



**Julius Uy**

Vice President of Engineering  
Hubble

A large, stylized graphic of a human brain, composed of numerous small triangles in various colors including blue, purple, red, orange, and yellow. The brain is positioned on the right side of the image, with its reflection visible on a dark blue horizontal band at the bottom.

# Scientific Leadership

In the Video Game Industry,  
which of these contributes  
the most revenue?



- A. Game Design
- B. Middle Management
- C. Company brand

Source: Mollick, Ethan R. "People and Process, Suits and Innovators: The Role of Individuals in Firm Performance." *SSRN Electronic Journal*, 2010.

In the Video Game Industry,  
which of these contributes  
the most revenue?



A.Game Design (7%)

**B.Middle Management (22%)**

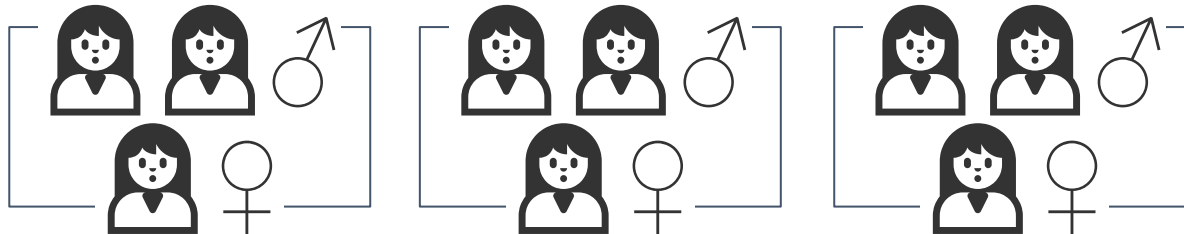
C.Company brand (21%)

Source: Mollick, Ethan R. "People and Process, Suits and Innovators: The Role of Individuals in Firm Performance." *SSRN Electronic Journal*, 2010.

