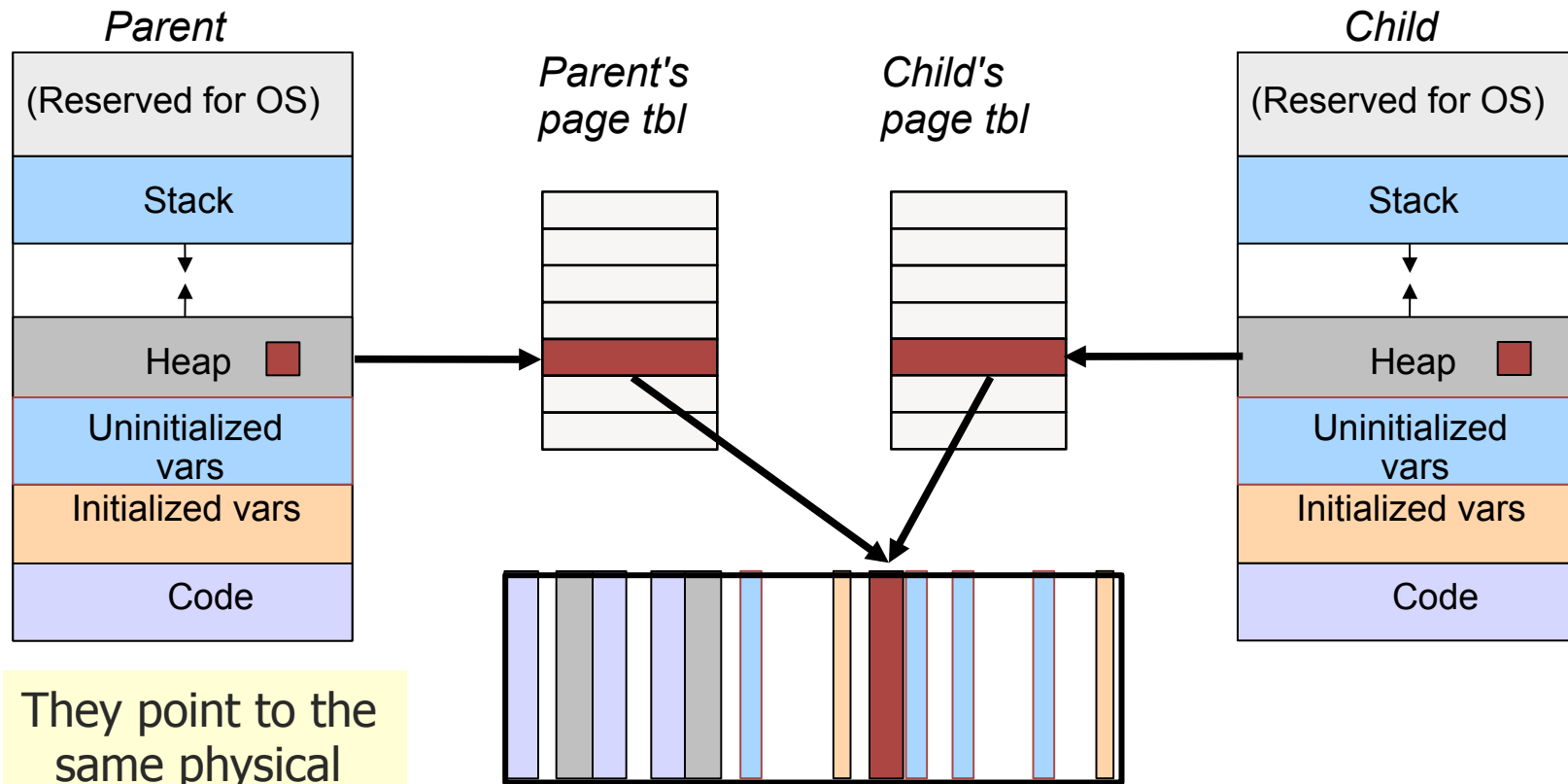


Copy-on-Write

1. Parent forks a child process
2. Child gets a copy of