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Group Dynamics

“Watch out for the Stobor.”

–Robert Heinlein, Tunnel in the Sky



Learning Objectives

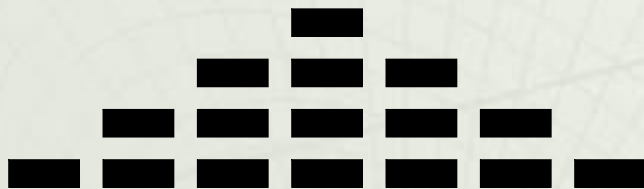
By the end of this module, you will understand some basics about how groups work, including the following:

- Organizational structure and motivation
- Fundamentals of effective group dynamics
- Group roles
- Leadership
- Groupthink



Organizational Structures

- Organizational structure has implications in terms of career choices and small team management



Top-Down (Hierarchy) Organization



Bottom-Up (Flat) Organization



Interactive (Matrix) Organization



Top-Down Organization

➤ **Structure:**

- Hierarchical and traditional
- Decision-making authority comes from manager or leader
- Policies and procedures are highly structured and imposed upon group members (i.e., rules)
- Formal authority used to resolve disputes

➤ **Examples:**

- Large organizations and companies (SFU, IBM, Raytheon), traditional classroom



Top-Down (Cont'd)

➤ **Advantages:**

- Efficiency
- Clear rules
- Clear lines of communication

➤ **Disadvantages:**

- Inflexible
- Discourages risk-taking and individual initiative
- Emphasizes goals at expense of people

➤ **Motives:**

- Appeals most to people motivated by power (i.e., success is measured by position in organization). **NB:** Distinguish between socialized power (Win-Win) vs Individualized power (Win-Lose)

➤ **Key Values:**

- Efficiency and order



Bottom-Up Organization

➤ **Structure:**

- Horizontal or communal
- Decision making is democratic and reached by consensus
- Policies and procedures are loosely defined and agreed upon
- Negotiation used to resolve disputes

➤ **Examples:**

- The Peak, SFU Women's Collective, 1960's classroom



Bottom-Up (Cont'd)

➤ **Advantages:**

- Democracy
- Fosters warm relationships
- Encourages personal development

➤ **Disadvantages:**

- Inefficient
- Collapses if factions develop
- Emphasizes relationships at the expense of goals

➤ **Motives:**

- Appeals most to people motivated by affiliation (i.e., the desire to belong to a group)

➤ **Key Values:**

- Personal development and socialization



Interactive Organization

➤ **Structure:**

- Network/Matrix/Web organization
- Some decision-making authority from manager, but individual initiative, risk-taking, and responsibility encouraged
- Policies and procedures are loosely defined and open to interpretation (i.e., guidelines)
- Combination of formal authority and negotiation used to resolve disputes

➤ **Examples:**

- Small high-tech companies (e.g., McCarney, CREO), ESSS? Workshops?



Interactive (Cont'd)

➤ **Advantages:**

- Addresses different motives among members
- Flexibility when responding to rapidly changing circumstances
- Emphasizes both goals and personal development

➤ **Disadvantages:**

- Somewhat inefficient
- Unstable (depending upon individuals in organization or group can easily become top-down or bottom-up)

➤ **Motives:**

- Appeals most to people motivated by individual achievement, but doesn't restrict those motivated by other factors

➤ **Key Values:**

- Flexibility and creativity



Recommendations

- Know what motivates you when considering what career path you prefer: power, social interaction, achievement
- For small teams:
 - 3-4, a relatively flat structure often works OK
 - 5-6, a matrix structure is probably better
 - Larger than that, a hierarchical structure becomes more effective (the bigger the organization, the more that leadership becomes critical)
- **CONSEQUENCE:** For ENSC 405W/440, **DO NOT** expect someone to tell you what to do. Individual initiative and responsibility are assumed and expected.