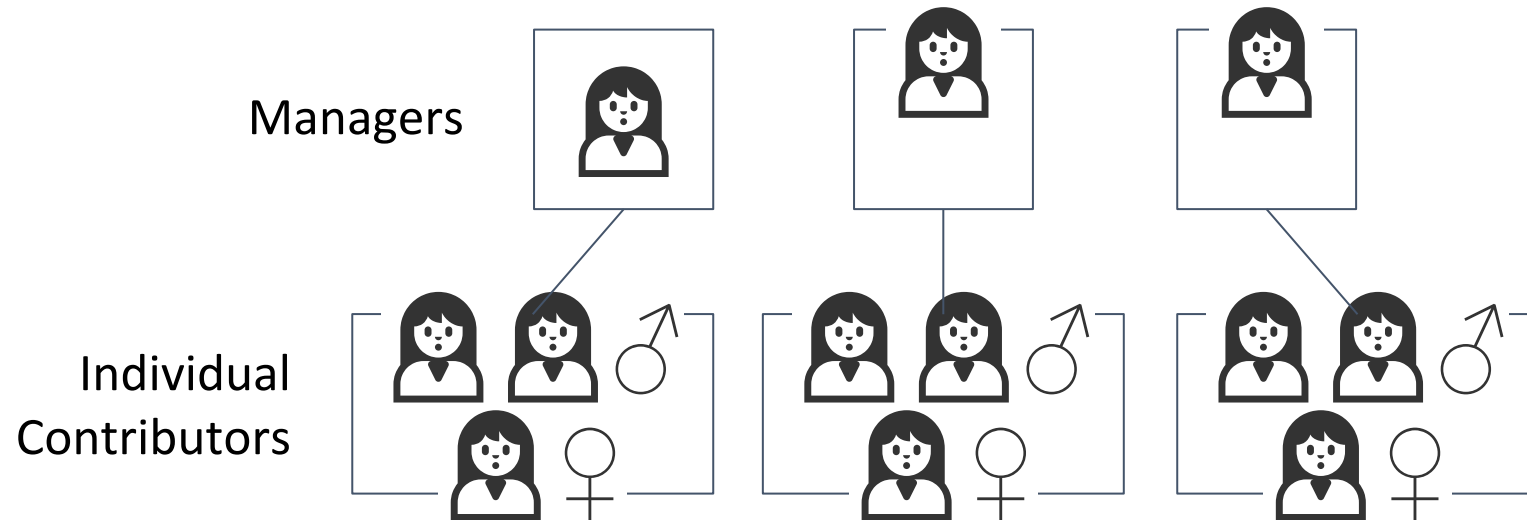


# Everyone Who's Not an Individual Contributor is a Middle Manager!

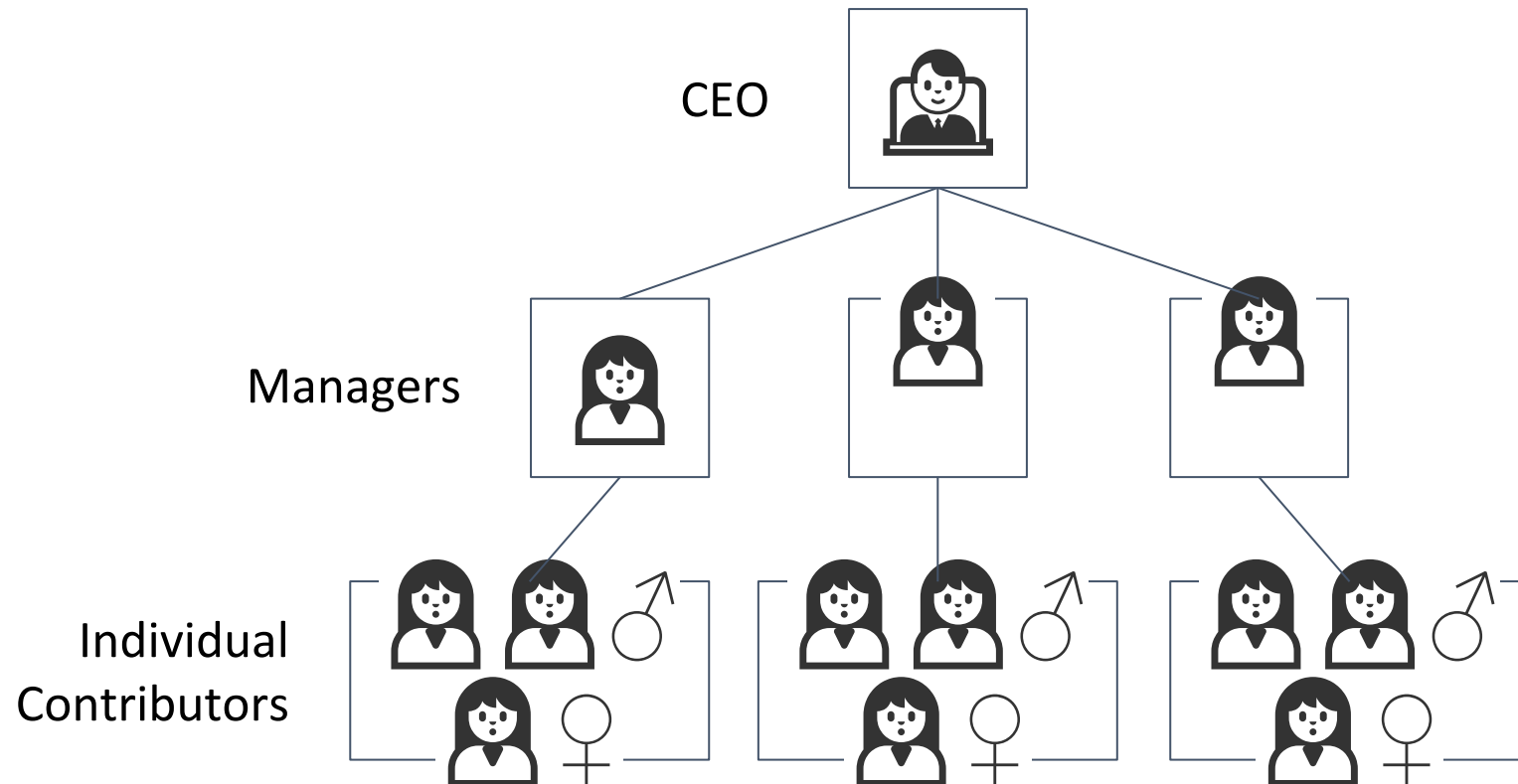
Individual  
Contributors



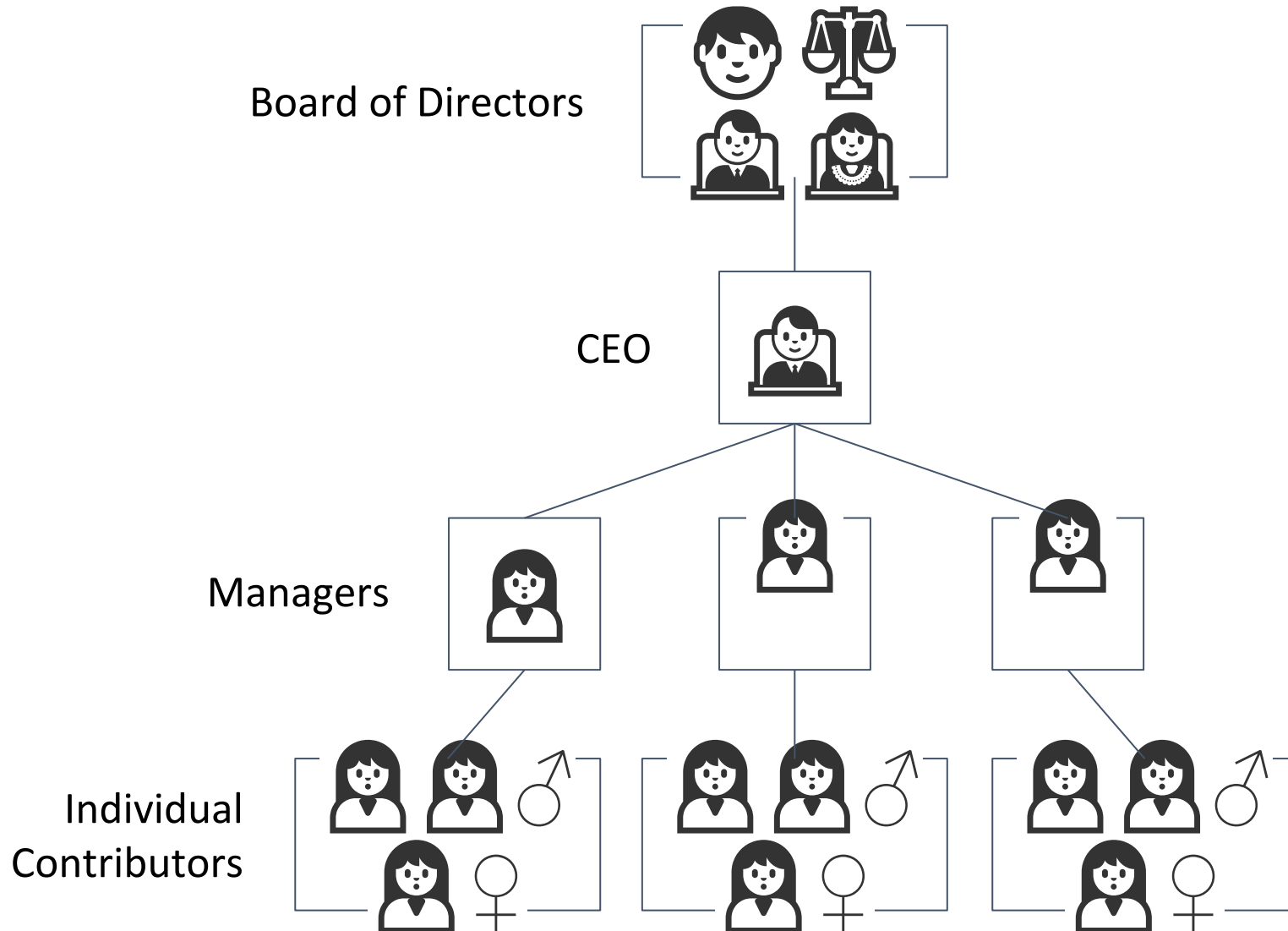
# Everyone Who's Not an Individual Contributor is a Middle Manager!



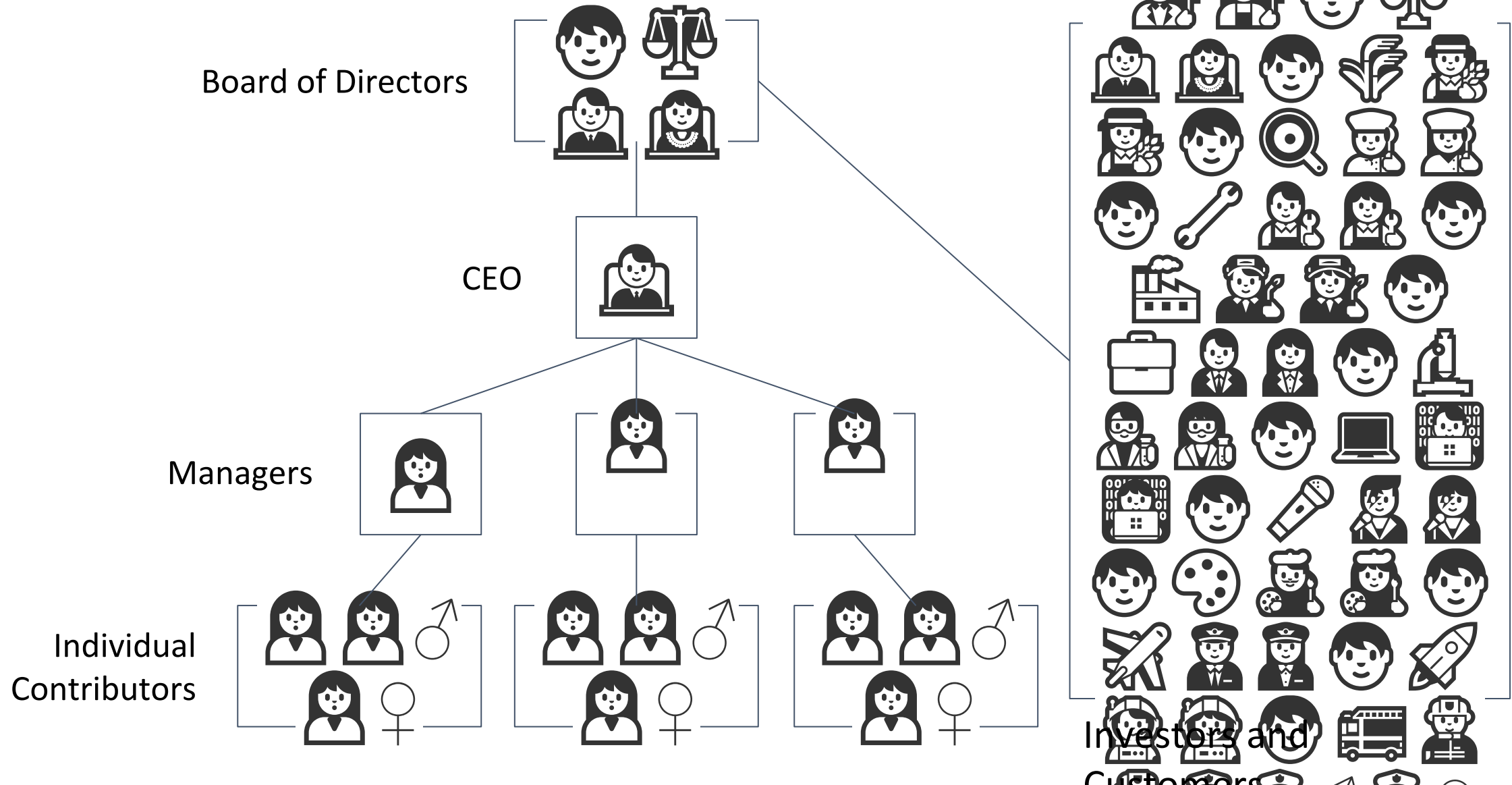
# Everyone Who's Not an Individual Contributor is a Middle Manager!



# Everyone Who's Not an Individual Contributor is a Middle Manager!



# Everyone Who's Not an Individual Contributor is a Stakeholder!





What the research is telling us is that while the **company brand** and the **product** help a company succeeds,

**the main contributor to success is the  
people.**


**ONLY ONE IN 10 PEOPLE HAVE THE HIGH TALENT TO EFFECTIVELY MANAGE OTHERS.  
ANOTHER TWO IN 10 HAVE FUNCTIONING MANAGERIAL TALENT.**



