Structure

Each group is unique in many ways, but beneath the surface lie certain structures that are common to virtually all groups. All but the most ephemeral groups develop structure: norms, roles, and intermember relations.

- What are norms, and how do they structure interactions in groups?
- What are roles? Which roles occur most frequently in groups?
- How and why do status hierarchies develop in groups?
- What factors influence the group's sociometric structure?
- What are the interpersonal consequences of communication networks in groups?

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Andes Survivors: One Group’s Triumph over Extraordinary Adversity

The pilot of the chartered Fairchild F-227 made a fatal error. He misjudged his location and began his descent from cruising altitude too soon. By the time he realized his mistake, he could not keep the plane from crashing deep in the snow-covered Andes of South America.

Most of the crash survivors were players from a rugby team who were traveling from Uruguay to Chile for a match. They felt fortunate to have survived a crash that killed so many, but they faced hardships that would have broken even the hardest and most resolute. Their only shelter from the cold was the wrecked fuselage. Food was scarce. The mountain was so barren that they had little fuel for a fire. They spent hours just melting enough snow for drinking water. As the ordeal wore on, the survivors argued intensely over the likelihood of a rescue. Some insisted that searchers would soon find them. Others maintained that they must climb down from the mountain. Some became so apathetic that they didn’t care. At night, the cries of the injured were often answered with anger rather than pity, for the severely cramped sleeping arrangements created continual conflict. And early one morning, as they were sleeping, an avalanche filled the cabin with snow, and many died before they could dig their way out.

The group escaped from the crash site after nearly three months. But the group that came down from the Andes was not the same group that began the chartered flight; the pattern of relationships among the group members—that is, the group’s structure—had been altered. The survivors developed new standards and values that were unlike any of the rugby team’s norms. The group began without a leader but ended up with “commanders,” “lieutenants,” and “explorers.” Men who were at first afforded little respect or courtesy eventually earned considerable status within the group. Some who were well liked before the crash became outcasts, and some who hardly spoke to the others became active communicators within the group.

Any group, whether stranded in the Andes, sitting around a conference table, or working to manufacture new automobiles, can be better understood by studying its structure: the underlying pattern of stable relations among the group members. Just as physicists, when studying an unknown element, analyze its basic atomic structure rather than its superficial features, so group dynamicists look beyond the unique features of groups for evidence of these basic structures. Three of these key structural components—norms, roles, and relations—are examined in this chapter (see Lofland, 1995; Miller & Prentice, 1996; Scott & Scott, 1981, for reviews).

NORMS

The survivors of the crash needed to coordinate their actions if they were to survive. With food, water, and shelter severely limited, the group members were forced to interact with and rely on each other continually, and any errant action on the part of one person would disturb, and even endanger, several other people. So members soon
began to follow a shared set of rules that defined how the group would sleep at night, what types of duties each healthy individual was expected to perform, and how food and water were to be apportioned.

The emergent consensual standards that regulate group members' behaviors are norms. Norms are a fundamental element of a group's structure, for they provide direction and motivation, organize social interactions, and make other people's responses predictable and meaningful. Each group member is restrained to a degree by norms, but each one also benefits from the order that norms provide. Norms define the socially appropriate way to respond in the group—the normal course of action—and the types of actions that should be avoided if at all possible (Sorrels & Kelley, 1984). Some norms are descriptive: They describe the kinds of behavior people usually perform. These descriptive norms define what most people would do, feel, or think in a particular situation. Injunctive norms, or prescriptive norms, are more evaluative: They describe the sorts of behaviors people ought to perform. People who do not comply with descriptive norms may be viewed as unusual, but people who violate injunctive norms are considered "bad" and are open to sanction by the other group members. In the Andes group, those who failed to do their fair share of work were criticized by the others, given distasteful chores, and sometimes even denied food and water (Cialdini, Kallgren, & Reno, 1991; Cialdini, Reno, & Kallgren, 1990; Miller & Prentice, 1996).

