

$$\llbracket \mathbf{takeSC} \, v \, (\lambda_. e) \rrbracket = \mathbf{raise}_{p_0}(\lambda_. \llbracket e \rrbracket, \llbracket v \rrbracket)$$

$$\llbracket \mathbf{pushP} \, v \, e \rrbracket = \mathbf{try}_{p_0} \llbracket e \rrbracket \, \mathbf{TH}_{\llbracket v \rrbracket}$$

$$\llbracket x \rrbracket = x$$

$$\llbracket p \rrbracket = q$$

$$\llbracket \lambda x. e \rrbracket = \lambda x. \llbracket e \rrbracket$$

$$\llbracket e_1 \, e_2 \rrbracket = \llbracket e_1 \rrbracket \llbracket e_2 \rrbracket$$

$$\llbracket \mathbf{newP} \rrbracket = \mathbf{newQ}$$

$$\llbracket \mathbf{pushP} \, e \, e' \rrbracket = \llbracket (\lambda x. \mathbf{pushP} \, x \, e') e \rrbracket \quad e \text{ non-value, } x \text{ fresh}$$

$$\llbracket \mathbf{takeSC} \, e \, \lambda_. e' \rrbracket = \llbracket (\lambda x. \mathbf{takeSC} \, x \, \lambda_. e') e \rrbracket \quad e \text{ non-value, } x \text{ fresh}$$

$$\mathbf{TH}_q = \lambda y. \mathbf{if} \, (\lambda y_2. (q, y_2))(\mathbf{snd} \, y) \, \mathbf{then} \, \mathbf{fst} \, y \, () \, \mathbf{else} \, \mathbf{raise}_{p_0} \, y$$