The Human Network

How Your Social Position Determines Your Power, Beliefs, and Behaviors

Matthew O. Jackson
Coleman 1961 – part of girl's high school illustrating Feld's `friendship paradox'
9 – fewer friends than their friends
2 – same number as their friends
3 – have more friends than their friends

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Starting Fractions Preferring solids
Avg Degree .5
Avg Degree 1.5
Reproductive Number 1.5
Vaccinate 1/3 of Nodes
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Safe
Safe
Percent of Children Earning More than Their Parents

Birth Year of Child

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Simple contagion knows no boundaries
Connected if agreed at least ½ votes, 82 percent linked
Connected if agreed at least $\frac{1}{2}$ votes, 53 percent linked
Connected if agreed at least \( \frac{1}{2} \) votes, 53 percent linked
Figure Jackson (2019) (COW MID5)

1/10 as many wars per dyad

Post 1950
extra slides
Pre WWII  2.5 allies,  
2/3 chance last five yrs

Post WWII  10.5 allies,  
.95 chance last five yrs
College Degree by late 20’s
- typical node’s neighbors’ average degree, n-1
- most nodes have degree 1
- average degree tends to 2.
Two groups exhibit homophily...
Simple contagion knows no boundaries
Two groups exhibit homophily...
Drop-out if at least half of neighbors do -- begin with two initial dropouts...
Drop-out if at least half of neighbors do...
Drop-out if at least half of neighbors do...
End up with persistent differences across groups... Applications to social mobility, wage inequality, etc.

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Change homophily, change outcome…
1920

ATOP Data
1970
1980

ATOP Data

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