

Brain Fitness

Improve Your Brain Health and Performance

Presented by
Claire Herring



FORUM2013

My tendency is to think like this...



My goal is to communicate like this.



The chief function of the body is to carry the brain around.

Thomas A. Edison



We live and work in a knowledge economy.

We pay people *to think* for a living.



creative

We live and work in a ~~knowledge~~
economy.

create

We pay people *to* ~~think~~ for a living.

Creativity is the number one leadership competency needed for the future.

*-2010 Global CEO Study
conducted by IBM*



*71% of employees are disengaged
in their work today.*

Gallup, 2011

Disengagement costs **35% of total
payroll.**

The typical employee makes
hundreds of decisions each day.

How's that going?



Discretionary Effort

Who is going above and beyond?



Is this how YOUR
brain works?





We are *born*
problem solvers.



brain capacity



(600 cc)

(850 cc)

(1150 cc)

(1400 cc)



3.5 million

3 million

2 million

present



years ago

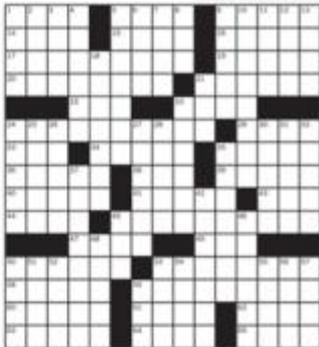
Crossword

Edited by Will Shortz

PUZZLE BY ELEANORA C. GORING

ACROSS

- 1 Coach Evbank who led the Jets to a Super Bowl championship
- 5 Slummy mountain climber?
- 9 English derby site
- 14 Pac-12 loose
- 15 Circular dance
- 21 Inequian people
- 17 Place for a sweater?
- 18 Composer Shostakovich and others
- 25 A Mexican might sleep under it
- 26 Totally wrong
- 33 "Pier Glynis" mother
- 33 La ____ Tar Pits
- 34 Sheets for scribbling
- 35 30- or 60-second spell
- 37 Three, in Rome
- 38 Midwest moguls
- 39 Not just milked
- 40 Puccini's husband
- 41 Hogwash
- 42 When a right turn may be allowed
- 43 "Has hee my word on it?"
- 44 Gator



© 1991 The NY Times

DOWN

- 2 Certain fraternity man, informally
- 4 Another sig.
- 6 Ice cream holder
- 7 "... or so ... say"
- 8 "A New World Record" grp.
- 10 Put down
- 11 Beau
- 12 Full bodied
- 13 Fairway clubs ... or a hint to the starts of
- 16 Composer Shostakovich and others
- 17, 24- and 45-Across and 30- and 37-Down
- 19 "The Surrender of ..." (Diego Velazquez painting)
- 20 Whitaker's Oscar-winning role
- 22 "Zip-____-Doo-Doo"
- 23 Poe's middle name
- 24 Midwest moguls
- 25 Root beer brand
- 26 King with the oriental law
- 27 "Who is it that can tell me who I am?"
- 28 "Rotaviridae"
- 29 Playground rings
- 30 Possible cause of school cancellation
- 31 Storybook character
- 32 Superlative adverb
- 36 Enema of "The Avengers"
- 37 Music sheet abbr.
- 38 Annual city-magazine theme
- 39 "Peanuts" for one
- 40 "Gladiator" star
- 41 Like a candle right after night, say
- 42 Breathing space
- 43 90 is a pretty high one
- 44 Left-hand page
- 45 Used the dining room
- 46 "Guzemaka" swallowing in the setting, informally
- 47 Succotash bean
- 48 "Acronies" poet
- 49 Passage
- 50 Fit for service
- 51 River of Flanders
- 52 Goldfish

