



Dog Cartoons by **CALLAHAN**

# OVERVIEW:

## Part I

- What is communication?
- Why is it important to you?
- What will we do in this class?
- How can you improve?

# OVERVIEW:

## Part 2

- What is collaboration?
- Why is it important to you?
- What will we do in this class?
- How can you improve?

# KEY PRINCIPLE I:

We are always, \*always\* communicating.

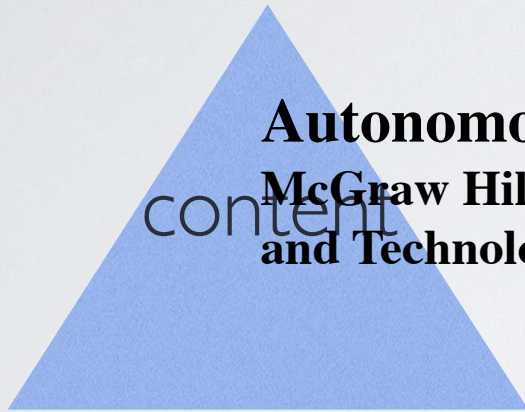
(What do you convey?)

(What do you *intend* to convey?)

(What do you *want* to convey?)

(How does this affect your work?)

# KEY PRINCIPLE 2: PART CONTENT, PART RELATIONSHIP



**Autonomous Passenger Vehicles:**  
**McGraw Hill 2010 Yearbook of Science  
and Technology**

- Dr. Seth Teller



Credible, meticulous, honest, creative, informed....

(How does this affect your work?)

I would like to enroll. Thanks!  
Hello,  
Yes, I would like to accept my place in 6.141.  
Thank you.  
Dear Professor Teller,  
It would be my honor to accept your offer.  
Sincerely,

Hi,  
I'm super excited to take 6.141 -- I'm definitely accepting my slot!  
Thanks,

I accept this slot. I accept!

Hi,  
Thanks! I'd like to accept my position.  
Cheers,  
Hello Professor Teller,  
Thanks for having me! I am delighted to confirm that  
I will be taking 6.141 this term.

Professor Teller and staff,  
Thank you for the position. I accept!  
I accept the slot. Look forward to working with you this term.

Yes I accept my spot. I accept the slot.

Hello,  
I accept my place in the class. Thank you.  
Hi,  
Yes! I accept this spot  
Prof Teller,  
I accept the offer for 6.141!

Yes!  
Great. Thank you! Thank you,

Thanks, I accept this place in 6.141  
Hi,  
I would like to accept my slot in 6.141.  
Thank you,

**I accept!**  
Prof. Teller,  
Yes, I accept this slot. Looking forward to the semester.  
Thanks!  
Hi,  
I'd like to accept the slot in 6.141.  
Thanks!

Thank you professor for the offer. I do accept the offer.

Yes please Yes (I accept)!

Hi,  
I definitely would like to accept. I'm super excited to be taking 6.141 this term.  
Thanks!  
Yes , I want my spot in 6.141.  
Thank you.  
Prof. Teller:  
I definitely accept my slot

[This email is to confirm my acceptance of a spot in 6.141.](#)  
Thank you.  
Hi Prof Teller,  
I'm excited to accept a slot in 6.141.  
Thanks!

I accept the spot.  
Hello,  
I am emailing to accept my spot in 6.141.  
Thanks so much and I am looking forward to taking the class!

I'd like to confirm that I accept. Thanks!

Thank you! I accept.  
I replied to this message at 8:30 from my tablet but I can't tell if it  
went through. The message said that I accept my slot

## KEY PRINCIPLE 3:

We (people) tend to have judgments and opinions.

About everything.

All the time.

(How does this affect your work?)

