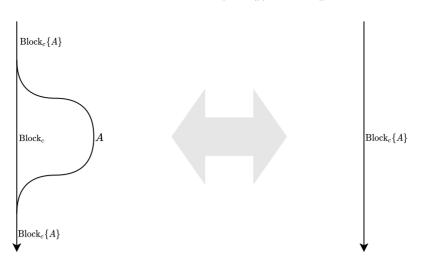
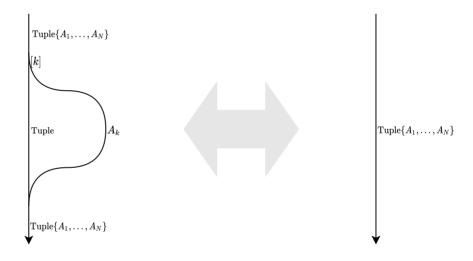
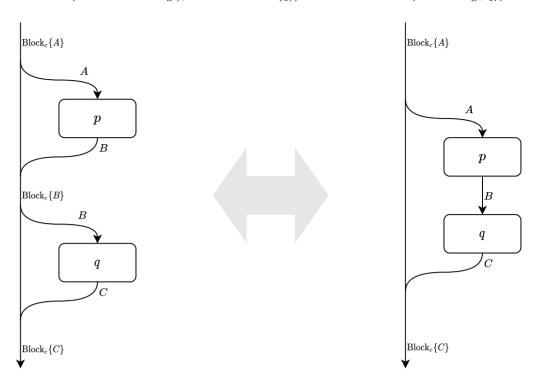
$with_elements(pass()) \Leftrightarrow pass()$



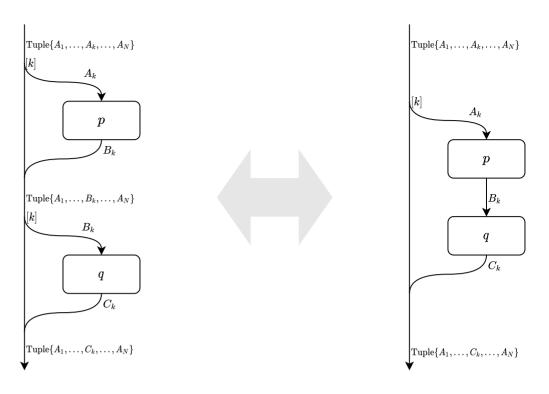
$\operatorname{with_column}(k, \operatorname{pass}()) \Leftrightarrow \operatorname{pass}()$



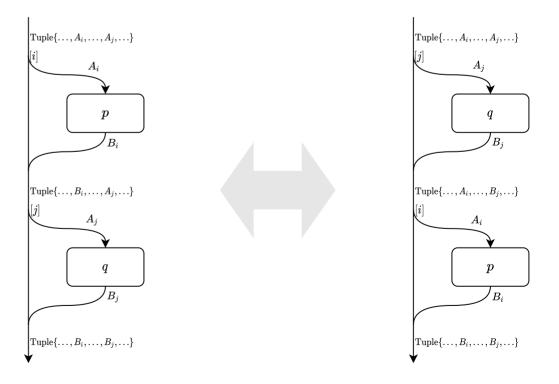
 $\texttt{chain_of}(\texttt{with_elements}(p), \texttt{with_elements}(q)) \Leftrightarrow \texttt{with_elements}(\texttt{chain_of}(p,q))$

