

$$\llbracket _ \rrbracket_{\text{sub}} : \forall \{A \ A' \ sd\} \rightarrow A \leq : A' \rightarrow \llbracket A \rrbracket_{\text{ty}} \ sd \rightarrow \llbracket A' \rrbracket_{\text{ty}} \ sd$$

$$\llbracket \leq\text{-refl} \rrbracket_{\text{sub}} a = a$$

$$\llbracket \leq\text{-trans} \ A \leq : A' \ A' \leq : A'' \rrbracket_{\text{sub}} a = \llbracket A' \leq : A'' \rrbracket_{\text{sub}} (\llbracket A \leq : A' \rrbracket_{\text{sub}} a)$$

$$\begin{aligned} \llbracket \leq\text{-fn} \ A \leq : A' \ B' \leq : B \rrbracket_{\text{sub}} a = \\ \lambda \ sd \leq_s sd' \ a' \rightarrow \llbracket B' \leq : B \rrbracket_{\text{sub}} (a \ sd \leq_s sd' (\llbracket A \leq : A' \rrbracket_{\text{sub}} a')) \end{aligned}$$

$$\llbracket \text{var-}\leq\text{-exp} \rrbracket_{\text{sub}} (exp, acc) = exp$$

$$\llbracket \text{var-}\leq\text{-acc} \rrbracket_{\text{sub}} (exp, acc) = acc$$

$$\llbracket \text{Sub} \ a \ A \leq : B \rrbracket \ sd \ \gamma = \llbracket A \leq : B \rrbracket_{\text{sub}} (\llbracket a \rrbracket \ sd \ \gamma)$$