The Development of Norms

Groups sometimes write down and formally adopt norms as their group's rules, but most norms emerge gradually as members align their behaviors until they match certain standards. An example of this normative process is the Andes survivors' decision to eat the bodies of passengers who had died in the plane crash and avalanche. The survivors had nothing else to eat, and within days of the crash, they began feeling the effects of starvation. As early as the fourth day, one group member remarked that the only source of nourishment was the frozen bodies of the crash victims. Although the others took the remark to be a joke, by the tenth day, "the discussion spread as these boys cautiously mentioned it to their friends or those they thought would be sympathetic" (Read, 1974, p. 76). When the question was discussed by the entire group, a small subgroup of boys argued in favor of eating the corpses, but many others in the group claimed that they could not bring themselves to think of their dead friends as food. The next day, however, their hopes of rescue were crushed when they learned by radio that the air force had given up the search. The realization that help was not forthcoming forced most of the group members to consume a few pieces of meat, and in the end, cannibalism became the norm.

Descriptive norms: Shared expectations that define what most people would do, feel, or think in a particular situation, those who violate such norms are considered unusual or atypical.
Injunctive norms (prescriptive norms): Evaluative expectations that define what people should and should not do in a given situation; those who violate such norms are evaluated negatively.
According to Muzafer Sherif, this type of change reflects how people in groups over time come to develop standards that serve as frames of reference for behaviors and perceptions (M. Sherif, 1936, 1966; see, too, C. W. Sherif, 1976). Although a group facing an ambiguous problem or situation may start off with little internal consensus and great variability in behavior, members soon structure their experiences until they conform to a standard developed within the group. The group can turn to outside authorities or the traditions of society at large for their norms, but group norms often develop through reciprocal influence. In the Andes group, individuals did not actively try to conform to the judgments of others, but used the information contained in others’ responses to revise their own opinions and beliefs. Writes Sherif (1966, pp. xii–xiii): "When the external surroundings lack stable, orderly reference points, the individuals caught in the ensuing experience of uncertainty mutually contribute to each other a mode of orderliness to establish their own orderly pattern."

As noted briefly in Chapter 1, Sherif studied the development of norms by taking advantage of the autokinetic effect, the illusory movement of a stationary pinpoint of light in a dark room. He asked individuals, dyads, and triads seated in a darkened room to make a judgment about how far a dot of light moved. After repeated trials, Sherif found that individuals making judgments by themselves established their own idiosyncratic average estimates, which varied from 1 to 10 inches. When people made their judgments in groups, however, their personal estimates blended with those of other group members until a consensus was reached. Figure 5–1 shows one group’s shift from individual responding to normative responding. Before joining the group, individuals varied considerably in their estimates; one subject thought that the light moved an average of 7 inches on each trial, and the other two individuals’ estimates averaged 1 inch and 2 inches. When these individuals were part of a group, however,

![Figure 5-1](image)

**Figure 5-1** How do norms develop in groups? Subjects’ judgments in Sherif’s study converged over time. Their private, pregroupl judgments differed markedly, but when they joined with others, their judgments converged.

(Data from M. Sherif, 1936.)
their judgments converged over time in what Sherif called a *funnel pattern*; by the final session, a norm of just over 2 inches had been formed.

**The Transmission of Norms**

Sherif concluded that new norms develop within groups whenever the context provides little information to guide actions or to enable members to formulate beliefs. He also concluded that people in the autokinetic situation were not simply changing their public estimations of distance, but were *internalizing* the group’s consensus. When he again arranged for people to make their judgments alone, he found that they continued to base their estimates on the norm that emerged in the group that they belonged to previously (Sherif, 1966). They obeyed their group’s norm even when there was no external pressure to do so, suggesting that they personally accepted the standard as their own (Kelman, 1961).

Groups, too, internalize norms by accepting them as legitimate standards for behavior. In one study, researchers put a confederate in each three-member group. The confederate steadfastly maintained that the dot of light was moving about 15 inches, clearly an excessive estimate, given that most estimates averaged about 3 to 4 inches. Once the confederate deflected the group’s distance norm upward, he was removed from the group and replaced by a naive subject. The remaining group members, however, still retained the large distance norm, and the newest addition to the group gradually adapted to the higher standard. The researchers continued to replace group members with new subjects, but new members continued to shift their estimates in the direction of the group norm. Eventually, this arbitrary group norm disappeared as judgments of distance came back down to an average of 3.5 inches, but in most cases, the more reasonable norm did not develop until group membership had changed five or six times. Groups corrected themselves, but it took several generations before a more reasonable norm emerged (Jacobs & Campbell, 1961; MacNeil & Sherif, 1976; Pollis, Montgomery, & Smith, 1975).