# KEY PRINCIPLE 3: CLARITY IS ELUSIVE



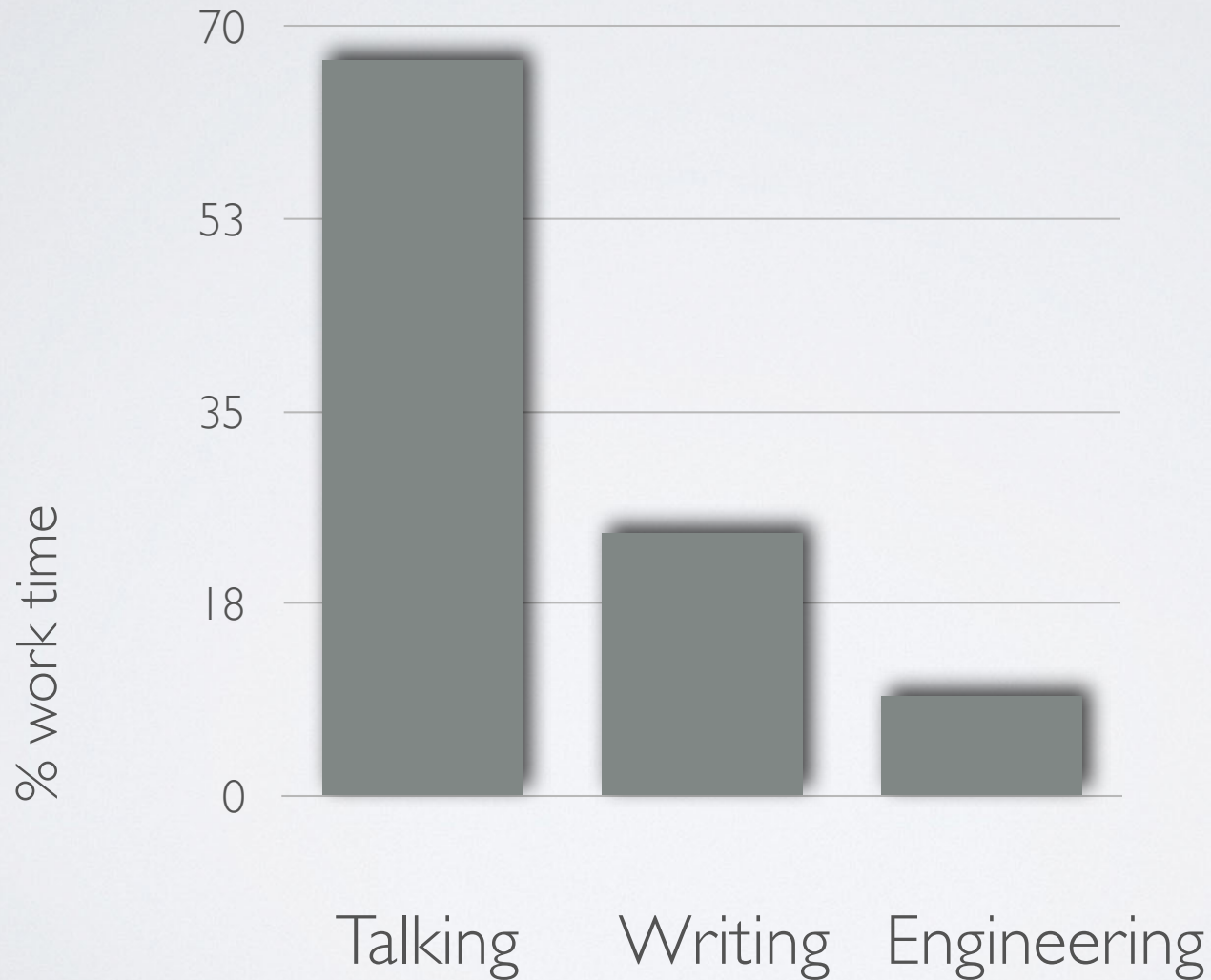
(How does this affect your work?)





(How does this affect your work?)

Engineers were asked how they really spend their time.



# Communication Assignments

## 6.141 Spring 2013

### Writing

- Challenge Design Exercise (CDE)
- Challenge Design Document:
  - outline (CDO) and final (CDD)
  - individual component to each
  - team component to each
  - revision option
- Individual Reflective Report

# Communication Assignments

## 6.141 Spring 2013

### Presentations

- Five lab briefings with your team
- One debate with a partner

# Communication Assignments

## 6.141 Spring 2013

### Collaboration

- Self-assessment
- Team guidelines
- Brief assignments
- Final self-assessment

# Grading

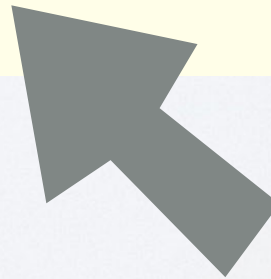
## 6.141 Spring 2013

### **Grading Criteria**

Subject grades are formed from a weighted average as follows:

- Lab Quality, Wiki, Briefings: 35%
- Team Challenge Design & Proposal: 10%
- Challenge implementation and performance: 30%
- Debate Performance: 10%
- Participation in Lecture and Lab: 5%
- Initial ideas and Reflective Report: 10%

Each of the components above incorporates both technical performance and communications effectiveness.



