Definition 0.0.4 (Reduction) The *reduction relation* $\longrightarrow$ is the smallest contextual relation that satisfies the following rules:

$$c!\langle \overline{V} \rangle \mid c?(\overline{X}).R \longrightarrow R[\![\overline{V}/\overline{X}]\!] \quad \text{(R-COMM)}$$

$$\text{rec } p.R \longrightarrow R[\![^{\text{rec } p.R}/_{p}]\!] \quad \text{(R-REP)}$$

$$\text{if } v = v \text{ then } P \text{ else } Q \longrightarrow P \quad \text{(R-EQ)}$$

$$\text{if } v_1 = v_2 \text{ then } P \text{ else } Q \longrightarrow Q \quad (\text{where } v_1 \neq v_2) \quad \text{(R-NEQ)}$$

$$\frac{P \equiv P', P \longrightarrow Q, Q \equiv Q'}{P' \longrightarrow Q'} \quad \text{(R-STRUC)}$$

We use the notation $P \cdots\!\!\longrightarrow Q$ when an arbitrary number of these rules have been applied in reducing P to Q.