AN INTRODUCTION TO TECHNICAL COACHING
(For Less Technical Coaches)

ANDREA GOULET • CEO, CORGIBYTES
TEN YEARS AGO
I LOVE PAYING DOWN TECHNICAL DEBT IN LEGACY CODE WITH XP AND AGILE. CAN YOU HELP ME FIGURE OUT HOW TO MAKE THAT A BUSINESS?
UMM....I LITERALLY DON’T UNDERSTAND HALF OF THE WORDS YOU SAID. BUT OKAY. I GUESS I’LL NEED TO LEARN HOW TO CODE.
CODING IS HARD!
I’m starting to feel confident. I think I’m getting the hang of this programming thing.
...FIVE YEARS LATER
“Andrea? She’s non-technical.”
1. HOW DARE YOU
1. HOW DARE YOU
2. HERE’S MY EVIDENCE
“I’m the CEO of a software company!”
“I’ve been coding next to you for five years!”
"I’m WAY more technical than my mother."
1. HOW DARE YOU
2. HERE’S MY EVIDENCE
3. WHAT DOES IT TAKE?
“Do I need a computer science degree?”
“Do I need some kind of certification?”
“Do I need a fairy godmother to wave a magic ‘technical’ wand?”
NO. YOU DON'T NEED ANY OF THAT.
SOME OF THE MOST TECHNICAL PEOPLE I’VE WORKED WITH DON’T HAVE DEGREES OR CERTIFICATIONS.
I CALLED YOU ‘NON-TECHNICAL’ BECAUSE THAT’S HOW YOU DESCRIBE YOURSELF.
“When you call yourself technical...
“When you call yourself technical... I will too.”
Identity crisis
HOW DO I LET GO OF “NON-TECHNICAL”? 
QUESTIONS I ASKED

• DO I NEED TO STOP BEING A MARKETER?
• IS ‘TECHNICAL’ BINARY OR A SPECTRUM?
• WHAT’S PREVENTING ME FROM CALLING MYSELF TECHNICAL?
WHAT'S YOUR GOAL?

WHAT'S YOUR SUPERPOWER?
LEVELING UP TECHNICAL SKILLS

1. BUILD PSYCHOLOGICAL SAFETY
2. ADOPT A GROWTH MINDSET
3. TRANSFORM PERFECTIONISM
4. RECOGNIZE COGNITIVE BIASES
5. NOTICE LANGUAGE PATTERNS
PSYCHOLOGICAL SAFETY
I’m starting to feel confident. I think I’m getting the hang of this programming thing.
YOU’RE NOT PROGRAMMING. YOU’RE ONLY USING HTML AND CSS AND THOSE ARE DECLARATIVE LANGUAGES, NOT INTERPRETED ONES.
A shared belief that the team is safe for interpersonal risk taking. A sense of confidence that the team will not embarrass, reject or punish someone for speaking up.

-Amy Edmonson

WHAT MAKES GOOGLE TEAMS EFFECTIVE?

“Psychological safety was far and away the most important of the five dynamics we found.”

source: https://rework.withgoogle.com/blog/five-keys-to-a-successful-google-team/
BUILDING PSYCHOLOGICAL SAFETY

1. **Frame the work as a learning problem, not an execution problem.**

2. **Acknowledge your own fallibility.**

3. **Model curiosity and ask lots of questions.**

source: [https://rework.withgoogle.com/blog/five-keys-to-a-successful-google-team/](https://rework.withgoogle.com/blog/five-keys-to-a-successful-google-team/)
COACHING FOR PSYCHOLOGICAL SAFETY

WORKING AGREEMENTS

Make the implicit explicit. Use boundaries to create a culture of trust, kindness, respect, and curiosity.
PSYCHOLOGICAL SAFETY QUESTIONS

1. Do you ask about technical concepts you aren’t familiar with? Why? Why not?

2. How can you model curiosity?

3. In what ways can you improve the psychological safety on your team?
FIXED/GROWTH MINDSET
SOME PEOPLE ARE BORN KNOWING HOW TO CODE. NOT ME. I’LL NEVER UNDERSTAND THIS STUFF.
I HAD TO WORK REALLY HARD. NO ONE IS BORN KNOWING HOW TO CODE. YOU’RE A NATURAL WITH ALGORITHMS & PATTERNS. KEEP IT UP!
Believing your qualities are carved in stone creates an urgency to prove yourself over and over again.

This leads to perfectionism.

source: https://www.ted.com/talks/carol_dweck_the_power_of_believing_that_you_can_improve
Believing you may not know everything now, but trusting that you can learn, grow, change, and adapt.