# HOW WILL YOU IMPROVE?

- Participate in class
- Participate with each other
- Experiment (risk, be uncomfortable, make mistakes)
- Ask questions
- Observe
- Ponder

# One-Minute Stretch!



**Squawk:** “Left inside main tire almost needs replacement.”

**Reply:** “Almost replaced main tire.”

**Squawk:** “Test flight OK, except autoland very rough.”

**Reply:** “Autoland not installed on this aircraft.”

**Squawk:** “#2 propeller seeping prop fluid.”


**Reply:** “#2 Propeller seepage normal.”

**Squawk:** “#1, #3 and #4 propellers lack normal seepage.”

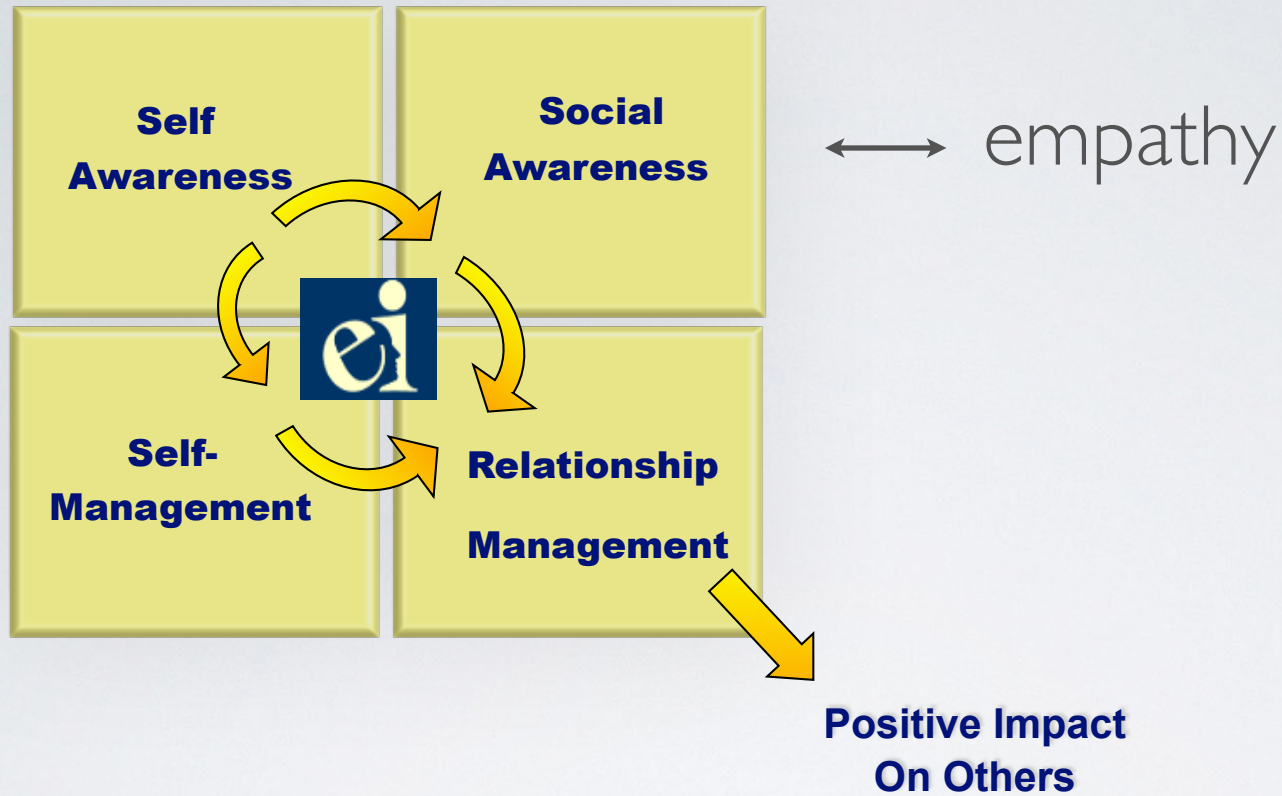
# Collaboration Components

Me  
You

# Collaboration Challenge # 1

What can we  
know about  Me  
You ?