A norm, once established, becomes a social fact—a part of the group’s stable structure. Even though the individuals who originally fostered the norms are no longer present, their normative innovations remain a part of the organization’s traditions, and newcomers must change to adopt that tradition. Newcomers to a group can sometimes influence their group’s norms, but it is usually the individual who assimilates the group’s norms, values, and perspectives (Moreland & Levine, 1982). Recall, for example, the results of Newcomb’s 1943 study of political attitudes, discussed in Chapter 2. He discovered that students changed their attitudes until their political preferences matched the attitudes of their classmates and professors. More recently, Christian Crandall (1988) documented similar shifts in a study of bulimia, a pernicious cycle of binge eating followed by self-induced vomiting or other forms of purging. Certain social groups, such as cheerleading squads, dance troupes, sports teams, and sororities, tend to have strikingly high rates of eating disorders (Crago, Yates, Beutler, & Arizmendi, 1985; Garner & Garfinkel, 1980; Squire, 1983). In explanation, Crandall notes that such groups adopt norms that encourage binging and purging. Rather than viewing these actions as abnormal and a threat to health, the sororities that
Crandall studied accepted purging as a normal means of controlling one's weight. The women who were popular in such groups were the ones who binged at the rate established by the group's norms. Even worse, women who did not binge when they first joined the group often took up the practice the longer they remained in the group. Thus, even norms counter to society's general traditions can establish a life of their own in small subgroups within that society.

**ROLES**

On the day after the crash, Marcelo, the captain of the rugby team, organized the efforts of those who could work. Two young men and one of the women administered first aid to the injured. A subgroup of boys melted snow for drinking water, and another team cleaned the cabin of the airplane. These various positions in the group—leader, doctor, snow melter, cabin cleaner—are all examples of roles: sets of behaviors that are characteristic of persons in a particular social context (Biddle, 1979; Salazar, 1996).

Roles within a group are, in some respects, similar to roles in a play. For dramatics, roles describe the characters that the actors portray before the audience. To become Romeo in Shakespeare's *Romeo and Juliet*, for example, the actor must perform certain actions and recite his dialogue accordingly. Similarly, roles in groups structure behavior by dictating the "part" that members take as they interact. Once cast in a role such as leader, outcast, or questioner, the group member tends to perform certain actions and interact with other group members in a particular way. But members can, in many cases, negotiate within the group as they move in and out of different roles. Group members who want to influence others may seek the role of leader, and those who wish to maintain a low profile may seek out the follower's role (Cárdeno, 1994).

Just as some variability is permitted in theatrical roles, roles do not structure group members' actions completely. An actor playing the role of Romeo must perform certain behaviors as part of his role; he wouldn't be Shakespeare's Romeo if he didn't fall in love with Juliet. He can, however, recite his lines in an original way, change his stage behaviors, and even ad lib. In social groups, too, people can fulfill the same role in somewhat different ways, and so long as they do not stray too far from the role's basic requirements, the group tolerates this variation. However, like the stage director who replaces an actor who presents an unsatisfactory Romeo, the group can replace members who repeatedly fail to play their part within the group. Indeed, the role often supersedes any particular group member. When the role occupant departs, the role itself remains and is filled by a new member (Hare, 1994; Stryker & Statham, 1983).

**Role Differentiation**

Sometimes people deliberately create roles. A group may decide to enhance its efficiency by organizing and so elects a chairperson, a secretary, and heads of subcommittees. Someone outside the group, such as the group's supervisor, may create roles within
the group by mandate. But even without a deliberate attempt at creating a *formal group structure*, the group will probably develop an *informal group structure* anyway. Members may initially consider themselves to be just members, basically similar to each other. But in time, roles will emerge as each group member begins to perform a specific range of actions and interact with other group members in a particular way.

This *role differentiation* process occurred rapidly among the Andes survivors, for groups that face difficult problems or emergencies tend to organize roles more rapidly than groups facing less stressful circumstances (Bales, 1958). The roles of leader, doctor, and cleaner emerged first, soon followed by the "inventor," who created makeshift snowshoes, hammocks, and water-melting devices; "explorer," who was determined to hike down from the mountain; and "complainer," "pessimist," "optimist," and "encourager."

