“Contagion Experiment”

Classroom demonstration

GOV 319, Political Networks

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Lecture 8

Finding Networks

Christakis & Fowler, Ch. 2

Christakis & Fowler, Ch. 3

1. Demonstrate spread and connection
   1. Show that spreading something along the social network of the classroom is more efficient than a random walk.
   2. PERIOD 1: Control—random walk
      1. Have students randomly walk around the classroom. 2 minutes. Chatting fine. Keep moving.
      2. Hand paper to one student. Choose a target on the other side of the room. Announce the target and the student’s first/last name.
      3. Initiator student can hand it to another student if they are physically proximate AND
         1. First or last name begins with same letter
         2. (try other random assignment conditions? Birthday in the same month? Gender?)
      4. Can it reach the target? How many steps? The structure has been imposed.
      5. [*It took 16 steps and about 10 minutes to get the paper to its target*.]
   3. PERIOD 2: Experimental condition—social structure
      1. Have students randomly walk around the classroom. 2 minutes. Chatting fine. Keep moving.
      2. Hand paper to one student. Choose a target on the other side of the room. Announce the target and the student’s first/last name.
      3. Student can hand it to another student if they are physically proximate AND
         1. would consider the other person a friend or acquaintance
         2. (try other condtions: Spoke to the person during the walking period OR Know the student’s name OR communicated with one another outside of class)
      4. Can it reach the target? How many steps?
      5. *REPORT: Took less than 2 minutes to reach the target and exactly 6-steps*. (could use this for 6-degrees of separation/small world lecture)
      6. This structure is social. The research suggests that the flow of information/emotion/etc. will be more efficient on the social network.
2. Lecture on Emotional contagion
   1. Epidemic of laughter, Tanzania 1962
   2. When college freshmen are randomly assigned to live with mildly depressed roommates, they become increasingly depressed over a three-month period (p. 35)
   3. When waiters are trained to provide “service with a smile,” their customers report feeling more satisfied, and they leave better tips (p. 35)
   4. Evolutionary advantage?
      1. Emotional contagion fosters interaction synchrony (e.g., mother-child, for maternal attentiveness and protection)
      2. Are you sadder when people you know (friends/family) are sad then when strangers are sad?
      3. There is an advantage in coordinating moods.
      4. Positive emotions may help increase group cohesiveness
      5. Negative emotions may work well as communication devices (I smell smoke; I’m scared)
   5. Why emotions spread
      1. Humans hardwired for mimicry
      2. When humans mimic outwardly, they “adopt inward states”
         1. E.g., examples of “epidemic hysteria”, like Tennessee high school in 1998 (smell of gas, evacuations, etc.)
         2. “our own anxiety makes us sick, but so does the anxiety of others.”
      3. Cases of Mass Psychogenic Illness (MPI). Examples?
         1. When CDC called in, why are they reluctant for this diagnosis? How can CDC prove a toxin did NOT exist?
         2. MPI spreads through SOCIAL NETWORK TIES