

# Mind and Memory: Explorations of Creativity in the Arts and Sciences

Creativity is the attribute of the mind that enables us to make new combinations from often-familiar information, to perceive analogies and other linkages in seemingly unlike elements, to seek for syntheses. As is true of all learning, creativity is dependent upon memory—a memory that is genetic and social as well as personal and experiential. This course will explore the nature of creativity in science and art, indicating the differing requirements for discovery in the disparate disciplines while demonstrating the commonality that underlies the creative process and binds (say) physicist or mathematician to poet, composer, visual artist

The opening sessions will be concerned with the crucial role of memory in learning, discovery, and spiritual insight for all humans, and will make reference to recent scientific research into the complex nature of the human brain, including its intimate connections with the rest of the body.<sup>1</sup> Following this introduction, the course will rely on weekly guests from as many disciplines in the arts and sciences as possible, faculty members who will discuss (for interested undergraduates, whatever field they may be preparing to enter) the process underlying their research, or their work as creative or performing artists. The guests will be asked to speak of their goals, the problems they have faced, and what they have learned from their disappointments as well as their achievements.

Members of the course are encouraged to enroll in another course or to be engaged in an activity (research or artistic production or performance) in which the insights gained in this class can be applied or tested. To further abet the active participation so necessary to learning, students will be asked to keep a journal, one that summarizes their understanding of, and response to, each presentation by a guest lecturer—a journal that will serve as a continuing record of their experiences as members of the course, and that will become the basic resource for an essay, to be submitted at the semester's end, that will give their carefully considered assessment of the applicability of what they have learned in this course to that second course or activity, to their own mental processes, and to the future they propose for themselves.

**Course Description:** English 301, “Mind and Memory: Explorations of Creativity in the Arts and Sciences,” Spring 1996, M-W 2:55-4:10 p.m.

Creativity is the attribute of the mind that enables us to make new combinations from often-familiar information, to perceive analogies and other linkages in seemingly unlike elements, to seek for syntheses. As is true of all learning, creativity is dependent upon memory—a memory that is genetic and collective as well as personal and experiential. This course will explore the nature of creativity in science and art, indicating the differing requirements for discovery in the disparate disciplines while demonstrating the commonality that underlies the creative process and binds (say) physicist or mathematician to poet, composer, visual artist.

The course will rely on weekly guests from the various disciplines in the arts and sciences, faculty members and others who will discuss the process underlying their research, or their work as creative or performing artists. The guests will be asked to speak of their goals, the problems they have faced, and what they have learned from their disappointments as well as their achievements. Since the underlying subject—as well as the accomplishments in diverse fields made by the guests—should be of considerable community interest, their presentations will be offered as a series on consecutive Mondays that will be open to the public, in Hollis Cornell auditorium, Goldwin Smith Hall.

<sup>1</sup> In its implications as well as the actual knowledge it has provided, such research has been unusually rewarding. It has already rescued mind (human consciousness, the chief element of which is memory) from the dilemmas of philosophical dualism—that split between mind and body, between soul and matter, that has existed in, and haunted, Western thought ever since Descartes. While putting the mind back into nature, this research indicates that it cannot be reduced to the present laws of physics: unlike physics, which concerns itself with inanimate matter, the mind (in its historical development, and at each and every moment for the living individual) is a biological process, a process that demonstrates an intentionality not found elsewhere in nature. The old deterministic assumptions, with the ensuing debate over the primacy either of nature or nurture in forming the individual, have been qualified; within limits, we possess the will to determine the future. And, as biological process or quality, the mind apparently requires emotion in order to reason effectively—to make discoveries, to be creative in the arts and sciences alike.

The schedule of presentations follows:

**Monday, 2:55-4:10 p.m. (Spring 1996)**

Jan 29: **Thomas Eisner** (chemical ecologist)

Feb 5: **Timothy DeVoogd** (research psychologist)

Feb 12: **Victor Kord** (artist)

Feb 19: **Roald Hoffmann** (chemist and poet)

Feb 26: **Byron Suber** (dancer and choreographer)

Mar 4: **Francis Moon** (mechanical and aerospace engineer and sculptor)

Mar 11: **Vinay Ambegaokar** (physicist)

Spring break, Mar 16-24

Mar 25: **A.R. Ammons** (poet) and **James McConkey** (writer)

Apr 1: **Persis Drell** (physicist)

Apr 8: **Kenneth McClane** (poet and essayist)

Apr 15: **Paul West** (novelist)

Apr 22: **Steven Stucky** (composer)

Apr 29: **Diane Ackerman** (poet and naturalist)

Students enrolled in the course will sit in rows reserved for them at the front of the auditorium, to enable them most readily to participate in a question and answer period at the end of each presentation. They will also meet in a discussion session each Wednesday at the same hour, in Uris Hall 202. The opening discussion sessions will be concerned with the crucial role of memory in learning, discovery, and spiritual insight for all humans, and will make reference to recent scientific research into the complex nature of the human brain, including its intimate relationships with the rest of the body; the text to accompany this introductory material will be an anthology, *The Anatomy of Memory*. But these as well as later Wednesday discussion sessions will also be concerned with the substance of the Monday lecture or demonstration, and on occasion the Monday guest will be present.

Members of the course should be enrolled in another course or be engaged in an activity (research or artistic production or performance) in which the insights gained in this class can be applied or tested. To further abet the active participation so necessary to learning, students will be asked to keep a journal, one that summarizes their understanding of, and response to, the lectures and readings—a journal that will serve as a continuing record of their experiences as members of the course, and that will become the basic resource for an essay, to be submitted at the semester's end, that will give their carefully considered assessment of the applicability of what they have learned in this course to that second course or activity, to their own mental processes, and to the future they propose for themselves.

—James McConkey