Stages of Team Development

Stage	Major Processes	Characteristics
1. Forming (Orientation)	<ul style="list-style-type: none"> • Exchange of information • Increased interdependency • Task exploration • Identification of commonalities 	<ul style="list-style-type: none"> • Tentative interactions • Polite discourse • Ambiguity • Self-discourse
2. Storming (Conflict)	<ul style="list-style-type: none"> • Disagreement over procedures • Expression of dissatisfaction • Emotional responses • Resistance 	<ul style="list-style-type: none"> • Criticism of ideas • Poor attendance • Hostility • Polarization & coalition forming
3. Norming (Cohesion)	<ul style="list-style-type: none"> • Growth of cohesiveness & unity • Establishment of roles, standards, & relationships 	<ul style="list-style-type: none"> • Agreement on procedures • Reduction in role ambiguity • Increased “we-feeling”
4. Performing (Performance)	<ul style="list-style-type: none"> • Goal achievement • High task orientation • Emphasis on performance & production 	<ul style="list-style-type: none"> • Decision making • Problem solving • Mutual cooperation
5. Adjourning (Dissolution)	<ul style="list-style-type: none"> • Termination of roles • Completion of tasks • Reduction of dependency 	<ul style="list-style-type: none"> • Disintegration & withdrawal • Increasing independence • Regret

Source: Bruce Tuckman (grey area is a later addition to the original model).



Group Dynamics

Effective group dynamics requires

- Respect for one another
- Clearly articulated shared goals
- Frequent interaction
- Shared decision-making power (with or without a formally designated leader)
- Equitably divided tasks
- Shared responsibility for mistakes and successes
- Free expression of opinions, perspectives, & constructive criticism



Respect

- Without respect, you do not have a team, but simply a collection of individuals working on individual tasks.
- You express respect by
 - Listening actively to others
 - Recognizing the strengths and limitations of yourself and others
 - Acknowledging accomplishments of others
 - Recognizing our own limitations
 - Honest communication



Setting Group Goals

➤ Professional goals

Design on-time and within budget, effective documentation, satisfied customers, etc.

➤ Personal goals

Develop leadership skills, improve public speaking skills, learn new technical skills, etc.

➤ Social goals

Betterment of society, assistive devices for the disabled, create employment, etc.



Group Interaction

- Frequent (weekly) group meetings to discuss various technical and project-oriented issues. Do not rely upon social media (i.e., facebook) as it can result in major problems, Meet f2f.
- Often, well-functioning groups will also meet socially.
- You can measure how well you feel your team is functioning by paying attention to how often you attend group meetings and asking why you anticipate or dread them.



Task-Oriented Roles

➤ **Formally Assigned Roles**

- Team leader
- Secretary/Recorder
- Devil's advocate

➤ **Expertise Related Roles**

- Budget manager
- Marketing specialist
- Technical writer
- Specialist in physics, biomedical, coding, systems, electronics



Socially-Oriented Roles

➤ **Constructive Roles**

- Mediator
- Facilitator
- Comedian
- Standard setter
- Supporter
- Leader

➤ **Destructive Roles**

- Aggressor
- Attention seeker
- Complainer
- Dominator
- Harasser
- Idler



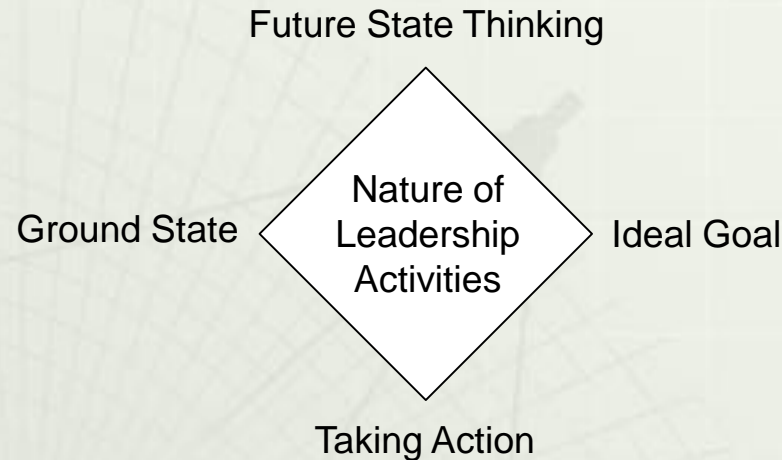
Traits of Effective Leaders

- Manage time effectively
- Recognize limitations to their authority and expertise
- Delegate tasks effectively and fairly
- Are flexible in approaches to solving problems
- Make decisions fairly and as quickly as possible
- Honest and trustworthy
- Avoid micro-managing
- Tenacious and energetic
- Good communicators
- Motivate people

For more about effective leadership, I recommend the following book: David Colcleugh. 2013. *Everyone a Leader: A Guide to Leading High Performance Organizations for Engineers and Scientists*. University of Toronto Press.



What Is Leadership as an Activity?



