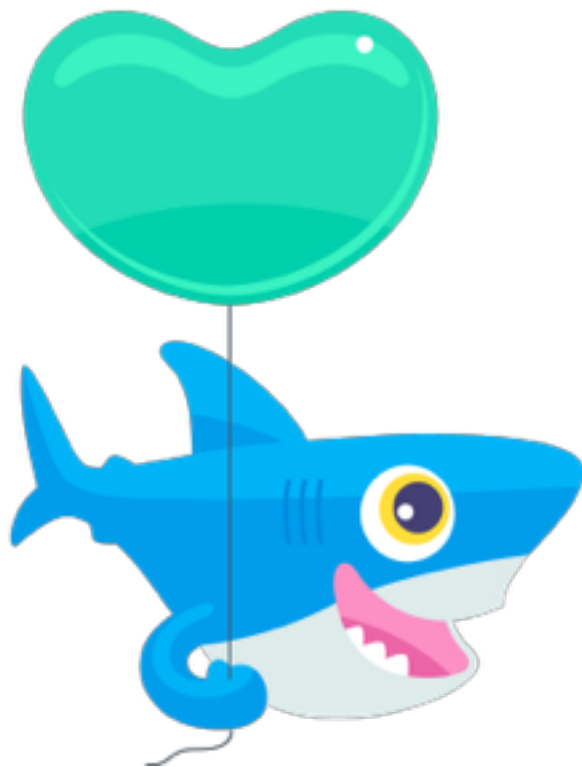


On how your brain is conspiring against you making good software

Jenna Zeigen • Front-Trends • May 26, 2017

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jenna.is/at-queensjs-17





Humans are
“predictably irrational”

- Dan Ariely

“severe and
systematic errors”

- Amos Tversky & Daniel Kahneman



software is
about PEOPLE



1. On Being Logical
2. On Bugs and Debugging
3. On Planning Your Work
4. On Open Offices
5. On Knowing Your Worth
6. On Assembling a Team

On Being Logical

Humans aren't great logical thinkers.



On Being Logical

All P are M.

All S are M.

Therefore, all S are P.



On Being Logical



On Being Logical

But, we get better when
reasoning about
concrete examples!



On Being Logical

| | | | |
|------|----|------|----|
| Beer | 22 | Soda | 16 |
|------|----|------|----|

On Bugs and Debugging

“Debugging is twice as hard as writing a program in the first place”

- Brian Kernighan



On Bugs and Debugging

We tend to interpret and favor
information to confirm our
pre-existing beliefs.

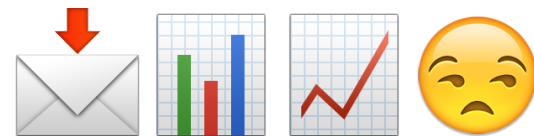


On Bugs and Debugging

“2, 4, 6”

On Bugs and Debugging

We even distrust evidence that goes against our prior beliefs.



On Bugs and Debugging

We often have no idea
how close we are
to solving a problem.



On Bugs and Debugging

We have a tendency to be rigid
in how we approach a problem.



On Bugs and Debugging

Breaks are important!



On Bugs and Debugging

Creativity is just about having
all the right ingredients.



On Planning Your Work

We're bad at estimating how long it will take to do something.



On Planning Your Work

We think bad things
are more likely to happen to others.

