

Hawthorne Studies

Bank Wiring Room
Western Electric Plant
1920s & 1930s

Background / Context

- Rationalism of the enlightenment
- Protestantism
- Bureaucracy
- Scientific Management (Taylor, Fayol, etc)

Hawthorne Studies

- Illumination phase
- Relay assembly test room
- Bank Wiring room

Illumination Study

- Effect of light levels on worker productivity
- Test and control groups
 - Light stays same in control group
 - Light levels varied in test group
- Increases in lighting led to increased productivity
 - In both groups!
- Then reduced light below control group
 - Productivity went up! Especially in test grp
- Reduced light down to moonlit night – productivity held

Relay Assembly Test Room

- 5 year study on small sample of women separated from rest
- Varied rest pauses, length of work day, length of work week, wage incentives, supervisory practices
- Results same as lighting – productivity kept improving
- Two principles at work:
 - Experimenter effect
 - Workers became a group
- Other lessons
 - It is the meaning of environmental effects that affects productivity, and meaning is socially mediated
 - Economic rationality not primary
 - Example of the Worker transfer request

Bank Wiring Room

- Observer placed in back of room for several months
 - Took notes on all events, all interactions, got to know the men
- Quickly found elaborate social structure
 - Not necessarily based on formal org

The employees

TABLE XXVI
COMPOSITION OF THE GROUP
BANK WIRING OBSERVATION ROOM

Operator	Age	Birthplace	Nationality	Marital Status	Education	Service Yrs.	Mo.
W ₁	22	U.S.A.	Polish	S	7 G.S.	3	2
W ₂	25	U.S.A.	German	S	2 H.S.	5	5
W ₃	26	U.S.A.	American	M	8 G.S.	2	5
W ₄	20	U.S.A.	Irish	S	2 H.S.	3	7
W ₅	24	U.S.A.	Bohemian	M	4 H.S.	2	8
W ₆	21	U.S.A.	Polish	S	2 H.S.	3	1
W ₇	22	U.S.A.	Bohemian	M	8 G.S.	3	2
W ₈	22	U.S.A.	German	S	4 H.S.	3	8
W ₉	21	U.S.A.	American	S	8 G.S.	2	10
S ₁	21	U.S.A.	German	S	8 G.S.	5	4
S ₂	26	Yugoslavia	Bohemian	S	6 G.S.	9	8
S ₃	20	U.S.A.	Bohemian	S	8 G.S.	3	0
I ₁	23	U.S.A.	American	S	4 H.S.	3	0
I ₂	40	Turkey	Armenian	M	3 Col.	7	0