**Types of Roles.** What roles tend to emerge as a group becomes organized? Certainly, the role of leader is a fundamental one in many groups, but other roles should not be overlooked. Many of these roles, such as "expert," "secretary," and "organizer," are similar in that they revolve around the task the group is tackling. People who fulfill these *task roles* focus on the group's goals, its task, and members' attempts to support one another as they work. Marcelo, for example, was a task-oriented leader, for he organized work squads and controlled the rationing of the group's meager food supplies, and the rest of the members obeyed his orders. He did not, however, satisfy the group members' interpersonal and emotional needs. By the ninth day of the ordeal, morale was sagging, and Marcelo began crying silently to himself at night. Yet, as if to offset Marcelo's inability to cheer up the survivors, several group members became more positive and friendly, actively trying to reduce conflicts and to keep morale high. The woman in the group, Liliana Methyl, provided a "unique source of solace" for the young men she cared for, and she came to take the place of their absent mothers and sweethearts. One of the younger boys "called her his god-mother, and she responded to him and the others with comforting words and gentle optimism" (Read, 1974, p. 74).

Methyl filled a *socioemotional role* in the Andes group. A group may need to accomplish its tasks, but it must also ensure that the interpersonal and emotional needs of the members are met. Whereas the "coordinator" and "energizer" structure the group's work, such roles as "supporter," "clown," and even "critic" help satisfy the emotional needs of the group members.

The tendency for groups to develop both task roles and socioemotional roles is consistent with Kenneth D. Benne and Paul Sheats's (1948) studies conducted at the National Training Laboratories (NTL), an organization devoted to the improvement

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**Role differentiation:** The development of distinct roles in a group, such as leader, follower, or complainer.

**Task roles:** Positions in a group occupied by group members who perform goal-oriented, task-focused behaviors.

**Socioemotional roles:** Positions in a group filled by group members who perform supportive, interpersonally accommodating behaviors.
of groups. Benne and Sheats concluded that a group, to survive, must meet two basic demands: The group must accomplish its tasks, and the relationships among members must be maintained. Table 5–1 lists the typical task roles that Benne and Sheats identified, including coordinator, elaborator, energizer, evaluato critic, information giver, information seeker, and opinion giver. Table 5–1 also lists the socioemotional roles that most frequently emerge in groups, including compromiser, encourager, follower, and harmonizer. The task roles facilitate the group's attainment of its goals, and the socioemotional roles reduce interpersonal strains and stresses within the group. Benne and Sheats also identified a third set of roles: the individualistic roles. Like the malingerers in the Andes groups—several young men who did little work and demanded that others care for them—those who adopt individualistic roles emphasize their own needs over the group's needs.

**Why Differentiation?** Why do task roles and socioemotional roles emerge in so many different groups? One answer, proposed by Bales and his colleagues, suggests that very few individuals can simultaneously fulfill both the task and socioemotional needs of the group (Bales, 1955, 1958; Parsons et al., 1953). When task specialists try to move groups toward their goals, they must necessarily give orders to others, restrict the behavioral options of others, criticize other members, and prompt them into action. These actions may be necessary to reach the goal, but the group members may react negatively to the task specialists' prodding. Because most of the members believe the task specialist to be the source of the tension, "someone other than the task leader must assume a role aimed at the reduction of interpersonal hostilities and frustrations" (Burke, 1967, p. 380). The peacekeeper who intercedes and tries to maintain harmony is the socioemotional specialist. Task and socioemotional roles, then, are a natural consequence on these two partly conflicting demands.

Bales's research team identified these tendencies by tracking the emergence of task and socioemotional experts in decision-making groups across four sessions. Bales used his Interaction Process Analysis system to identify certain specific types of behavior within the groups. As noted in Chapter 2 (see Table 2–1), half of categories in IPA focus on task-oriented behaviors: either direct attempts to solve specific problems in the group or attempts to exchange information via questioning. The remaining six categories are reserved for positive socioemotional behavior (shows solidarity, tension release, agreement) or negative socioemotional behavior (disagrees, shows tension, shows antagonism). Bales found that individuals rarely performed both task and socioemotional behaviors: Most people gravitated toward either the task role or the socioemotional role. The task specialist (labeled the "idea man") tended to dominate in the problem-solving area by giving more suggestions and opinions and by providing more orientation than the socioemotional specialist (labeled the "best liked man"). The latter, however, dominated in the interpersonal areas by showing more solidarity, more tension release, and greater agreement with other group members. The task specialist tended to elicit more questions, displays of tension, antagonism, and disagreement, whereas the socioemotional specialist received more demonstrations of solidarity, tension reduction, and solutions to problems. Moreover, this differentiation became more pronounced over time. During the first session, the same person was both the
### TABLE 5-1 ROLES IN GROUPS

