

Using Hygienic Macro

names in macros never
conflict with supplied names

$x' \leftarrow a$
 $y' \leftarrow tmp$

```
(macro (swap x' y')  
  (let ([tmp' x'])  
    (set! x' y')  
    (set! y' tmp')))
```

```
(define a 1)  
(define tmp 2)  ← (let ([tmp' a])  
  ...           (set! a y')  
                (set! b tmp')))  
(println a)  
(println tmp)
```

↓
>>> 2

>>> 1

Racket Macro (Hygienic)

```
(define-syntax-rule (swap x y)  
  (let ([tmp x])  
    (set! x y)  
    (set! y tmp)))
```