Bank Wiring Room

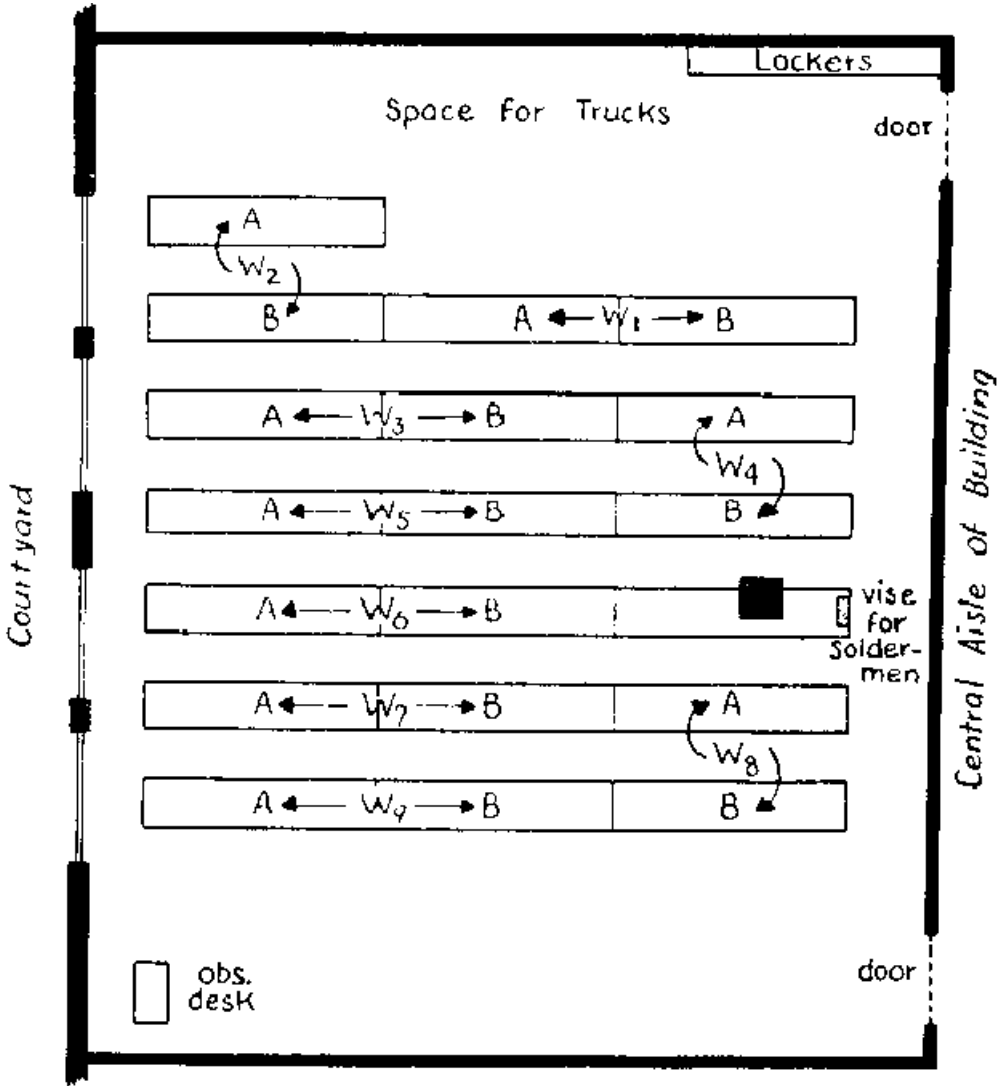


FIGURE 34

DIAGRAM OF OBSERVATION ROOM SHOWING WIREMEN'S POSITIONS (A & B)