<table>
<thead>
<tr>
<th>Role</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Task Roles</strong></td>
<td></td>
</tr>
<tr>
<td>Initiator/contributor</td>
<td>Recommends novel ideas about the problem at hand, new ways to approach the problem, or possible solutions not yet considered</td>
</tr>
<tr>
<td>Information seeker</td>
<td>Emphasizes getting the facts by calling for background information from others</td>
</tr>
<tr>
<td>Opinion seeker</td>
<td>Asks for more qualitative types of data, such as attitudes, values, and feelings</td>
</tr>
<tr>
<td>Information giver</td>
<td>Provides data for forming decisions, including facts that derive from expertise</td>
</tr>
<tr>
<td>Opinion giver</td>
<td>Provides opinions, values, and feelings</td>
</tr>
<tr>
<td>Elaborator</td>
<td>Gives additional information—examples, rephrasings, implications—about points made by others</td>
</tr>
<tr>
<td>Coordinator</td>
<td>Shows the relevance of each idea and its relationship to the overall problem</td>
</tr>
<tr>
<td>Orienter</td>
<td>Refocuses discussion on the topic whenever necessary</td>
</tr>
<tr>
<td>Evaluator/critic</td>
<td>Appraises the quality of the group's methods, logic, and results</td>
</tr>
<tr>
<td>Energizer</td>
<td>Stimulates the group to continue working when discussion flags</td>
</tr>
<tr>
<td>Procedural technician</td>
<td>Cares for operational details, such as the materials and machinery</td>
</tr>
<tr>
<td>Recorder</td>
<td>Takes notes and maintains records</td>
</tr>
<tr>
<td><strong>Socioemotional Roles</strong></td>
<td></td>
</tr>
<tr>
<td>Encourager</td>
<td>Rewards others through agreement, warmth, and praise</td>
</tr>
<tr>
<td>Harmonizer</td>
<td>Mediates conflicts among group members</td>
</tr>
<tr>
<td>Compromiser</td>
<td>Shifts his or her own position on an issue to reduce conflict in the group</td>
</tr>
<tr>
<td>Gatekeeper and expeditor</td>
<td>Smooths communication by setting up procedures and ensuring equal participation from members</td>
</tr>
<tr>
<td>Standard setter</td>
<td>Expresses, or calls for discussion of, standards for evaluating the quality of the group process</td>
</tr>
<tr>
<td>Group observer/commentator</td>
<td>Points out the positive and negative aspects of the group's dynamics and calls for change if necessary</td>
</tr>
<tr>
<td>Follower</td>
<td>Accepts the ideas offered by others and serves as an audience for the group</td>
</tr>
<tr>
<td><strong>Individual Roles</strong></td>
<td></td>
</tr>
<tr>
<td>Aggressor</td>
<td>Expresses disapproval of acts, ideas, feelings of others; attacks the group</td>
</tr>
<tr>
<td>Block</td>
<td>Negativistic; resists the group's influence; opposes group unnecessarily</td>
</tr>
<tr>
<td>Dominator</td>
<td>Asserts authority or superiority; manipulative</td>
</tr>
<tr>
<td>Evader and self-confessor</td>
<td>Expresses personal interests, feelings, opinions unrelated to group goals</td>
</tr>
<tr>
<td>Help seeker</td>
<td></td>
</tr>
<tr>
<td>Recognition seeker</td>
<td></td>
</tr>
<tr>
<td>Playboy/girl</td>
<td></td>
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<tr>
<td>Special-interest pleader</td>
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</tbody>
</table>

Source: Bennis & Shears, 1948.
task specialist and the socioemotional specialist in 56.5% of the groups. By the fourth session, only 8.5% of the leaders occupied both roles. Indeed, in most cases, individuals dropped their role as task leader to ensconce themselves more securely in the role of socioemotional expert (Bales, 1953, 1958; Bales & Slater, 1955; Slater, 1955).

Not all individuals and not all groups separate the task and socioemotional roles (Turner & Colony, 1988). Students in classroom groups, for example, when asked to rate their fellow group members on the Benne and Sheats (1948) roles listed in Table 5–1, often attributed task and socioemotional roles to the same individual. Indeed, the correlation between the two roles was .25. Groups with members who filled both roles were also more cohesive and performed more effectively (Mudrack & Farrell, 1995). Differentiation becomes more likely, however, when the group is experiencing conflict about its goals. In one study of such groups, the correlation between task and socioemotional behavior was minus .73 (Burke, 1967).

