

ATTENTION

- **Definition:** Concentration of mental effort on sensory or mental events.
- **Attention Influences Many Areas Of Cognitive Psychology**

TWO PARADIGMS FOR STUDYING ATTENTION

- **Divided Attention:**
- **Selective Attention:**

SUMMARY: FACTORS THAT AFFECT DUAL TASK PERFORMANCE

- **Task similarity**
- **Practice**
 - **Why does practice affect dual-task performance?**
- **Task Difficulty:**

APPLICATION OF DUAL TASK RESEARCH:

Cell Phone Usage While Driving

- **Hands-free operation:**
- **Generation effect vs. mere repetition**
 - How does this relate to other tasks you perform while driving?
- **Practice:** What affect does this have on this dual-task performance?
- **Inattentional Blindness:** What does this mean & why important?
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SELECTIVE ATTENTION THEORIES

- **Earliest research was auditory:**
 - **Cherry (1953)**
 1. **dichotic listening procedure**
 2. **shadowing procedure:** (physical similarity effects)
 - **What happens to the ignored message?**

WHAT HAPPENS TO THE IGNORED MESSAGE?

1. When S's asked what they remembered from ignored message they often would say _____?
 2. If the ignored message said something interesting or important (your name or someone's talking about you) _____?
 3. **Cocktail party effect (Moray, 1959)**
 - Wood & Cowan (1995):
 - Working Memory Capacity**: How does this affect the cocktail party effect?
 - Conway, Cowan, & Bunting (2001)** found that people with large working memory capacities _____.
 - Implications of Conway et. al.'s work?
- **We Follow Meaning**:
 1. **Gray & Wedderburn (1960)**
 presented to left ear: ob, 2, tive
 presented to right ear: 6, jec, 9
 2. **Treisman's (1960) study**:
 3. **Galvanic Skin Response (GSR)**:
 - (Von Wright, Anderson, & Stenman, 1975)
 4. **Implicit vs. Explicit Memory Tasks**
 - **Mere Exposure Effect**

SELECTIVE ATTENTION THEORIES

- **2 PART THEORY OF ATTENTION: MECHANISMS UNDERLYING SELECTIVE ATTENTION)**
 - **Ignoring:**

 - **Selective Priming:**

THEORIES OF DIVIDED ATTENTION

I. **Early theories of Attention**

- **Bottleneck Theories:**

- **Sperling's Partial Report Technique**

B R Y P
T N S A
R H L W

THEORIES OF DIVIDED ATTENTION

- Capacity Theories

LATER MODELS

- Introduced the idea of automaticity to deal with capacity limits.
- Schneider & Shiffrin's (1977) Theory:
 - Controlled processes
 - Automatic processes

LATER MODELS

- I. Logan's "instance" theory of automaticity:
 - Automaticity = memory retrieval

- II. Anne Treisman's Feature Integration Theory:
 - Distributed Attention:
 - Preattentive
 - Focused Attention:
 - These 2 types of attention for a continuum:

Test of theory: Treisman & Gelade (1980):

- **2 Conditions:**
- **Distributed Attention:**
- **Focused Attention:**

CHANGE BLINDNESS

- **Change Blindness:**
- **Simons & Levin (1998):**

INATTENTIONAL BLINDNESS

- **Inattentional Blindness:**
- **Simons & Chabris (1999) Gorilla Study:**

CONSCIOUSNESS

- **Many different definitions of consciousness in the psychological literature. Therefore, controversial topic.**
- **Consciousness means awareness.**

- People are considered to be conscious of an event according to Baars (1988) if:
 - 1.
 - 2.

CONSCIOUSNESS

2 Hot Topics in the Area of Consciousness:

Wegner's white bear study:
The opposite of attention (inhibition)

- Rebound effect
- Ironic Processes of Mental Control
- Performing an unwanted response because of mental processing that is unconscious or uncontrolled.
 - Action Slips