# Programming Languages Pragmatics

THE DEVELOPMENT OF A PROGRAMMING LANGUAGE

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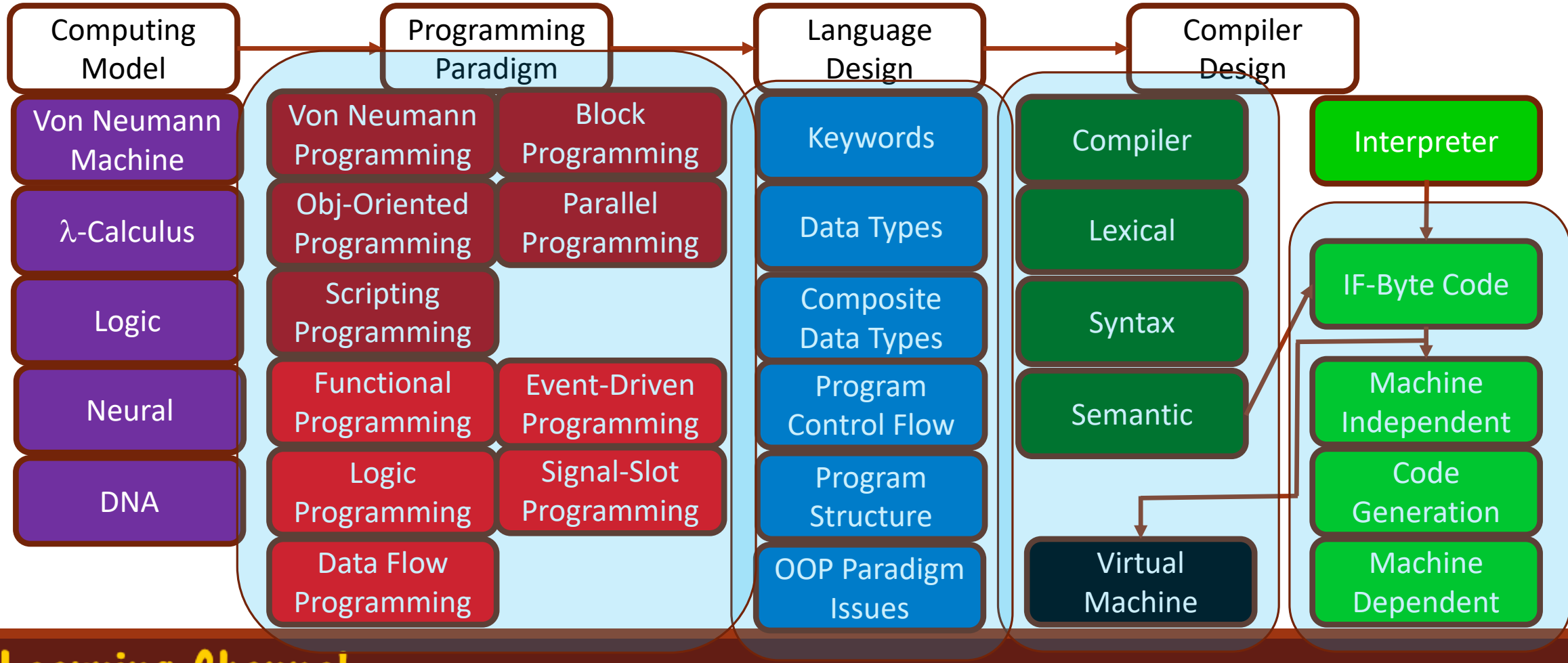
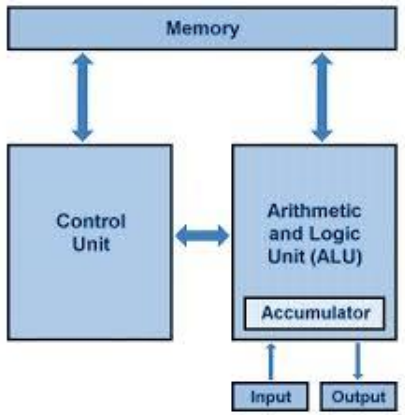
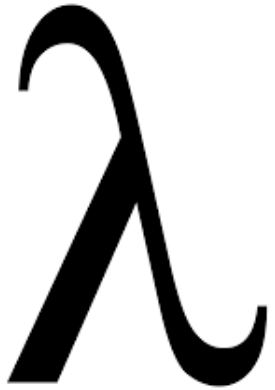
# The Development of a Programming Language

