



**FIGURE 2.9** Threads pass through  $n - 1$  levels, the last of which is the critical section. Initially, all  $n$  threads are at level 0. At most  $n - 1$  enter level 1, at most  $n - 2$  enter level 2, and so on, so that only one thread enters the critical section at level  $n - 1$ .