$$\frac{}{([(var_1 = var_2, \Sigma) \mid Stack], \sigma) \to ([Stack], \sigma + (var_1, var_2))} \text{ var-var binding}$$

$$\frac{var' \text{ is a fresh variable} \qquad \sigma' = \sigma + (var', simplify(value, \sigma))}{([(var = value, \Sigma) \mid Stack], \sigma) \to ([Stack], \sigma')} \text{ var-value binding}$$

where $simplify(v, \sigma)$ replaces instances of variables in v with the values they're bound to in σ.

(This is where unification is done).

$$\frac{\Sigma(var) \text{ is not a boolean}}{([(\text{if } var \text{ then } S_1 \text{ else } S_2 \text{ end}, \Sigma) \mid Stack], \sigma) \to error} \text{ if-error}$$

$$\frac{\Sigma(var) \text{ is true}}{([(\text{if } var \text{ then } S_1 \text{ else } S_2 \text{ end}, \Sigma) \mid Stack], \sigma) \to ([(S_1, \Sigma) \mid Stack], \sigma)} \text{ if-true}$$

$$\frac{\Sigma(var) \text{ is false}}{([(\text{if } var \text{ then } S_1 \text{ else } S_2 \text{ end}, \Sigma) \mid Stack], \sigma) \to ([(S_2, \Sigma) \mid Stack], \sigma} \text{ if-fa}$$

(If $\Sigma(var)$ is a partial boolean, we cannot continue (yet,

$$\frac{\Sigma(f) \text{ is not a procedure}}{(\,[(\{f\ x_1 \ldots x_n\},\Sigma) \mid Stack],\ \sigma\,) \longrightarrow error}\ \text{proc-error}$$

$$\frac{\Sigma(f) \text{ has form } (\text{proc } \{\$\ y_1 \ldots y_n\}\ S \text{ end},\ \Sigma')}{(\,[(\{f\ x_1 \ldots x_n\},\Sigma) \mid Stack],\ \sigma\,) \rightarrow (\,[(S,\Sigma'[y_1,\ldots,y_n := \Sigma(x_1),\ldots,\Sigma(\ \mid Stack],\ \sigma\,)}$$

$$\frac{m \neq n \qquad \Sigma(f) \text{ has form } (\text{proc } \{\$\ y_1 \ldots y_m\}\ S \text{ end},\ \Sigma')}{(\,[(\{f\ x_1 \ldots x_n\},\Sigma) \mid Stack],\ \sigma\,) \rightarrow error}$$