**Role Stress**

Some roles in a play are more complicated than others. Romeo appears in many scenes and recites line after line of dialogue, whereas the role of guard is much more limited in scope. Romeo is a lover, devoted son, and friend, but the guards are basically just guards. Variation in the complexity of roles also occurs in groups; members expect the occupants of some roles to perform only one type of behavior, but they expect people in other roles to exhibit a wide range of behaviors. Like the star of a play, those who enact complex roles often enjoy greater status in the group. Yet, complex roles can create considerable stress for the occupants, particularly when the behaviors associated with the role are ambiguously defined or they conflict with one another (Kahn, Wolfe, Quinn, Snock, & Rosenthal, 1964).

**Role Ambiguity.** Because roles often emerge as group members interact with one another over time, the responsibilities and expectations of any particular role are sometimes ill defined. In the Andes group, Marceelo emerged as the task leader, but the group never clearly defined his responsibilities, his rights, or his authority. Even when a group deliberately creates a role, such as executive assistant, technical support staff member, or even supervisor, neither the occupant of the role (the role taker) nor the rest of the group (the role senders) may clearly understand the responsibilities of the new role. In such cases, role takers will likely experience role ambiguity. They wonder if they are acting appropriately, they perform behaviors that others in the group should be carrying out, and they question their ability to fulfill their responsibilities. Role ambiguity is indexed by agreement with the following statements (House, Schuler, & Leavononi, 1983, p. 336):

- I don't know what is expected of me.
- I work under unclear policies and guidelines.

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**Role ambiguity:** Unclear expectations about the behaviors to be performed by individuals who occupy particular positions within the group.
The planned goals and objectives are not clear.

I don’t know how I will be evaluated for a raise or promotion.

**Role Conflict.** In some instances, group members may find themselves occupying several roles at the same time, with the making demands on their time and abilities. If the multiple activities required by one role mesh with those required by the other, role takers experience few problems. If, however, the expectations that define the appropriate activities associated with these roles are incompatible, role conflict may occur (Brief, Schuler, & Van Sell, 1981; Graen, 1976; Van Sell, Brief, & Schuler, 1981). Role conflict can prompt these kinds of complaints (House et al., 1983, p. 336):

- I work with two or more groups who operate quite differently.
- I often get myself involved in situations with conflicting requirements.
- I’m often asked to do things that are against my better judgment.
- I do things that are likely to be accepted by one person and not by others.
- I receive incompatible requests from two or more people.

Researchers have identified many varieties of role conflict, but two of the more problematic types are interrole conflict and intrarole conflict. **Interrole conflict** occurs when role takers discover that the behaviors associated with one of their roles are incompatible with those associated with another one of their roles. Carlino, who has been a member of a production unit for several years, may experience role conflict when she is promoted to a supervisory position; the behaviors required of her as manager may clash with her role of friend and workmate. Similarly, Mark may find that his student role conflicts with another role he occupies, such as boyfriend, husband, or employee. If the student role requires spending every free moment in the library studying for exams, such roles as companion and friend will be neglected.

**Intrarole conflict** results from contradictory demands within a single role. A supervisor in a factory, for example, may be held responsible for overseeing the quality of production, training new personnel, and providing feedback or goal-oriented information. At another level, however, supervisors become the supervised, because they take directions from a higher level of management. Thus, the members of the team expect the manager to keep their secrets and support them in any disputes with the management, but the upper echelon expects obedience and loyalty (Katz & Kahn, 1978; Miles, 1976). Role conflict also arises when role takers and role senders have different expectations. The newly appointed supervisor may assume that leadership means giving orders, maintaining strict supervision, and criticizing incompetence. The work group, however, may feel that leadership entails eliciting cooperation in the group, providing support and guidance, and delivering rewards.