Game Playing Relations

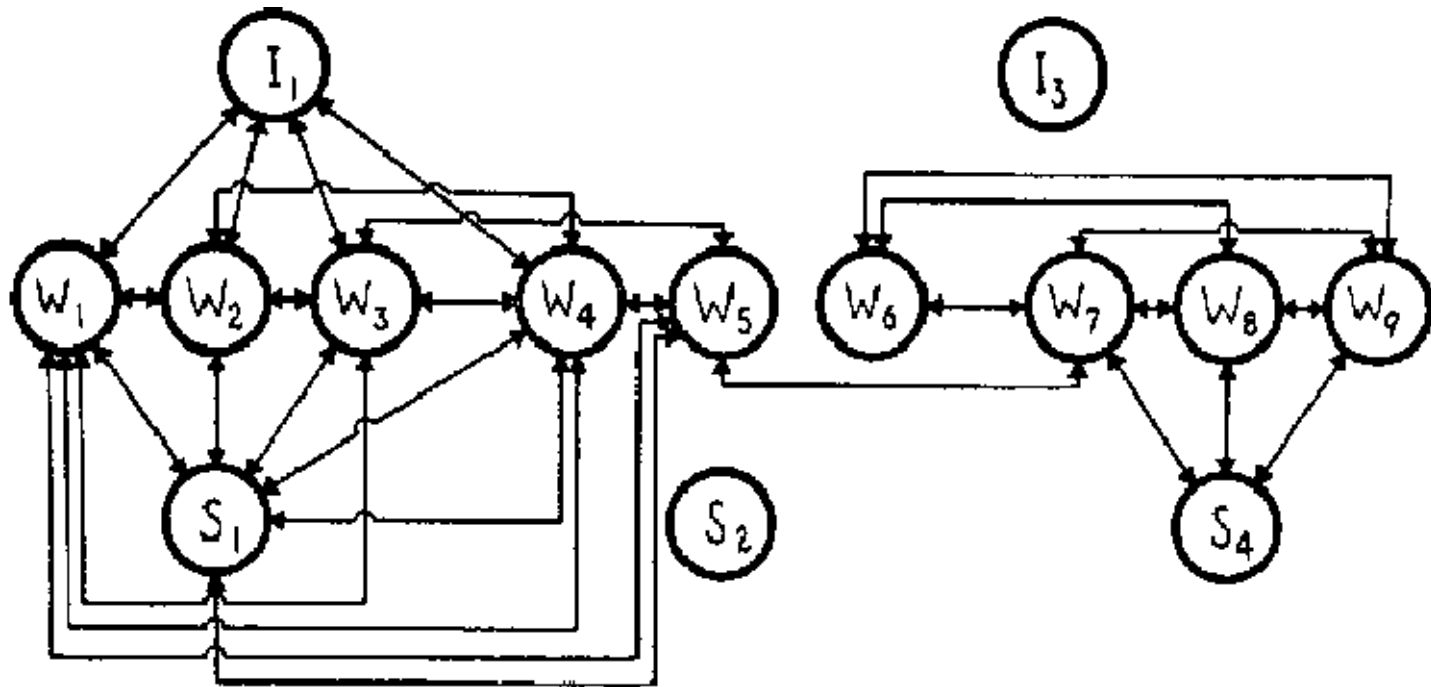


FIGURE 39
PARTICIPATION IN GAMES

Fighting over the windows

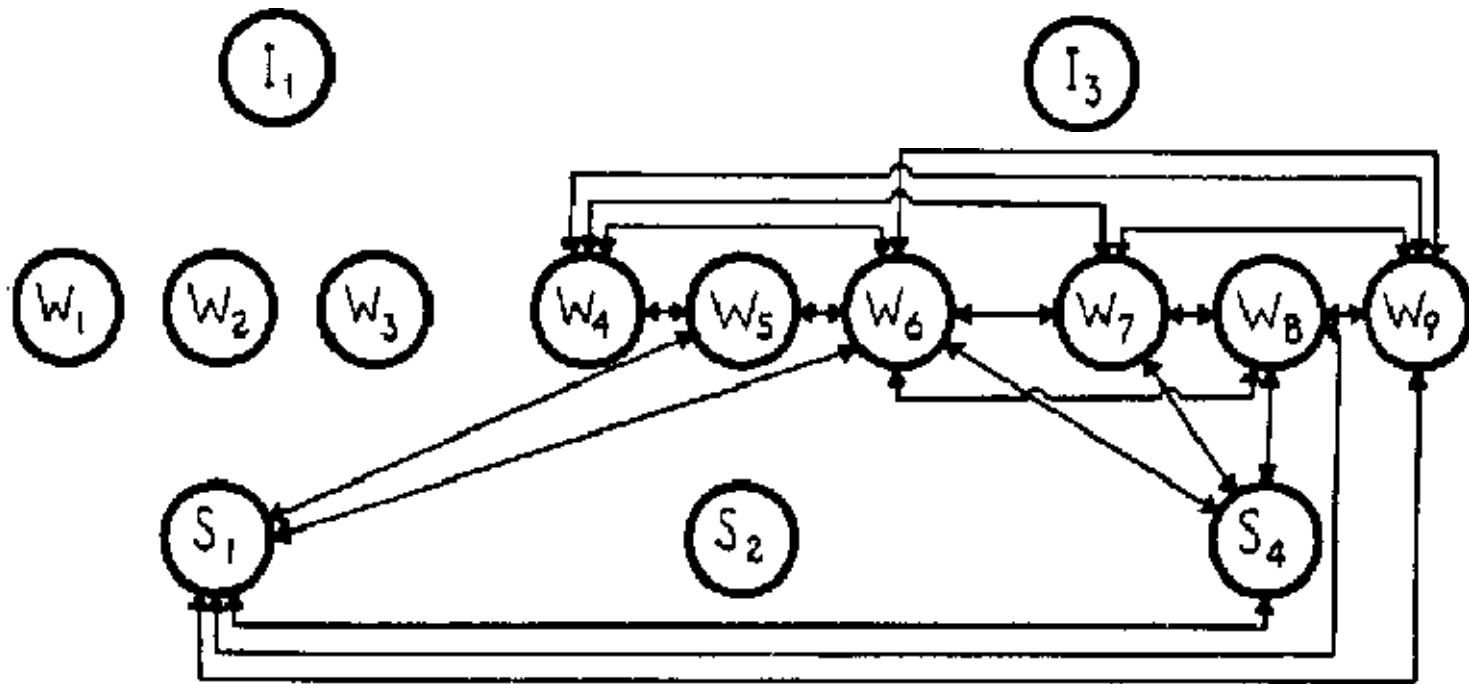


FIGURE 40

PARTICIPATION IN CONTROVERSIES ABOUT WINDOWS

Job trading

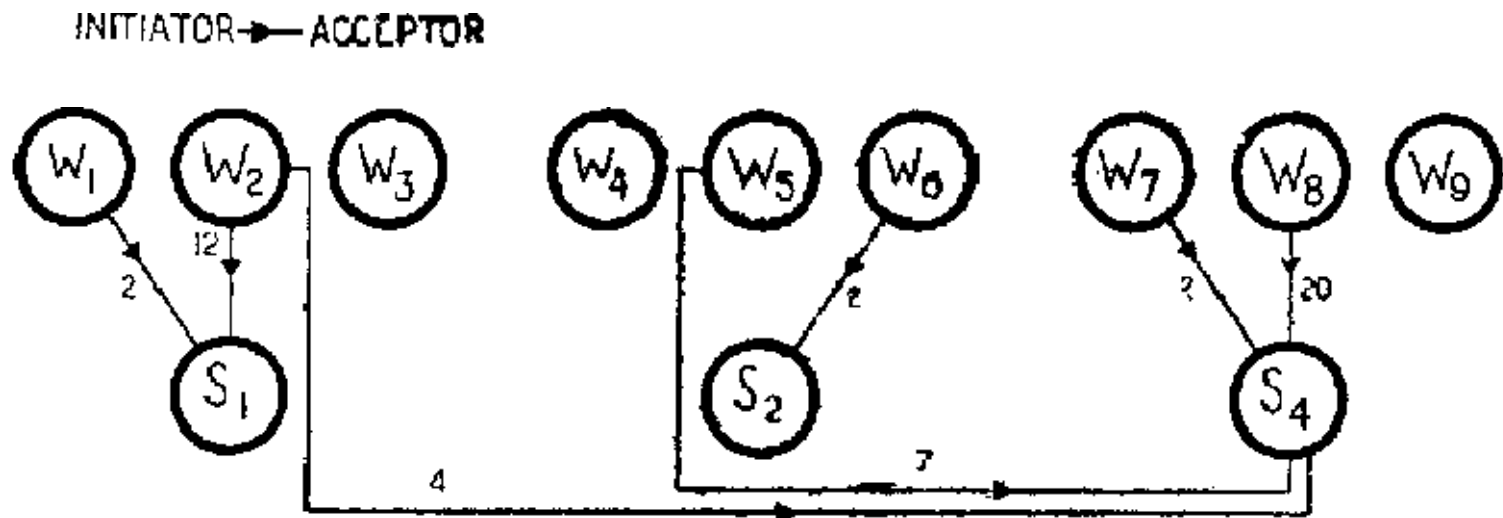


FIGURE 41

PARTICIPATION IN JOB TRADING

Helping