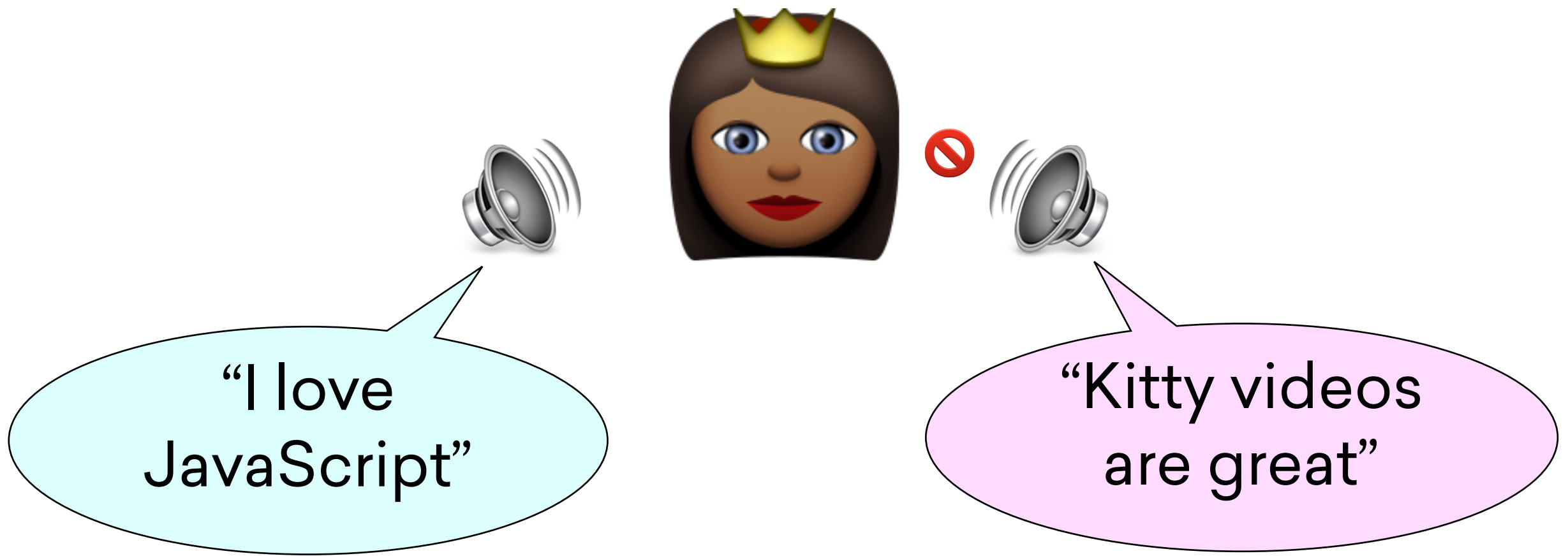


On Open Offices

We're *actually* pretty good at filtering out unwanted things...



On Open Offices



On Open Offices

“I love
JavaScript”



“I love
JavaScript”

“Kitty videos
are great”

On Open Offices

...but we're not totally oblivious to it.



On Open Offices

Selective attention requires both ignoring and paying attention.



On Open Offices

But what about that
🔥 juicy conversation 🔥
happening next to you?



On Open Offices

We're helpless to the
processing power of our brain.