**Role conflict:** Intragroup and intraindividual conflict that results from incompatibility in role relations.

**Interrole conflict:** Incompatibility between two simultaneously enacted roles.

**Intrarole conflict:** Incompatibility among the behaviors that make up a single role, often resulting from inconsistent expectations on the part of the person who occupies the role and other members of the group.
Role Conflict and Group Performance. Researchers have implicated both role ambiguity and role conflict as potential sources of low employee morale and job stress. In one study of accountants and hospital employees, role stress was linked to feelings of tension, decreased job satisfaction, and employee turnover (Kemery, Bedeian, Moosholder, & Touliatos, 1985). Indeed, when the results of dozens of studies of role ambiguity and conflict are synthesized, they suggest that role stress is detrimental to organizational success. The size of the relationship between role conflict and performance varied considerably across studies, but increases in role ambiguity and conflict were usually associated with an increased desire to leave the organization and with decreases in commitment to the organization, involvement, satisfaction, and participation in decision making (Brown, 1996; Fisher & Gitelson, 1983; Jackson & Schuler, 1995; King & King, 1990; Peterson, Smith, Akande, & Ayestaran, 1995).

What can organizations do to help their employees cope with role stress? One solution involves making role requirements explicit; managers should write job descriptions for each role within the organization and provide employees with feedback about the behaviors expected of them. The workplace can also be designed so that potentially incompatible roles are performed in different locations and at different times. In such cases, however, the individual must be careful to engage in behaviors appropriate to the specific role, because slipping into the wrong role at the wrong time can lead to considerable embarrassment (Gross & Stone, 1964). Some companies, too, develop explicit guidelines regarding when one role should be sacrificed so that another can be enacted, or they may prevent employees from occupying positions that can create role conflict (Brief et al., 1981; Sarbin & Allen, 1968; Van Sell et al., 1981).

INTERMEMBER RELATIONS

On the 17th day, an avalanche swept down on the sleeping survivors, filling their makeshift shelter with snow. Marcelo and Liliana Mechel were killed, and so soon a new order emerged in the group. Instead of two leaders, three young men stepped forward to take over control of the group. Why these three? They were cousins, and their kinship bonds connected them to one another so securely that they formed the hub of the group’s interpersonal relations.

Connections among the members of a group provide the basis for the third component of group structure: intermember relations. The Andes survivors were a group, but they were also many individuals who were connected to one another in different ways. Norms and roles describe the kinds of behaviors that group members perform when they occupy particular positions within the group, but they do not specify the linkages among the individual members. Which one of the three cousins had the most authority? Who in a group is most liked by others, and who is an isolate? How does information flow through a group from one person to the next? The answers depend on the group’s intermember relations: patterns of status, attraction, and communication.

Status Hierarchies

The roles that emerged in the Andes group following the crash defined who would lead, explore, and care for the injured. The individuals who took on these roles, however,
were not equal in terms of authority in the group. After the avalanche, Fito Strauch was more influential than the other group members; when he gave orders, most of the others obeyed. Also, the group's explorers were afforded more authority than the rank-and-file members. These stable variations in dominance, prestige, and control among the group members reflect the group's status relations, or authority relations.

Status patterns are often hierarchical and centralized. In the Andes group, as Figure 5-2 illustrates, Fito Strauch, E. Strauch, and Fernandez formed a coalition that controlled most of the group's activities. This triumvirate was supported by its "lieutenants": a group of three younger men who made certain that the leaders' orders were enforced and who also carried out certain minor duties. Their requests carried less force than those of Fito Strauch, but they still commanded a fair amount of respect.

Below the lieutenants we find a special class of group members called the explorers. These individuals were the fittest and strongest and had been chosen to hike down the mountain in search of help. In preparing for their journey, they were given special privileges, including better sleeping arrangements and more clothing, food,
and water. They were not leaders in the usual sense, but they could require lower echelon members to obey their orders. These lower ranking members fell into three clusters. The rank-and-file members included three men who, because of their youth and disposition, were considered childish and unstable. Their authority was equal to that of the four men who had received disabling injuries but somewhat greater than that of the two group members who were considered malingerers.

Figure 5-2 depicts the levels of authority that existed in the group. The power holders at the top of the hierarchy made more decisions, took more responsibility, and served as the foci for communication within the group. Below this top level was a second stratum of members who had less power than the leaders but more prestige than the occupants of lower echelons. As we move down the chain of command, authority diminishes and the number of occupants at each subordinate level increases. Hence, the lines of group authority formed a pyramid pattern like that of formally organized groups such as businesses and military organizations (Dale, 1952).

