



# More XP-rience: What more have I learned about eXtreme Programming in the last 15 years?

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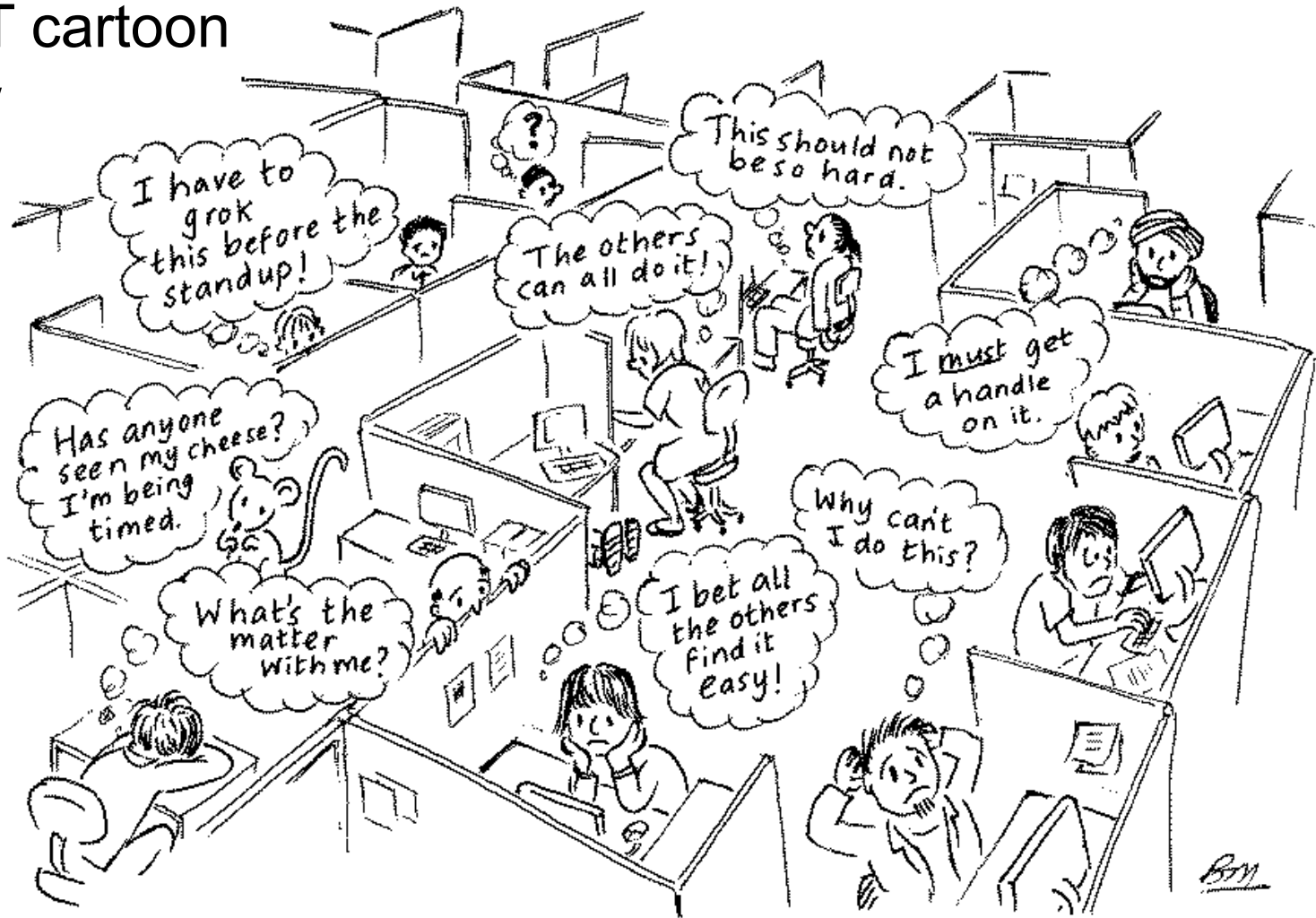


## The core of eXtreme Programming

- Test-driven development
- Refactoring
- Pair-programming
  - Tools
  - Psychology

(which I will now talk about in reverse order)

# The first IT cartoon I ever saw



# So we need some Pair-programming – how much?

## Pair-program all the time? Maybe not.

- There are two temperaments:
  - Introvert: gains energy when alone, expends it when with others
  - Extrovert: gains energy from others, loses it when alone

