

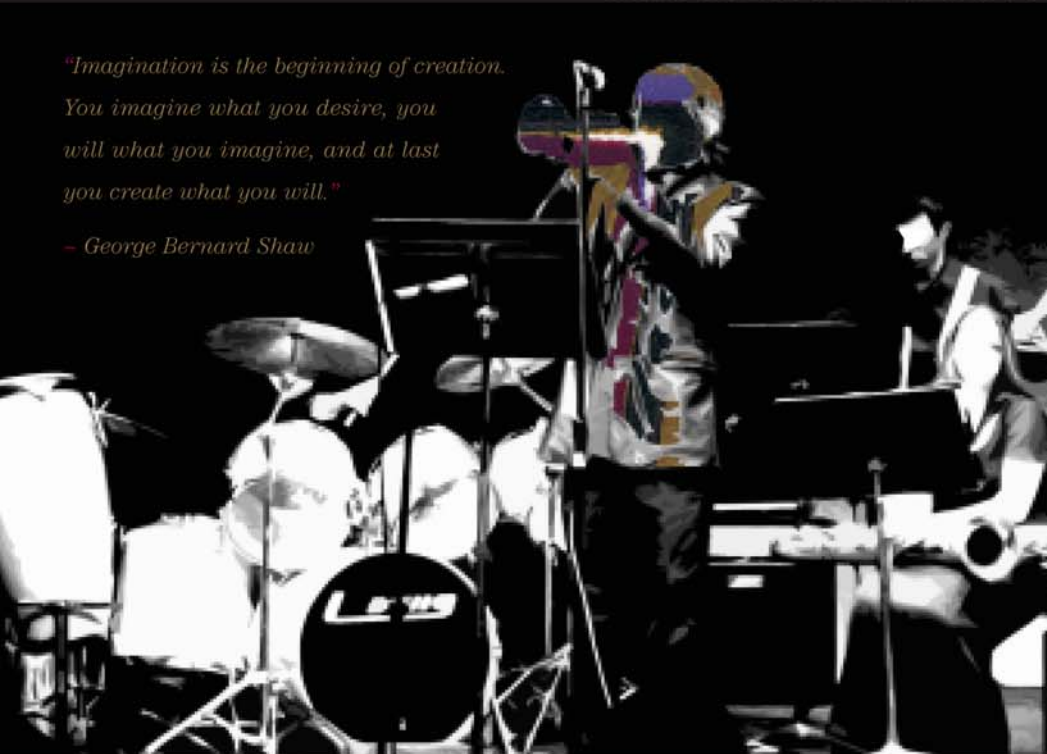


POSITIVE neuroscience

Mind Research Network to

"Imagination is the beginning of creation. You imagine what you desire, you will what you imagine, and at last you create what you will."

— George Bernard Shaw



Imagine cultivating your ability to imagine; creating new venues for creativity. Where might humankind be without creativity and its fickle siblings, intelligence and personality? On the Internet? On the moon?

Some seem touched with creativity, while others are predisposed to a more rote form of existence. Rex Jung, PhD, a research scientist at the Mind Research Network, recently was awarded a three-year, \$600,000 grant from the John Templeton Foundation to investigate why.

UNMed



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Investigate Creativity

by Luke Frank

imagine

Positive Neuroscience

Dr. Jung's imminent creativity research is part of the Positive Neuroscience Initiative at the Mind Research Network on UNM's North Campus, created to address issues of mental health and individual differences in human behavior that provide positive benefits to society. According to Dr. Jung, positive neuroscience is the study of what the brain does well under the combined auspices of intelligence, creativity and personality.

He has spent the past 10 years studying human intelligence; the last several at the Mind Research Network, one of the most sophisticated neuroimaging facilities in the world. Dr. Jung's imaging work with fMRI, MEG, and other technologies has revealed important differences in male and female cognitive processing that ultimately could affect mental health diagnoses and treatments, and prevention of brain injuries and diseases.

Recently, Dr. Jung and colleague Richard J. Haier, PhD, with the University of California at Irvine introduced the P-FIT theory on overall human intelligence, which identifies a very discreet network of gray and white matter in the human brain that houses intelligence. These two researchers believe that the P-FIT theory will

become the model on which future human intelligence research will be based. "This is the first testable, physical model of where in the human brain intelligence resides, and what neural factors might result in improved cognitive performance," said Dr. Jung. "Intelligence is not located in one place in the brain,

to discover how creativity is manifested in the brain of each individual. There are numerous and significant societal benefits to understanding and nurturing creativity." Creativity is the quality of human existence that allows one to transcend the constraints of the nature/nurture dichotomy,

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nor is it everywhere in the brain. It spans a very discreet but identifiable network."

Creative Research

As a natural adjunct to Dr. Jung's widely respected, groundbreaking work using advanced neuro-imaging to study human intelligence, he will investigate the origins and processes behind human creativity.

"There has been no systematic study of the neurological correlates associated with the creative process," Dr. Jung asserted. "Numerous case studies exist, but we are attempting

to modify the environment to one's needs, to make something new and useful. It is from this platform that Dr. Jung will submerge into the murky waters of human creativity.

There are distinct areas that Dr. Jung will examine in his research:

- How and where is creativity manifested in the brain?
- Are we all creative or only a special few?
- How can individual creative capacity be encouraged and developed?
- Are creativity and intelligence linked in any meaningful way?

Dr. Jung is tapping three distinct groups of people for his research: visual artists, musicians, and scientists. "We want to investigate groups of people who use their brains in a creative, more divergent way," Dr. Jung said. "We'll use both structural and functional imaging to compare brain traits like size, tissue volume and composition, chemistry, and connectivity."

Dr. Jung's work is directly in line with the John Templeton Foundation's mission: to serve as a philanthropic catalyst for discovery in areas engaging life's biggest questions. These questions range from explorations into the laws of nature and the universe to questions on the nature of love, gratitude, forgiveness, and creativity.

"Creativity is a critically important human undertaking, involving playfulness with ideas, potential risk of failure or rejection, and ultimately confidence in the underlying value of an idea to change others' lives in a positive way," Dr. Jung said. "Humans find meaning in life when allowed to cultivate and express their individuality through creative outlets."

For more information on the Mind Research Network or Dr. Jung's positive neuroscience research, please visit www.themindinstitute.org.