





```

struct EvalNode
  p::Pipeline
  i::NodeRef
end

Nothing

struct PartNode
  n::NodeRef
  k::Int
end

struct HeadNode
  n::NodeRef
end

struct JoinNode
  head::NodeRef
  parts::Vector{NodeRef}
end

struct RootNode
end

mutable struct NodeRef
  node::Union{Nothing,Node}
  shp::AbstractShape
end

```



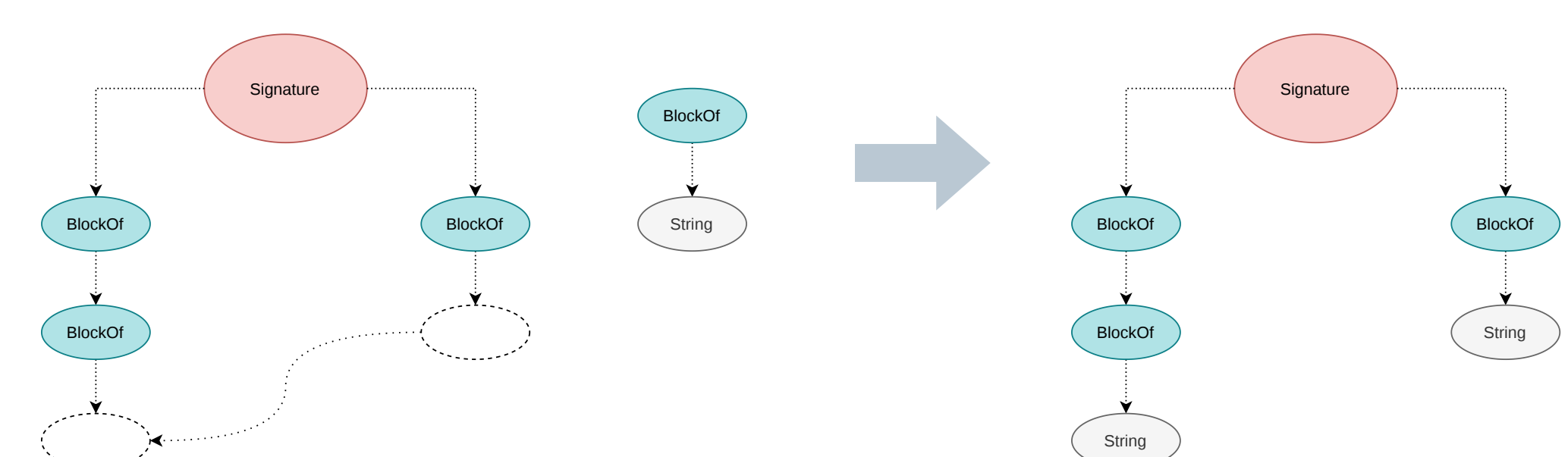
substitution(shp, repl)

