Codebook for: Melamed, David, Ashley Harrell and Brent Simpson. 2018. "Cooperation, Clustering, and Assortative Mixing in Dynamic Networks." ***Proceedings of the National Academy of Sciences***

These data allow replication of the results reported in the above paper.

The first data file is "Coop_DropTies_Earnings.csv" which is the data for the cooperation, dropping alters, and earnings results. The variable names, as found in the .csv file, are described below:

part_coop: binary variable indicating whether the participant cooperated (=1) with an alter

targeted: binary variable indicating whether the participant made targeted choices for each alter (=1) or a single decision that applied to all alters

clustered: binary variable indicating whether the network in which the participant was embedded was initially clustered (=1) or random

dynamic: binary variable indicating whether the network in which the participant was embedded was dynamic (=1) or static

round: categorical variable corresponding to the round of the iterated PD game (range = 1:16)

selecttarget: dummy variable indicating whether to include a particular row in analyses of cooperation (yes = 1). This variable selects out multiple instances of cooperation decisions when participants made diffuse choices

case: categorical nesting variable indicating the networks in which the participants were embedded

part_id2: categorical variable with unique values for each participant

alt_round: categorical nesting variable denoting multiple alters nested in participant-rounds

female2: dummy variable indicating whether the participant was female (=1)

white2: dummy variable indicating whether the participant was white (=1)

age2: continuous control variable indicating the participant's age

numgames2: continuous control variable indicating the number of games that a participant played (i.e., the number of conditions in which they participated)

cutone: binary variable indicating a round in which a participant decided to drop an alter (=1)

numdefect: the count of alters that defected on the previous round

numties2: the participant's number of alters on a given round

id: a binary variable indicating a single alt_round per participant-round

part_cuttie: an indicator variable for the alter that was dropped (=1) when the participant decided to drop an alter

alterdefectprev: binary variable indicating whether the participant defected on the previous round (=1)

cut_a_tie: binary selection variable indicating participant-rounds in which the participant decided to drop an alter

earn2: average earnings for the round (averaged over all alters)

static: binary variable indicating the participant was embedded in a static network (=1)

resinf: dummy variable indicating the participant was in the restricted or local information condition

fulinf: dummy variable indicating the participant was in the full or global information condition

Given the variables described above, below is the Stata code to replicate our cooperation, dropping a tie, and earnings results.

```
* Main cooperation model... Table S1, Model 1
melogit part_coop i.targeted i.clustered i.dynamic i.clustered#i.dynamic
i.targeted#i.dynamic     i.round  if selecttarget==1  ||case: || part_id2: || alt_round:

* With controls... Table S1, Model 2
melogit part_coop i.targeted i.clustered i.dynamic i.clustered#i.dynamic
i.targeted#i.dynamic     i.round  i.female2 i.white2 c.age2 c.numgames2  if
selecttarget==1  ||case: || part_id2: || alt_round:


* Deciding to drop a tie (reported in the text of the SI)
melogit cutone  c.numdefect i.numties2 i.round if id==1 & dynamic==1  ||case: ||
part_id2:
```

```
* Which alter to drop (reported in the text of the SI)
clogit part_cuttie i.alterdefectprev if cut_a_tie==1, group(alt_round) cl(case)

* Table S6, Model 1
mixed earn2 i.static i.clustered i.targeted i.resinf i.fulinf i.targeted#i.static
i.clustered#i.static  i.round if id==1 || case: || part_id2:
```

The second data file is "IsolateHazard.csv" which is the data for the hazard model results. The variable names, as found in the .csv file, are described below:

round: categorical variable corresponding to the round of the iterated PD game (range = 1:16)

keepers: binary selection variable denoting which rows to keep for the analysis

part_id2: categorical variable with unique values for each participant

isolate2: binary indicator variable denoting when a participant became isolated from the network

clustered: binary variable indicating whether a participant was embedded in a clustered (=1) or random network

infotype2: categorical variable referring to the type of reputation information available to the partipant (1 = no reputation; 2 = local reputations; 3 = global reputations)

targeted: binary variable indicating whether participants made targeted (=1) choices to cooperate with each alter or diffuse choices that applied to all alters

defectpercent: time-varying covariate referring the % of time the participant defected on the previous round

case: categorical nesting variable indicating the networks in which the participants were embedded

Given the variables described above, below is the Stata code to replicate our cooperation, dropping a tie, and earnings results.

```
* Table S4, Model 1
stset round if keepers==1, id(part_id2) failure(isolate2)
stcox i.clustered i.infotype2 i.targeted  if keepers==1 , cl(case) nohr
tvc(i.defectpercent) texp(1)
```

The third data file is “SupplementalCooperation.csv” which is the data for the supplemental conditions and analyses of cooperation. The variable names, as found in the .csv file, are described below:

part_coop: binary variable indicating whether the participant cooperated (=1) with an alter

fastdyn: dummy variable denoting conditions in which dynamics occurred after every round (=1)

targeted: binary variable indicating whether the participant made targeted choices for each alter (=1) or a single decision that applied to all alters

noreps: dummy variable denoting conditions in which participants knew no reputational information about prospective alters (=1)

localreps: dummy variable denoting conditions in which participants only knew local reputational information about prospective alters (=1)

clustered: binary variable indicating whether the network in which the participant was embedded was initially clustered (=1) or random

female2: dummy variable indicating whether the participant was female (=1)

white2: dummy variable indicating whether the participant was white (=1)

age2: continuous control variable indicating the participant’s age

numgames2: continuous control variable indicating the number of games that a participant played (i.e., the number of conditions in which they participated)

selecttarget: dummy variable indicating whether to include a particular row in analyses of cooperation (yes = 1). This variable selects out multiple instances of cooperation decisions when participants made diffuse choices

contrast3: binary selection variable isolating the conditions of interest for these analyses

case: categorical nesting variable indicating the networks in which the participants were embedded

part_id2: categorical variable with unique values for each participant

alt_round: categorical nesting variable denoting multiple alters nested in participant-rounds

Given the variables described above, below is the Stata code to replicate our cooperation, dropping a tie, and earnings results.

```
* Table S7, Models 2, 3 and 4
melogit part_coop i.fastdyn i.targeted i.noreps i.localreps   if clustered==0  &
selecttarget==1 & contrast3==1  ||case: || part_id2:  || alt_round:

melogit part_coop i.fastdyn i.targeted i.noreps i.localreps i.targeted#i.fastdyn
i.targeted#i.noreps i.targeted#i.localreps   if clustered==0  & selecttarget==1 &
contrast3==1  ||case: || part_id2:  || alt_round:

melogit part_coop i.fastdyn i.targeted i.noreps i.localreps i.female2 i.white2 c.age2
c.numgames2   if clustered==0  & selecttarget==1 & contrast3==1  ||case: || part_id2:
|| alt_round:
```