Lambda Calculus

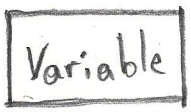
3 kinds of expressions

examples

- 

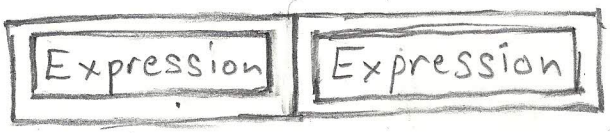
Lambda Abstraction

  $(\lambda a.\lambda b.a)$

- 

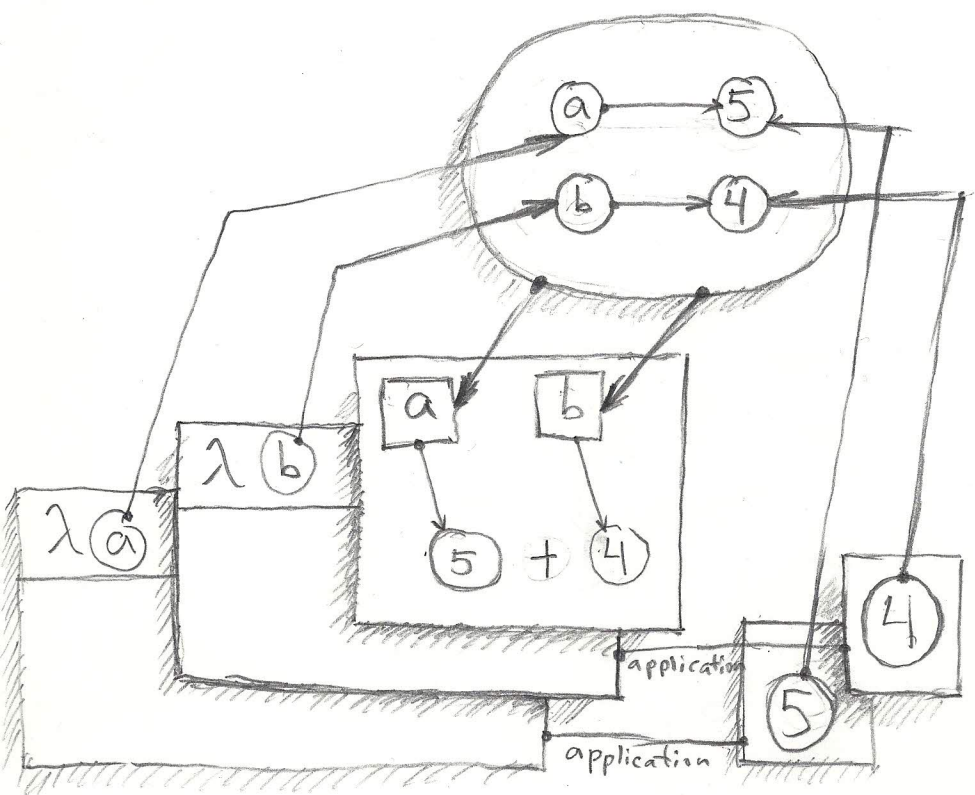
Variable

  (z)

- 

Application

  $(\lambda a.\lambda b.a)\ (\lambda s.\lambda z.s\ z)$



$((\lambda a.\lambda b.a + b)\ 5)\ 4$

Note: the ⊕ is not Pure L.C.