**FEW MANAGERS HAVE THE TALENT TO ACHIEVE  
EXCELLENCE**

*Gallup. State of the American Manager. Analytics and Advice for Leaders. 2015*

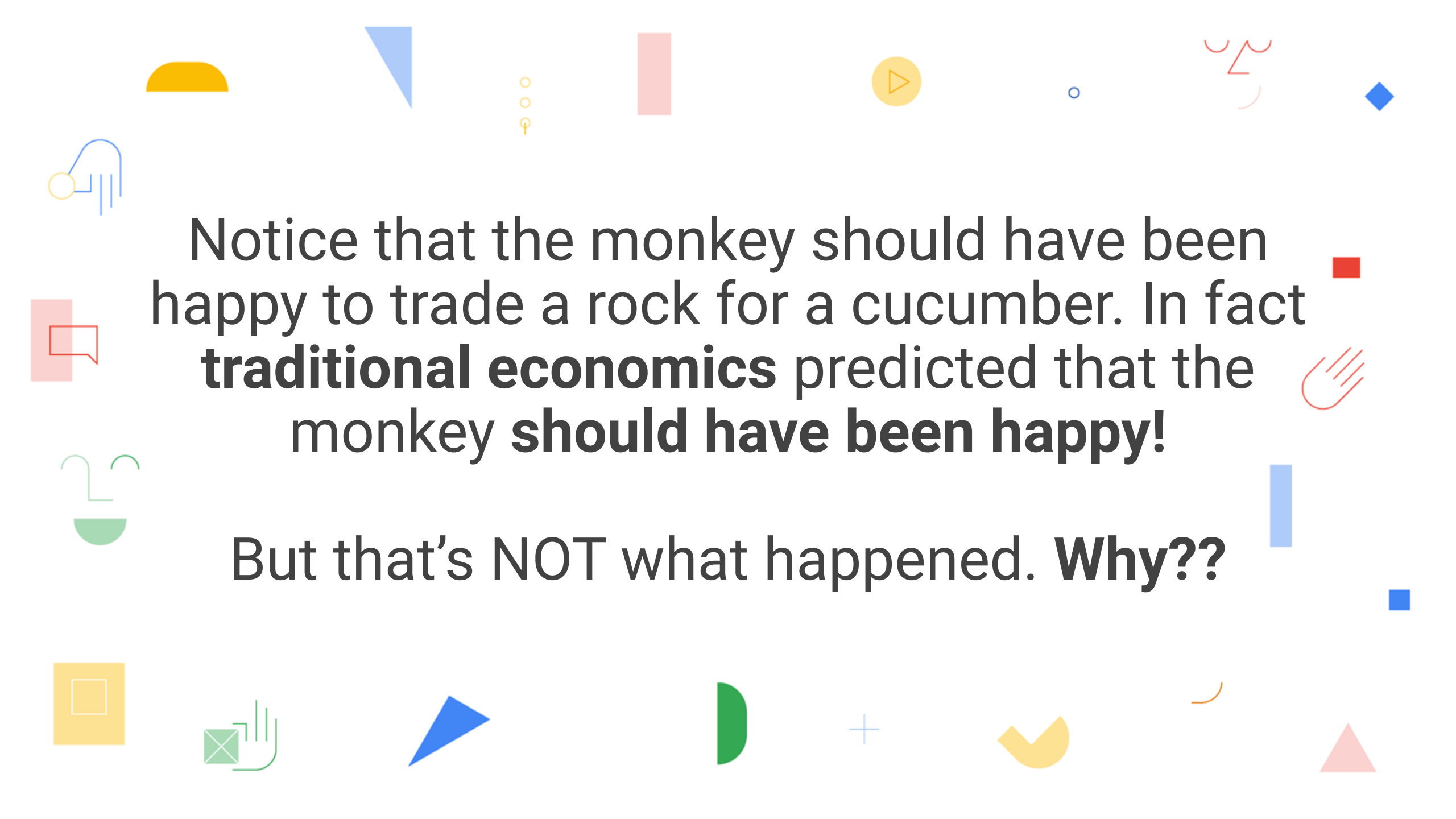
Companies with highly  
engaged employees  
outperform their  
peers by



147%  
per share

Source: [http://www.gallup.com/services/190118/engaged-workplace.aspx?g\\_source=position1&g\\_medium=related&g\\_campaign=tiles](http://www.gallup.com/services/190118/engaged-workplace.aspx?g_source=position1&g_medium=related&g_campaign=tiles)



The slide is decorated with various colorful geometric shapes and icons. At the top, there is a yellow semi-circle, a blue triangle, a pink rectangle, a yellow circle with a play button, a small blue circle, a red squiggle, and a blue diamond. On the left side, there is a blue line drawing of a hand, a pink square with a speech bubble, and a green line drawing of a hand. On the right side, there is a red square, a red line drawing of a hand, a blue vertical rectangle, and a blue square. At the bottom, there is a yellow square with a smaller square inside, a green line drawing of a hand, a blue triangle, a green semi-circle, a blue plus sign, a yellow semi-circle, a small orange arc, and a pink triangle.

Notice that the monkey should have been happy to trade a rock for a cucumber. In fact **traditional economics** predicted that the monkey **should have been happy!**

But that's NOT what happened. **Why??**

That's how our brain is designed to function

That's how our brain is designed to function



THERE IS AN EXPERIMENT CALLED  
"THE ULTIMATUM GAME."

SUBJECT A, YOU GET \$100. YOU MUST  
OFFER SOME SPLIT TO SUBJECT B.  
SUBJECT B CAN ACCEPT OR REJECT.  
IF SHE REJECTS, NOBODY GETS  
ANY MONEY.



LOGICALLY, SUBJECT B SHOULD BE HAPPY WITH ANY OFFER. BUT THAT DOESN'T HAPPEN.

5 BUCKS?! UP YOURS,  
YOU GREEDY !@#\$\$%^&\*!

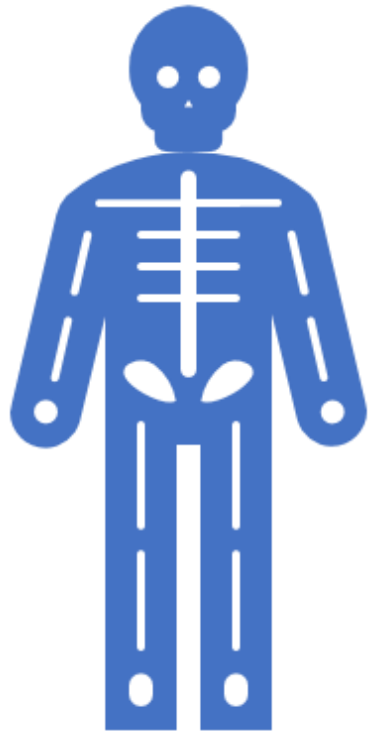




**Prefrontal  
Cortex**

**Amygdala**





**“71% of the errors made in the medical field could have been avoided.**

**This equates to 27% of patient deaths that could have been avoided.”**

Source: Rosenstein, Alan H., and Michelle O’Daniel. “A Survey of the Impact of Disruptive Behaviors and Communication Defects on Patient Safety.” *The Joint Commission Journal on Quality and Patient Safety* 34, no. 8 (2008): 464–71. doi:10.1016/s1553–7250(08)34058–6.

# Impact of toxic work culture on a study of 14,000 employees in US & Canada

Source: Pearson, Christine Porath, Christine. "The Price of Incivility." Harvard Business Review, March 19, 2019.  
<https://hbr.org/2013/01/the-price-of-incivility>.



48% intentionally decreased their work effort.



47% intentionally decreased the time spent at work.



80% lost work time worrying about the incident.



63% lost work time avoiding the offender.



12% said that they left their job.





**Asking for help, admitting errors, and seeking feedback** exemplify the kinds of behaviors that pose a **threat** to face (Brown, 1990), and thus people in organizations are often **reluctant** to disclose their errors (Michael, 1976) or are **unwilling** to ask for help (Lee, 1997), **even when doing so would provide benefits for the team or organization.**

**Psychological Safety and Learning Behavior in Work Teams**

Amy Edmondson, Cornell University



# Build Trust



**Idea conflict** is healthy and is important to get the best decisions but it is highly correlated with **relationship conflict**, which leads to poorer decisions and morale. What to do? **Build trust first**, the study concludes.

Teams that trust each other will still have disagreements, but when they do, they will be accompanied by less emotional rancor.

Source: Simons, Tony L., and Randall S. Peterson. "Task Conflict and Relationship Conflict in Top Management Teams: The Pivotal Role of Intragroup Trust." *Journal of Applied Psychology* 85, no. 1 (February 2000): 102–11. <https://doi.org/10.1037//0021-9010.85.1.102>.

# Harvard Business School Study

“When direct reports are told to do something, they don’t necessarily respond. In fact, the more talented the subordinate, the less likely she is to simply follow orders. A manager’s authority emerges only as the manager establishes credibility with subordinates, peers, and superiors.”

- Linda Hill, Harvard Business School in an article entitled “Becoming the Boss”, Harvard Business Review, January 2007.



# LISTEN!

Sources:

Alvesson, Mats, and Stefan Sveningsson. "Managers Doing Leadership: The Extra-Ordinarization of the Mundane." *Human Relations* 56, no. 12 (December 2003): 1435–59.  
<https://doi.org/10.1177/00187267035612001>.

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Source: Isen, Alice., Kimberly Daubman, and Gary Nowicki. "Positive Affect Facilitates Creative Problem Solving," *Journal of Personality and Social Psychology* 52, no. 6 (June 1987): 1122-31.

# Establish positivity in the workplace

Positivity provides an environment for better creative problem solving.

