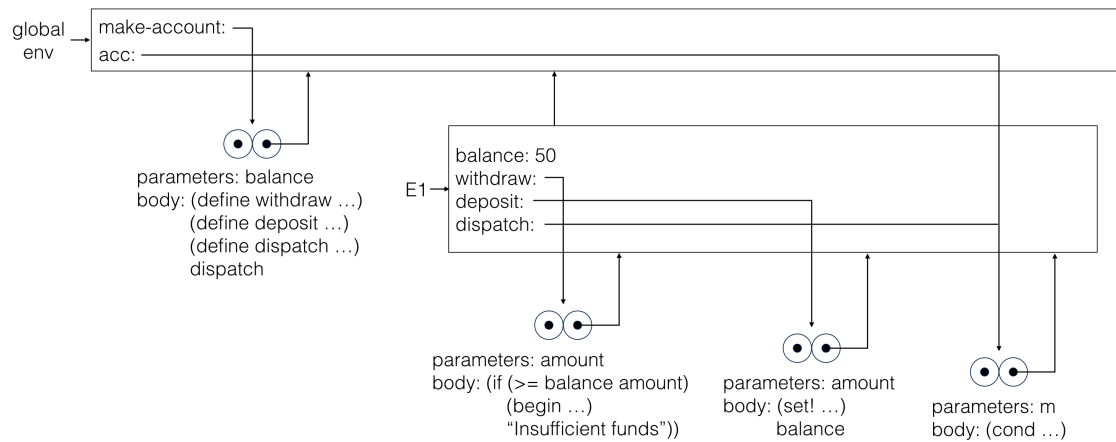


# SICP Exercise 3.11

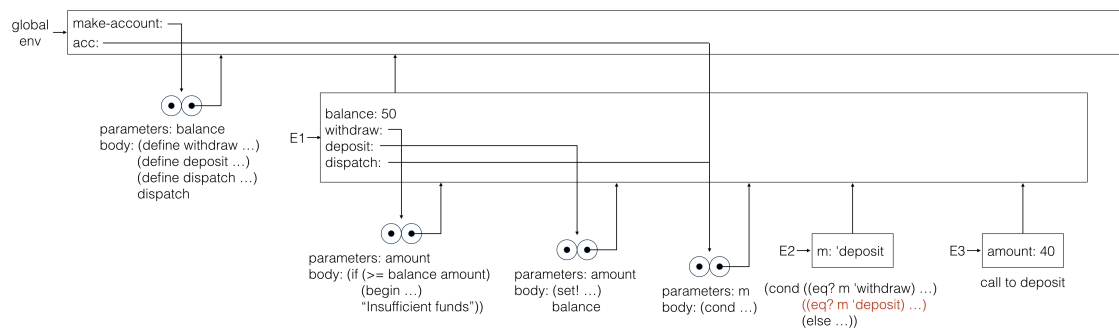
Yuchong Pan

September 8, 2016

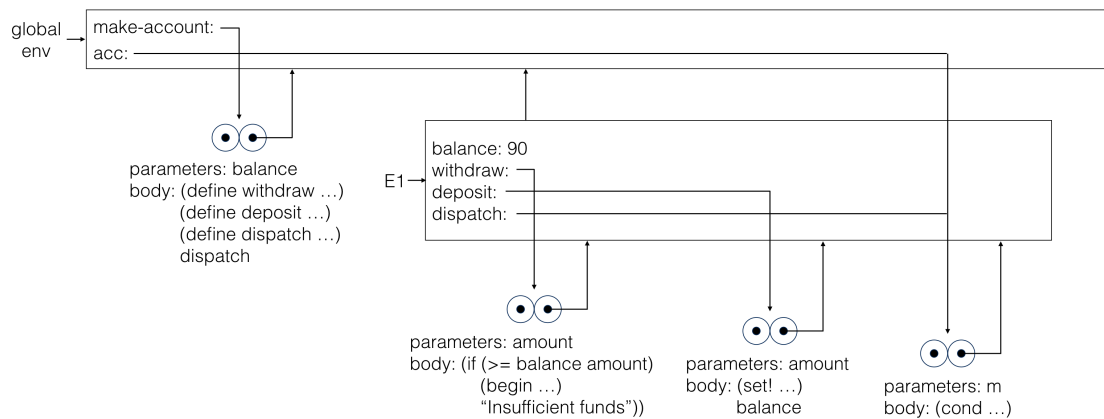
The environments created by evaluating `(define acc (make-account 50))` are given as follows:



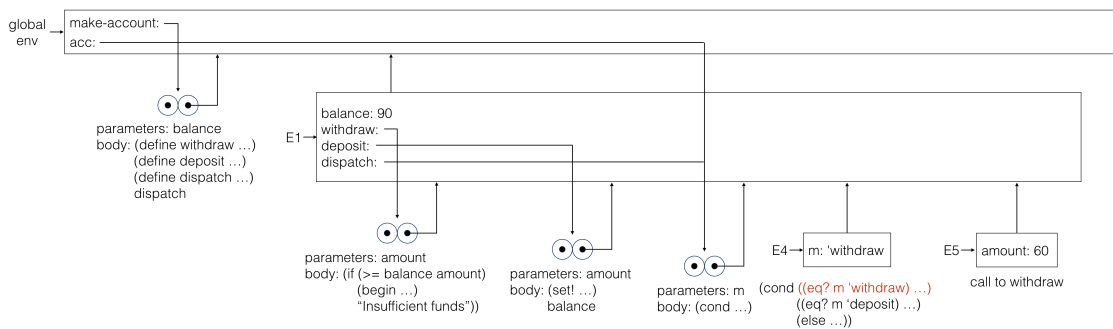
The environments created by applying the procedure object `(acc 'deposit)` to 40 are given as follows:



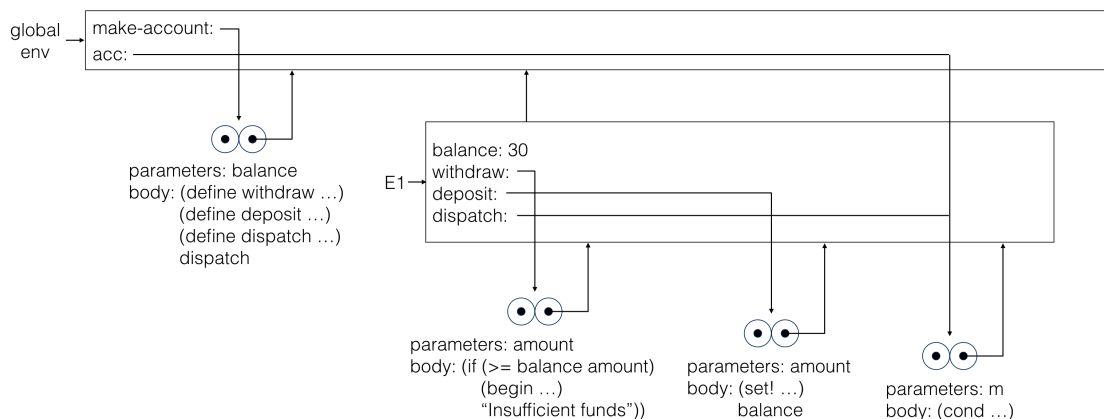
After the call to `(acc 'deposit)`, the environments become



The environments created by applying the procedure object (acc 'withdraw) to 60 are given as follows:



After the call to (acc 'withdraw), the environments become



The local state for `acc`, i.e. the state variable `balance` and the three internal procedures `withdraw`, `deposit` and `dispatch`, is kept in the first frame of the environment `E1`, whose enclosing environment is the global environment.

After defining another account `acc2` as `(define acc2 (make-account 100))`, the state local state for `acc2`, i.e. the state variable `balance` and the three internal procedures `withdraw`, `deposit` and `dispatch`, is kept in a separate environment whose enclosing environment is the global environment. Furthermore, the global environment and code for each procedure are shared between `acc` and `acc2`.