# Emotional Intelligence Framework



Daniel Goleman, [The Brain and Emotional Intelligence](#)

# Collaboration Challenge # 1:

close your eyes (just for a minute)

How does that affect your collaboration?

# Collaboration Challenge #2:

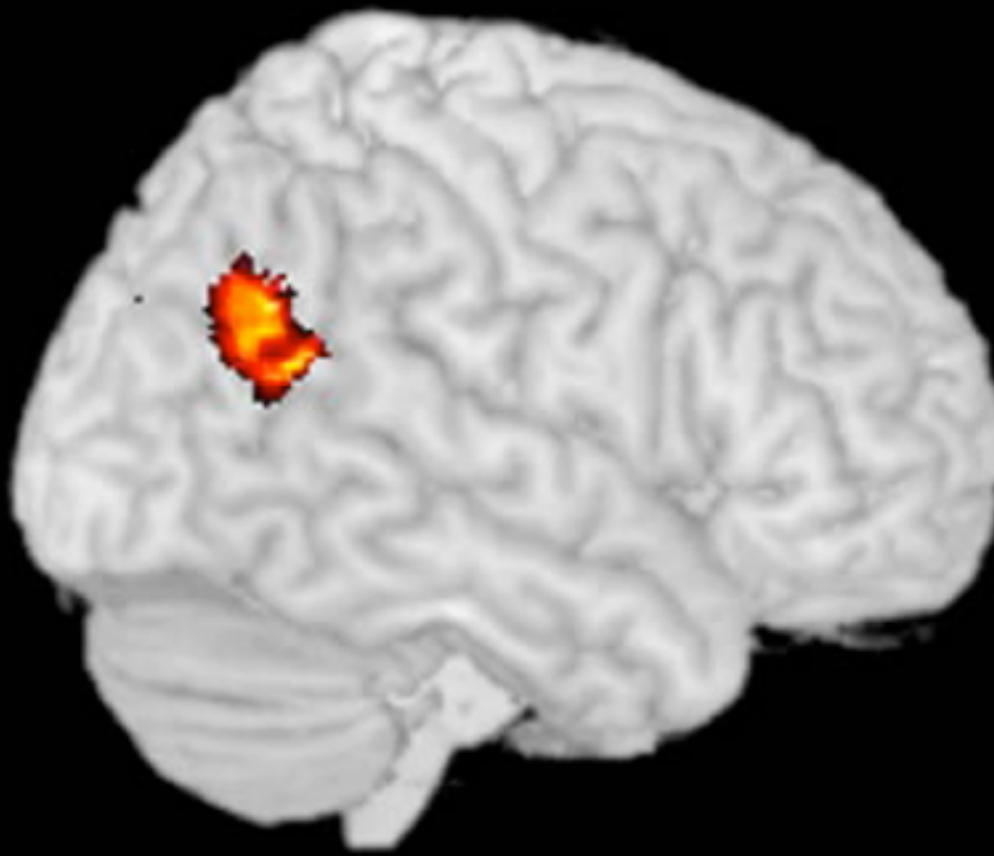
Our self-awareness is inherently skewed.

How does that affect your collaboration?

# Collaboration Challenge #2:

We are hard-wired for  
fight  
or  
flight.

How does that affect your collaboration?



**This brain scan, taken with functional magnetic resonance imaging, shows an area of the brain known as the temporoparietal junction (TPJ) lit up. MIT...**

**Image / Rebecca Saxe**

MIT Professor Rebecca Saxe has shown that the TPJ is active when you think about other people's thoughts!