**Always ask, "How can we make \$SUGGESTED\_IDEA work?"**

A 3D rendering of a human brain, viewed from a slightly elevated, lateral perspective. The brain is colored in a dark, muted purple or brownish-grey. Two specific regions are highlighted with bright white, glowing, and somewhat pixelated or grainy textures. The region on the left is labeled 'Prefrontal Cortex' and is located in the anterior (front) part of the brain. The region on the right is labeled 'Amygdala' and is located deeper within the brain, towards the temporal lobe. The background is a dark, solid color, making the brain and the highlighted areas stand out.

**Prefrontal  
Cortex**

**Amygdala**



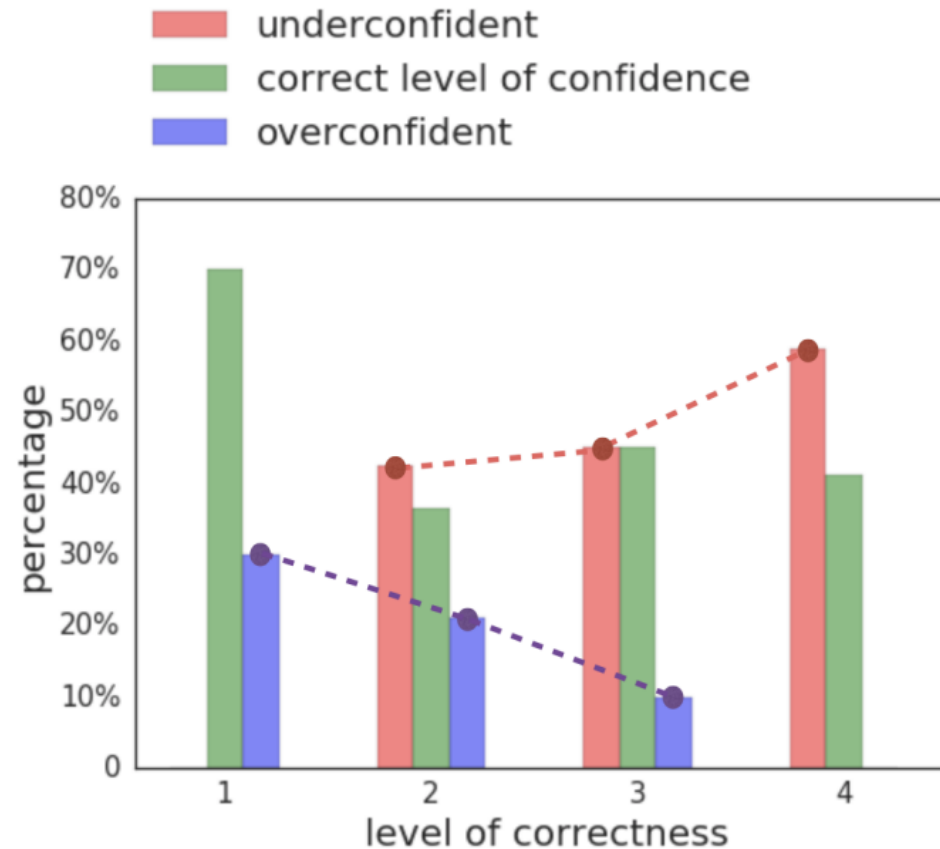
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# Be very cautious of Confidence

Because appearance of confidence makes you FEEL certain in the absence of sufficient supporting data

Certainty Effect is a cognitive bias where **people are more inclined to latch on to feelings of certainty** even when the odds says otherwise.

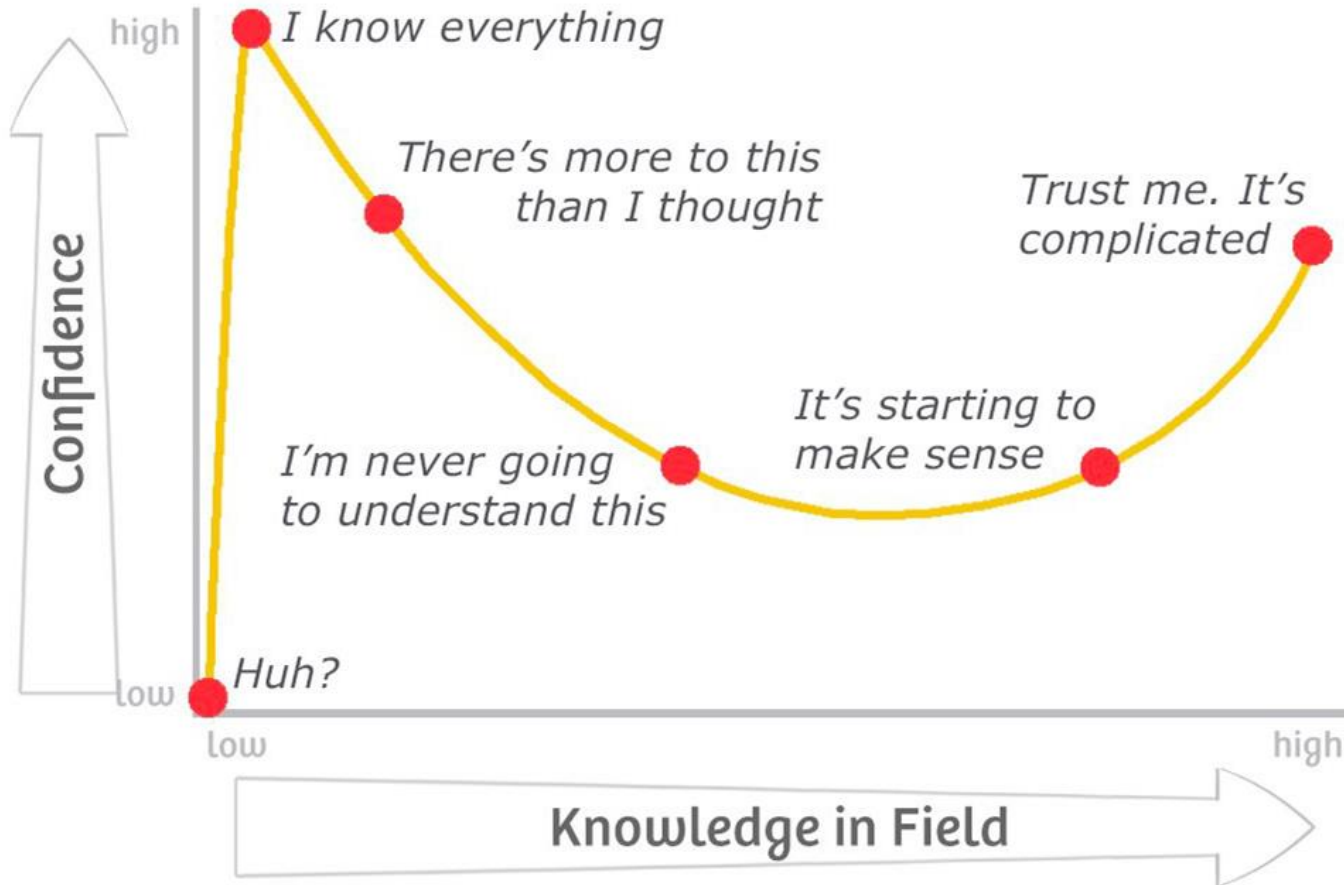
Certainty Effect is a cognitive bias where **people are more inclined to latch on to feelings of certainty** even when the odds says otherwise.



**Figure 1: Misalignment between competence and confidence.**  
**For each correctness level: the fraction of players who are underconfident, at right level of confidence, and overconfident.**  
**More competent individuals are less likely to be overconfident.**

Source: Fu, Liye, Lillian Lee, and Cristian Danescu-Niculescu-Mizil. "When Confidence and Competence Collide." *Proceedings of the 26th International Conference on World Wide Web - WWW 17*, 2017.

