

```

def tr_nearest_prev(agent_array, tr_num,a,gamma):
    c_i_j = np.zeros((len(agent_array)-1, len(agent_array)-1))
    #print(c_i_j)
    people = copy.copy(agent_array)
    current = 1
    while current <= tr_num:
        i,j = random.sample(range(0, len(agent_array)-1),2)
        #print(i,j)
        m_i = people[i]
        m_j = people[j]
        #print(m_i,m_j)
        total_m = m_i + m_j
        diff = m_i-m_j
        if diff==0:
            diff = 1
        abs_diff = abs(diff)
        prob = 1/(abs_diff**(a))*(c_i_j[i][j]+1)**gamma
        user_set = random.uniform(0,1)
        current += 1
        c_i_j[i][j]+=1
        c_i_j[j][i]+=1
        #print(prob)
        if prob>=user_set:
            epsilon = random.uniform(0,1)
            if people[i]>0 and people[j]>0:
                people[i] = epsilon*total_m
                people[j] = (1-epsilon)*total_m
            else:
                continue
        else:
            continue

    #print(total_money_begin, total_money_end)
    return people

```