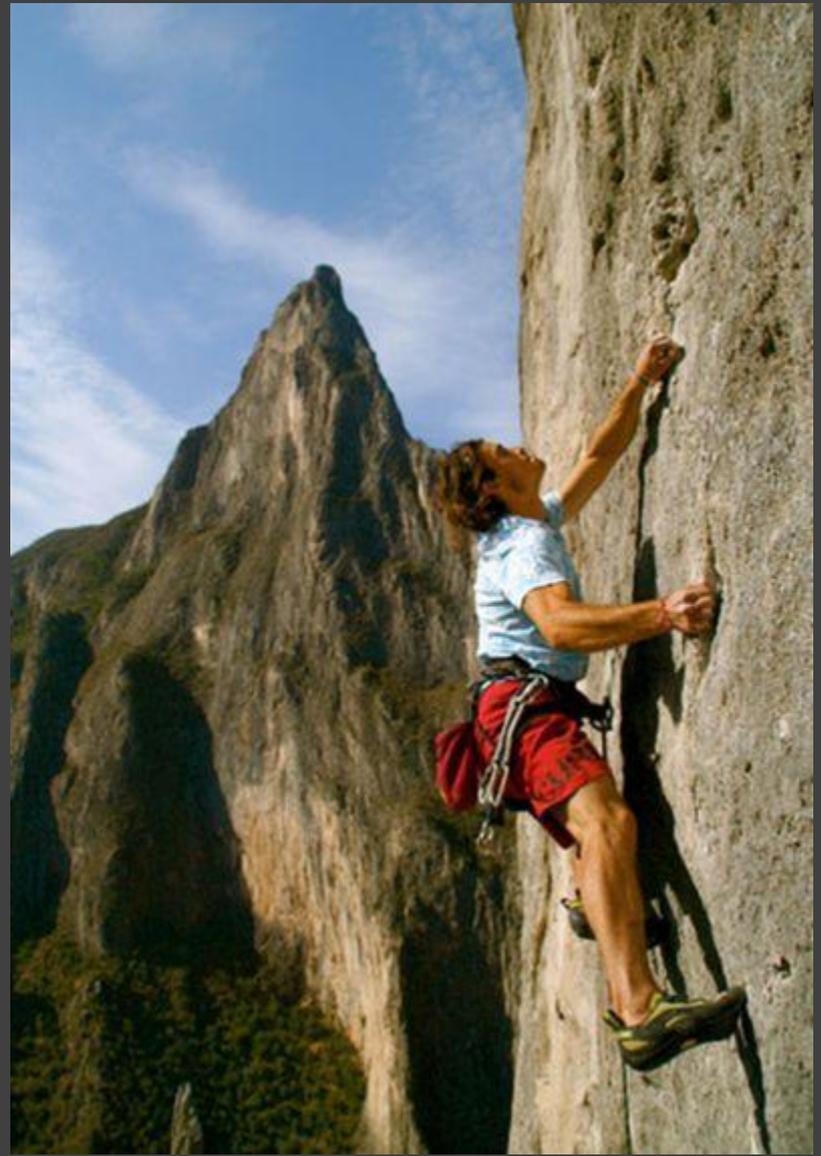
ANSWER TO PREVIOUS PUZZLE



For answers, call 1-900-289-CLUE (289-2362), \$1.49 a minute, or, with a credit card, 1-800-824-5590.
 Online subscriptions: Today's puzzle and more than 5,000 past puzzles, nytimes.com/crosswords (\$36.95 a year).
 Annual subscriptions are available for the best of Sunday crosswords from the last 50 years: 1-888-7-ACROSS.
 Read about and comment on each puzzle: nytimes.com/wordplay.
 Crosswords for young solvers: nytimes.com/learning/wordplay.

