Discovery consists of looking at the same thing as everyone else and thinking something different.

Albert Szent-Gyorgyi 1893-1996
Physician, Nobel prize winner
Director of Muscle Research, Woods Hole

Cell respiration, biological combustion, muscle contraction
team signup
5 PM Saturday
http://web.mit.edu/2.009
looking
at the same thing as everyone else
and thinking something different
less creative answer? more creative?
more creative?
nothing is more dangerous than an idea when it is the only one we have

Emile Chartier
French Philosopher, metaphysics
1868-1951

Metaphysics?
Writings of Aristotle on physics, as arranged by Andronicus of Rhodes three centuries after Aristotle's death.

Branch of philosophy that attempts to understand the fundamental nature of reality.
Why so few?
creativity strategy 1
look for the next right answer

why care?
best way to have **a good idea** is to **have lots of ideas**

Linus Pauling
Chemist, Nobel prize winner, Nobel peace prize
1901-1994

The nature of chemical bonds
Geoff Tsai, PhD
Professor Maria Yang

number of ideas

0  2  4  6  8  10  12  14
Creativity Rank

$R^2 = 0.6896$

$y = -26.46 \ln(x) + 60.51$
creativity

Using only one stroke, turn the Roman numeral seven, shown below, into an eight.

VIII
creativity

Using only one stroke, turn the Roman numeral 9, shown below, into a 6.

SIX

Context (viewpoint) shift from Roman numerals to Latin characters and English
creativity

Using only one stroke, turn the Roman numeral nine, shown below, into a six.

Context (viewpoint) shift from Roman numerals to Arabic numerals and mathematics
creativity strategy 2

look from multiple viewpoints
ways to mitigate climate change?
mental locks

that’s not a good idea
that’s not new
what are the constraints?
it’s not my expertise
don’t be silly
don’t be wrong
that's not a good idea
that's not new
what are the constraints?
it's not my expertise
don't be silly
don't be wrong
mental locks
creativity strategy 3

defer judgement!
ways to improve MIT
creativity

arrange 4 blocks
so that each block touches only one other block
creativity

arrange 4 blocks
so that each block touches only one other block
creativity strategy 4

challenge assumptions!
creativity strategy 4

challenge assumptions!

Clouseau: Does your dog bite?
Hotel Clerk: No.
Clouseau: [bowing down to pet the dog] Nice doggie.
[dog bites Clouseau's hand]
Clouseau: I thought you said your dog did not bite!
Hotel Clerk: That is not my dog.

The Pink Panther Strikes Again (1976)
creativity strategy 4

challenge assumptions!

how to place a sheet of paper so that when two people stand on it, it is not possible to touch.

*cutting or tearing the paper is not allowed*
*tying up the people is not allowed*

i locked door  ii infinite paper  iii people that can’t move
creativity strategy 1
look for the next right answer

creativity strategy 2
look from multiple viewpoints

creativity strategy 3
defer judgement!

creativity strategy 4
challenge assumptions!
we are part of a successful Product development firm!
Product development

innovation strategy

Our organization, 2.009, challenges a select group of teams!

Propose and develop new products, inspired by a theme.
Product development
innovation strategy

Our organization, 2.009, challenges a select group of teams!
Propose and develop new products, inspired by a theme.
our team mission

explore opportunities
develop a new product

HELLO!
our team mission

explore opportunities

develop a new product

$7500
our team mission

explore opportunities
develop a new product concept

DEC 6th
sketching
5 PM today
1-390

team signup
5 PM Saturday

http://web.mit.edu/2.009
ideation deliverable