the parent's page tables

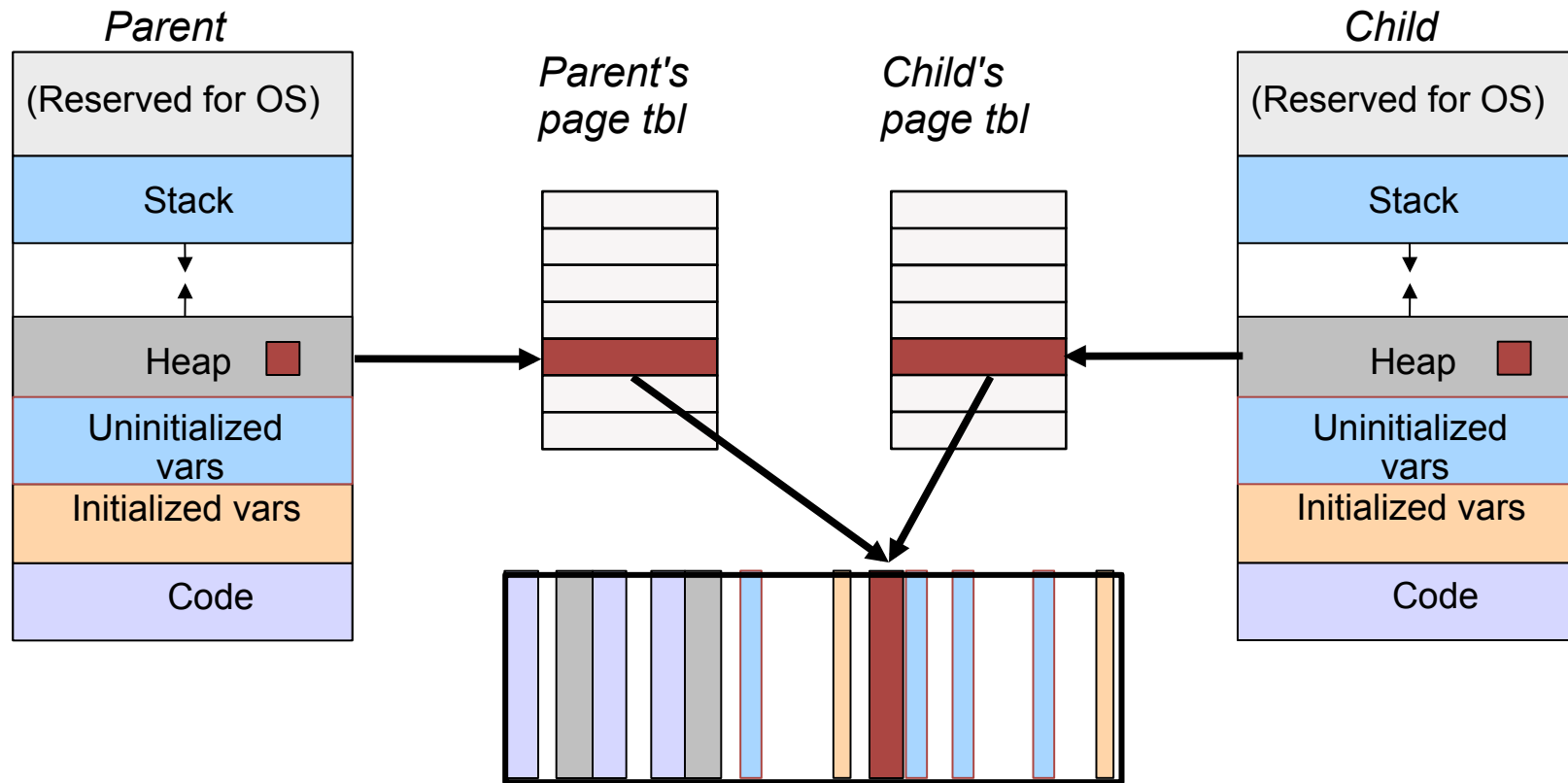


They point to the same physical frames!!!