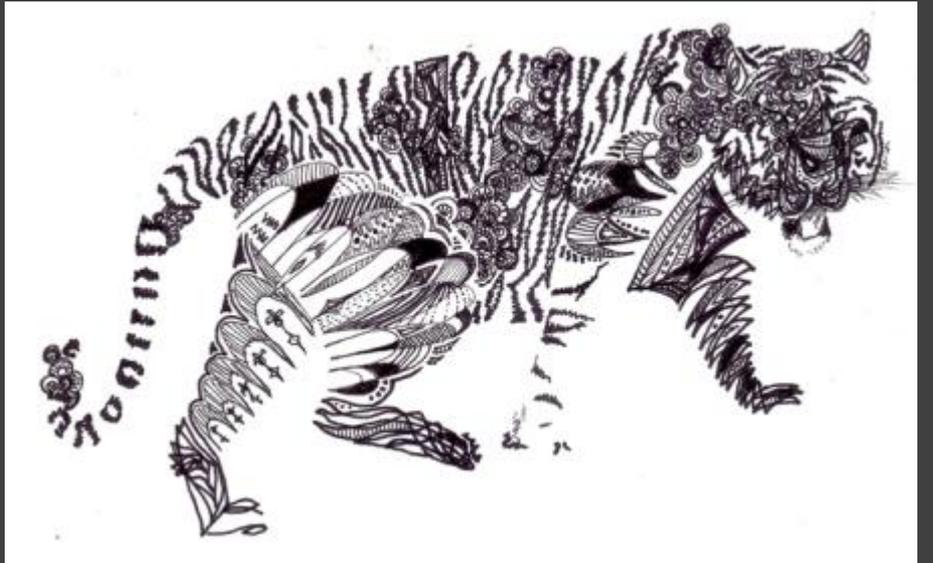
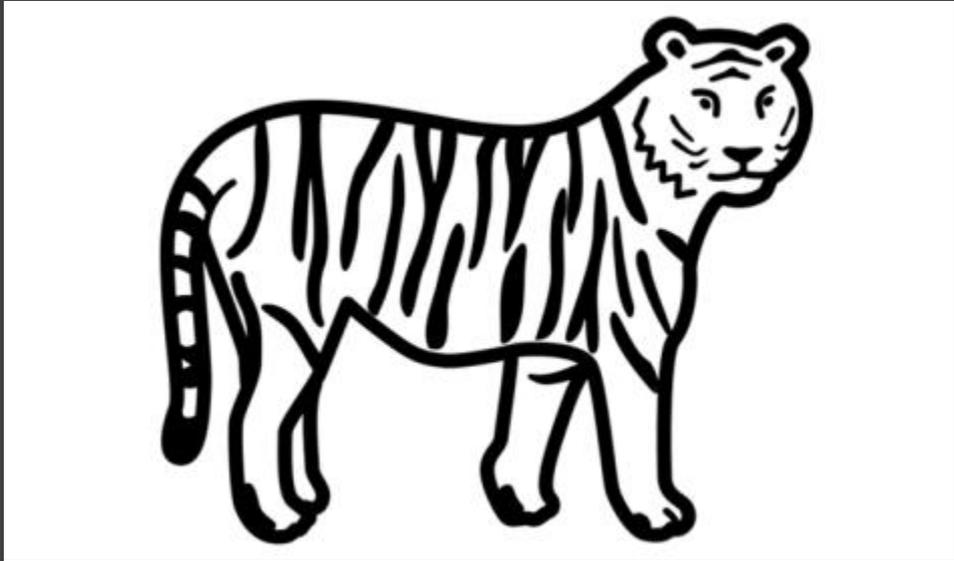