- **Ground State:** How things are now
- **Future State Thinking:** Objectives and plans
- **Ideal Goal:** How things could be improved
- **Taking Action:** Making positive change



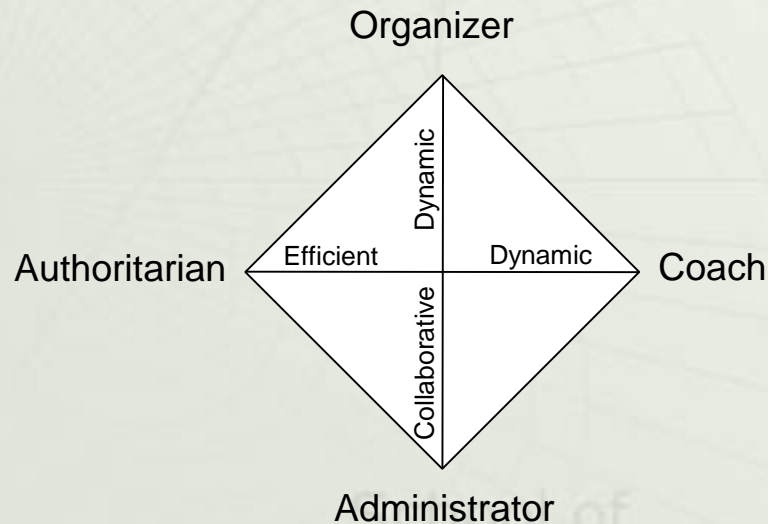
Communication Style of Leaders

- Consult team members frequently
- Are good listeners
- Encourage alternative viewpoints
- Provide honest and specific feedback
- Resolve conflicts effectively and fairly
- Never hoard information



Motivational Tasks of Leaders

- Keep team focused on tasks
- Encourage and maintain the team spirit
- Encourage individuals to fulfill personal goals
- Provide ample positive feedback/rewards
- Praise in public; punish in private
- Listen, listen, listen: people need to feel heard
- Leadership styles:





Division of Labour

➤ Quantity of Work

- Too much = resentment and/or burnout
- Too little = complacency and/or boredom

➤ Quality of Work

- Too high = frustration and/or anxiety
- Too low = resentment and/or boredom

- Balance the quality and quantity of work with the person's abilities and interests.
- Complete the tasks expected of you on time.
- Everyone should report weekly on what they have done.
- Most common source of team problems.
- Don't carry a lazy team member; actively manage the issue.



Team Responsibility

- **All are responsible for success**
 - ∴ Nobody is the Hero
- **All are responsible for failure**
 - ∴ Nobody is the Scapegoat
- You are all in this together.
- Problems with one team member often result in dramatically lower outcomes with respect to grades and quality.



Symptoms of Groupthink

Loyalty, unity, agreement (Silencing)

- Deviation from group consensus is not permitted
- Doubts and concerns are not expressed
- Minority viewpoints are ignored
- Criticisms from outside the team are not shared within the team

Obstruct critical thinking

- Overly optimistic; risks ignored
- Negative feedback or discrepancies ignored
- Ethical implications ignored
- Competitors are viewed as evil, weak, incompetent



Dealing with Groupthink

- The best way to prevent groupthink is to encourage a team member to act as “Devil’s Advocate”
- All members should recognize the contribution of the person who takes this role, even in the heat of the moment
- Don’t dismiss this person’s comments
- **Pay close attention to external information about your team from TAs, instructors, clients.**



Conflict and Teams

- If you are in a team, there will be some conflict
- Most members of a team have to learn two fundamentals:
 - Having different opinions is an **essential benefit** of teamwork.
 - Team members have **strong feelings and emotions**. A team cannot achieve its full potential if all that is allowed is logic or information.
- To deal with this, you need to actively manage disagreement and conflict, and resolve disagreements that may be escalating dangerously.

➤ Adapted from <http://archive.tit.psu.edu/suggestions/teams/student/conflicts.html>



Minimizing Team Conflict

State expectations clearly to give the team a common ground to begin any discussion. Some ways to clarify expectations include:

- Developing a clear statement of team mission or purpose
- Establishing ground rules governing participation, sharing of responsibilities, etc.
- Agreeing to depersonalize conflicts
- Recognizing that team processes, including discussion and brainstorming, is important to results and needs regular attention
- Using structured processes for problem solving and conflict resolution
- Understanding the stages of project development and maintenance priorities of each stage
- Clearly defining individual responsibilities for real work for each other; clear linkage between individual responsibilities and the team mission
- Clearly defining project standards and time lines

Adapted from: <http://archive.tlt.psu.edu/suggestions/teams/student/conflicts.html>