On Open Offices

BLUE PURPLE RED

GREEN PURPLE

GREEN

On Open Offices



On Open Offices

BLUE PURPLE RED

GREEN PURPLE

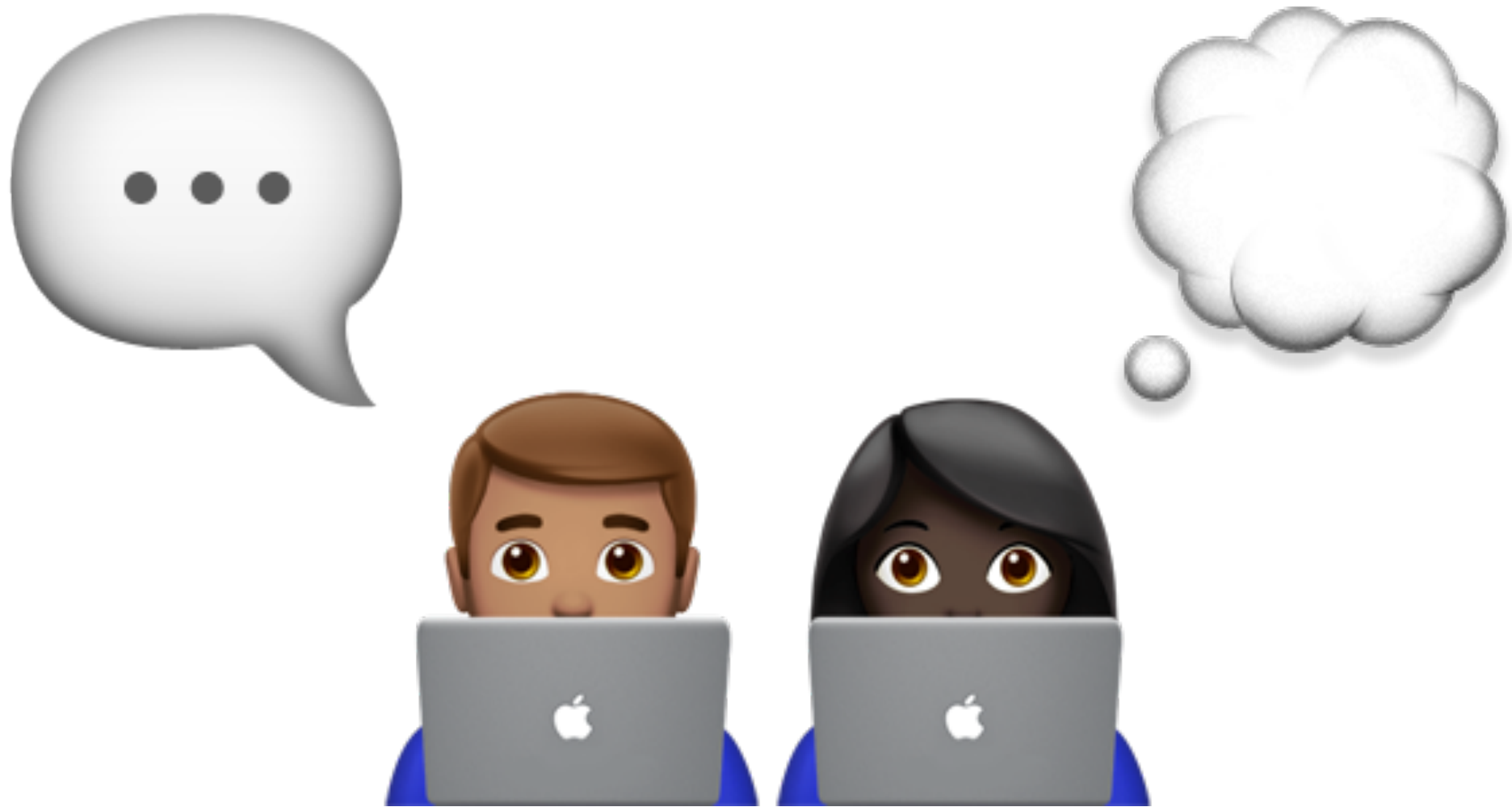
GREEN

On Open Offices

BLUE PURPLE RED

GREEN PURPLE

GREEN



On Knowing Your Worth

Unskilled people think they are better at tasks than they actually are.



On Knowing Your Worth

We tend to overestimate our
own skills and abilities
compared to others.



On Knowing Your Worth

Skilled people underestimate their abilities and think tasks that are easy for them are easy for others.



On Knowing Your Worth

Skilled people sometimes
feel their accomplishments
are the result of luck or deception



On Assembling a Team

We favor members
of our own in-group.