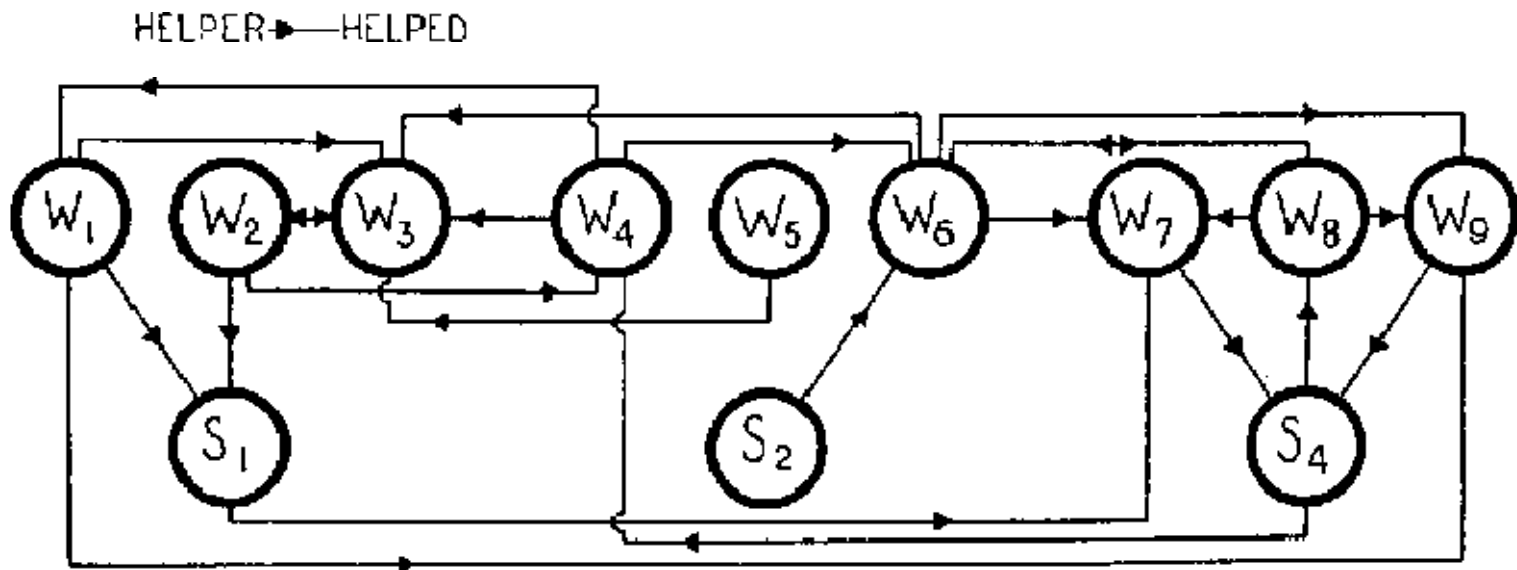


FIGURE 42
PARTICIPATION IN HELPING

Friendships

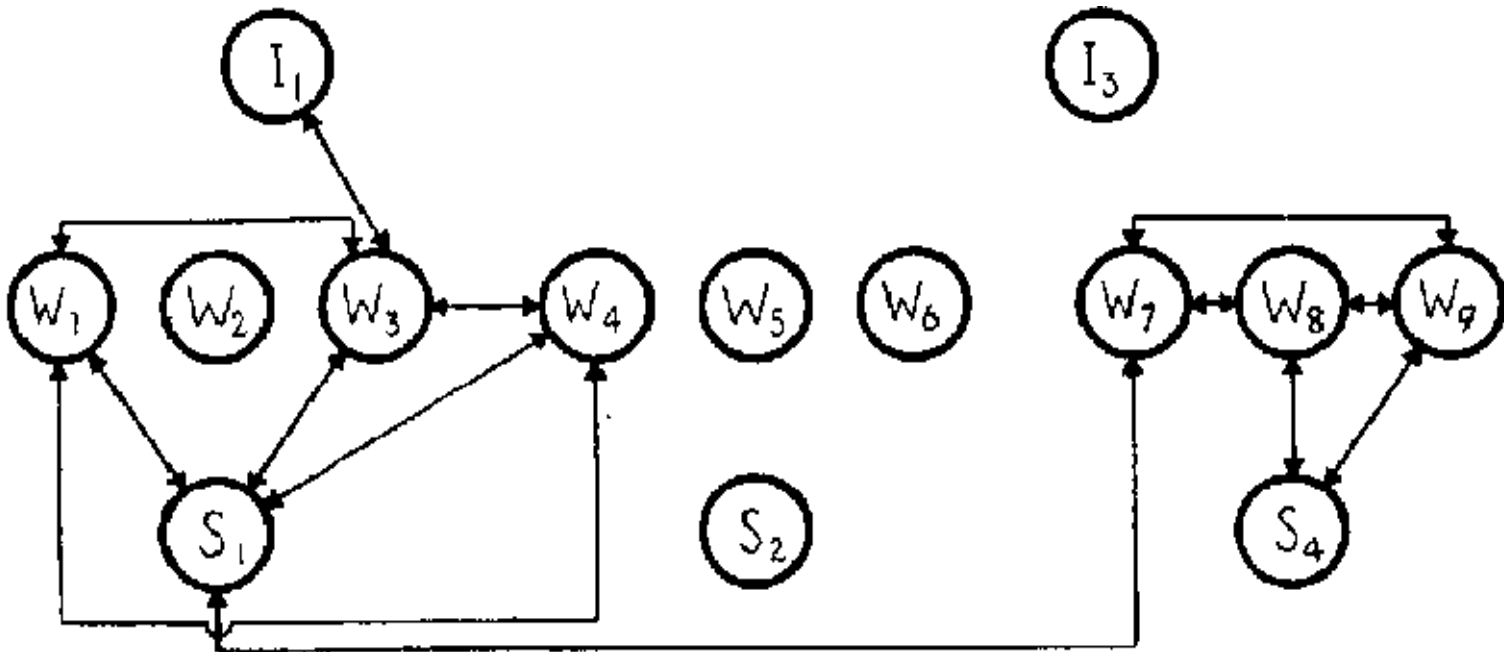


FIGURE 43
FRIENDSHIPS

Antagonisms

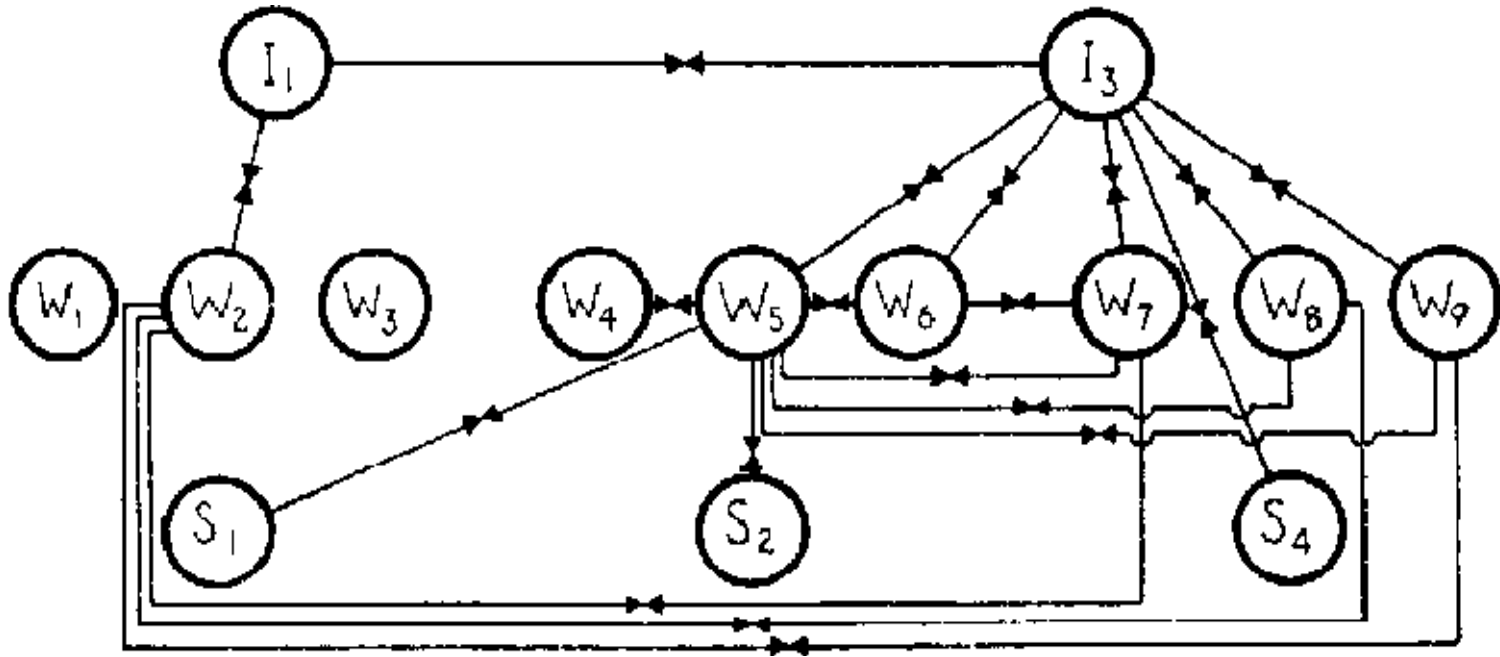


FIGURE 44
ANTAGONISMS

Group Structure

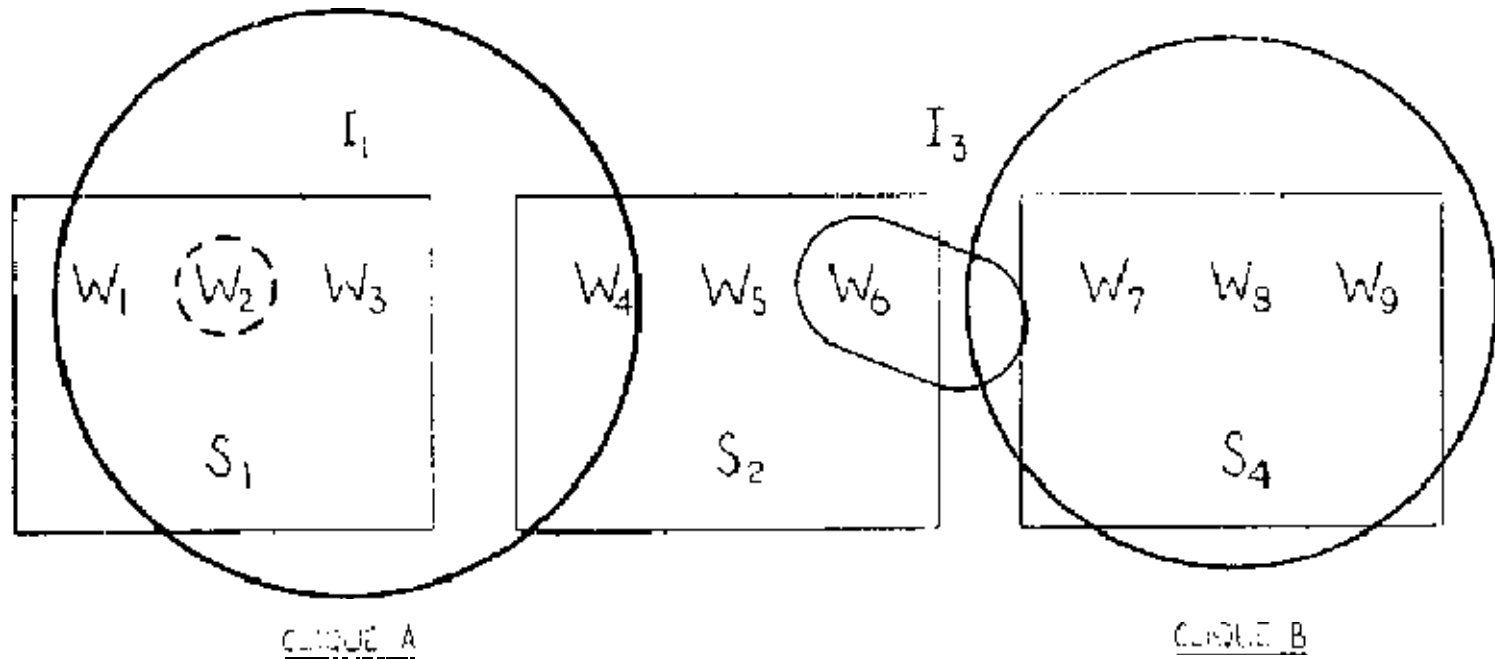


FIGURE 45
THE INTERNAL ORGANIZATION OF THE GROUP

Findings

- Subgroup and status structure
 - Front vs back of room cliques
 - Front had more status
 - New people added by mgmt to back of room
 - Wiremen more status than soldermen
 - Outsiders like delivery men were lower status
 - Inspectors were higher class, but excluded
- Helping ties had to do with popularity, not competence
 - W3 most helped but was the most competent

Subgroups & Norms

- Norms
 - Mustn't be a rate-buster
 - Not economically rational
 - Mustn't be a chiseler
 - Mustn't be a squealer
 - Mgmt is the enemy
 - Mustn't be officious – be a regular guy
- Source of group power is ostracism
- Through group cohesion, could resist change
 - E.g. in rates; like a union

Groups

- Have internal structures of subgrouping and status
- Group social system is only partially related to formal organizational elements
- Workers need all needs satisfied at work, not just economic
 - Groups provide total ecology of resources
 - Habitats for humanity