



**FIGURE 9.20A** The LazyList class: linearizing an unsuccessful contains() call. Dark nodes are physically in the list and white nodes are physically removed. In part (a), while thread  $A$  is traversing the list, another thread disconnects the sublist referred to by  $curr_A$ . We can linearize  $A$ 's call at the point it sees that  $a$  is marked and is no longer in the abstract set. However, in part (b), while  $A$  is traversing the removed part of the list leading to the marked node  $a$ , another thread adds a new node with key  $a$ . It would be wrong to linearize  $A$ 's unsuccessful contains( $a$ ) call to when it found the marked node  $a$ , since this point occurs after the insertion of the new node with key  $a$  to the list.