

$$\begin{array}{ccccc}
 \overline{F}X & - & \overline{F}\text{tr}(c) & \succcurlyeq & \overline{F}A & \preccurlyeq & \overline{F}\text{tr}(d) & - & \overline{F}Y \\
 \uparrow c & & = & & \uparrow J_\nu^{-1} & & = & & \uparrow d \\
 X & - & \text{tr}(c) & \succcurlyeq & A & \preccurlyeq & \text{tr}(d) & - & Y \\
 \uparrow s & & & & & & & & \uparrow t \\
 & & & & \mathbf{1} & & & &
 \end{array}$$

A commutative diagram illustrating relationships between variables X, A, Y and their corresponding \overline{F} -transformed versions $\overline{F}X, \overline{F}A, \overline{F}Y$.

- Horizontal relationships:
 - $X \succcurlyeq A \preccurlyeq Y$ with $\text{tr}(c)$ and $\text{tr}(d)$ positioned between X and A , and A and Y .
 - $\overline{F}X \succcurlyeq \overline{F}A \preccurlyeq \overline{F}Y$ with $\overline{F}\text{tr}(c)$ and $\overline{F}\text{tr}(d)$ positioned between $\overline{F}X$ and $\overline{F}A$, and $\overline{F}A$ and $\overline{F}Y$.
- Vertical relationships:
 - $X \xrightarrow{c} \overline{F}X$
 - $A \xrightarrow{J_\nu^{-1}} \overline{F}A$
 - $Y \xrightarrow{d} \overline{F}Y$
- Global relationships:
 - A large U-shaped arrow at the bottom connects X and Y through the identity $\mathbf{1}$.
 - Labels s and t are placed at the ends of this U-shaped arrow.