```
(1, unlocked_{\rho 2})
                     (alloc, \rho_1)
                                                                   1: int x;
                 (2, unlocked_{\rho 2})
                     (alloc, \rho_2)
                                                                   2: int lock;
                 (3, unlocked_{\rho 2})
                     (lock, \rho_2)
                                                                   3: spin_lock(&lock);
                  (4, locked<sub>p2</sub>)
                   (unlock, \rho_2)
                                                                   4: spin unlock(&lock);
                 (5, unlocked<sub>p2</sub>)
                                                                   5: if (...) {
                                                                             spin_unlock(&x);
                                                                        } else {
                                                                   7:
                                                                             x = 2;
(7, unlocked<sub>p2</sub>)
                                    (5, unlocked_{\rho 2})
                                                                   8:
    (write, \rho_1)
                                      (unlock, \rho_2)
(8, unlocked<sub>p2</sub>)
                                      (8, error<sub>p2</sub>)
```