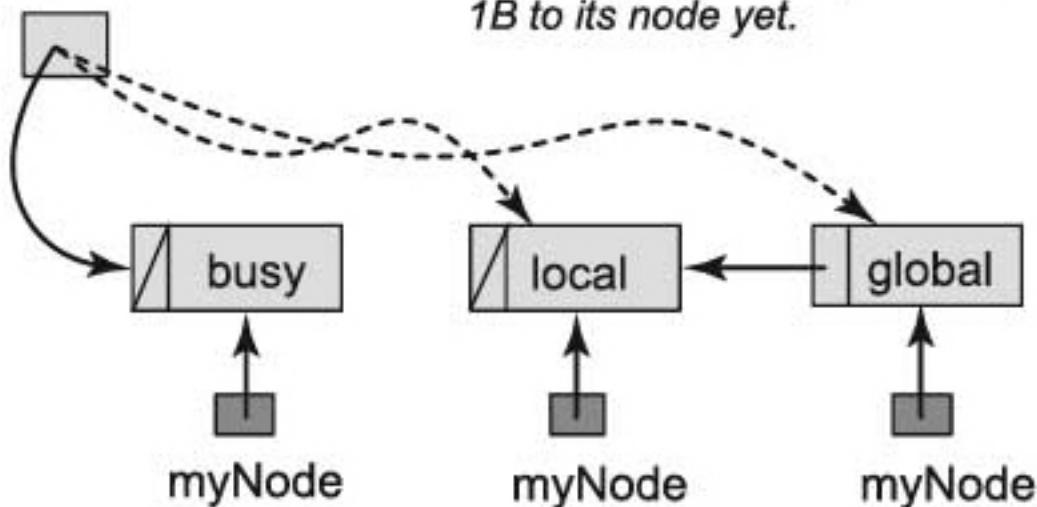


Cluster 1
MCS tail

③ Threads 1B and 1C add themselves to the local MCS queue by swapping the tail pointer. 1C hasn't directed the pointer of 1B to its node yet.



Thread 1C

Thread 1B

Thread 1A

① 1A acquires local MCS lock and proceeds to acquire the global lock

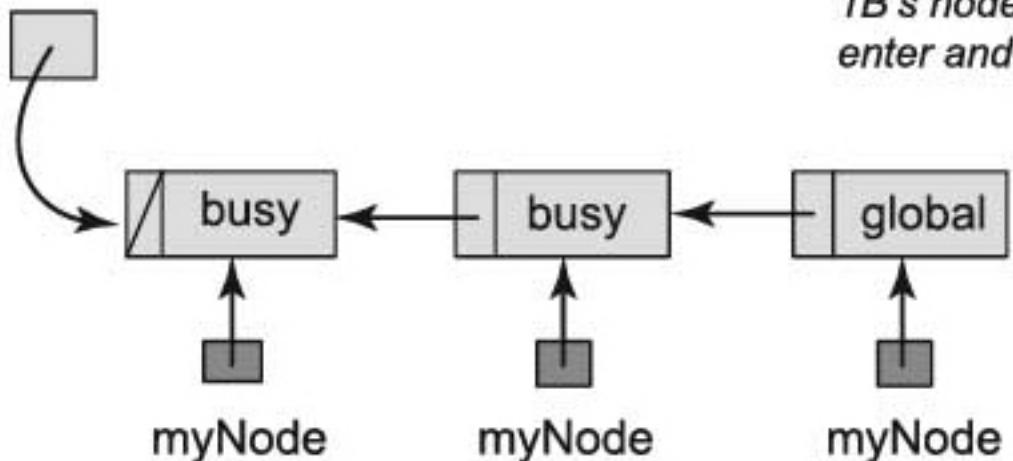
Cluster 2
MCS tail

④ 1A wishes to leave, sees that it points to successor 1B, so it releases lock by setting 1B's node state to enter and returns



Global
BO Lock

② 2A acquires local lock, sees tail is null, so it spins on global lock held by 1A



Thread 2C

Thread 2B

Thread 2A

⑤ 2A will acquire global lock upon release by 1A.
Then passes control down to 2B, 2C, etc

FIGURE 7.23 An example execution of CohortBackoffMCSLock.