

# CONNASCENCE

Categorizing and measuring coupling

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# Agenda

- What exactly is connascence?
- Why do we need to know?
- ... Are we flying yet?



## Our toolbelt

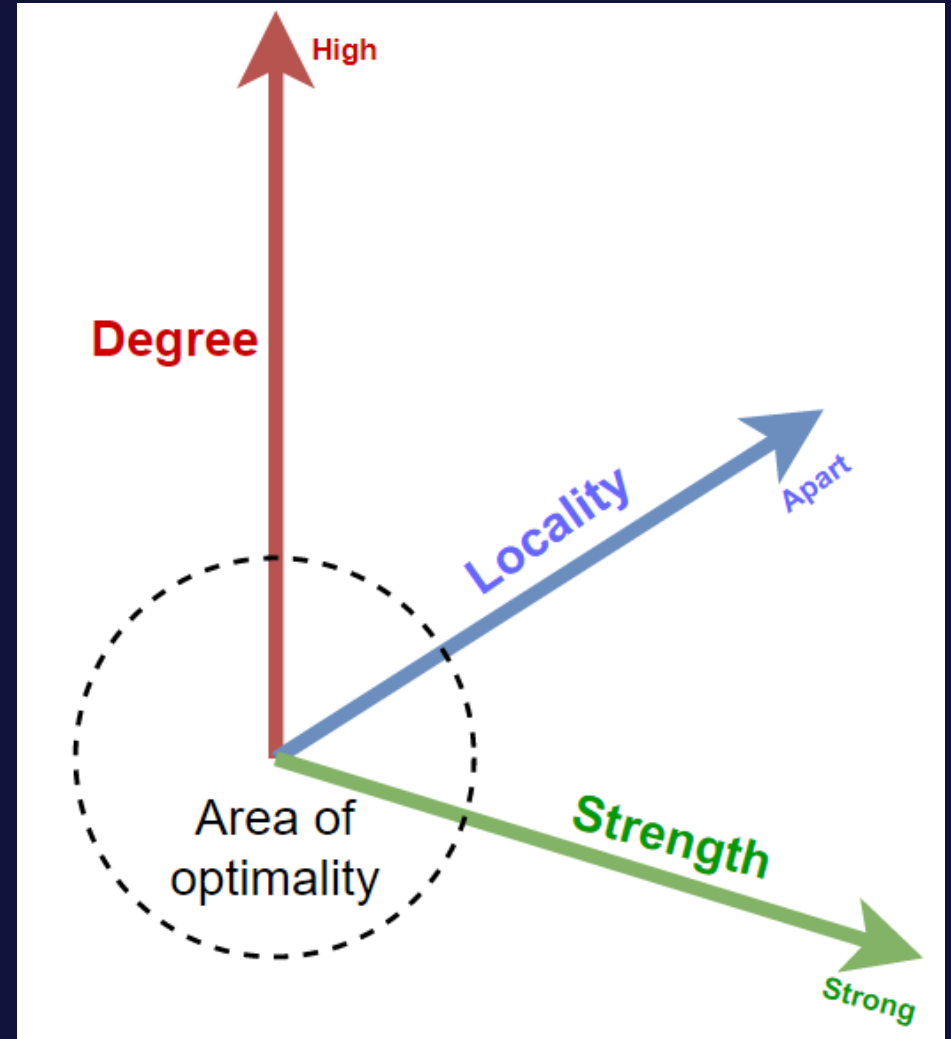
- Low coupling, high cohesion
- SOLID principles
- Code smells
- Object calisthenics
- And so on...

# Connascence

- Noun: The act of growing together
- Jim Weirich
  - Grand unified theory of software development
  - Two pieces of software share ***connascence*** when a change in one requires a corresponding change in the other

# Measuring coupling

- Degree: Amount of entities needed to change
- Locality: How close are the entities
- Strength: Stronger connascence are harder to discover or refactor



# Categorizing coupling

- Static vs dynamic
  - Discoverability
- Ordered by strength

Dynamic:



Static:



<https://codesai.com/posts/2017/07/two-examples-of-connascence-of-position>

# Static connascence

- Connascence of name
- Connascence of type

Strength: weak

Locality: close

Degree: low

```
3      public class Time
4      {
5          int _hour;
6          int _minute;
7          int _second;
8
9          public Time(int hour, int minute, int second)
10         {
11             _hour = hour;
12             _minute = minute;
13             _second = second;
14         }
```

