```
(unlocked, 1)
                   alloc<sub>p1</sub>
                                                             1: int x;
               (unlocked, 2)
                   alloc_{\rho 2}
                                                             2: int lock;
               (unlocked, 3)
                    lock<sub>p2</sub>
                                                             3: spin_lock(&lock);
                (locked, 4)
                  \overset{\cdot}{\mathsf{unlock}_{\rho2}}
                                                             4: spin unlock(&lock);
               (unlocked, 5)
                                                             5: if (...) {
                                                                       spin unlock(&x);
                                                                  } else {
                                                             7:
                                                                      x = 2;
(unlocked, 7)
                                 (unlocked, 6)
                                                                  }
                                                             8:
                                    unlock<sub>p2</sub>
   write<sub>p1</sub>
(unlocked, 8)
                                    (error, 8)
```