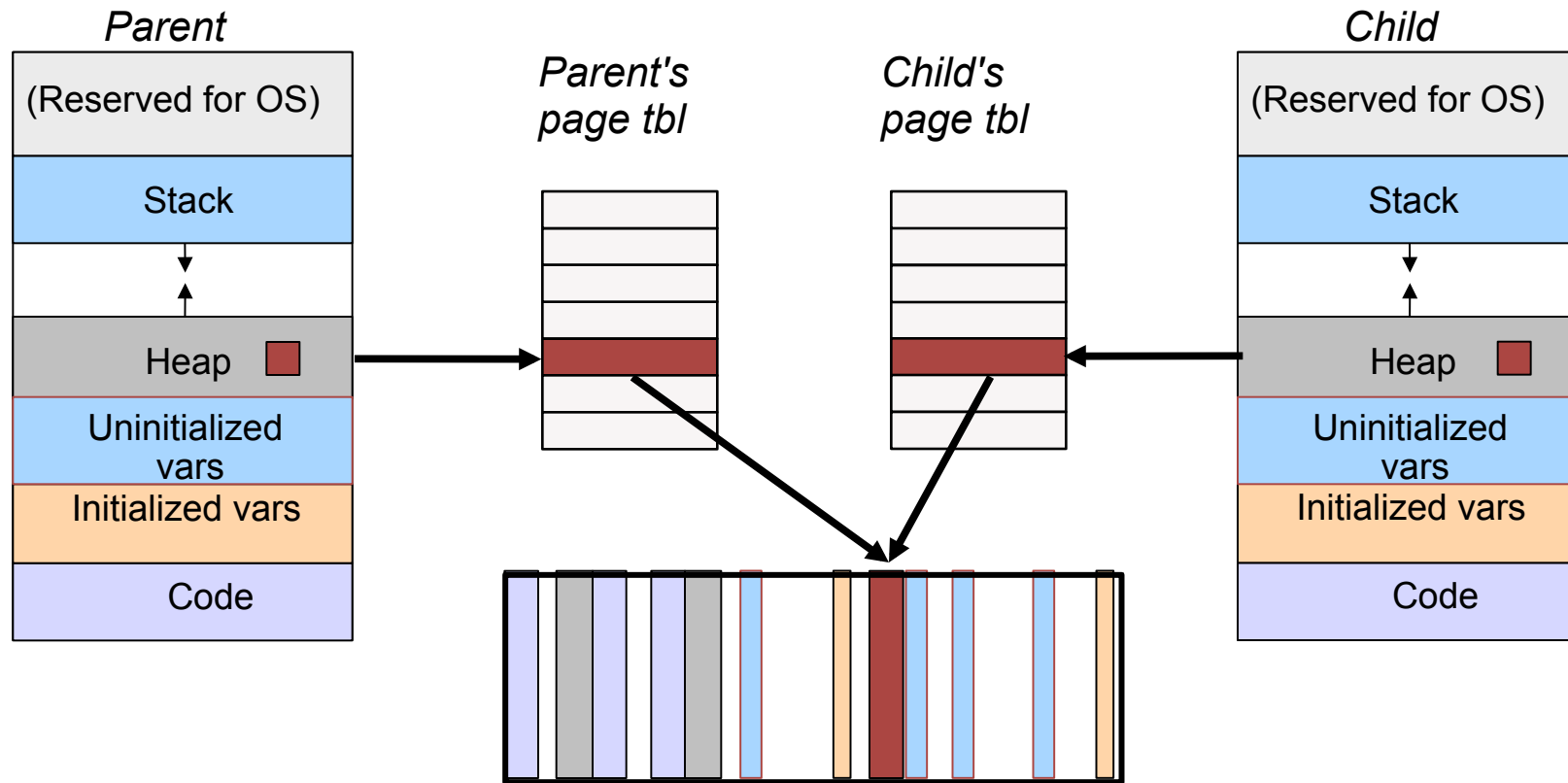
Copy-on-Write

- All pages (both parent and child) marked read-only
 - Why?