<https://doi.org/10.1145/3038912.3052681>. <http://www.cs.cornell.edu/~liye/papers/confidence.pdf>



# Dunning - Kruger Effect

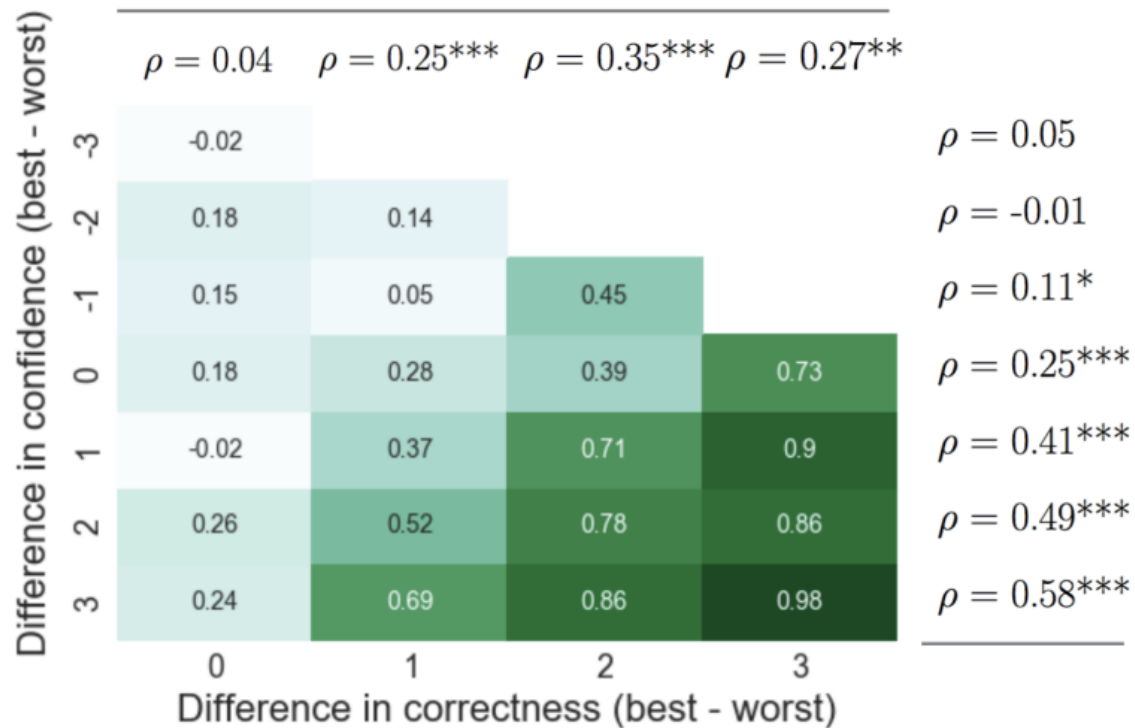
In the field of social psychology, **illusory superiority** is a condition of cognitive bias wherein a person overestimates their own qualities and abilities, in relation to the same qualities and abilities of other people.

Sources:

Kruger, Justin; Dunning, David (1999). "Unskilled and Unaware of It: How Difficulties in Recognizing One's Own Incompetence Lead to Inflated Self-Assessments". *Journal of Personality and Social Psychology*. 77 (6): 1121–1134. CiteSeerX 10.1.1.64.2655. doi:10.1037/0022-3514.77.6.1121. PMID 10626367.

Hoorens, Vera (1993). "Self-enhancement and Superiority Biases in Social Comparison". *European Review of Social Psychology*. 4 (1): 113–139.

doi:10.1080/14792779343000040



**Figure 4: When there is a real distinction between the best and the worst player (difference in correctness > 0), the more confident the best player is relative to the worst player, the greater synergy the team achieves (darker color), controlling for difference in correctness (comparing across columns).**

“When the worst player is overconfident to the point that she is more confident than the best player, we find that **37%** of these teams have negative synergy, compared to only **26%** of the rest of the teams.

This suggests that misalignment in confidence can be harmful to group discussions, preventing groups from reaching their potential in terms of performance.

We find that in task-oriented discussions, the more-confident individuals have a larger impact on the group’s decisions even when these individuals are at the same level of competence as their teammates. Furthermore, this unjustified role of confidence in the decision-making process often leads teams to under-perform.”

Source: Fu, Liye, Lillian Lee, and Cristian Danescu-Niculescu-Mizil. “When Confidence and Competence Collide.” *Proceedings of the 26th International Conference on World Wide Web - WWW 17*, 2017.  
<https://doi.org/10.1145/3038912.3052681>. <http://www.cs.cornell.edu/~liye/papers/confidence.pdf>



**Prefrontal  
Cortex**

**Amygdala**



A large orange speech bubble with a white outline and a white tail pointing towards the bottom left. The text "let the data speak." is written in white inside the bubble.

let the  
data  
speak.

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# Science Behind Human Motivation

# Extrinsic Motivation: Money = Performance



# Duncker's Candle Problem



## **Given:**

You have a candle, a box of thumbtacks, and matches.

## **Problem Statement:**

You need to light the candle with the match and **not** let the candle wax fall to the table.

# Duncker's Candle Problem



# Duncker's Candle Problem

## Group A

To establish how long it takes for a person to finish the puzzle

## Group B

If the participant is the fastest 25%, he receives \$5. If he's the fastest, he gets \$20



# Duncker's Candle Problem

## Group A

To establish how long it takes for a person to finish the puzzle

## Group B

If the participant is the fastest 25%, he receives \$5. If he's the fastest, he gets \$20

Group B took **210 seconds longer** to solve the puzzle!

As long as the task **does not** require creative problem solving, monetary rewards such as carrots on stick work.

# Science Behind Human Motivation

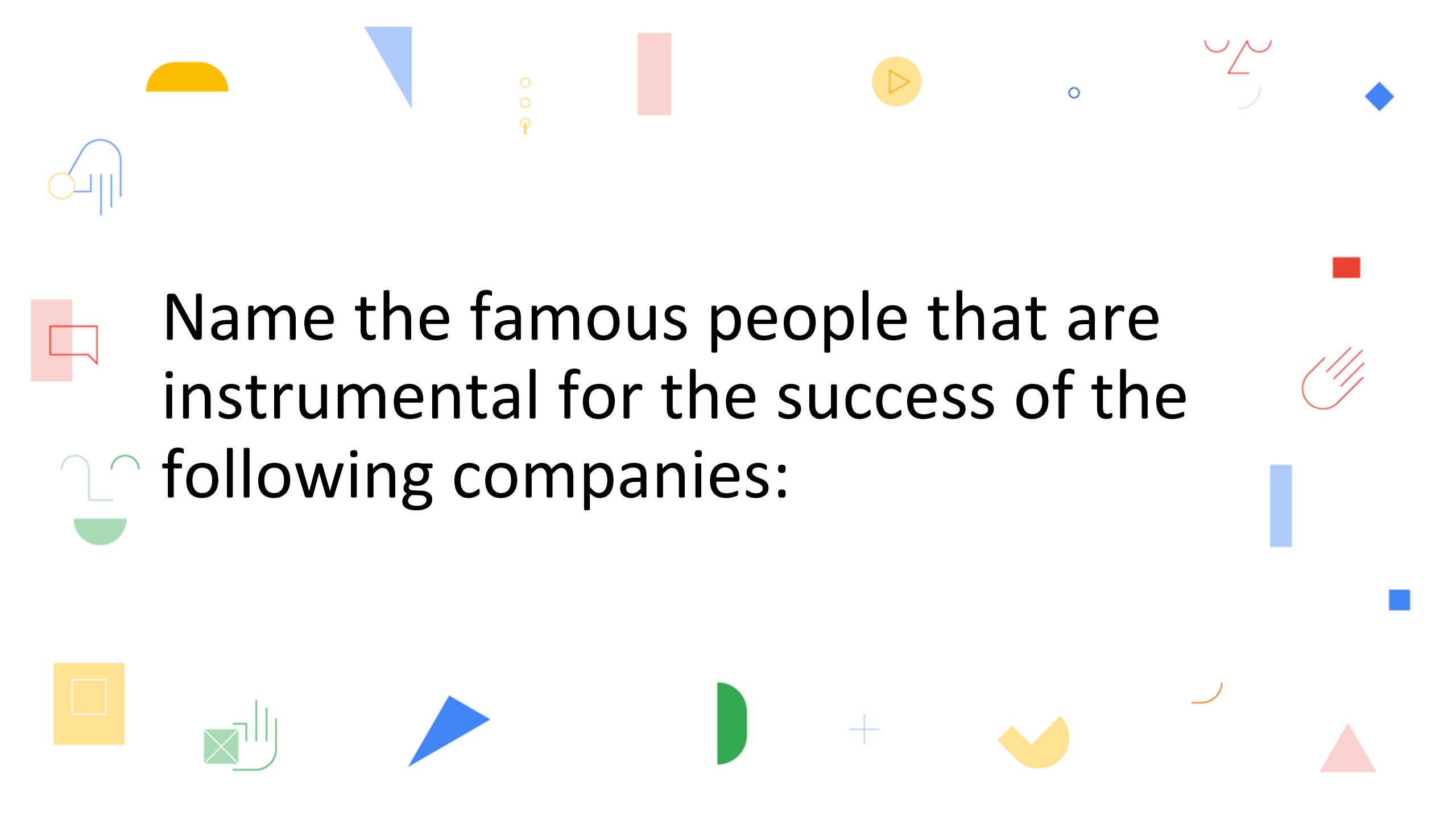
Pay employees enough to get the monetary concern out of the way. Then provide them with as much intrinsic motivation as possible.

