picture was there:

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. An automobile?</td>
<td>_____</td>
<td></td>
</tr>
<tr>
<td>2. A man?</td>
<td>_____</td>
<td></td>
</tr>
<tr>
<td>3. A woman?</td>
<td>_____</td>
<td></td>
</tr>
<tr>
<td>4. A child?</td>
<td>_____</td>
<td></td>
</tr>
<tr>
<td>5. An animal?</td>
<td>_____</td>
<td></td>
</tr>
<tr>
<td>6. A whip?</td>
<td>_____</td>
<td></td>
</tr>
<tr>
<td>7. A sword?</td>
<td>_____</td>
<td></td>
</tr>
<tr>
<td>8. A man’s hat?</td>
<td>_____</td>
<td></td>
</tr>
<tr>
<td>9. A ball?</td>
<td>_____</td>
<td></td>
</tr>
<tr>
<td>10. A fish?</td>
<td>_____</td>
<td></td>
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Memory for a Picture

Group A:
You are going to look briefly at a picture and then answer some questions about it. The picture is a rough sketch of a poster for a trained seal act. Do not dwell on the picture. Look at it only long enough to “take it all in” once. After that, you will answer yes or no to a series of questions.

Group B:
You are going to look briefly at a picture and then answer some questions about it. The picture is a rough sketch of a poster for a costume ball. Do not dwell on the picture. Look at it only long enough to “take it all in” once. After that, you will answer yes or no to a series of questions.
A TEST OF ATTENTION & COUNTING!

HOW MANY TIMES DO THE PEOPLE IN THE WHITE SHIRTS PASS THE BASKETBALL?
A TEST OF ATTENTION & COUNTING!

Watch video at
http://www.youtube.com/watch?v=vJG698U2Mvo
Objective: Scientific study of human nature/mind/behavior

how our minds make our worlds

what we hear
What is he saying?

McGurk Effect Demo
http://www.youtube.com/watch?v=aFPtc8BVdJk
What is he saying?

McGurk Effect Demo

- Most adults (98%) think they hear "DA"
- In reality, you
  - hear the sound "BA"
  - see the lip movements "GA"

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what we know
Which is farther east: San Diego or Reno?
Which is farther north: Philadelphia or Rome, Italy?
Which is farther north: Atlanta or Chicago?
Which is farther north: Portland or Toronto?
Which is further west: Miami, Florida or Santiago, Chile?
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how our minds make our worlds

what we learn and remember
LISTEN TO THE WORDS, THEN WRITE DOWN THE WORDS YOU REMEMBER
Automaticity

- Power
- Peril
ONE WAY
NOT DO
ENTER
PARIS IN THE SPRING
HOW MANY F’s?
FINISHED FILES ARE THE RESULT OF YEARS OF SCIENTIFIC STUDY COMBINED WITH THE EXPERIENCE OF MANY YEARS.
# Stroop Effect

## Word Set #1

<table>
<thead>
<tr>
<th>RED</th>
<th>GREEN</th>
<th>BLUE</th>
<th>YELLOW</th>
<th>PINK</th>
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</thead>
<tbody>
<tr>
<td>ORANGE</td>
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<td>GREEN</td>
<td>BLUE</td>
<td>WHITE</td>
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<tr>
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There are 30 people in a group. You get the month and date of each person’s birthday. What is the approximate probability that two of the people will have the exact same birthday?

a) 90%
b) 70%
c) 50%
d) 30%
e) 10%
COGNITIVE & AFFECTIVE FORECASTING

• think about your future
AFFECTIVE FORECASTING

• think about your future

most people think about achieving & succeeding rather than fumbling or failing
AFFECTIVE FORECASTING

• if I don’t get tenure, I will be sad… if I do get tenure I will be happy
  \textit{two years later - no difference}
• if I win the lottery, I will be happy!
  \textit{a year or two later, no difference}
AFFECTIVE FORECASTING

• if I don’t get tenure, I will be sad… if I do get tenure I will be happy
  *two years later - no difference*

• if I win the lottery, I will be happy!
  *a year or two later, no difference*

• accident leading to quadriplegia or paraplegia - return to typical ratings in 3 months
Mispredicting Affective and Behavioral Response to Racism - Kawakami et al., Science, 2009

- Racism is condemned
- Blatant racism still occurs
  33% of whites report hearing anti-black slurs in workplace
Mispredicting Affective and Behavioral Response to Racism

- two groups - “forecaster” or “experiencer”
- you enter room - see a black male & a white male - black male leaves room to get cell phone, gently bumps white male knee
  - control - nothing else
  - moderate slur “Typical, I hate it when black people do that”
  - extreme slur …. “clumsy N word”
Mispredicting Affective and Behavioral Response to Racism

- two groups - “forecaster” or “experiencer”
  - control - nothing else
  - moderate slur “Typical, I hate it when black people do that”
  - extreme slur …. “clumsy N word”

- black male returns, experimenter gives survey on current feelings, asks you to pick a partner for anagram task
A Gap Between Attitudes & Actions

A Gap Between Attitudes & Actions

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how our minds make our worlds
• what we see & hear
• what we remember
• what we know
• how we think
• how we feel
• how we act