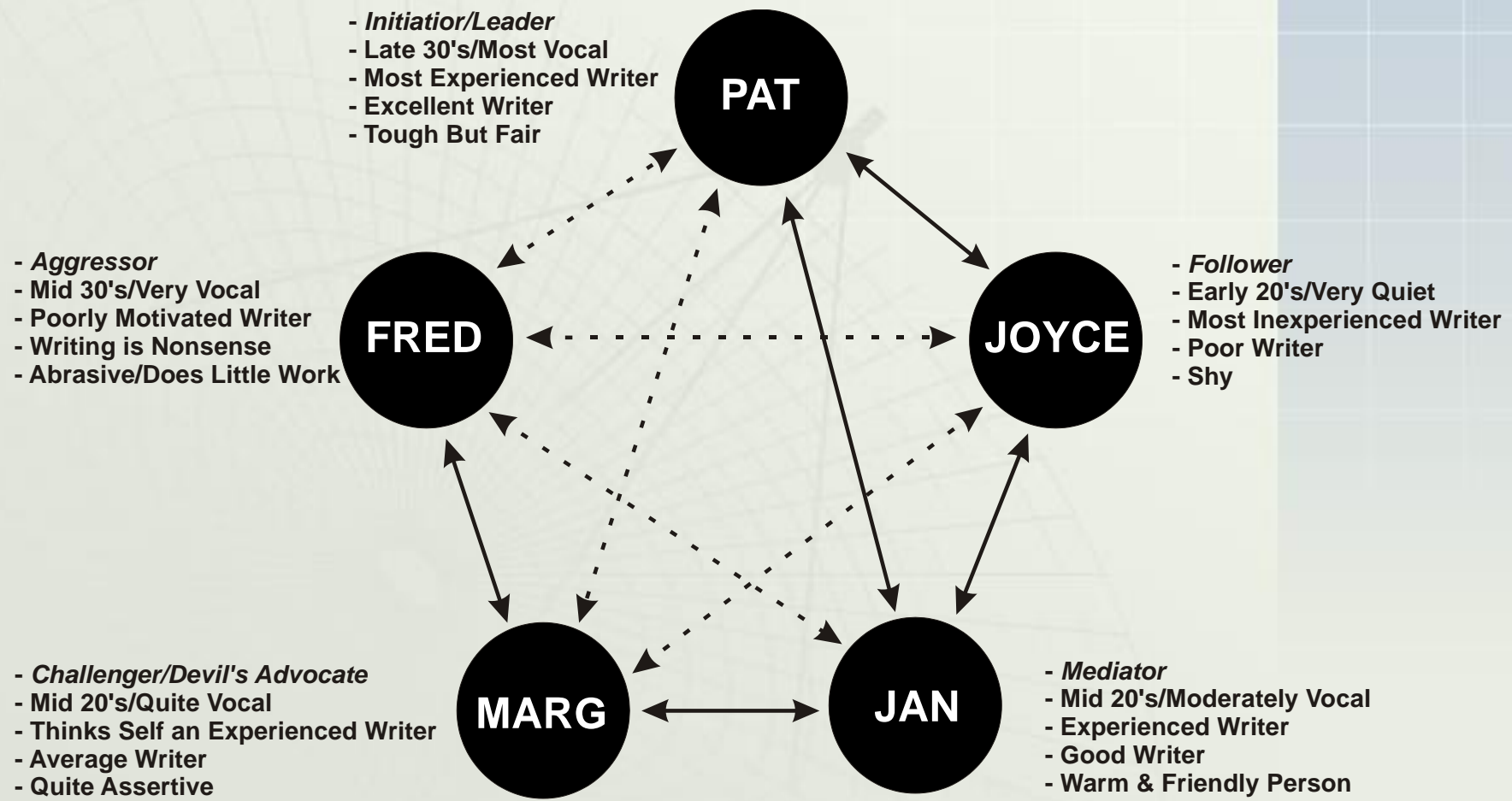


Model for Resolving Conflicts

1. Fully and clearly identify the problem to be resolved.
 - a) Describe all sides to the dispute.
 - b) Listen carefully to all sides.
 - c) Ensure everyone accepts the definition of the problem.
2. Generate alternative solutions to the problems.
3. Evaluate the alternative solutions.
4. Ensure that all members accept decisions.
5. Implement the solution to the problem.
6. Set a target date to evaluate the effectiveness of the solution.