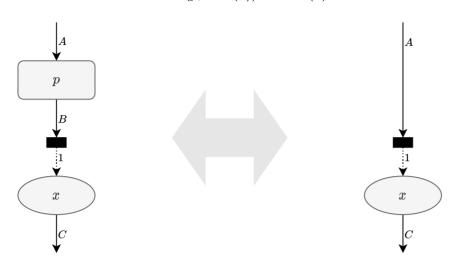


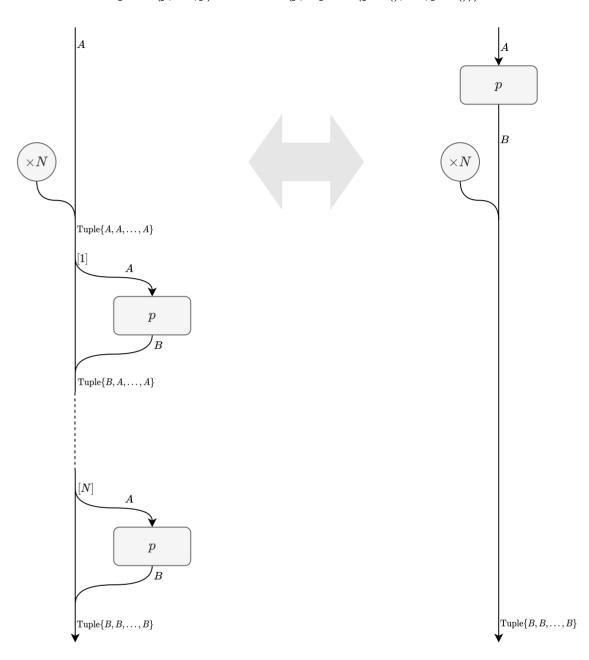
 $\texttt{chain_of}(\texttt{with_column}(k,p), \texttt{with_column}(k,q)) \Leftrightarrow \texttt{with_column}(k,\texttt{chain_of}(p,q))$

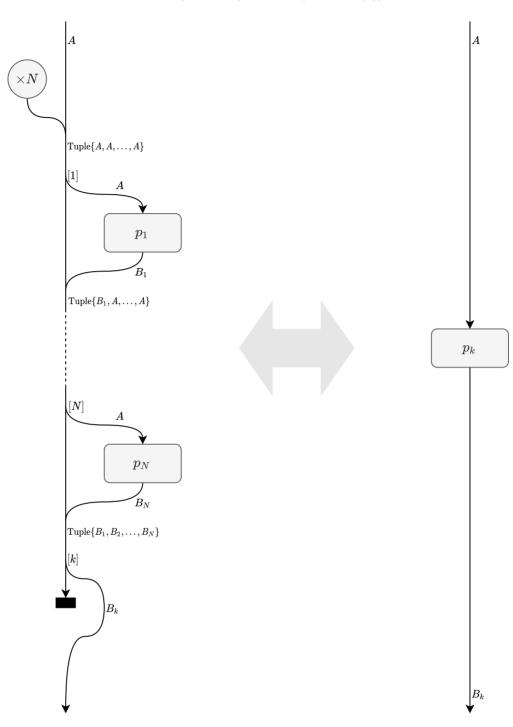


 $\texttt{chain_of}(\texttt{with_column}(i,p), \texttt{with_column}(j,q)) \Leftrightarrow \texttt{chain_of}(\texttt{with_column}(j,q), \texttt{with_column}(i,p)) \qquad i \neq j$





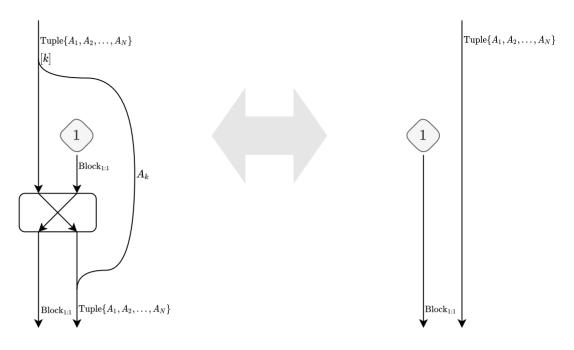




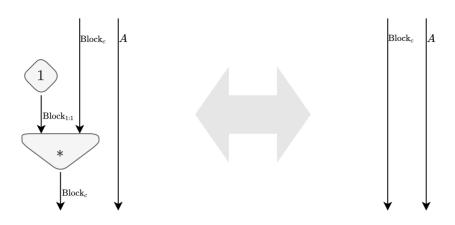
 $\operatorname{chain_of}(\operatorname{wrap}(),\operatorname{lift}(f)) \Leftrightarrow \operatorname{lift}(f)$



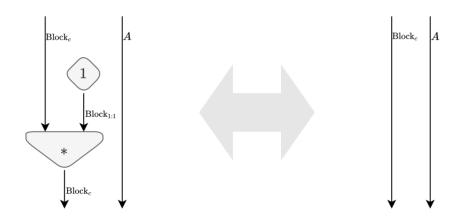
$\texttt{chain_of}(\texttt{with_column}(k, \texttt{wrap}()), \texttt{distribute}(k)) \Leftrightarrow \texttt{wrap}()$



$chain_of(wrap(),flatten()) \Leftrightarrow pass()$



$chain_of(with_elements(wrap()),flatten()) \Leftrightarrow pass()$



$chain_of(with_elements(flatten()), flatten()) \Leftrightarrow chain_of(flatten(), flatten())$



 $\texttt{chain_of}(\texttt{wrap}(), \texttt{with_elements}(p)) \Leftrightarrow \texttt{chain_of}(p, \texttt{wrap}())$