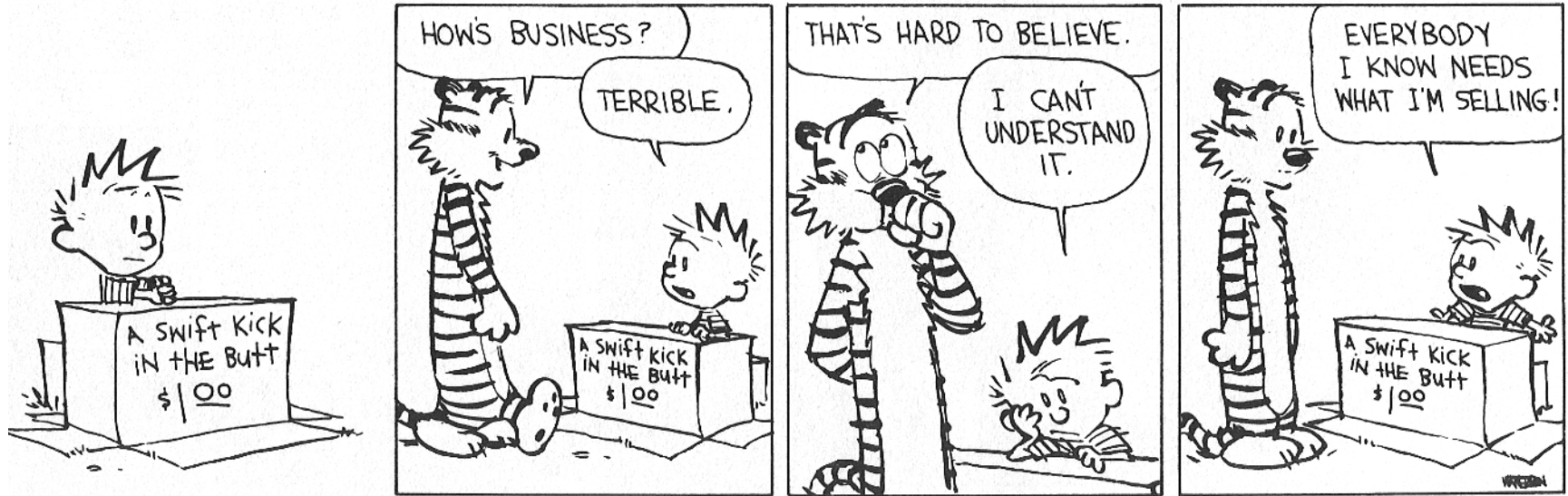
Some Smalltalkers are talkative, not shy of airing opinions – yet are introverts
- Make some minimum obligatory:
  - Replace all one-one discussions / reports with pair-programming sessions
    - If you pair-program with someone regularly, you'll know their progress
    - Thou shalt pair for at least X hours per week
    - Suggest a vague length - a “we can end after” time

# Unequal and equal pairings

- Sharing knowledge on a common task:
  - Domain expert with code expert
  - Experts in two required frameworks
- Leader and follower:
  - Old-timer with newbie
  - Handover
- Equal in skill, not in temperament:
  - Innovator versus completer
  - Clean-code versus get-it-working
  - Cloners, overrides and respecters



# Persuading the paired programmer to try your idea



- “The combative engagement of creative intellects“
- “The creative engagement of combative intellects“

Which will it be this time?

# When and why *should* one not pair-program

## Any *good* reasons

- Trivial reasons to delay or halt-resume
  - Refamiliarise with area
  - Clean-up
- Design
  - Think and talk at the same time?
  - Avoid tunnel vision
  - “Blessed is the man who, having nothing to say, refrains from giving long-winded evidence of the fact.”
- And finally, the worst reason of all
  - “When pairing, if I’m driving, I can’t be lazy.”

# Screen-sharing Tools for Pair-programming

And I thought I had learned little in fifteen years !

- 15 years ago, my team of 6 pair/multi-programmed with:
  - NetMeeting (Windows only, otherwise good: instant, set-up, easy mouse handover)
  - Headsets with boom microphones (clean sound quality) on conference calls (robust)
- Today, in mostly-smaller teams, I pair-program with:
  - Basic Skype (no mouse or keyboard sharing) or Lyncs (no Mac as yet)
  - WebEx or TeamViewer (mouse-sharing not quite as easy as NetMeeting)
  - VNC (good, needs both client and server to pair, takes a bit of set-up)and (often)
  - microphones embedded in the computer, carried over (less reliable) Skype



# Refactoring

## Anything I do more of than I did 15 years ago?

- Inline method
  - Convert calling chain into one method
  - Re-break it into methods chunking the behaviour differently
- Add/remove parameter
  - Usually adding – behaviour migrates upward, state downward
  - Removing - behaviour migrates from parameter to state
- Convert to Sibling
  - Great when you (rarely) need it
  - I'm sure the UI could be clearer

# Test-Driven Development

“Solve the problem to understand the problem” -  
makes writing initial tests hard as well

- Early tests
  - Script in a test, not a workspace
  - Agree a test, not words
- A test framework is empowering
  - when you add fresh tests, think: refactor test framework?
- Tests you don't work on right away?
  - nagging tests
  - aspirational tests

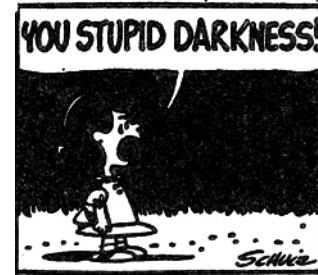
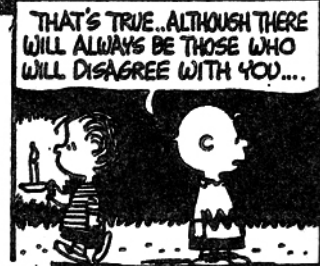
# Programming is not that easy

## Humans are not that good at it

- Smalltalk pushes the boundary of what you can do
  - Fight the problem, not the language
- eXtreme Programming does the same
  - Make it run (wrong!)
  - Make it right (less wrong!)
  - Make it fast (er)

## I get by with a little help from my friends

- pair-program – as much as you can (bear)



# Thank You!

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