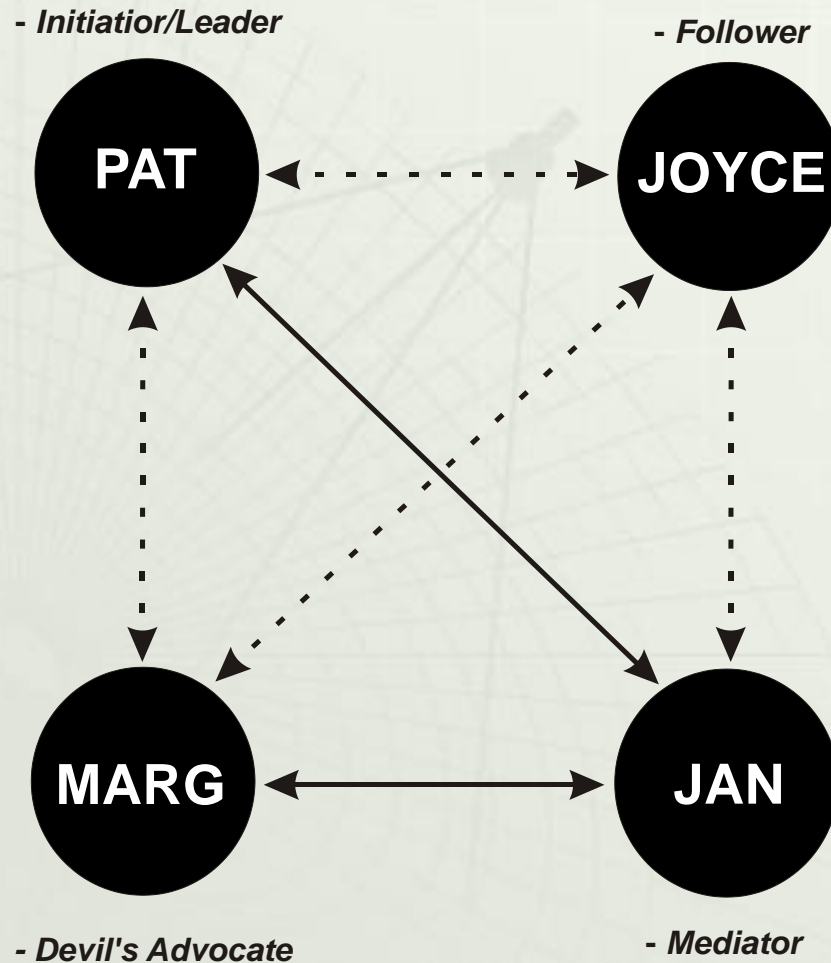


Case Study #1





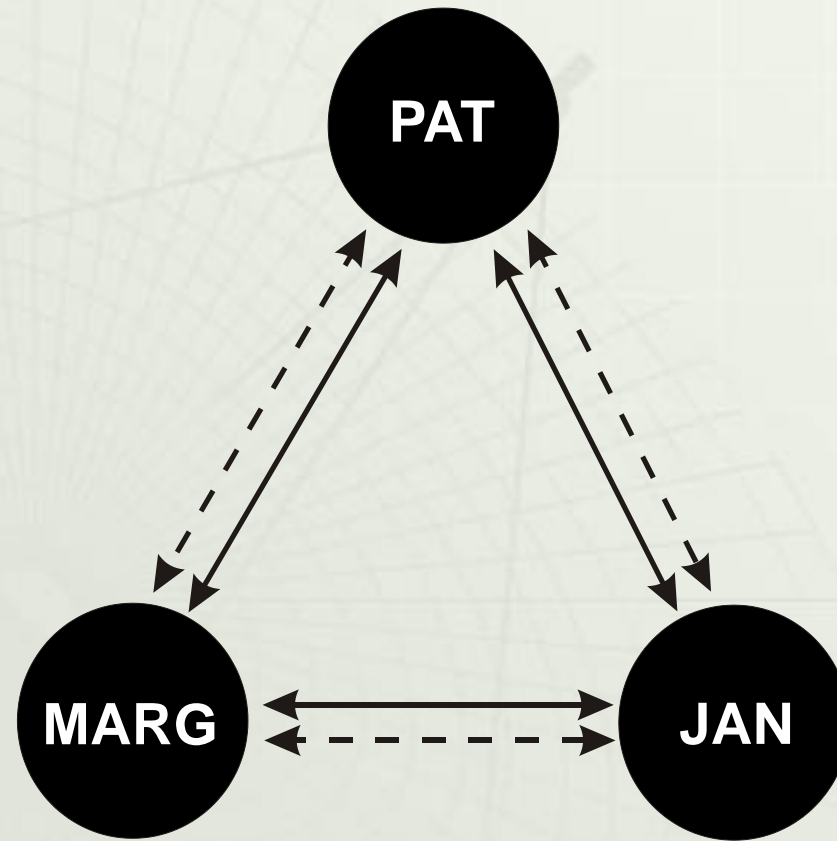
Case Study #2





Case Study #3

- Initiator/Leader

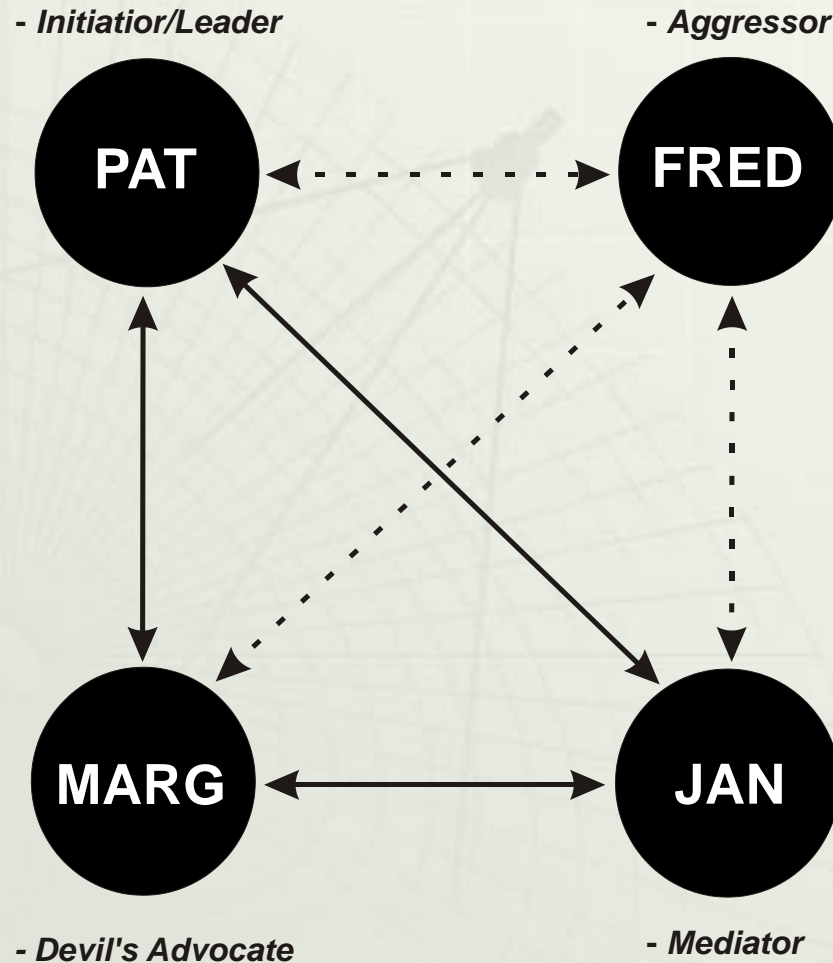


- Devil's Advocate

- Mediator



Case Study #4





A Wise Student Perspective

“In regards to group dynamics, I’ve discovered that no group works well without someone to lead them – a completely flat structure tends to leave no one responsible for anything in particular, and once this happens, tasks may get delayed while no one picks them up. I found that at least by assigning each person in the group with a defined task, written down, with deadlines included, things seem to get done more efficiently.”

– *Andrew Morning-Smith, 2000*



Project Management Text, Shop Skills, Proposals

- A basic text about Project Management is provided on the course website (reading is optional, but recommended): Adriane Watt. 2014. *Project Management*: <http://opentextbc.ca/projectmanagement/>
- On Thursday May 24 (and the following 3 Thursdays), we will offer the Shop Skills workshops in ASB 8806A. Two teams (A & H) will take part in the first one. I will send the team contacts their team numbers along with the schedule later this week. **Please ensure you arrive no later than 8:30 as we will start then. Attendance is mandatory.**
- **Your project proposal is due on Thursday, May 31 by 11:59 PM. Remember to e-mail it to me as an attachment in .pdf format, using your team letter for the file name (e.g., aprop.pdf).**



Conclusion

**“Do I contradict myself?
Very well then, I contradict myself.
(I am large, I contain multitudes.)”**

–*Walt Whitman, Leaves of Grass*