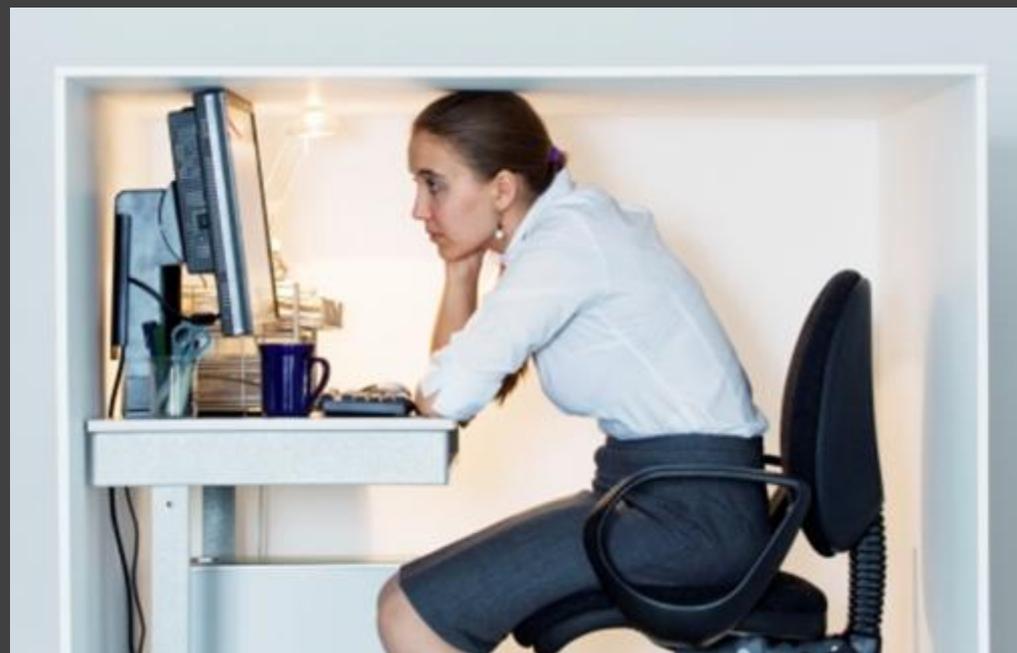
$B \lim_{x \rightarrow 1} \frac{ctgx - 2}{211x3} Q''$ $\int (x \pm a)^c$ $\leftarrow 2,79$ $A - C =$
 $+y^2 = Z$ $\sum_{n=0}^{+\infty} \frac{x^n}{n!}$ $\phi = \sqrt{\frac{\sum (x-m)^2}{n}}$ $S = \int_{t=2}^{10} f(t) dt$ $\frac{C}{x}$
 $e = \cos x + tgy$ $\sin x$ $j = \frac{\Delta x}{\Delta z}$
 $P = r^2 \pi$ $h(x) = \frac{a+\sqrt{x}}{x} + c$ $\frac{\Delta x}{\Delta y} = \lim_{\Delta y \rightarrow 0} \frac{\Delta x + 2}{\Delta y - 1}$ $\sin x$
 $\Delta t = T - \frac{3a}{x}$ $8x = 4 - 3y^2$ $(x+a)^2 = x^2 + 2ax + a^2$ $f(x)$
 $(x-y)$ $y = 2x^2 + 3x$ $(x+y)^2 = \left(\frac{y}{2}\right)^2$ $X_{1/2} = \frac{b \pm (a-c)}{\sqrt{2a}}$
 $\int \frac{\sqrt{x+a}}{x}$ $\sum_{i=0}^{\infty} x_i$ $\pi \approx 3,1415$ $\tan(2a) = \frac{2\tan(a)}{1-\tan^2(a)}$
 $P = \sum_{i=0}^{\infty} x_i$ $h = \sqrt{ax}$ $S_s = \begin{bmatrix} 1 & 0 & 0 \\ 1 & 0 & 1 \\ 0 & 0 & 1 \end{bmatrix}$ $\sin a = b$ $x^2 + b^2 = c^2$
 $= (y-1)^2$ $j = \frac{\Delta x}{\Delta z}$ $\sin a = b$ $x^2 + b^2 = c^2$











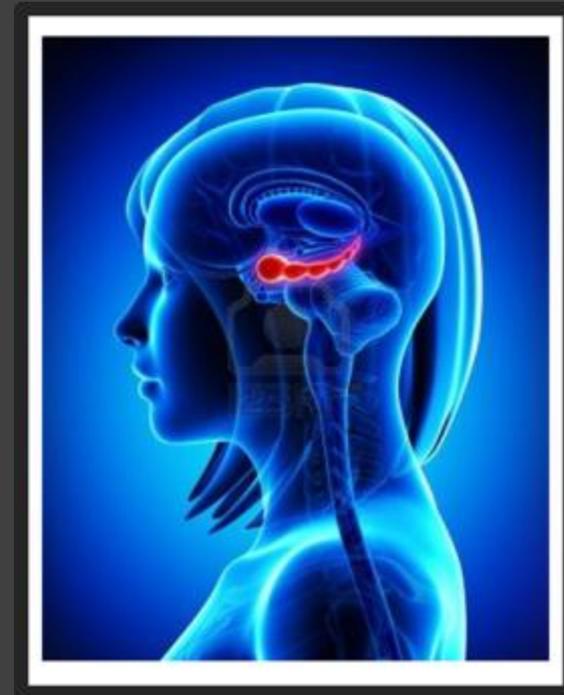
There is a big disconnect between what science knows and what organizations do.

Daniel Pink, 2009



Neuroplasticity – Our brain is capable of significant change.

London cabbies must memorize more than 25,000 routes.



On MRI, experienced cab drivers were found to have larger, more developed hippocampi.

Neuroplasticity

SO WHAT?

Your people will perform better when their brain is challenged.

Look for ways to inject mental challenges into your organizational culture.

Neuroplasticity

Brain Fitness

The capacity to meet the cognitive demands of work and life.



Brain Health



Cognitive
Performance



Critical Thinking
& Creativity

Brain Health

Learning to lead a brain-healthy lifestyle impacts work performance.



