



Dmitry
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Visual category Theory



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$\text{CoPart}_3 \in \mathcal{C}^{\text{op}}$

Visual Category Theory, CoPart 3: A Dual to Brick by Brick, Part 3

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Consider covariant functors $L: \mathcal{D} \rightarrow \mathcal{C}$ and $R: \mathcal{C} \rightarrow \mathcal{D}$ between categories \mathcal{C} and \mathcal{D} , objects $X \in \mathcal{D}$ and $Y \in \mathcal{C}$, and the following arrows in categories \mathcal{C} and \mathcal{D} :
 $Ar(\mathcal{C}) \ni \alpha: L(X) \rightarrow Y$ and $Ar(\mathcal{D}) \ni \alpha': X \rightarrow R(Y)$

$$\begin{array}{ccccc} X & \xrightarrow{L} & L(X) & \xrightarrow{\alpha} & Y \\ X & \xrightarrow{\alpha'} & R(Y) & \xleftarrow{R} & Y \end{array}$$