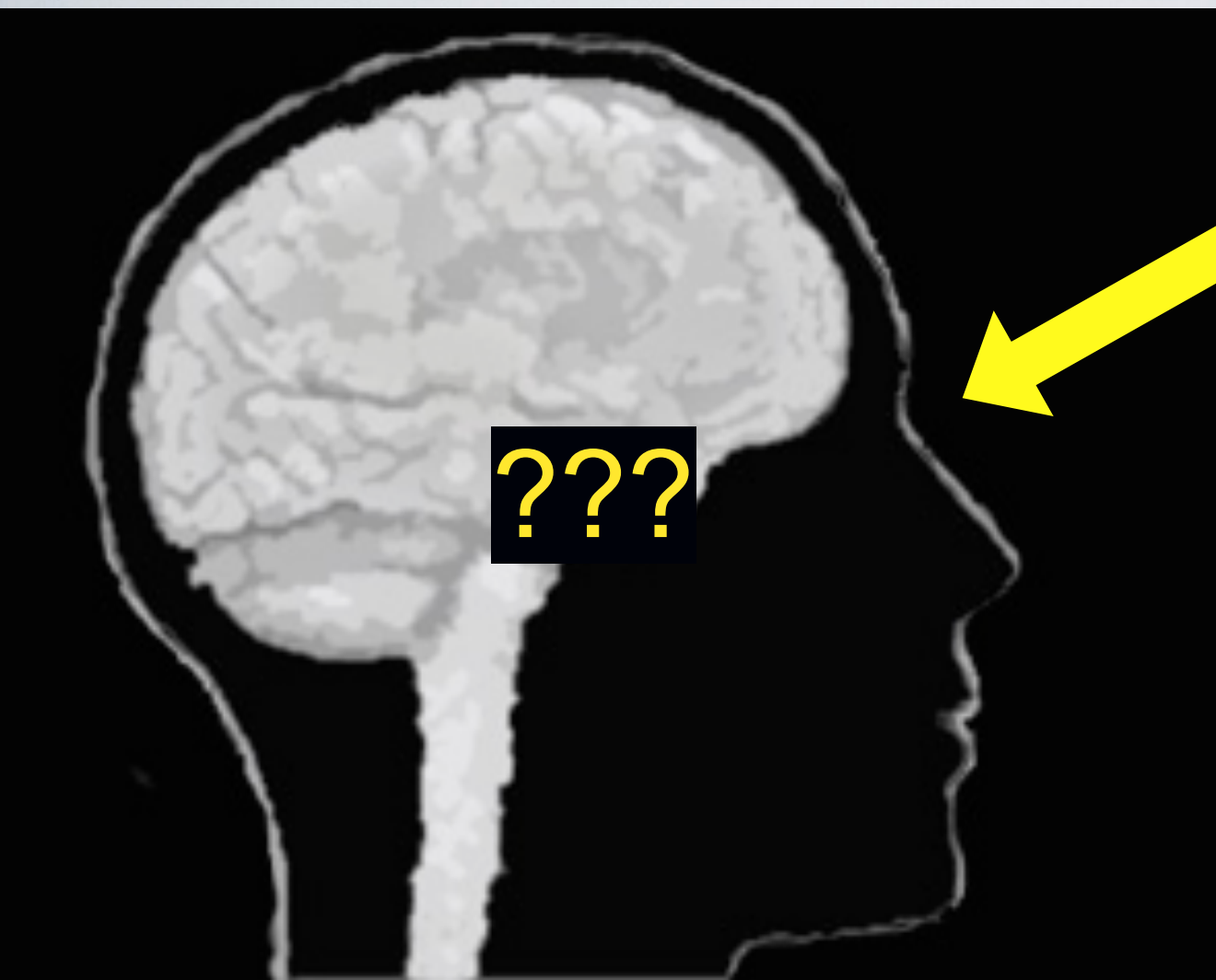
So what happens when you perceive others?



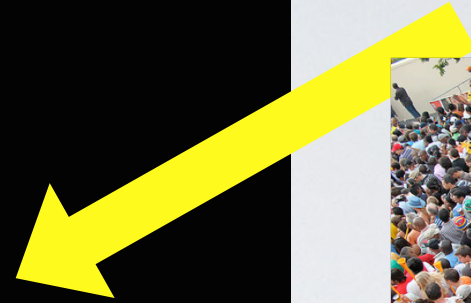
data



adapted from Chris Argyris, Overcoming Organizational Defenses. Prentice-Hall, 1990..



data

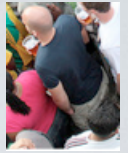


adapted from Chris Argyris, Overcoming Organizational Defenses. Prentice-Hall, 1990..



