

Variables x, y, \dots Exceptions p, \dots

Expressions $e ::= v \mid ee \mid \mathbf{raise}_p e \mid \mathbf{try}_p ee$

Values $v ::= x \mid \lambda x. e$

Contexts $D ::= \square \mid De \mid vD \mid \mathbf{raise}_p D \mid \mathbf{try}_p De$

Single Frame $::= \square e \mid v\square \mid \mathbf{raise}_p \square \mid \mathbf{try}_p \square e$

Transitions between configurations (e, D)

$(ee', D) \mapsto (e, D[\square e'])$ e non-value

$(ve, D) \mapsto (e, D[v\square])$ e non-value

$(\mathbf{raise}_p e, D) \mapsto (e, D[\mathbf{raise}_p \square])$ e non-value

$((\lambda x. e)v, D) \mapsto (e[v/x], D)$

$(\mathbf{try}_p ee', D) \mapsto (e, D[\mathbf{try}_p \square e'])$

$(\mathbf{raise}_p v, D) \mapsto (e'v, D_2)$ $D_2[\mathbf{try}_p D_1 e'] = D, \mathbf{try}_p D' e \notin D_1$

$(v, D[D_1]) \mapsto (D_1[v], D)$ D_1 single frame

$(\mathbf{try}_p ve', D) \mapsto (v, D)$