Needed to grow outside of our comfort zones.

source: https://www.ted.com/talks/carol_dweck_the_power_of_believing_that_you_can_improve
YET
COACHING FOR GROWTH MINDSET

MOBBING/PAIRING

Encourage others to encourage others
GROWTH MINDSET QUESTIONS

1. How are you perpetuating the idea that you can’t learn technical skills?

2. What have you already learned that’s technical?

3. Where does a fixed mindset show up with other members of your team?
PERFECTIONISM
I'M NOT TYPE A
I'M TYPE A PLUS!
HEALTHY STRIVING

SELF-FOCUSED: HOW CAN I IMPROVE?

PERFECTIONISM

OTHER-FOCUSED: WHAT WILL THEY THINK?

“PERFECTIONISM IS A SELF DESTRUCTIVE AND ADDICTIVE BELIEF SYSTEM THAT FUELS THIS PRIMARY THOUGHT: IF I LOOK PERFECT, AND DO EVERYTHING PERFECTLY, I CAN AVOID OR MINIMIZE THE PAINFUL FEELINGS OF SHAME, JUDGMENT, AND BLAME.”

-BRENÉ BROWN

“SHAME IS THE INTENSELY PAINFUL FEELING OR EXPERIENCE OF BELIEVING WE ARE FLAWED AND THEREFORE UNWORTHY OF ACCEPTANCE AND BELONGING.”

-BRENÉ BROWN

<table>
<thead>
<tr>
<th>WHEN WE FEAR</th>
<th>WE DON’T</th>
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<tbody>
<tr>
<td>BEING CRITICIZED</td>
<td>LISTEN TO FEEDBACK</td>
</tr>
<tr>
<td>FAILING</td>
<td>TAKE RISKS</td>
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<tr>
<td>MAKING MISTAKES</td>
<td>INNOVATE</td>
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PERFECTIONISM FEARS

@andreagoulet
COACHING FOR PERFECTIONISM

KATAS/DOJOS

Practice, trying, failing, and learning together
Two Fer

```
class TwoFer
    def self.two_fer(name='you')
        "One for #{name}, one for me."
    end
end
```

Congratulations - you've completed this exercise!

What's next?

Explore more solutions to Two Fer. There are lots of different ways to approach every exercise on Exercism. Why not see how others have solved it?

View community solutions

Carry on coding. You have 1 unlocked core exercise and 5 unlocked side exercises that you have not yet completed on this track. Why not try a new challenge?

Choose next exercise

Mentor discussion

jstoebel  Mentor  posted 6 days ago

Looks great! Good use of default parameter to simplify things!

andreagoulet  Student  posted 6 days ago

Thanks! It's nice that ruby has that feature. I learned something new doing this. YAY!

Appreciate your feedback. :)

Download your solution

Changed computer or want to re-download the exercise after updating to the latest version? Use this command:

```
exercism download --exercise=two-fer --track=ruby
```
Starting code for the GildedRose Refactoring Kata in many programming languages.

<table>
<thead>
<tr>
<th>Event</th>
<th>Description</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ada</td>
<td>Renames README files consistently.</td>
<td>8 months ago</td>
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<tr>
<td>C</td>
<td>Renames README files consistently.</td>
<td>8 months ago</td>
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<tr>
<td>COBOL/mf</td>
<td>Add test project for mf cobol.</td>
<td>10 months ago</td>
</tr>
<tr>
<td>Groovy</td>
<td>Renames README files consistently.</td>
<td>8 months ago</td>
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<tr>
<td>Java-Spock</td>
<td>Renames Java with Spock language without blanks in folder name.</td>
<td>8 months ago</td>
</tr>
<tr>
<td>Java</td>
<td>reverted GildedRose to original code</td>
<td>3 years ago</td>
</tr>
<tr>
<td>Kotlin</td>
<td>Use gradle to build kotlin files</td>
<td>2 years ago</td>
</tr>
<tr>
<td>R</td>
<td>Eclipse/StatET R environment configuration (can be imported as existing</td>
<td>5 years ago</td>
</tr>
<tr>
<td>Smalltalk</td>
<td>Fixes encoding Smalltalk source.</td>
<td>8 months ago</td>
</tr>
<tr>
<td>TypeScript</td>
<td>excluded none spec files from test runner</td>
<td>8 months ago</td>
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Hi! I'm Eric Wastl. I make Advent of Code. I hope you like it! I also made Vanilla JS, PHP Sadness, and lots of other things. You can find me on Twitter and GitHub.

Advent of Code is an Advent calendar of small programming puzzles for a variety of skill sets and skill levels that can be solved in any programming language you like. People use them as a speed contest, interview prep, company training, university coursework, practice problems, or to challenge each other.

