

**Moving data or code to a new language can require new names for the same old tricks. Switching is like cutting & reconnecting tendons: costly, painful, error-prone. How exactly names link to explanations in a language is often as well protected as its – Thus, excellent naming support and well-chosen stable names are key for long-term stable data!**

# Achilles Heel

**Naming<sup>1</sup> is training muscles of insight in a new context by growing or shaping strands of perfectly equivalent synonyms for 1 single**

**NAMES-TREE-ROOT**

**LINKS**

**1 Box with only 1 well-explained task is executed when a synonym of a NAMES-TREE is used to call its 1 ROOT of functionality**

## Tendons=Link muscles and bones to pull all strings!

Likewise, 'tendons' in languages link each symbol in a context to its explanation that defines all the functionality of the symbol. **Activation** of a symbol's synonym ('fiber') in its NAMES-TREE ('muscle') is calling its ROOT link ('pull its tendon') to execute a functional task ('move its bone').

Managing many synonyms led to **Evolvix.org /BESTnaming<sup>2</sup>**

**Stabilized Names?**  
**Stable Link**  
**Stable Explanation**

## Usability Review<sup>1,2</sup>:

Are names & symbols user-friendly & keep saying what they mean to newbie & expert?

**Stable Meaning**

**Stable Symbols**

**Stable Code**

**Stable Dataformat**

Neither too complex (simpler code will replace it), nor too simple (user-workarounds are unstable): abstraction has stabilized & areas are well known by **Expert Review<sup>1,2</sup>** for stability & extensibility

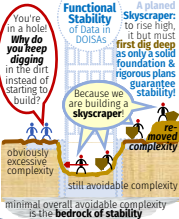
(1) In repeated rounds of rigorous review & discussion with a language architect

(2) see 95-page study on semantic reproducibility and how **Evolvix BEST names can separate naming concerns** *Ann.N.Y.Acad.Sci.* 1387 (2017)124ff.

## Data Languages

for biouncertainty have to grow **while** keeping a **stable** **extensible** **user-friendly** grammar for full backwards-compatibility **Over the Long Term** **Hard to do & worth it!**

OLT  
OLT  
OLT  
OLT



Intuitive naming dialects capture most user-persona views with the fewest rules; standards includes built-in common types for use in biodata in the 'Evolvix English Core' format

## Stability, an odd public good:

- +extensible for future needs;
- +user-friendly 4 all 2 save time;
- +vast cuts to bioreasoning cost;

**-depends on clever protection**  
**-how on earth can it be built?**