# Science Behind Human Motivation

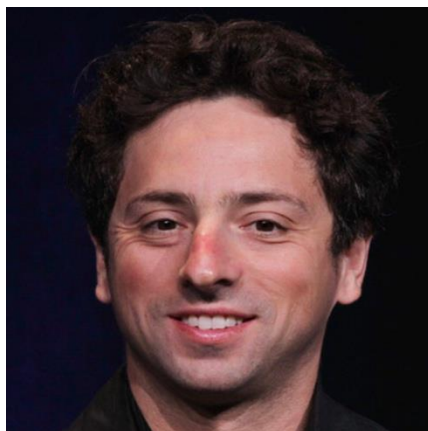
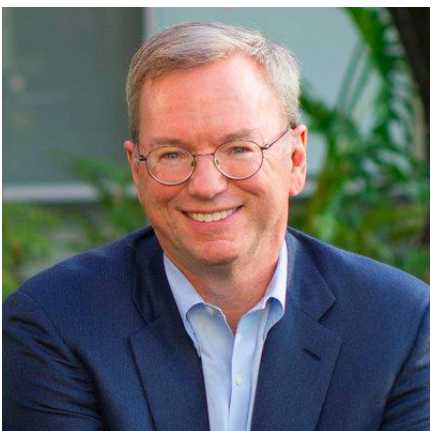
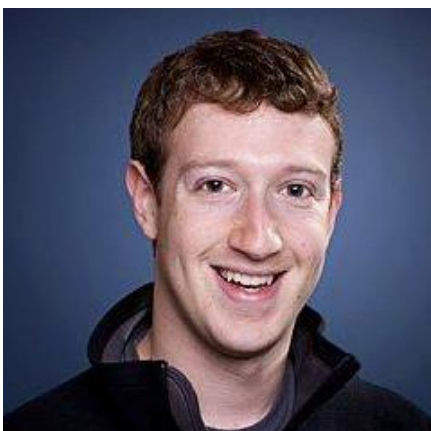
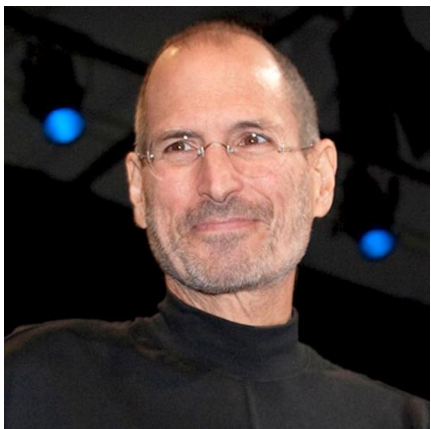
**Autonomy:** being in control and able to guide both what we do and how we do it

**Mastery:** the desire to continually improve and learn.

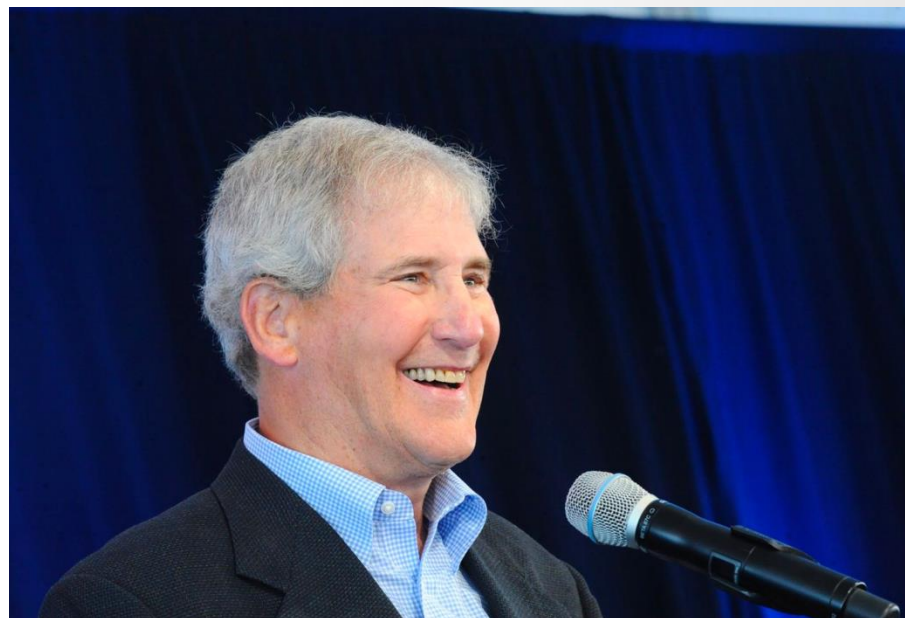
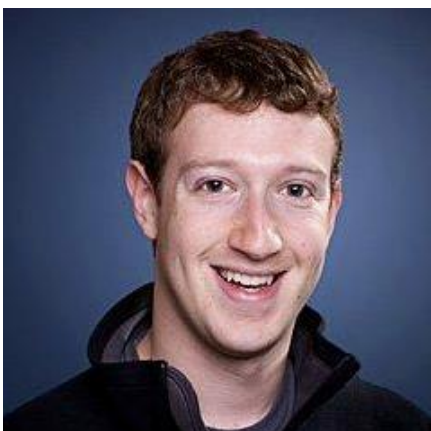
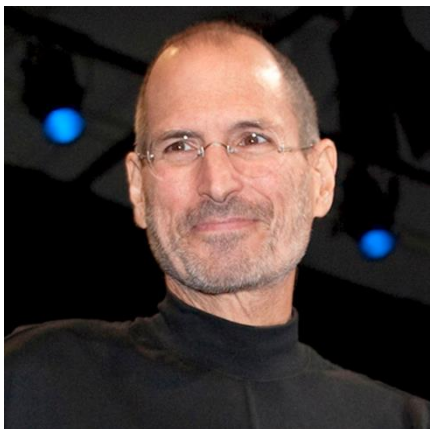
**Purpose:** working towards something we think is worthwhile.

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Name the famous people that are instrumental for the success of the following companies:

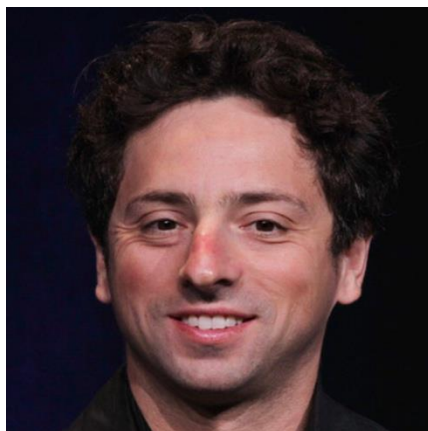
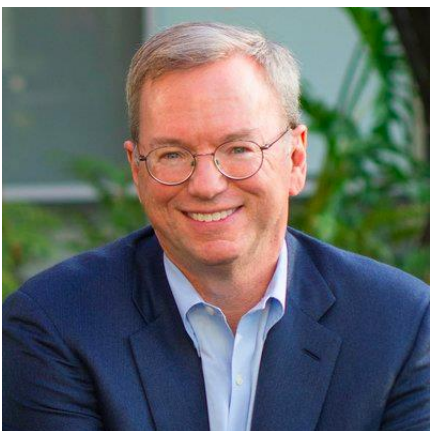






