while *True* **do**
    $Propose(PrefListPointer)$;
    if *Propose == False* **then**
        if *PrefListPointer == MarriagePartner* **then**
            $MarriagePartner \Leftarrow Null$;
        end
        $PrefListPointer + +$;
        continue;
    end
    if *(Propose == True)* **then**
        $MarriagePartner \leftarrow PrefListPointer$;
        $PrefListPointer \Leftarrow 0$;
        continue;
    end
end

Algorithm 1: Proposer's Actions

while *True* **do**
    listen for $Propose$s;
    if *Consider(Propose) == False* **then**
        $MarriageTimer + +$;
    else
        $MarriageTimer \Leftarrow 0$;
    end
    if $MarriageTimer > n^2$ **then**
        $MarriagePartner \leftarrow Null$;
    end
end

Algorithm 2: Proposed's Actions

Consider Function:

send $MarriageCheck$ to $PrefList[PrefListPointer]$;

if $MarriageCheck\ returns\ False$ **then**

  | $PrefListPointer + +$;

end

if $Proposer \leq PrefListPointer \bigvee MarriagePartner == Null$ **then**

  | $PrefListPointer \Leftarrow Proposer$;
  | $MarriageParnter \Leftarrow Proposer$;
  | return $True$;

end

return $False$;

Propose:

$< Propose, Self\_ID >$

Consider:

$< Consider, BooleanReply >$

Divorce

$< Divorce, Self\_ID, PrefList(PrefListPointer)\_ID >$

Algorithm 3: Miscellaneous definitions