

SICP Exercise 3.14

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In general, **mystery** reverses a given list. The box-and-pointer diagram that represents the list to which **v** is bound is given as follows.

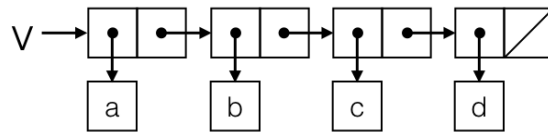


Figure 1: Effect of **(define v (list 'a 'b 'c 'd))**.

After evaluating **(define w (mystery v))**, the box-and-pointer diagrams that show the structure **v** and **w** are given as follows.

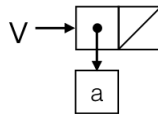


Figure 2: Structure of **v** after evaluating **(define w (mystery v))**.

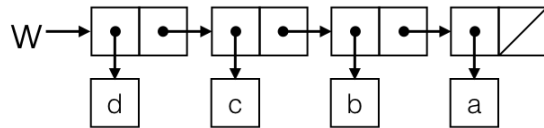


Figure 3: Structure of **w** after evaluating **(define w (mystery v))**.

(a), **(d c b a)** would be printed as the values of **v** and **w**, respectively.