MACROCOGNITION: INTELLIGENCE IN CONTEXT
LOC-301 • FALL 2004 • THURSDAYS • 2-5PM • ANNENBERG 303

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<tr>
<th>Professor: Louis Gomez</th>
<th>TA: Anika Spratley</th>
<th>TA: Janaé Townsend</th>
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<tr>
<td>Annenberg Hall Rm. 337</td>
<td>Annenberg Hall Rm. 236</td>
<td>Annenberg Hall Rm. 307</td>
</tr>
<tr>
<td>847.467.2821</td>
<td></td>
<td></td>
</tr>
<tr>
<td><a href="mailto:l-gomez@northwestern.edu">l-gomez@northwestern.edu</a></td>
<td><a href="mailto:a-spratley@northwestern.edu">a-spratley@northwestern.edu</a></td>
<td><a href="mailto:j-townsend@northwestern.edu">j-townsend@northwestern.edu</a></td>
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COURSE DESCRIPTION
How is thinking made possible and affected by social and cultural worlds? Traditional cognitive research begins with the assumption that cognition is a process and product of the individual human mind. The environment can serve as grist for the mental mill, but thinking takes place inside the person’s head. Recent research in cognitive science questions this account. It considers how the environment structures, affects and enables thinking, learning, and remembering. We will call this investigation into the social and cultural aspects of cognition “macrocognition”. Viewing thinking as an interactive process with the social and cultural worlds raises important questions about learning.

The goals of this course are to:
• Place macrocognition in the context of cognitive science research;
• Develop a sense of the nature and scope of the topics considered;
• Study and use conceptual frames for investigating macrocognitive processes;
• Examine research concerning participation in professional communities, distributed cognition, and incidental learning; and
• Design and conduct a macrocognitive study of a social context.

Format:
Students will be expected to read several research papers or book chapters every week. The class will consist of class-based and online discussions, as well as in-class projects designed to apply the ideas discussed.

Course Packet:
The course pack for the class will be available in Annenberg 201 after September 30th. Please bring a check or cash for the purchase of the course pack.

ASSIGNMENTS

Reflection paper:
Think about a system of which you are part (family, work, social group) and explain how this system scaffolds and structures your own behavior. Please make reference to any concepts that you have applied from either the readings or class discussion. The analytic paper should be 2-3 pages (double spaced) in length and posted to Blackboard by 5 pm Monday, October 4th.

Reaction papers:
Students are responsible for completing all readings and reaction papers on the readings each week during the quarter. (Please note that the Reflection paper for the first week DOES NOT count as a reaction paper.) Reaction papers are to be posted to the class discussion website at https://courses.northwestern.edu/courses/. Reaction papers should be no more than two, double-spaced pages and must be posted by 5 pm the Monday before class. Late postings will not be accepted.
**Study of macrocognition:**
The final project will be a collaborative study of the social and cultural aspects of a collective
cognitive environment. To conduct the study, students will form teams from 3 to 4 people and use the
theories we discuss in class to conduct a video-supported analysis of an instance of cognition in the
world.

The study will include the following stages:
1. Forming a question and locating a site
2. Initial video-analysis (selection and critique of video-data to narrow the research investigation)
3. Advanced video-analysis (selection and critiques of specific case-data)
4. Final group project investigation
5. Final group paper, which will include:
   • Description of the studied environment;
   • Account of the methods used in the study;
   • Consideration of the investigative process;
   • Presentation of the results; and
   • Discussion that relates your findings to the world of macrocognition discussed in class.

The study will be submitted as your final exam project in paper form and will form the basis of your
final class presentation during the final week of class. Students will work on this project throughout
the course, with intermediate deadlines to be announced along the way.

**Final project is due Monday, December 4, 2004 by 5 PM.**

**Grading:**
Grades for the course will be calculated according to the Northwestern University grading scale. Class
work will count in the following proportions toward your final grade:

Class participation 60%  
(You must show up, turn in all reaction papers on time, and have completed each week’s readings
when you arrive in class.)

Class project 40%

Please note that we will measure class participation by the quality of your reaction papers, theory
journal entries, and contributions to both the face-2-face and online discussions.
TOPICS AND READINGS

WEEK 1: INTRODUCTION TO THE COURSE

WHAT CONSTITUTES INTELLIGENCE?

HOW DO SOCIAL AND ORGANIZATIONAL SETTINGS ALLOW YOU TO DISPLAY INTELLIGENT BEHAVIORS?

THURSDAY, SEPT. 30, 2004

Readings:


WEEK 2: SYSTEMS AND MACROCOGNITION

COMPLEX BEHAVIOR

HOW DO YOU THINK ABOUT AND STUDY HUMAN BEHAVIOR SYSTEMATICALLY?

THURSDAY, OCTOBER 7, 2004

Readings:


WEEK 3: INTRODUCTION TO MACROCOGNITION - MACROCOGNITIVE LENSES

THEORY OVERVIEW

WHAT DO EACH OF THESE THEORETICAL LENSES HIGHLIGHT AS YOU USE THEM TO OBSERVE HUMAN COGNITION—HOW DO THEY ALLOW YOU TO SEE?

THURSDAY, OCTOBER 14, 2004

Readings:


Introduction to Project Studio

WEEK 4: INTRODUCTION TO FINAL PROJECTS – MACROCOGNITIVE LENSES (CONTINUED)

WHAT ARE SOME SPECIFIC THEORETICAL PERSPECTIVES AND EXAMPLES OF SETTINGS IN WHICH THEY MAY BE APPLIED?

THURSDAY, OCTOBER 21, 2004

Readings:


Project studio

WEEK 5: MACROCOGNITIVE METHODOLOGY

HOW MIGHT YOU THINK ABOUT STRUCTURING A STUDY OF MACROCOGNITION IN A HUMAN SYSTEM?

Thursday, October 28, 2004

Readings:


**Project Studio -- Groups announce their final project**

**WEEK 6: MACROCOGNITIVE METHODOLOGY (CONTINUED)**

**WHAT DOES A MACROCOGNITIVE STUDY LOOK LIKE IN PRACTICE?**

**THURSDAY, NOVEMBER 4, 2004**

**Guest Speaker:** Dr. Beth vanEs

**Readings:**


**Methods Studio**

**WEEK 7: MACROCOGNITIVE LENSES**

**HOW DO INFORMATION STRUCTURES SHAPE OUR BEHAVIOR?**

**THURSDAY, NOVEMBER 11, 2004**

**Readings:**


WEEK 8: MACROCognitive Lenses

HOW DO SOCIAL ARRANGEMENTS AND TIME INFLUENCE BEHAVIOR?

THURSDAY, NOVEMBER 18, 2004

Wood, D. The power of maps. (Introduction, chapters 1 & 4).
(Introduction.)

WEEK 9: MACROCognition in Organizations

DRIVING QUESTION? WRITE YOUR OWN DRIVING QUESTION. IN A FEW PARAGRAPHS, EXPLAIN HOW ANSWERING THIS QUESTION MAY LEAD TO A DEEPER UNDERSTANDING OF THE READINGS.

THURSDAY, DECEMBER 2, 2004


Project Studio

WEEK 10: FINAL PROJECT PRESENTATIONS

WEDNESDAY, DECEMBER 8, 2004 & THURSDAY, DECEMBER 9, 2004 2-5 P.M.