

$$\mathit{lift}_{X,Y} : (X \rightarrow_{\mathbf{Pos}} Y) \longrightarrow (X \rightarrow_{\mathbf{Pos}} \mathcal{U}Y)$$

$$f \mapsto \begin{cases} \mathit{lift}_{X,Y} f : X \longrightarrow \mathcal{U}Y \\ x \mapsto \uparrow f(x) \end{cases}$$