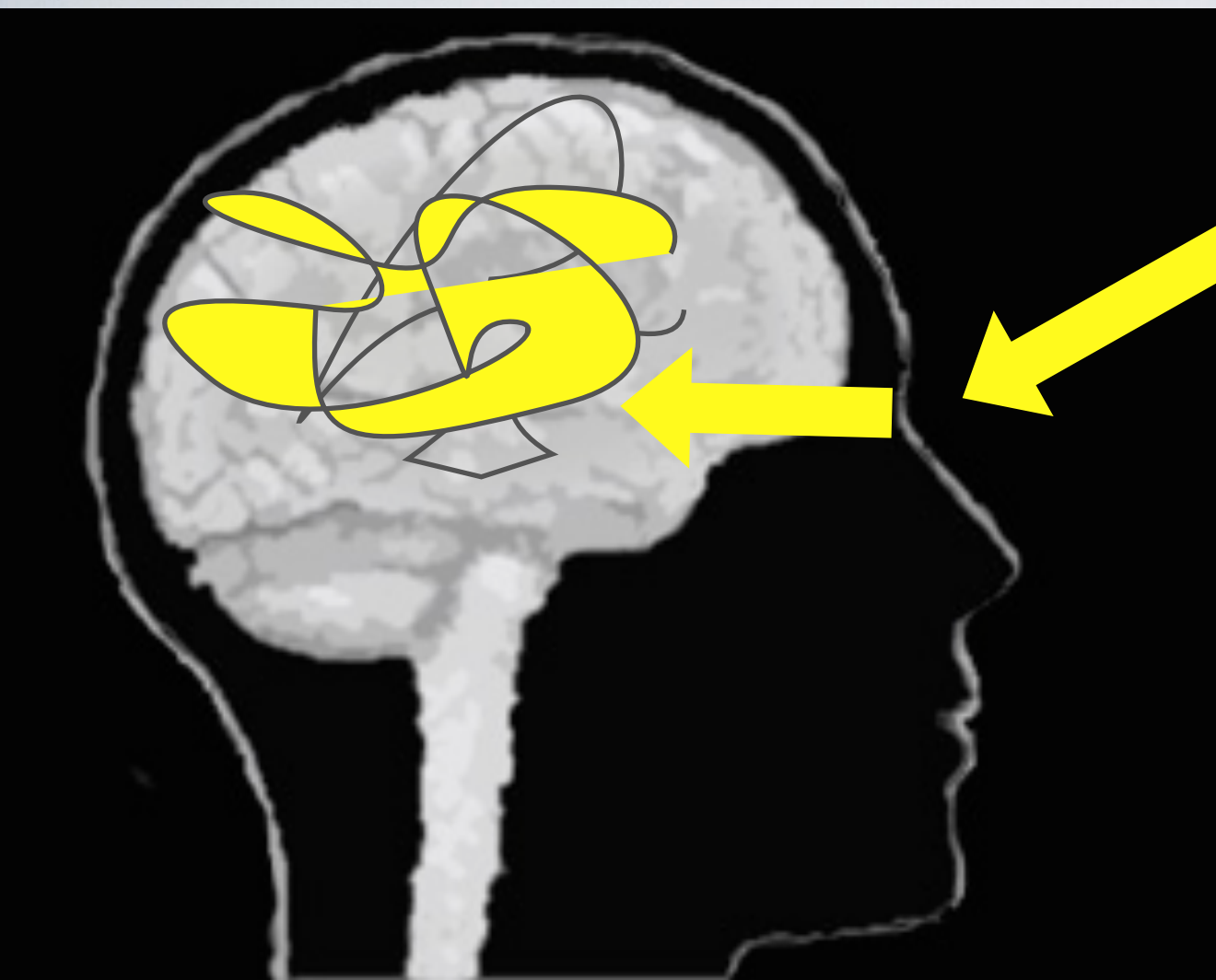
data

select\*



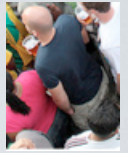
**\*based on past, interests, training, culture, mood, need, etc....**

adapted from Chris Argyris, Overcoming Organizational Defenses. Prentice-Hall, 1990..



