

$$\begin{array}{ccc}
& \text{pr}_! \circ (t,s)^* \circ F_{J \times L \times K^{\text{op}} \times K} & \\
& \Downarrow \wr & \\
\mathbf{D}(J \times K \times K^{\text{op}}) & \xrightarrow{\text{pr}_! \circ F_{J \times L \times \text{Tw}(K)} \circ (t,s)^*} & \mathbf{D}'(J) \\
& \Downarrow & \\
& F_{J \times L} \circ \text{pr}_! \circ (t,s)^* &
\end{array}$$

Diagram illustrating a commutative structure involving functors and natural transformations:

- The top horizontal arrow is labeled $\text{pr}_! \circ (t,s)^* \circ F_{J \times L \times K^{\text{op}} \times K}$.
- The bottom horizontal arrow is labeled $F_{J \times L} \circ \text{pr}_! \circ (t,s)^*$.
- The central horizontal arrow is labeled $\text{pr}_! \circ F_{J \times L \times \text{Tw}(K)} \circ (t,s)^*$.
- The vertical double arrows are labeled \wr (top) and \wr (bottom).
- The left object is $\mathbf{D}(J \times K \times K^{\text{op}})$.
- The right object is $\mathbf{D}'(J)$.