

## Self Reference

$$\$ : \_ \_ \_$$

$\$ :$  is a proxy that assumes the result of the phrase in which it occurs, the phrase being terminated on the left by a copula or by the completion of the sentence. For example:

```
1: `( ] * $:@<: )@.* 5
120
```

In the foregoing expression, the agenda ( $@.$ ) chooses the verb  $] * $:@<:$  as long as the argument (reduced by one each time by the application of the decrement) remains non-zero. When the argument becomes zero, the result of the right argument of  $@.$  is zero, and the constant function  $1:$  is chosen.

If  $\$:@$  were omitted from the expression, it would execute once only as follows:

```
1: `( ] * <: )@.* 5
20
```

The inclusion of self-reference ensures that the entire function is re-executed after decrementing the argument.