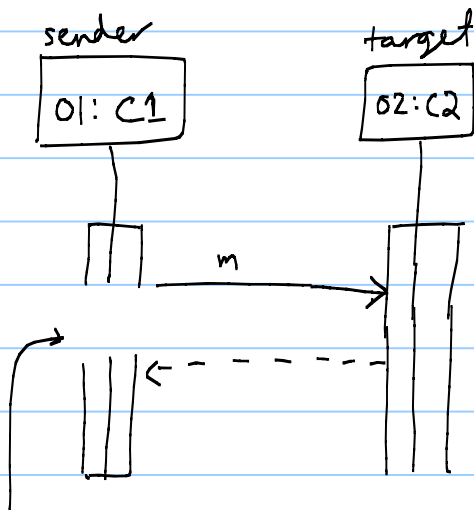


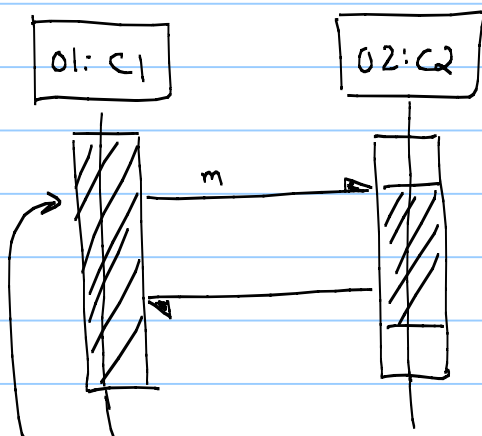
## Synchronous msg:



- ① sender wait (blocks) for response
- ② single thread of exec.
- ③ target process accepts a single call at a time so a 3<sup>rd</sup> class cannot send a msg to 02

② after sending msg, 01 blocks

## Asynchronous msg:



- ① Sender DOES NOT wait for response
- ② Multiple thread of exec.
- ③ Target process may accept multiple call at same time

② sender doesn't block

③ If some class 03 calls 02, 02 can do many things.

0. Ignore call

1. interrupt: start new call, leave old call.

2. spawn a new 02 thread and deal w/ new call.

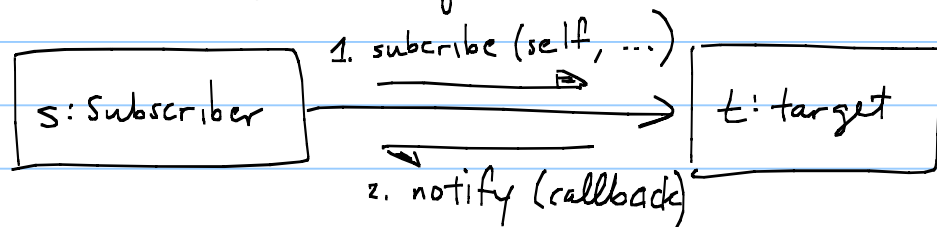
process: own state/memory

threads: share memory/data (be careful)

3. queue calls (scheduling) (priority) (FIFO)  
for priority, we can limit certain calls to have certain priorities, otherwise, every msg would have high priority, defeating the purpose of priority queues.

### Callback

- i) Subscriber object registers itself w/ a target.



- ii) Observer pattern: subscribe to some interest, if interest is changed, target will send a "notify" to let subscriber know something changed w/ its interest.