data

select\*



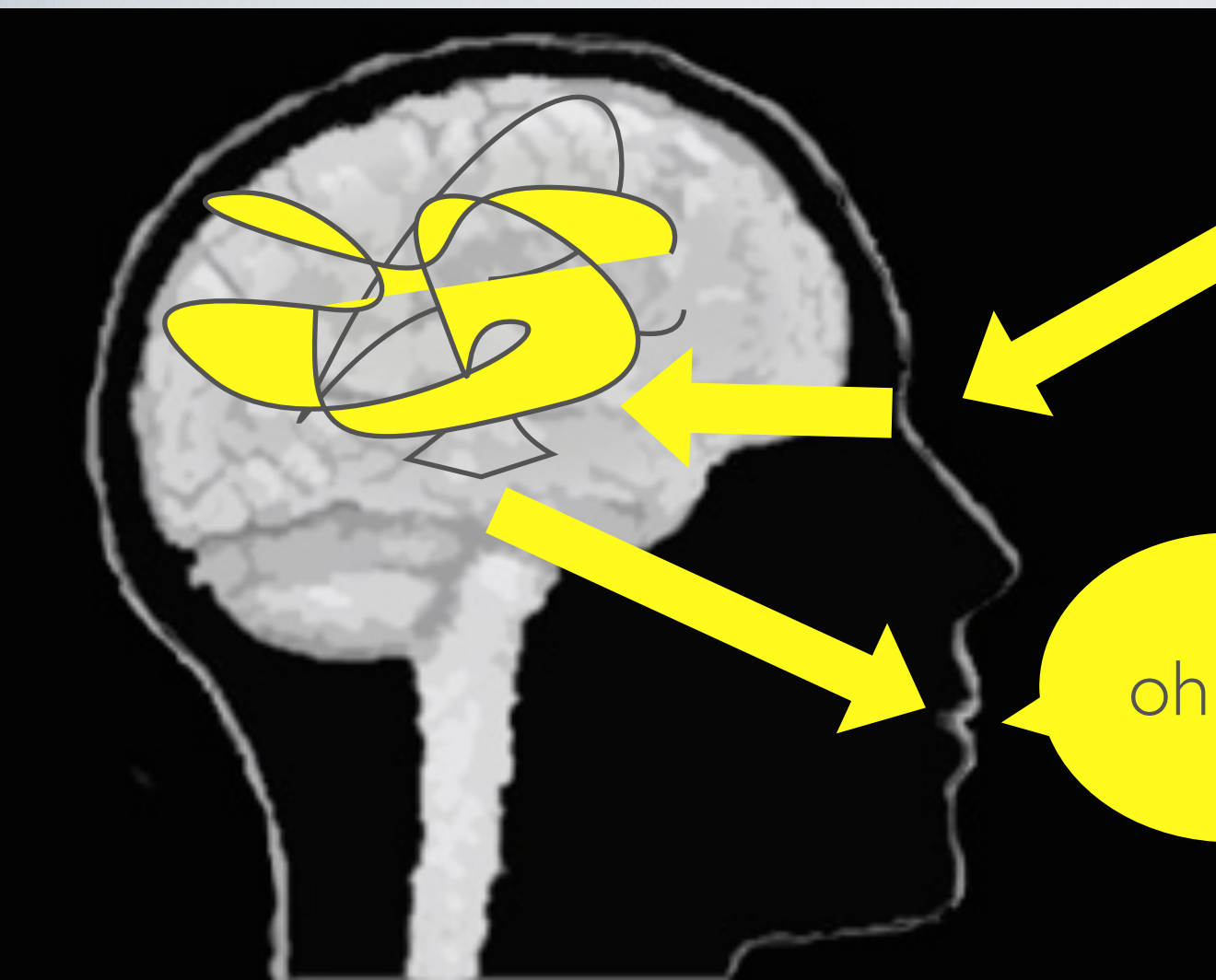
compare

interpret

evaluate

right  
wrong  
stupid  
smart  
good  
bad

adapted from Chris Argyris, Overcoming Organizational Defenses. Prentice-Hall, 1990..