You don't need a computer science background to participate - just a little programming knowledge and some problem solving skills will get you pretty far. Nor do you need a fancy computer; every problem has a solution that completes in at most 15 seconds on ten-year-old hardware.

If you'd like to support Advent of Code, you can do so indirectly by helping to [Share] it with others, or directly via PayPal or Coinbase.

--- General Tips ---
PERFECTIONISM QUESTIONS

1. How does perfectionism show up with you or on your team?

2. What fears do perfectionism hide in yourself and on your team?

3. What will you do to keep perfectionism in check?
COGNITIVE BIAS
IMPOSTER SYNDROME

Chronic self-doubt that overrides any feelings of success, even in the face of external proof.

High-achieving perfectionists are most susceptible.

source: https://hbr.org/2008/05/overcoming-imposter-syndrome/
ONE OF THESE DAYS EVERYONE WILL FIND OUT I’M NOT REALLY TECHNICAL.
WEREN’T YOU NAMED ONE OF LINKEDIN’S TOP 10 PROFESSIONALS IN SOFTWARE UNDER 35?
"Those with limited knowledge in a domain suffer a dual burden: Not only do they reach mistaken conclusions and make regrettable errors, but their incompetence robs them of the ability to realize it.”

- David Dunning & Justin Kruger

I DON’T NEED TO TRAIN, DO KATAS, OR PAIR. I ALREADY KNOW EVERYTHING ABOUT X TECHNOLOGY. JUST LEAVE ME ALONE AND LET ME CODE IN PEACE.
“The problem is that once we know something...we find it hard to imagine not knowing it. Our knowledge has “cursed” us. We have difficulty sharing it with others, because we can’t readily re-create their state of mind.”

- Chip Heath & Dan Heath

source: https://hbr.org/2006/12/the-curse-of-knowledge
STOP ME AT ANY TIME. I KNOW I HAVE BLIND SPOTS AND I'M HAPPY TO ANSWER QUESTIONS.
COACHING FOR COGNITIVE BIAS

RETROSPECTIVES

Reward honesty and vulnerability. Celebrate the courage it takes to take emotional risks.
COGNITIVE BIAS QUESTIONS

1. What do you fear people “finding out” about you? What do other members of your team fear?

2. Where do cognitive biases show up on your team?

3. How can you observe and manage these effects?
LANGUAGE PATTERNS
COGNITIVE PRIMING

Priming is a nonconscious form of human memory concerned with perceptual identification of words and objects.

Hearing/saying the words “non-technical” reinforces stereotypes.

source: https://www.psychologytoday.com/us/basics/priming
WORD CHOICE MATTERS

NEUTRAL LANGUAGE

“boys & girls do equally well at math”

COMPARATIVE LANGUAGE

“girls do just as well as boys at math”

RESULT: Even though studies show gender has no impact on math ability, after hearing the comparative language statement, participants judged boys as more talented at math by a margin of 2 to 1.


@andreagoulet
A way of unpacking our own thinking using metaphors as a tool for greater understanding.

Can someone truly be “non-technical” or is that a metaphor to explore?

source: Sullivan, Wendy; Rees, Judy. Clean Language: Revealing Metaphors and Opening Minds.
Regularly choosing words and phrases that advance the opposite of a desired outcome.

As a facilitator, you already have superpowers to help identify these patterns and help teams course correct.
LANGUAGE ANTI-PATTERNS

- SHAMING RESPONSES TO QUESTIONS ("EVERYONE KNOWS")
- FEIGNDED SURPRISE ("YOU DON’T KNOW?!")
- IMMEDIATE CRITICISM ("WELL, ACTUALLY")
- ABSOLUTE LANGUAGE (CAN’T/BUT/WON’T/ALWAYS/NEVER)
- BINARY QUESTIONS (YES/NO) VS. OPEN-ENDED QUESTIONS
- EXCLUSIVE VS. INCLUSIVE LANGUAGE (BUT/AND)
- LEADING QUESTIONS ("WHO WROTE THIS CRAP?")

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COACHING FOR LANGUAGE PATTERNS

SPOT “SMELLS”

Help teams recognize patterns in both code and natural language.
SPARROW DECKS

https://learnwithllew.github.io/SparrowDecks

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1. What language patterns do you observe on your team?

2. How does your team’s language impact their effectiveness?

3. How can you transform language patterns that aren’t serving you or your team?
Am I technical or non-technical?
Am I technical or non-technical? BOTH.
Am I technical or non-technical? BOTH...AND SO ARE YOU!
ANDREA GOULET

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old code • new tricks