

```

shared variables:  sem e = 1;           # one copy per monitor
                  int nc = 0;         # one copy per condition
                  queue delayQ;      # variable cv
                  sem private[N];    # one entry per process

monitor entry:   P(e);

wait(cv):       nc = nc+1; insert myid on delayQ; V(e);
                P(private[myid]); P(e);

signal(cv):     if (nc > 0) {
                  nc = nc-1;
                  remove otherid from delayQ;
                  V(private[otherid]);
                }

monitor exit:   V(e);

```

Figure 6.7 Implementing monitors using semaphores.