

1. The arrow $b : X \rightarrowtail Y$ satisfies $J!_Y \odot b = J!_X$.
2. Precomposing $b : X \rightarrowtail Y$ preserves the greatest fixed point of a decreasing sequence in $\mathcal{Kl}(Y, A)$. Namely, for a decreasing sequence $g_0 \sqsupseteq g_1 \sqsupseteq g_2 \dots : Y \rightarrowtail A$, $\bigcap_{i \in \omega} (g_i \odot b) = (\bigcap_{i \in \omega} g_i) \odot b$ holds.
3. Precomposing $b : X \rightarrowtail Y$ preserves the largest mediating arrow. Namely, if $l_{\max} : Y \rightarrowtail Z$ is the largest mediating arrow from a cone $(Y, (\delta_i : Y \rightarrowtail \overline{F}^i 1))$ to a weak 2-limit $(Z, (J\pi_i : Z \rightarrowtail \overline{F}^i 1))$, then $l_{\max} \odot b : X \rightarrowtail Z$ is the largest mediating arrow from a cone $(X, (\delta_i \odot b : X \rightarrowtail \overline{F}^i 1))$ to the weak 2-limit.