- Stress
- Sleep
- Exercise
- Happiness

Brain Benefits of Exercise

1. Reduce Stress
2. Boost Endorphins
3. Increase Self Confidence
4. Reduce Anxiety
6. Prevent Mental Decline
7. Control Addiction



Top 10 Brain Superfoods

1. Fish
2. Strawberries
3. Almonds
4. Pomegranate
5. Curry & Cinnamon
6. Concord Grape Juice
7. Apples
8. Coffee
9. Olive Oil
10. Spinach



Drink More Water

- Elevates mood
- Improves Concentration
- Reduces fatigue and agitation



To Bud or Not To Bud

Music is effective for enhancing productivity in some cases...



Stress costs U.S. organizations
\$200 billion per year.



This is **good stress**.



Stress was never meant to be a chronic condition.

Stress at work.

- *Multi-tasking* elevates stress hormones and reduces productivity by up to 50%.
 - *Low-level noise in open-style offices* seems to result in higher levels of stress, and lower task motivation.

SO WHAT?

- Create options for quiet work spaces.
- Educate staff on the negatives of multi-tasking.
- Consider adding white noise in your space.
- Streamline communications.

Stress at Work

**Sleep deprivation
causes mistakes.**



30% of American workers
are sleep-deprived. -CDC

Sleep at Work

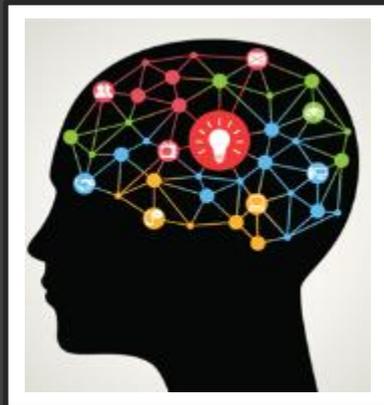
SO WHAT?

- Monitor the culture of 24/7 emails.
- Educate people on the benefits of sleep.
- Consider a short-term privacy room.
- Encourage flexibility.

Sleep at Work

Cognitive Performance

Cross-training your brain helps boost performance in key cognitive areas.



- Concentration
- Problem-Solving
- Verbal Fluency
- Speed
- Flexibility

The average employee is interrupted 6-7 times per hour.

50% of every workday is just a series of interruptions.



Concentration

Who is paying attention?

1



2



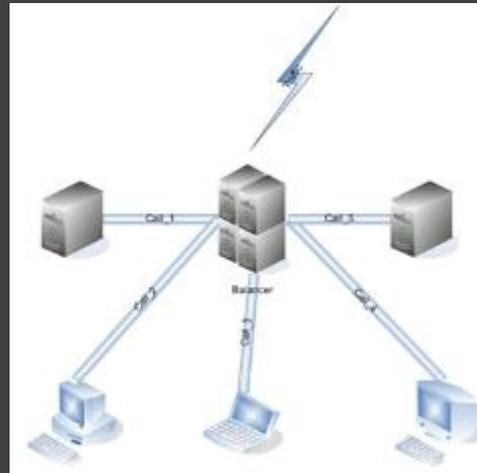
3



Cognitive Load

Managing Cognitive Load

Chewing gum and doodling can actually help people pay attention in meetings.



Is brain training effective in improving your mental performance?



Brain Training

Change is what's good for
your brain.



Brain Training

Short brain exercises can boost mental clarity and productivity and lower stress.



Brain Training

The 5 Minute Brain Break

Arrowroot

What word does this represent?



Submit

Pancakes

Which letter is one to the left, of the letter directly to the left, of the letter one to the right, of the letter "B"?



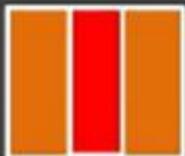
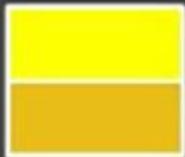
Submit

Blackout

It is night and the electricity has gone out. You have a candle, a gasoline lamp, and a wood-burning stove. You have only a single match, so what do you light first?

Answer: _____

Submit



YELLOW BLUE ORANGE
BLACK RED GREEN
PURPLE YELLOW RED
ORANGE GREEN BLACK
BLUE RED PURPLE
GREEN BLUE ORANGE

Critical Thinking



- Problem Recognition
- Prioritization
- Making Connections
- Developing Ideas
- Seeing the *big picture*