# Dynamic connascence

- Connascence of execution order
- Discoverable at runtime

```
public void ChangeMovieTitle(Guid id, string newTitle)
{
    var movie = GetMovie(id);
    movie.Title = newTitle;
    movie.UpdatedOn = DateTime.Now;
    Save(movie);
}
```

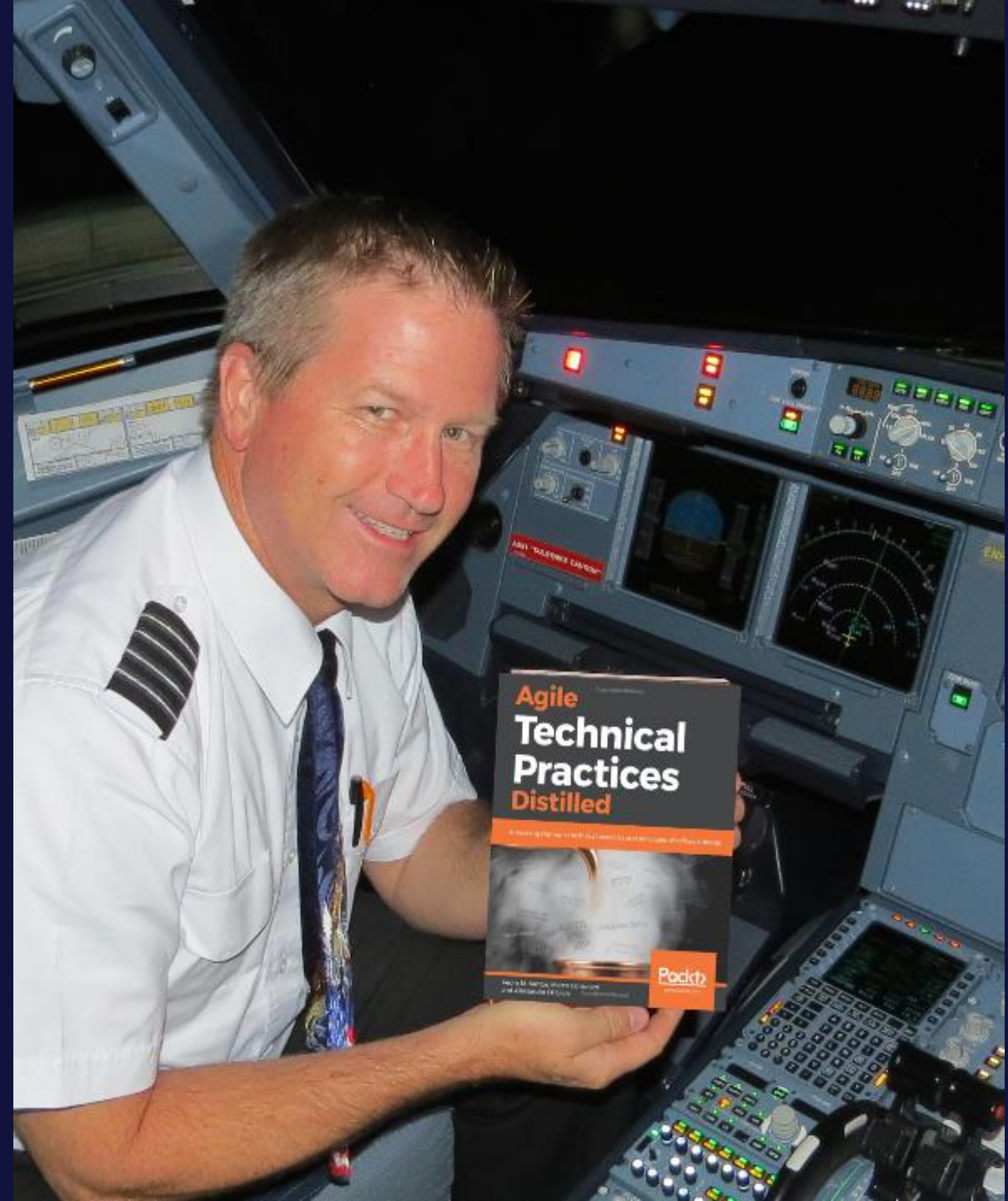


# Why do we need to know?

- Vocabulary of different types of coupling
- Software-quality metric
- Know-how to be in the area of optimality

# Are we flying yet?

- Test doubles
- Hexagonal architecture
- Acceptance test driven development





# Are we flying yet?

- Smoother mob programming
- Concepts are settling in
- Put it into practice
  - And practise!

Thanks for your attention!



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