Bill Campbell, CEO

intuit®



# TRILLION DOLLAR COACH

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THE LEADERSHIP PLAYBOOK  
OF SILICON VALLEY'S  
BILL CAMPBELL

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ERIC SCHMIDT  
JONATHAN ROSENBERG  
AND ALAN EAGLE



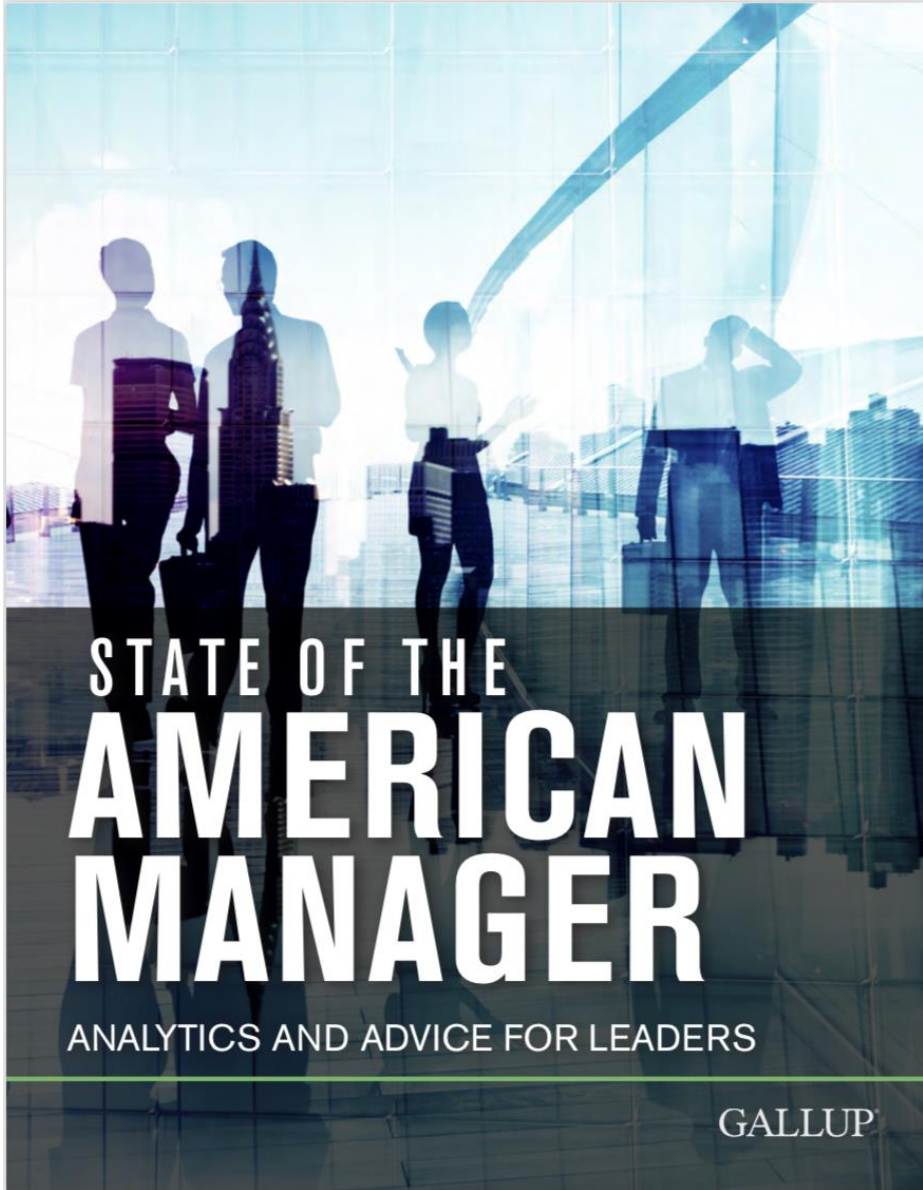
# Organizational Compassion



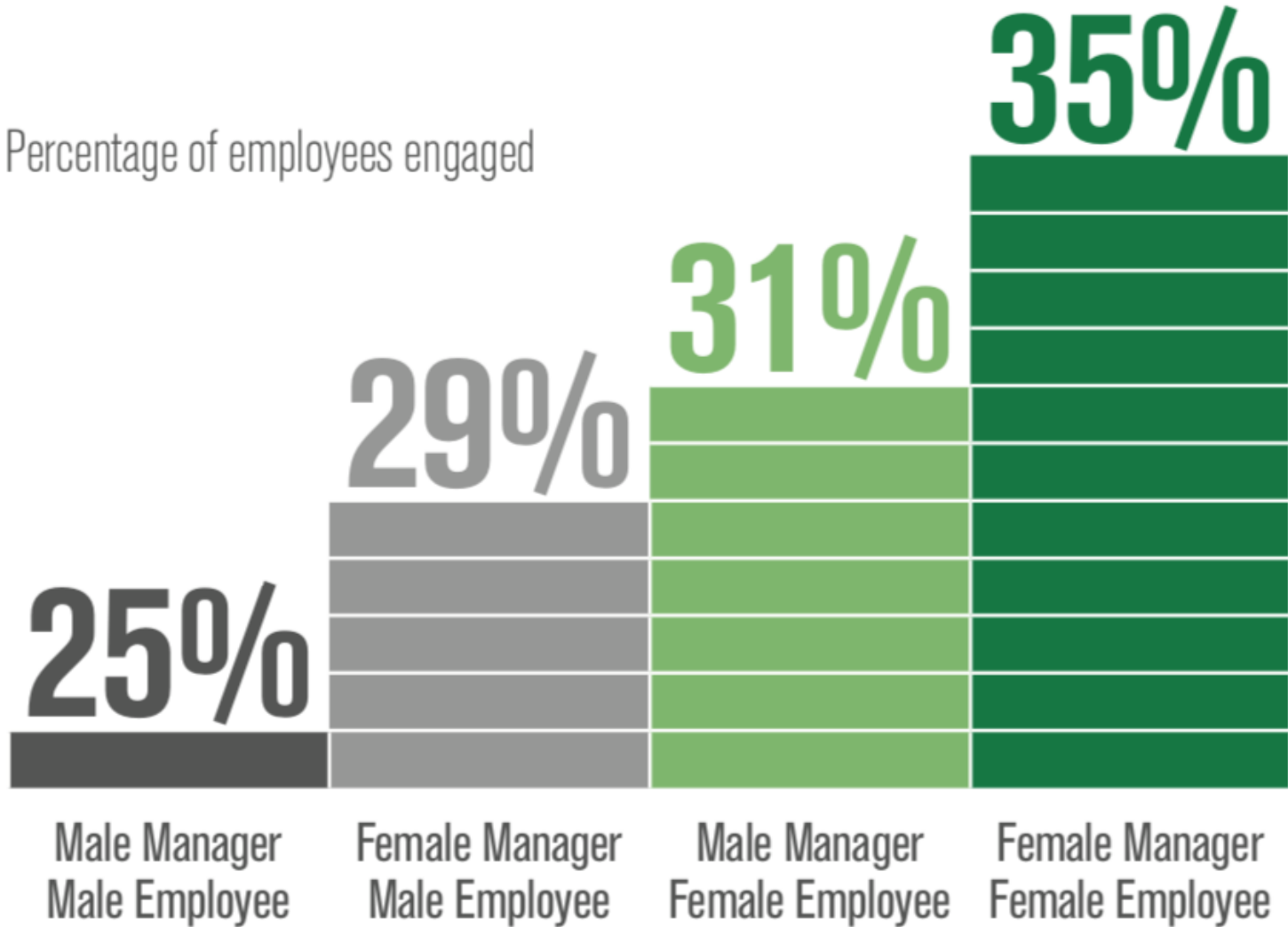
Compassion at an individual level can turn into “**organizational compassion**” when team members collectively notice, feel, and respond to pain experienced by team members. This happens when leaders of the organization **take the lead** in helping individual team members. Compassion can start at the top.

Source: Kanov, Jason M., Sally Maitlis, Monica C. Worline, Jane E. Dutton, Peter J. Frost, and Jacoba M. Lilius. “Compassion in Organizational Life.” *American Behavioral Scientist* 47, no. 6 (February 2004): 808–27. <https://doi.org/10.1177/0002764203260211>.





# FEMALE MANAGERS ARE BETTER AT ENGAGING THEIR EMPLOYEES THAN MALE MANAGERS



# Harvard Business School Study

UNIVERSITY OF  
**Southampton**

 **Maastricht  
University**

A separate study concludes that people don't just chafe against an authoritarian management style, but are also more likely to leave the team altogether.

Source: Vugt, Mark Van, Sarah F. Jepson, Claire M. Hart, and David De Cremer. "Autocratic Leadership in Social Dilemmas: A Threat to Group Stability." *Journal of Experimental Social Psychology* 40, no. 1 (January 2004): 1–13. [https://doi.org/10.1016/s0022-1031\(03\)00061-1](https://doi.org/10.1016/s0022-1031(03)00061-1).

# Servant Leadership

“Companies led by servant leaders have higher return on assets than companies led by narcissists.”

- Eric Schmidt, quoting a 2012 research by Peterson et al.



Source: Peterson, S., Galvin, B. M., & Lange, D. (2012). CEO servant leadership: Exploring executive characteristics and firm performance. *Personnel Psychology*, 65(3), 565-596. <https://doi.org/10.1111/j.1744-6570.2012.01253.x>