data

select\*



compare

interpret

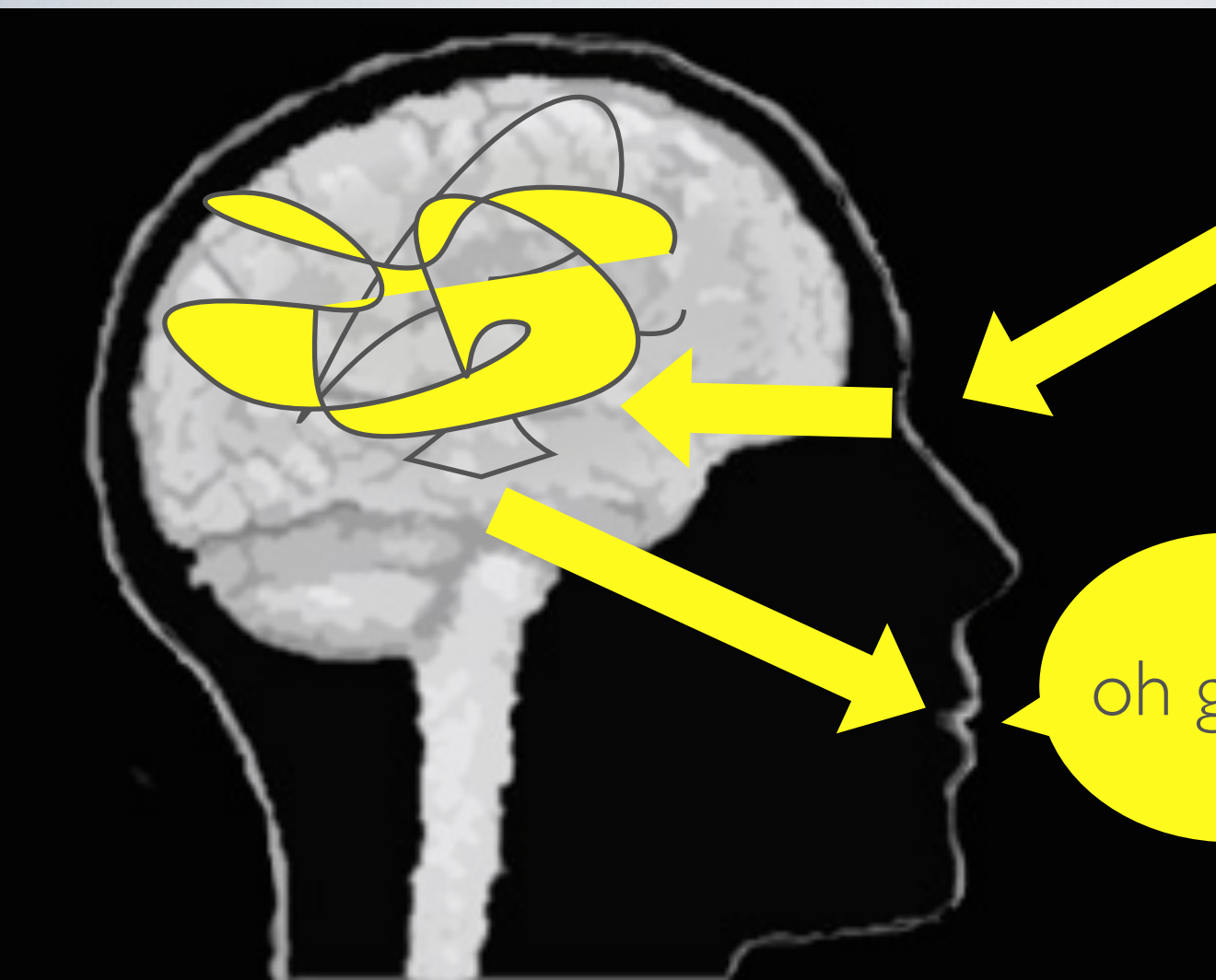
evaluate

conclude

act

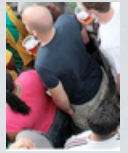
oh no!!

adapted from Chris Argyris, Overcoming Organizational Defenses. Prentice-Hall, 1990..



data

select\*



compare

interpret

evaluate

conclude

act

oh great!!

Chris Argyris and Peter Senge dubbed this the “ladder of inference.”

adapted from Chris Argyris, Overcoming Organizational Defenses. Prentice-Hall, 1990..



So a large part of developing self-awareness is becoming aware of yourself leaping up your ladder of inference, then learning to slow yourself down, and eventually to evaluate more objectively.



# AN INFLUENTIAL PERSON:

- **listens** more than they advocate their own views;
- **knows** about the **people** they work with, their likes and dislikes;
- is seen as understanding, or **empathetic**, rather than as persuasive or articulate;
- is seen as **flexible**, open to new ideas, able to be influenced;
- **talks openly** and directly, rather than keeping their views “close to the vest”;
- builds a **network** and uses it.

Source: David Burnham, BurnhamRosen Group, personal communication

# HOMEWORK

- Fill out the self-assessment online by 11:59 on Tuesday
- By Friday class time, summarize your self-assessment with your teammates:
  - what are three or four things that you want to work on with regard to your communication in this class?
  - what are one or two things about collaboration that you want to improve this term?