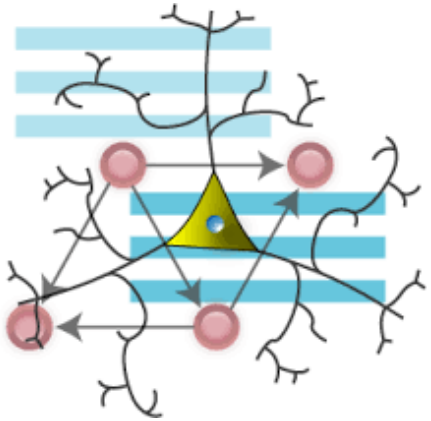


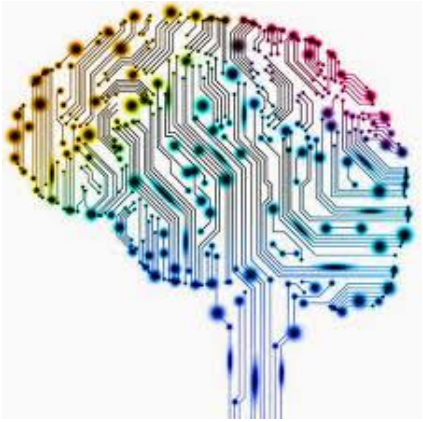
# The Development of a Programming Language

