COGS-6962

Advanced Topics in Cognitive Science
Emotion, Control of Cognition, & Dynamic Decision Making
Expectations and course requirements

• Unless otherwise stated, each week I expect each class participant to read each paper. (Where "participant" includes graduate students as well as post-doctoral researchers).
• The week before I will designate some papers as "general" and some as "in-depth."
• For the general papers everyone should come to class prepared to discuss the paper and to answer several questions including:
  • Are these important?
  • Why are they cited as much as they are? If too new to be cited, do you expect them to be well-cited or ignored?
  • Do they relate to our research? Should our research and papers take these papers into account?
Expectations and course requirements

• For each of the other papers, each week I will ask 1-2 class participants to prepare to lead the discussion of each paper -- this presentation should be well-organized and well presented. It may include discussion of papers cited or not cited by the paper under discussion. It may include points made by other papers that we have or will read this semester.

• All participants should be prepared to dissect various points of each paper. In addition, all participants should be prepared to participate in a summary discussion of the three questions posed (above) for the general papers.
Class Schedule

• Every Thursday from 2 to 5:50 except
  • Sept 23rd (HFES Conference)
  • Re-schedule to Tuesday -- Sept 28th -- 7 to 10 pm?
  • Nov 18th (Psychonomics)
  • Tuesday Nov 16th
  • Dec 2nd (ARDA Workshop)
  • Tuesday Nov 23th
• Dec 21st -- Tuesday -- hold in case we need a make-up day
What if you miss a class?

- I still expect you to read everything
- 5-page essay due on the “general” questions -- but should consider all of that week’s readings (i.e., not just the “general” paper)
- 5-page essay discussing the other readings
- APA format required
Emotion, Control of Cognition, & Dynamic Decision Making

• Emotion, Control of Cognition, and Dynamic Decision Making (ECCEEM?) are related in interesting ways
• Multiple ways of discussing each of these topics -- multiple lines of research in each
• Course will focus on drawing a path thru these three that will emphasize their interdependencies
• On-Topic

• Slightly off topic -- but provides an interesting and unplanned (by me) counterpoint to Selmer’s talk on what makes humans unique and how do we go about researching this question

Week 02

- General Reading

- Main Course -- “Historic” perspective
Week 02

- Two students to work together to prepare slides for discussion of the key points of each of these papers
- Note: Everyone is expected to read each and to join in the discussion
The Unbearable Automaticity of Being

- Nice paper -- puts into perspective the interdependencies between “cognitive control” “emotion” and “dynamic decision-making”
- Folk psychology has it that we are totally conscious (or should be expected to be!!) and systematically process incoming information
- That we consciously construe and interpret our world based on our processing
- & that we then plan and engage in consciously selected courses of action
Bargh & Chartrand

- Is Selmer your brother-in-law?
- Thesis: “most of a person's everyday life is determined not by their conscious intentions and deliberate choices but by mental processes that are put into motion by features of the environment and that operate outside of conscious awareness and guidance”
- That say that this “is a difficult one [thesis] for people to accept”
Historical Perspectives

• Freud
  • considered human behavior to be determined mainly by biological impulses and the unconscious interplay of the psychic forces those impulses put into motion

• Behaviorist Theory
  • behavior is outside of conscious control,
  • source of the control not in the psyche but in external stimulus conditions and events
  • Environmental events directed all behavior in combination with the person's reinforcement history
Historical Perspectives

• Self Theory and the Humanist Movement
  • behavior was adapted to the current environment, but it was determined by an act of conscious choice.
  • “Fifty years later, this perspective remains dominant among theories of motivation and self-regulation.” Wow!
Historical Perspectives

• Where are we? (I.e., the contemporary cognitive perspective?)
  • “in spirit as well as in practice, seeks to account for psychological phenomena in terms of deterministic mechanisms”
  • “the mainstream of psychology accepts both the fact of conscious or willed causation of mental and behavioral processes and the fact of automatic or environmentally triggered processes.”
  • wdg: obviously this demands the question -- where does “conscious or willing causation” come from --
  • but like B&C, we will largely ignore this issue in this seminar (Beware! That path is plagued by philosophers!!)
Historical Perspectives

• Where are we? (i.e., the contemporary cognitive perspective?)
  • “The debate has shifted from the existence (or not) of these different causal forces to the circumstances under which one versus the other controls the mind. Is everyday life mainly comprised of consciously or of nonconsciously caused evaluations, judgments, emotions, motivations, and behavior?”

• wdg: we will continue to chip away at the folk psychology notion of consciousness as Dennett reminds us everything that we do explain will be dismissed as “yes, but that is not what I mean by consciousness” and consciousness will continue to be viewed by some as a mysterious and uniquely human property -- Dennett calls this the “mysterian” position
<table>
<thead>
<tr>
<th>Doing this first</th>
<th>. . . makes it difficult to do this</th>
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<tbody>
<tr>
<td>Eating radishes instead of available chocolates</td>
<td>Persist in attempting to solve unsolvable puzzles</td>
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<tr>
<td>Making a choice between two options</td>
<td>Persist in attempting to solve unsolvable puzzles</td>
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<tr>
<td>Suppressing emotional reactions to a movie</td>
<td>Solve (solvable) anagrams</td>
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<tr>
<td>Proofreading</td>
<td>Take action (stop watching a boring movie)</td>
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<tr>
<td>Suppressing emotional responses to a movie</td>
<td>Squeeze a handgrip exerciser for a short time</td>
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<tr>
<td>Suppressing thoughts (about white bears)</td>
<td>Persist in attempting to solve unsolvable puzzles</td>
</tr>
<tr>
<td>Suppressing thoughts (about white bears)</td>
<td>Suppress signs of amusement while watching comedy tape</td>
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Figure 1 - Internal (Intentional) and External (Automatic) Sources of Behavior-Relevant Cognitions That Automatically Create a Tendency to Engage in That Behavior
Figure 2 - Intentional and Unintentional Routes to the Automatization of a Psychological Process
Figure 3 - (a) Conscious, Intentional Mediation of Goal Pursuit Within a Situation and (b) Automatic Activation and Operation of Goals by Situational Features Following Repeated Choice of the Same Goal
Figure 4 - Free Recall and Memory Organization (ARC Clustering Scores) With Explicit Instructions to Form an Impression or to Memorize the Behavioral Information and With Primed Impression or Memorization Goal and No Explicit Instructions