If input , then an NDTM can solve it in polynomial time because it can use both transition functions simultaneously at each step, causing it to traverse the transition function tree of depth (number of steps until accepting state) in polynomial time. This accepting state is a leaf of the tree. A PTM has the same transition function tree, but can only choose one transition function at a time, but it still has a positive probability of traversing a path leading to that leaf.

If , on the other hand, no halting state (i.e. leaf) will be an accepting state. Thus, there is 0 possibility of the PTM ever outputting 1 on because all leaves will be 0.