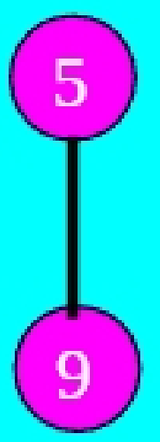
Analysis Of Fibonacci Heaps

	Actual	Amortized
Insert	O(1)	O(1)
Remove min (or max)	O(n)	O(log n)
Meld	O(1)	O(1)
Remove	O(n)	O(log n)
Decrease key (or increase)	O(n)	O(1)

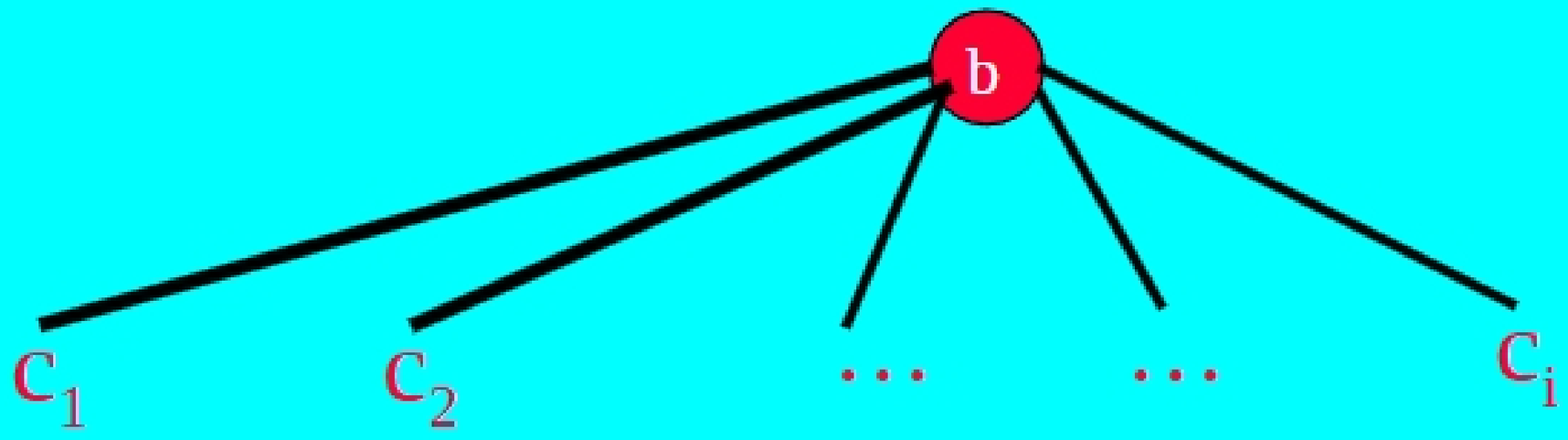
MaxDegree

- Let N_i = min # of nodes in any min (sub)tree whose root has i children.
- $N_0 = 1$.

- $N_1 = 2$.



N_i, $i > 1$



- Children of b are labeled in the order in which they became children of b.
  - c_1 became a child before c_2 did, and so on.
- So, when c_k became a child of b, degree(b) >= k –1.
- degree(c_k) at the time when c_k became a child of b

  = degree(b) at the time when c_k became a child of b

  >= k – 1.