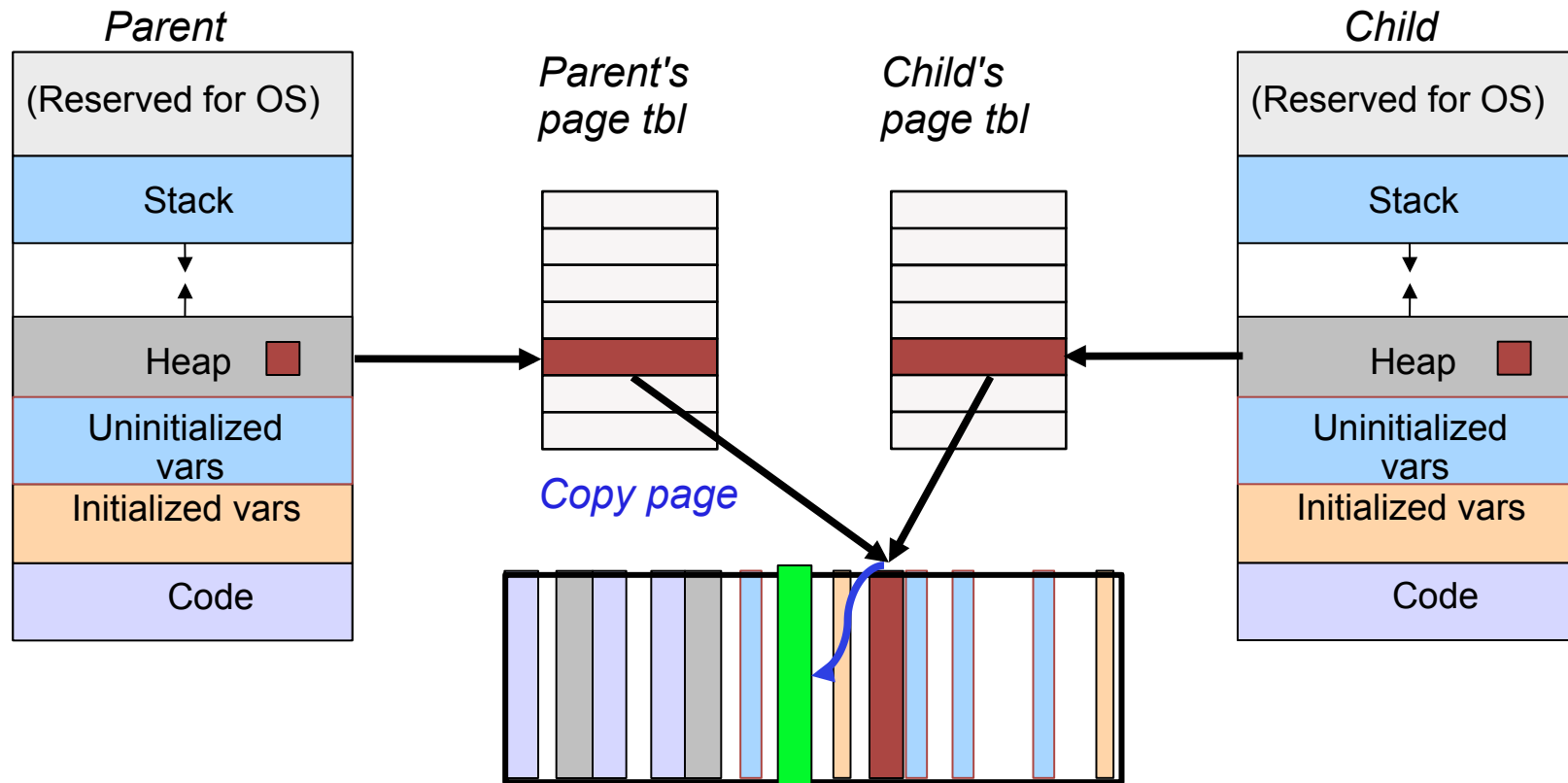
Copy-on-Write

- What happens when the child **reads** the page?
 - It just accesses same memory as parent Niiiiice!



Copy-on-Write

- What happens when the child **writes** the page?
 - Protection fault occurs (page is read-only!)
 - OS copies the page and maps it R/W into the child's addr space



Copy-on-Write

- What happens when the child **writes** the page?
 - Protection fault occurs (page is read-only!)
 - OS copies the page and maps it R/W into the child's addr space