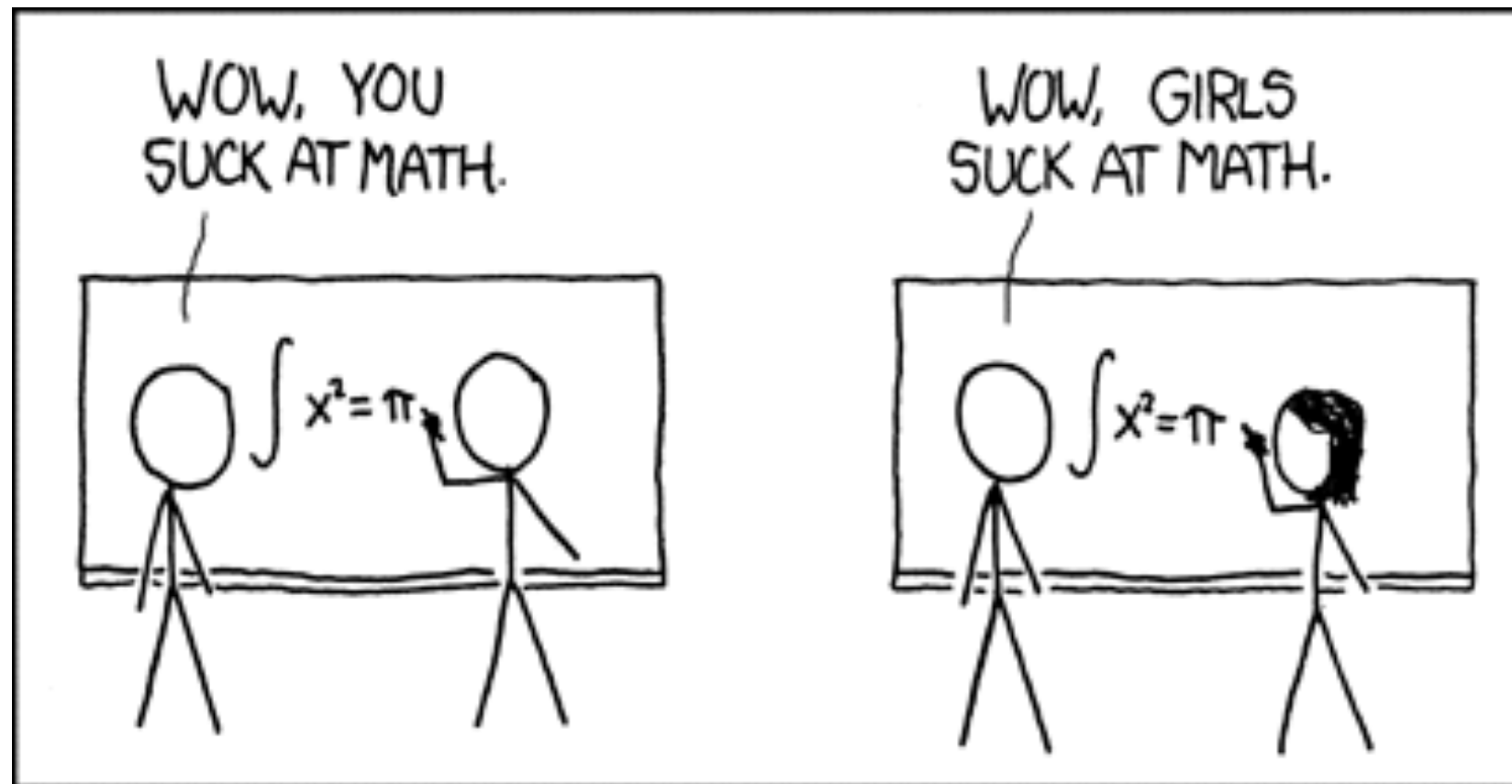


On Assembling a Team

We tend to believe that
attributes of a group member
reflect the entire group.



On Assembling a Team



On Assembling a Team

We assume group members
will resemble the prototype
for that group, and vice versa.



On Assembling a Team

In some cases, we ignore probabilities
in favor of focusing on details.



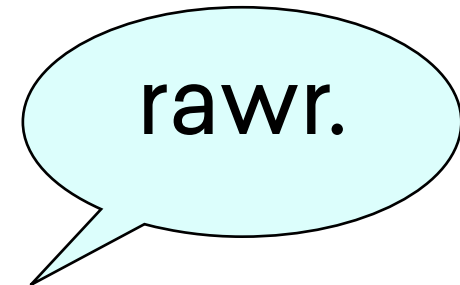
On Assembling a Team



On Assembling a Team



On Getting Past This



On Getting Past This



Thinking Fast
(System 1)

On Getting Past This



Thinking Fast
(System 1)



Thinking Slow
(System 2)

On Getting Past This



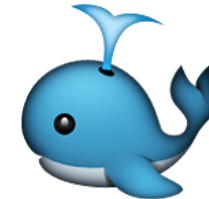
On Getting Past This



Thanks!



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@zeigenvector

