

Winter Session 2025

PSYC 354Z: Seminar on Intelligence and Creativity

Professor

Dr. Steven Stemler

Location and Time

9:30am-1:30PM

Jan 7, 8, 9, 10, 13, 14, 15, 16, 17, 20, 21

All class sessions will be held on Zoom: <https://wesleyan.zoom.us/j/4931579508>

Office Hours:

By appointment

via Zoom: <https://wesleyan.zoom.us/j/4931579508>

via email: steven.stemler@wesleyan.edu

Course Description

What does it mean to be smart? Who decides whether something, or someone, is creative? The answers to these questions are of great consequence as they often determine who gets access to scarce resources. This course will introduce students to some of the most vibrant and lively debates in the fields of intelligence and creativity. Our goal will be to discuss relevant theories and evaluate empirical data associated with various perspectives and approaches to understanding these important constructs. In addition, students will gain familiarity with and critically evaluate how intelligence and creativity are measured and the usefulness of different measures for predicting the success of individuals and organizations.

Course Objectives

- Understand various theories of creativity and intelligence that have been proposed and studied in the literature.
- Evaluate evidence that supports and contradicts different proposed theories of intelligence and creativity
- Gain experience and familiarity with different tests of intelligence and creativity.
- Understand which intelligence tests are most widely used for research and practice.
- Develop sufficient historical and theoretical background to participate intelligently in current debates related to the study of creativity and the study of intelligence

Required Readings

- Sternberg, R.J. (2020). *The Cambridge Handbook of Intelligence (2nd Ed.)*. New York: Cambridge University Press. ISBN: 978-1108719193
- Kaufman, J.C., & Sternberg, R.J. (2019). *The Cambridge Handbook of Creativity (2nd Ed.)*. New York: Cambridge University Press. ISBN: 978-1316638545
- Research articles posted to Moodle

Course Requirements and Grading

25% Attendance and class participation

25% Intelligence Presentations

25% Creativity Presentation/Assignments

25% Final Project

Attendance and class participation. Because this is an advanced seminar, the nature of this class will require frequent discussion of your ideas about intelligence and creativity. As such, attendance and participation in discussions and activities will count for 25% of your grade.

Intelligence Presentations. Each participant will be responsible for presenting on and leading discussion about two different topics in Intelligence. The purpose is to give you a chance to demonstrate your mastery of the material and to provide a different modality for discussing the course content covered in the book.

Creativity Assignments. Each participant will be responsible for presenting on and leading discussion about one different topic in Creativity. The purpose is to give you a chance to demonstrate your mastery of the material and to provide a different modality for discussing the course content covered in the book. In addition, there will be different assignments for each creativity class session. These may take different forms and will be formally graded only on the basis of whether you engaged with the task or not (a check if you did and a minus if you did not). Taken together the homework will be worth a total of 25% of your final grade.

Final Project. The final project will involve an integration of material you have learned throughout the semester and is worth 25% of your total course grade. You will be given further details about this exam at a later time.

Pre-course readings:

Available on Moodle:

Thorndike, E.L. (1921). *The uses of intelligence tests*. Harpers Magazine

Stemler, S.E. (2012). What should university admissions tests predict? *Educational Psychologist*, 47(1), 5-17.

Sternberg, R.J., Kaufman, J.C., & Pretz, J.E. (2001). The propulsion model of creative contributions applied to the Arts and Letters. *Journal of Creative Behavior*, 35(2), 75-101.

Pre-course Assignment:

Draft presentations of assigned chapters on Intelligence

Course Outline

(Each topic will be covered in depth in one class session)

Part I: Intelligence

Day 1 (Tues, 1/7/25): What is Intelligence? What is on an Intelligence Test?

