

1. The arrow $b : X \rightarrow Y$ satisfies $J!_Y \odot b = J!_X$.
2. Precomposing $b : X \rightarrow Y$ preserves the greatest fixed point of Ψ . Namely, if $f : Y \rightarrow \mathbf{1}$ is the greatest fixed point of Ψ_Y , then $f \odot b : X \rightarrow \mathbf{1}$ is the greatest fixed point of Ψ_X .
3. Precomposing $b : X \rightarrow Y$ preserves the largest mediating arrow. Namely, if $l_{\max} : Y \rightarrow Z$ is the largest mediating arrow from a cone $(Y, (\delta_i : Y \rightarrow \overline{F}^i \mathbf{1}))$ to a weak 2-limit $(Z, (J\pi_i : Z \rightarrow \overline{F}^i \mathbf{1}))$, then $l_{\max} \odot b : X \rightarrow Z$ is the largest mediating arrow from a cone $(X, (\delta_i \odot b : X \rightarrow \overline{F}^i \mathbf{1}))$ to the weak 2-limit.