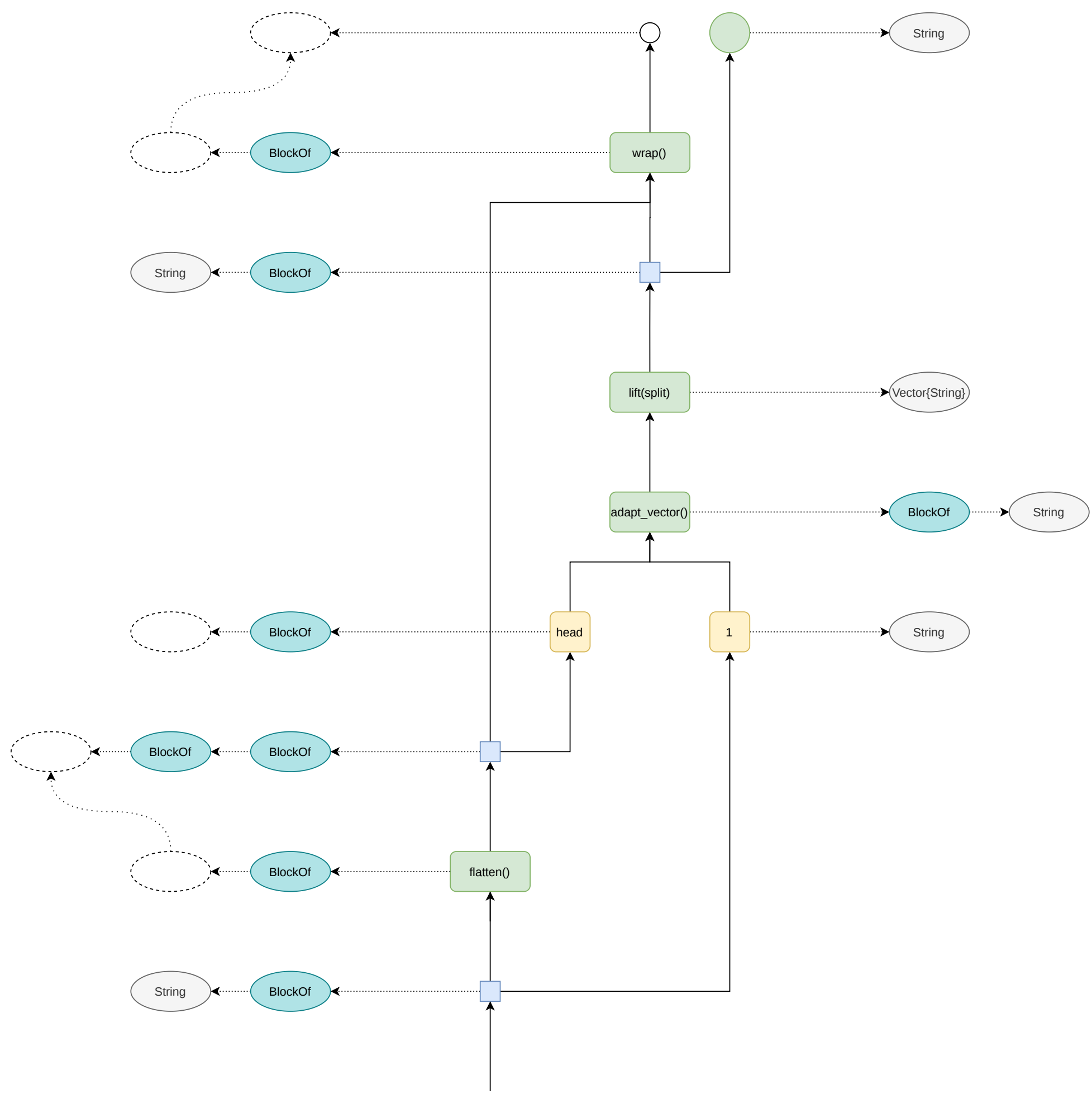


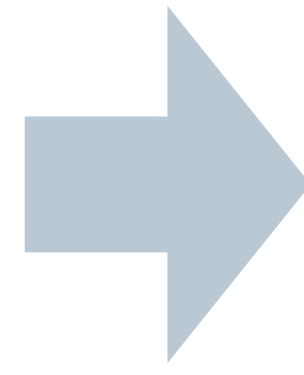
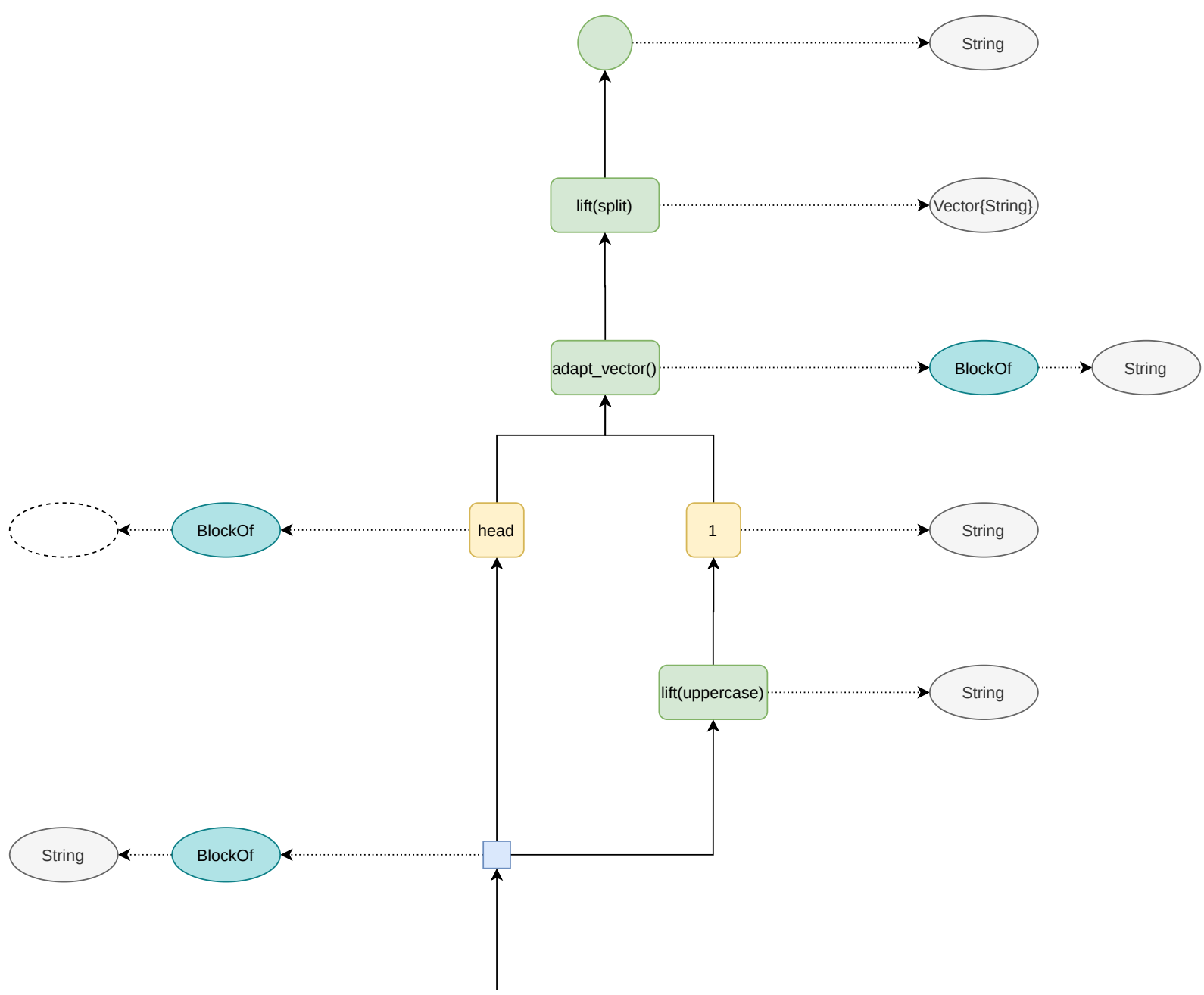
refine_source(shp, sig)



refine_target(sig, shp)







```
chain_of(  
  lift(split),  
  lift(split),  
  adapt_vector(),  
  with_elements(lift(uppercase)))
```