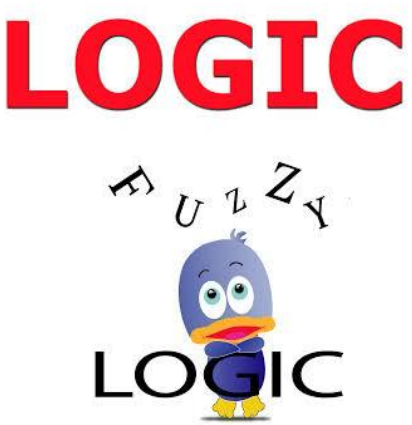
## Computing Models

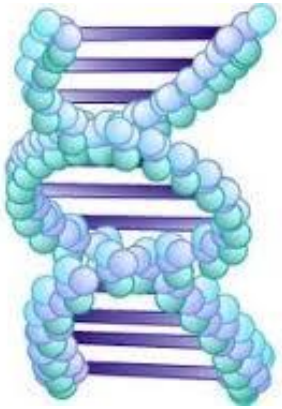


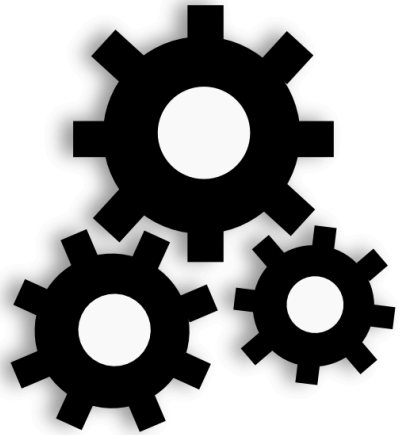







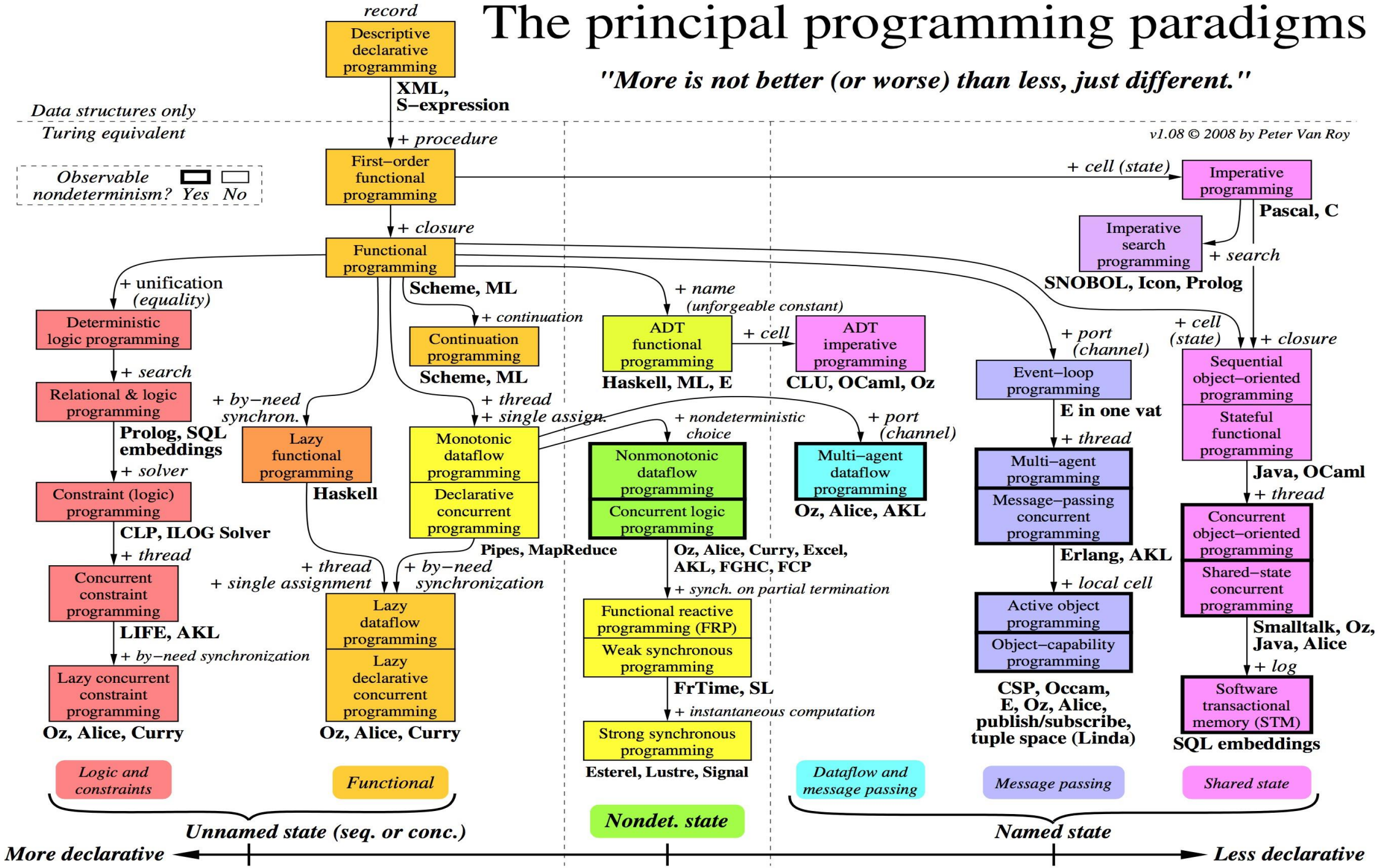




# The principal programming paradigms

*"More is not better (or worse) than less, just different."*



# Run Time Environment

## Programming Language Beyond Compiler

Programming Essentials
C-Equivalent

Obj-Oriented Programming
C++ Equivalent

| | |
|---|---|
| GUI | Data Structure |
| File I/O | Concurrency |
| Exception | Generics |
| Numerical | Database |
| Geometry | Chart Plotting |
| String | Networking |
| Data Collection | Unit Test |

**Development Kit, APIs**

Design Framework
Client-Server
Programming

Design Studio
Compilers
IDE
APIs
Framework
etc.