Imperative | Functional

Logic

Operators, Operands and everything they entail

Control

Conditional Branching

Looping | Tail Recursion

. Function Calls

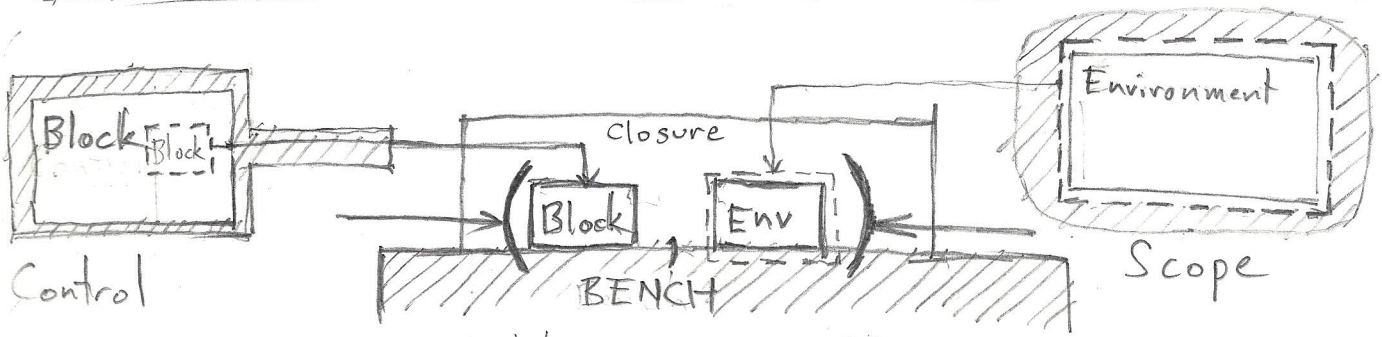
State | Data | Environment

Memory
Registers

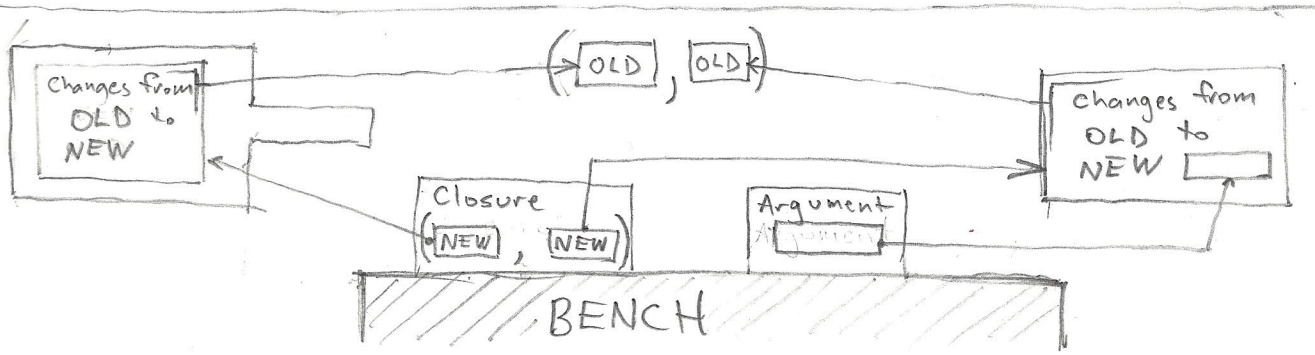
IO

{ref ⟶ value}
Val:
constants
algebraic data
closures

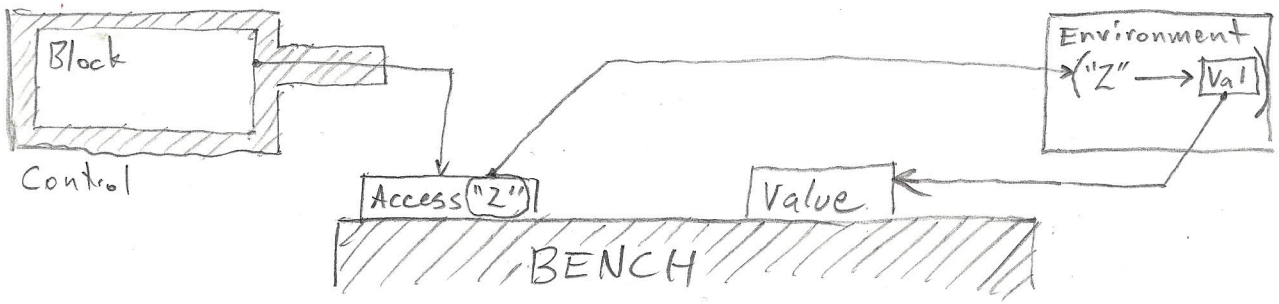
Actions from within a Closure



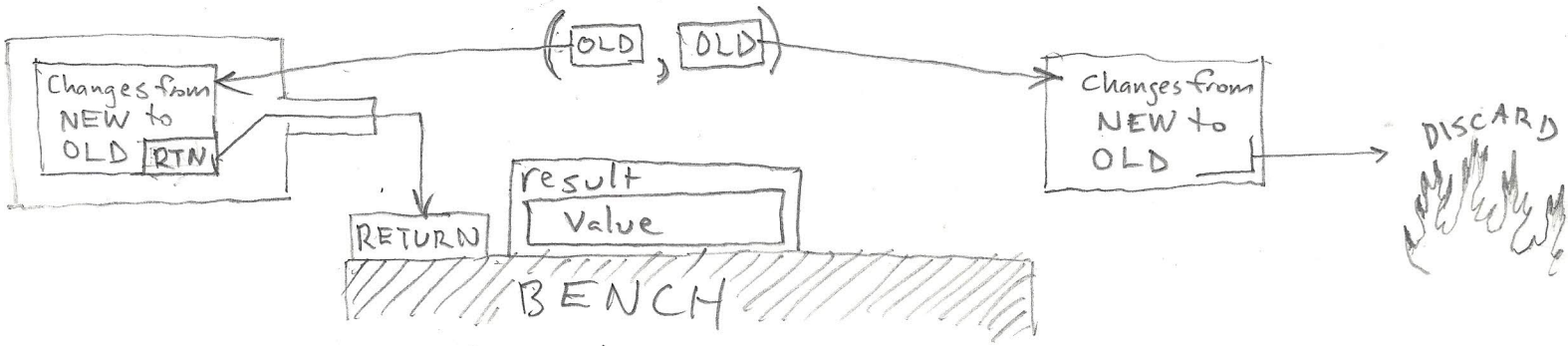
Making a new Closure



Entering a Closure



Access Environment



Return to Previous Closure