0.1 Abstract Syntax

$test \in memes \quad What$

0.2 Helping Functions

(1) $$\mathcal{N} : n \to \mathbb{Q}$$

(2) $$ancestors : Name_s \to Name_s^*$$
$$ancestors(s) = s \cup ancestors(s_{parent})$$

0.3 Environments

(3) $$sta \in Sta = Name_s \rightharpoonup (\underbrace{Rea^*}_{Reactions} \times \underbrace{Stmt}_{\substack{Transition\\Statements}} \times \underbrace{Var}_{\substack{Variable\\Environment}})$$

(4) $$fam \in Fam = Name_s \rightharpoonup (\underbrace{Names_\varepsilon}_{Parent} \times \underbrace{Names_\varepsilon}_{\substack{Default\\Child}} \times \underbrace{Names_\varepsilon^*}_{Children})$$

(5) $$var \in Var = Name_v \rightharpoonup Loc$$

(6) $$sto \in Sto = Loc \rightharpoonup Val$$

0.4 Phase Transitions

(PHASE-READ) $$\frac{\begin{matrix} test \\ tester \\ test \\ tester \end{matrix}}{sta \vdash \langle john \rangle \to \langle john' \rangle} \textbf{ where } \begin{matrix} \\ \\ john' = memes \\ john' = memes \\ john' = memes \\ john' = memes \end{matrix}$$