# Organizational Compassion



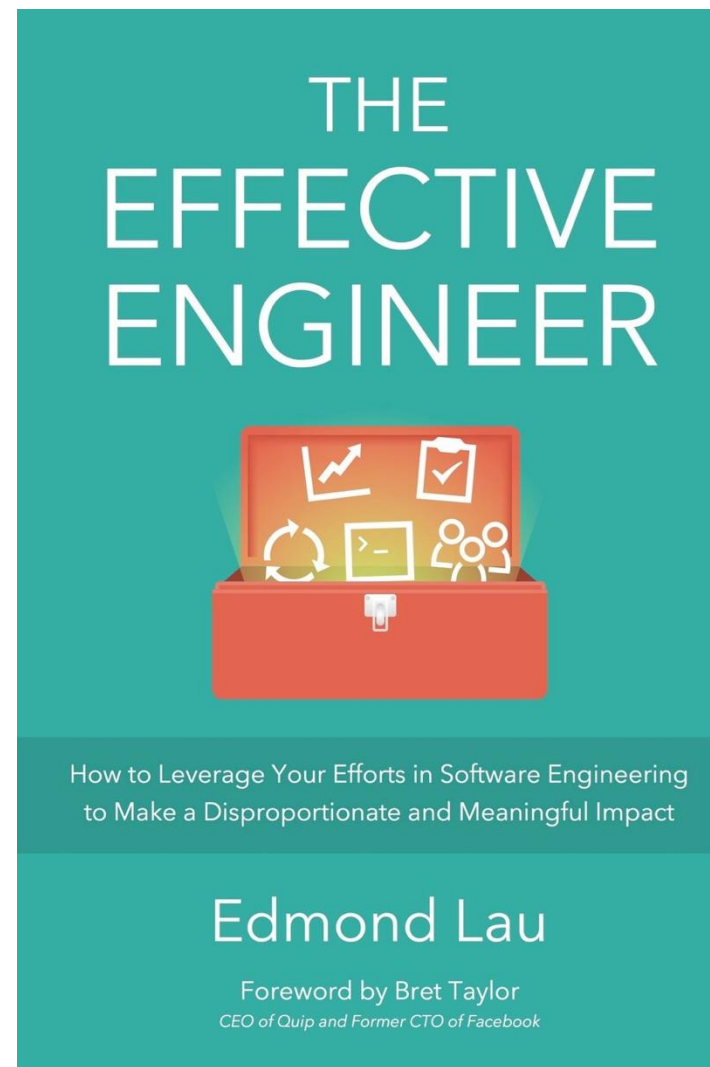
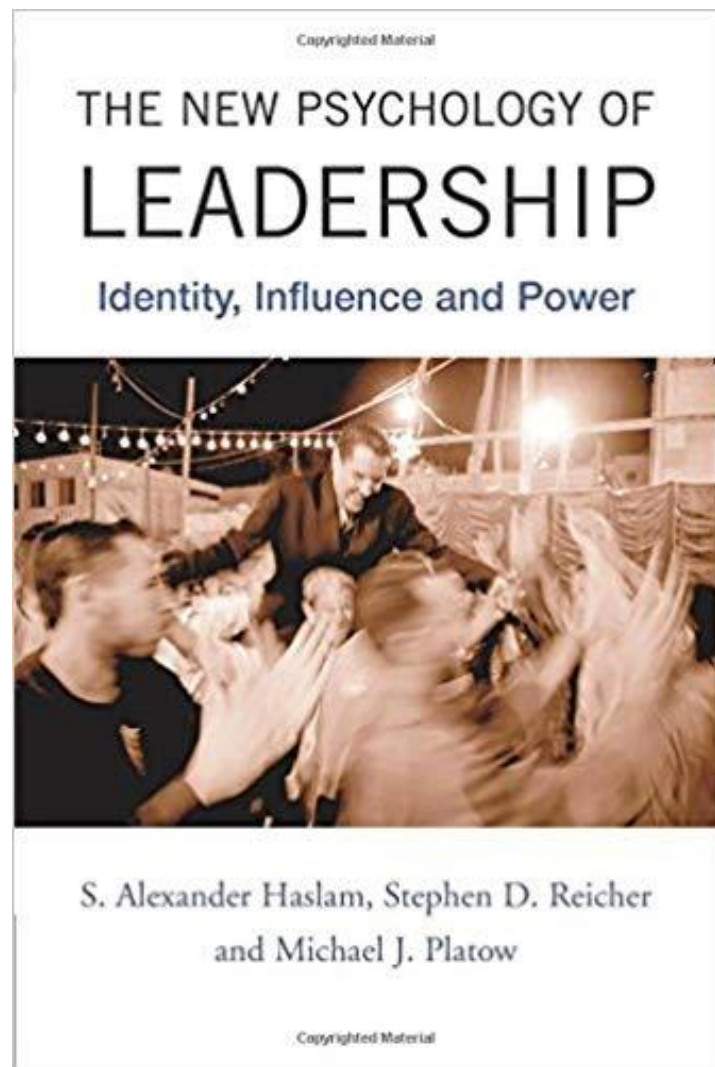
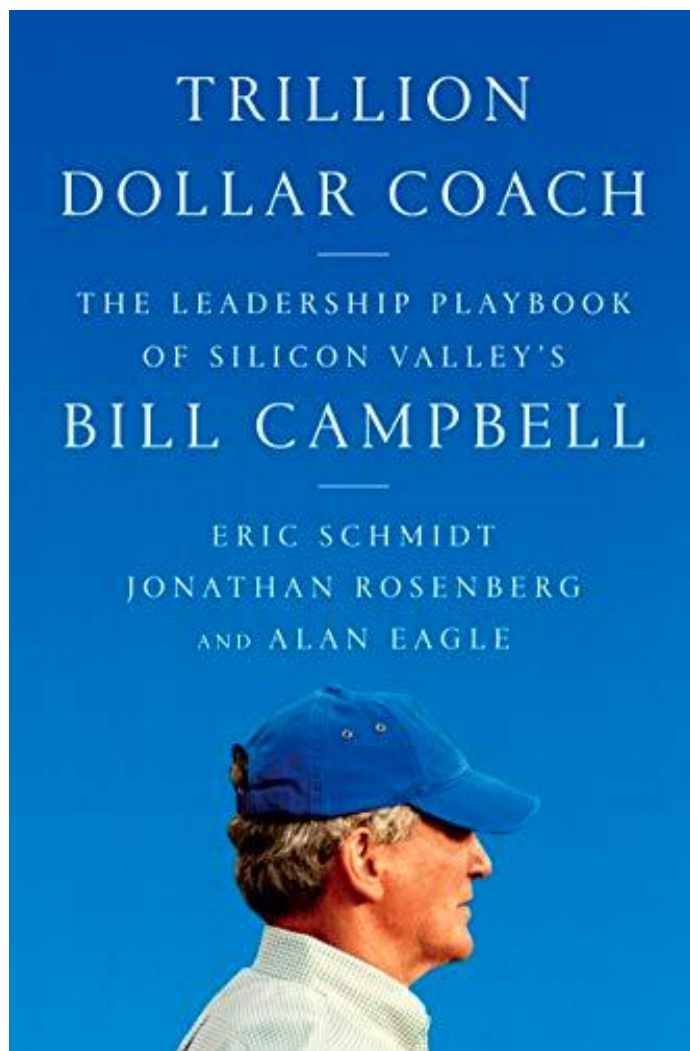
Academic research shows that an organization that practices organizational compassion will have **higher employee satisfaction and teamwork, lower absenteeism, and better team performance.**

Source: Barsade, Sigal G., and Olivia A. O'Neill. "What's Love Got to Do with It? A Longitudinal Study of the Culture of Companionate Love and Employee and Client Outcomes in a Long-Term Care Setting." *Administrative Science Quarterly* 59, no. 4 (November 29, 2014): 551–98.  
<https://doi.org/10.1177/0001839214538636>.

# Humans are emotio-rational decision makers

Situation	Solution
Negative emotions dampen productivity.	<ul style="list-style-type: none"><li>● Establish psychological safety.</li><li>● Build trust.</li><li>● Establish positivity in the workplace.</li><li>● Always Listen.</li></ul>
Confidence can be misleading.	<ul style="list-style-type: none"><li>● Always use data as hard evidence.</li></ul>
Humans are driven by extrinsic (ex. money) and intrinsic motivation (autonomy, mastery, purpose).	<ul style="list-style-type: none"><li>● Pay employees enough to get the monetary concern out of the way.</li><li>● Then provide them with as much intrinsic motivation as possible.</li></ul>

**Always emphasize organizational compassion**



THE NEW YORK TIMES TOP 10 BESTSELLER

# Drive

The Surprising  
Truth About What  
Motivates Us

'Provocative and  
fascinating'  
MALCOLM GLADWELL

**Daniel H. Pink**

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# Measure What Matters

How Google, Bono, and the Gates  
Foundation Rock the World with OKRs

**John Doerr**

WITH A FOREWORD BY LARRY PAGE

The New York Times Bestseller Updated with a New Chapter

# Google

## How Google Works

**Eric Schmidt & Jonathan Rosenberg**

with Alan Eagle, foreword by Larry Page



SERIES IN AFFECTIVE SCIENCE

# AFFECTIVE NEUROSCIENCE

THE FOUNDATIONS

OF HUMAN AND

ANIMAL

EMOTIONS

Jaak Panksepp



# THE Building a HARD Business When THING There Are No ABOUT Easy Answers HARD BEN HOROWITZ THINGS

"On Being Certain challenges our understanding of the very nature of thought and provokes readers to ask what Burton calls 'the most basic of questions': How do we know what we know?" — *Scientific American Mind*

## ON BEING CERTAIN



*Believing You Are Right  
Even When You're Not*



ROBERT A. BURTON, M.D.

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The background of the slide is split vertically. The left half features a complex, low-poly geometric pattern composed of numerous triangles. These triangles are colored in a gradient: red and orange at the top left, transitioning through yellow and light green to a pale blue and white at the bottom left. The right half of the slide is a solid, clean white.

**Thank You**