Box 100 is horizontal
Box 101 is horizontal
Box 102 is vertical
       Hello
Using...   ,Goodbye
Box 103 is horizontal
Box 104 is empty

$$a + \text{a}$$

$a+$ a

$$\begin{array}{c} \text{a} \\ a + \text{a} \end{array}$$

$$\begin{array}{c} a + \text{a} \\ \text{a} \end{array}$$

$$a - {}_{\text{a}}$$

$$a - {}_{\text{a}}$$

$$a - {}_{\text{a}}$$

$$a - {}_{\text{a}}$$

A used box is emptied upto its assignment scope.
A must appear once.
B must appear once.
Copied boxes should be deep clones and localize their changes.
Black, then red, then black.
Black, then red, then black.
Black, then red, then black.
Box use should not unbind "grandparent" assignments.
D must appear twice.
D must appear twice.
E will appear inner, once.
E will trail as outer, once.