Organizational Potholes

- Fear of making mistakes
- Overly hierarchical
- Limits autonomy



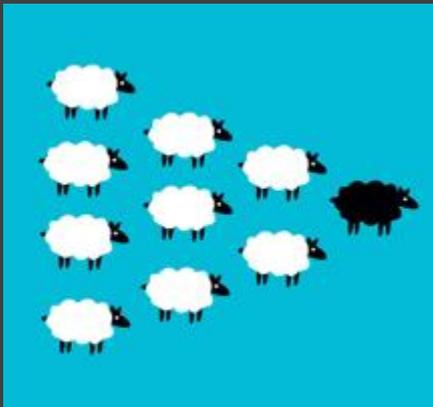
Metacognition



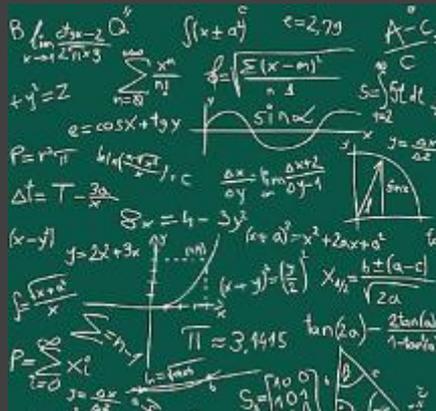
Thinking about how
you think.

Mistakes Our Brains Make

Group Think



The Math Effect



Status Quo Bias



SO WHAT?

- Recognize initiative – including mistakes.
- Design teams with cognitive diversity.
- Provide learning opportunities that train critical thinking skills.

Critical Thinking

The 5 Minute Brain Break

Farce

What word can link these 3 words together?

weight

pipe

pencil

Submit

Estuary

What word can link these 3 words together?

Office

Mail

Hat

Submit

Fortress

What word can link these 3 words together?

Fox

Man

Peep

Submit

The ROI of Happiness



SO WHAT?

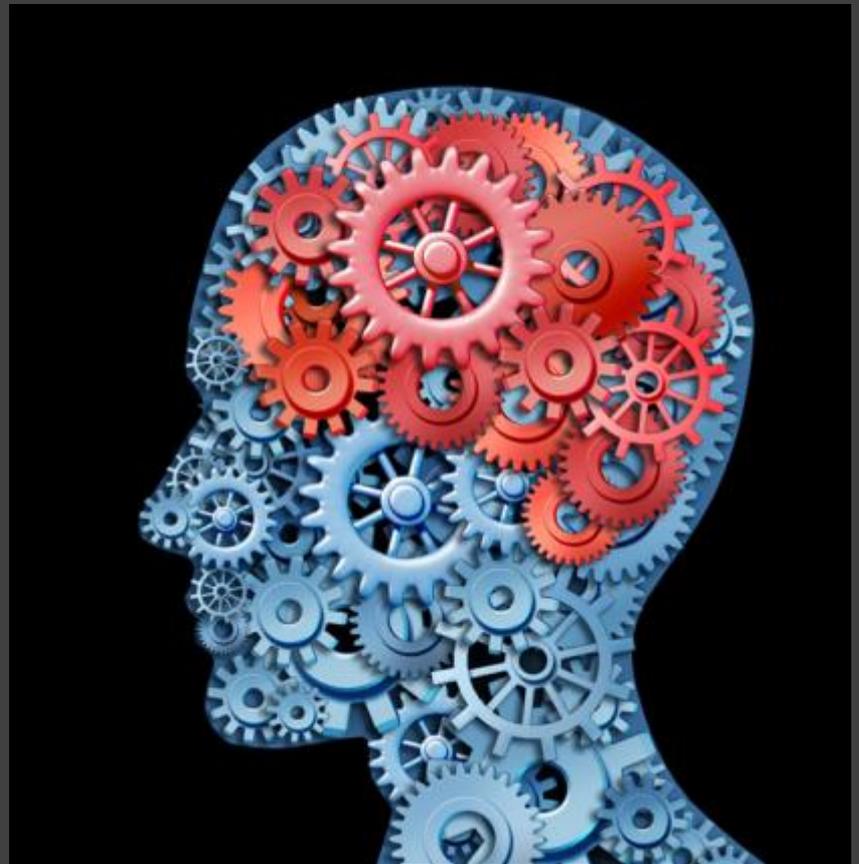
- Offer assignments that play to employee strengths.
- Take time to give people the big-picture view.
- Push people to tackle big challenges.

Happiness

People are **more productive** when they have opportunities to challenge their brain every day.



To perform your best – brain health matters.



Better Thinking. Better Results.

Thank you for today.

Claire G. Herring

Claire.Herring@BlueOceanBrain.com



FORUM2013