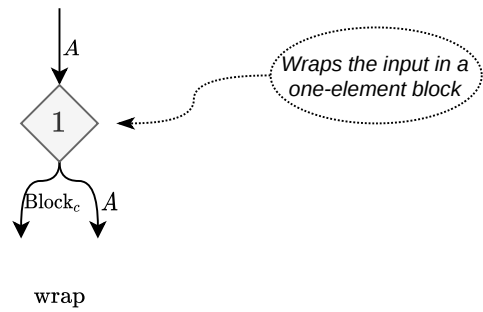


Monadic Interface



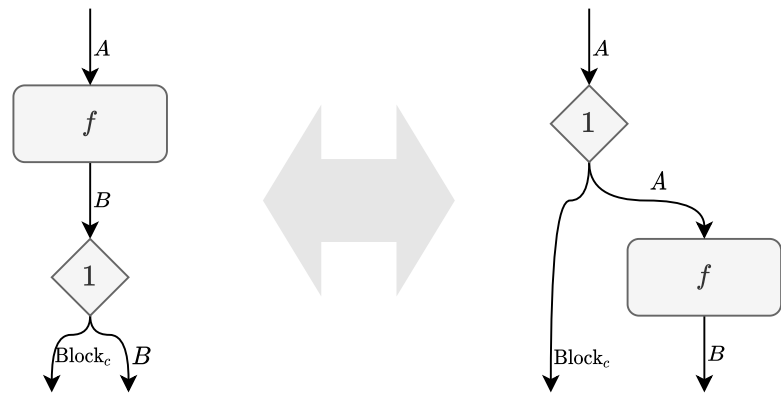
Monadic Unit



Monadic unit is a natural transformation.



Indeed, for any $f : A \rightarrow B$,



$$\text{chain_of}(f, \text{wrap}) \equiv \text{chain_of}(\text{wrap}, \text{with_elements}(f))$$

Using Monadic Unit

Monadic unit can adapt any regular transformation to the monadic interface.



Monadic Interface: Examples



Composition Challenge

Two monadic transformations
can be composed.



`chain_of(employee, with_elements(manager))`

But the composition
does not satisfy
the monadic interface.



Monadic Multiplication



It is easy to check that the monadic multiplication is a natural transformation.



Monadic Composition

Multiplication can be used to combine two monadic transformations into a new monadic transformation.