- History of Intelligence
- Achievement, Ability, and Aptitude
- The General Theory of Intelligence ('g' theory)
- Raven's Progressive Matrices (gf)
- The Mill-Hill Vocabulary Scale (gc)
- The Wechsler Intelligence Test
- The Stanford Binet Intelligence Test Subtests and their purposes
 - Reliability and Validity

Presentations:

History of Intelligence (Stemler)

Tests of Intelligence (Stemler)

Day 2 (Wed, 1/8/25): What Are Intelligence Tests Good For?

- Diagnosing Learning Disabilities
- Predicting Student Success
- Predicting Job Performance
- Group Differences in Intelligence (Gender Differences; Racial/Ethnic Differences)
- The Problem of Bias

Presentations:

Intelligence in Admissions Testing and Personnel Selection

Intelligence and Working Memory

The Identification of Intellectual Disabilities

Investigations of Gender Differences in Intelligence

Investigations of Ethnic Differences Intelligence

Global Perspectives on Intelligence

Day 3 (Thurs, 1/9/25): The Development of Intelligence

- Development of Intelligence in Early Childhood
- Development of Intelligence Across the Lifespan

Presentations:

Prodigies and Savants

Intelligence in Childhood

Intelligence in Adulthood

Intelligence and the Identification of Giftedness

Artificial Intelligence

Biological Basis of Intelligence

Day 4 (Fri, 1/10/25): Broader Conceptions of Intelligence

- Cultural Intelligence
- Rational Intelligence
- Multiple Intelligences
- Successful Intelligence
- Social and Emotional Intelligence
- The MSCEIT and the Bar-On Tests of Emotional Intelligence
- The George Washington Social Intelligence Test

Presentations:

Social Intelligence

Cultural Intelligence

Successful Intelligence

Multiple Intelligences

Emotional Intelligence

Society and Intelligence

Day 5 (Mon, 1/13/25): The Relation of Intelligence to Other Constructs

- The Flynn Effect and other curiosities

Presentations:

Intelligence and Personality

Intelligence and Motivation

Intelligence and Creativity

Intelligence and Rationality

Intelligence and Wisdom

Intelligence and Expertise

No Class Sunday, 1/9/22

Part II: Creativity

Day 6 (Tue 1/14/25): What is Creativity?

- Historical roots of the concept
- Origins of the scientific study of creativity
- The Four C's and the Five A's
- Adaptability
- Mental Flexibility
- Convergent and Divergent Thinking

Presentations:

A Review of Creative Theories

Assessing Creativity

Enhancing People's Creativity

Day 7 (Wed 1/15/25): How is Creativity Measured?

- Measuring the Creative Process
- The Torrance Test Insight Tests
- Examples of creative process assessments
- Measuring Creative Products
- How do we know if a product is creative?
- The Consensual Assessment Technique
- Examples of creative products

Presentations:

The Genetic Basis of Creativity

The Neuroscience of Creativity

Creative Cognition

Creativity and Cognitive Control

Day 8 (Thu 1/16/25): The Creative Person

- The study of eminently creative individuals
- Everyday creativity
- The Historiometric approach to identifying creativity
- Trait-based theories of creativity

Presentations:

In the Mood for Creativity

Emotions and Creativity

Creativity and Mental Illness

Creativity and Healing

Day 9 (Fri 1/17/25): The Creative Environment

- Factors associated with organizations that foster creativity
- The context of creativity
- Creativity in the Classroom

Presentations:

Cultural Perspectives on Creativity

Eastern-Western Views of Creativity

The Creative City

Creativity's Role in Schools

Improving Creativity in Organizational Settings

Day 10 (Mon 1/21/25) : Group Differences and Genetic Correlates of Creativity

- Genius, Madness, and Creativity
- Gender differences in creativity
- Ethnic/racial/cross-cultural differences in Creativity
- Genetic studies of creativity
- Neurological correlates of creativity

Presentations:

Individual and Group Creativity

Play and Creativity

Creativity and Malevolence

Creative Genius

Personality and Creativity

Final Project:

Take home project due via Moodle by Tuesday 1/21/25 at 5pm