Status differences in groups violate our expectations of “equal treatment for all,” but in the microsociety of the group, equality is the exception and inequality the rule. Initially, group members may start off on an equal footing. But over time, status differentiation takes place. Certain individuals acquire the authority to coordinate the activities of the group, providing others with guidance and relaying communications (Bales, 1950; Fisek & Ofshe, 1970). But who rises to the top of the heap and who remains at the bottom? The answer ultimately depends on the individual and the group. First, does the individual group member communicate his or her claim to higher status to the other group members? Second, do the other group members accept or reject this individual’s claim to authority?

**Claiming Status.** All social animals know how to communicate the message “I am in charge.” Dominant chimpanzees chatter loudly at potential rivals, the leader of the wolf pack growls and bares his teeth at low-ranking wolves, and the ranking lioness in the pride swats another with her paw. Members of these social groups compete for status, for the individual at the top of the hierarchy—the so-called alpha male or female—enjoys greater access to the group’s resources. These high-ranking members maintain their position by threatening or attacking low-ranking members, who in turn manage to avoid these attacks by performing behaviors that signal deference and submissiveness. This system of dominance and submission is called a “pecking order” because (at least in chickens) it determines who will do the pecking and who will be pecked. Sociobiologists argue that pecking orders limit conflict in groups and increase individual and group survival (Mazur, 1973; Wilson, 1975).

Humans, too, compete for status in their groups. Humans rarely snarl at one another to signal their status, but they do use such nonverbal cues as a firm handshake, an unwavering gaze, a relaxed but poised posture, or an unsmiling countenance to let others know that they should be respected (Leffler, Gillespie, & Conaty, 1982). In the boardroom, for example, a dark suit, an expensive watch, and a con-
servative hairstyle connotes power, but in a small group of friends, a more casual look may be more appropriate. Large, sweeping gestures using the hands and head, a relaxed but poised posture, an attentive (but unsmiling) expression, a direct gaze, and a firm handshake or touch are all actions that lay a claim to status. People also seek status by speaking clearly and loudly, whereas those who speak softly and pepper their comments with nervous giggles are afforded less authority (Berry & McArthur, 1986; Damhorst, 1990; Lee & Ofshe, 1981; Mazur, 1983; Mazur et al., 1980; Ofshe & Lee, 1981; Patterson, 1991).

People also use verbal communications to signal their status and authority. People who want others to respect them often initiate conversations and shift the discussion to their own areas of competence (Godfrey, Jones, & Lord, 1986). A person seeking high status would be more likely to (1) tell other people what they should do, (2) interpret other people’s statements, (3) confirm or dispute other people’s viewpoints, and (4) summarize or reflect on the discussion (Stiles, Orth, Scherwitz, Henrikus, & Vallbona, 1984; Stiles et al., 1997). In a study group, for example, a high-status member may say, “I’ve studied this theory before,” “I know this stuff backward and forward,” or “I think it’s more important to study the lecture notes than the text.” A low-status individual, in contrast, may lament that “I always have trouble with this subject” or “I’m not sure I understand the material.” Status seekers also use strong rather than weak tactics when they try to influence others (Kipnis, 1984), and they talk the most when they are in groups (Cappella, 1985; Dovidio, Brown, Heltman, Ellyson, & Keating, 1988).

Perceiving Status. Individuals’ status-seeking efforts will be for naught if the group rejects their claims. In the Andes group, one young man, to attain the high-status role of explorer, tried to impress others by undertaking risky physical adventures. The other group members, however, wanted explorers to be cautious rather than risk takers, and so they selected someone else for the role. He displayed characteristics and actions that he felt would earn him status, but because these claims did not match group members’ intuitive beliefs about who deserves status, his bid for authority failed.

Expectation-states theory, developed by Joseph Berger and his colleagues, provides a detailed analysis of the impact of group members’ expectations on the status-organizing process. As noted briefly in Chapter 2, this theory assumes that status differences are most likely to develop when members are working collectively on a task that they feel is important. Because the group hopes that it can successfully complete the project, group members intuitively take note of one another’s status characteristics—personal qualities that they think are indicative of ability or prestige. Those who possess numerous status characteristics are implicitly identified and then permitted to perform more numerous and varied group actions, to provide greater input and guidance for the group, to influence others by evaluating their ideas, and to reject the influence attempts of others. (The basic propositions of the theory are discussed in Berger, Cohen, & Zelditch, 1972; Berger, Conner, & Fisek, 1974; Berger, Fisek, Norman, & Zelditch, 1977; Berger, Webster, Ridgeway, & Rosenholtz, 1986; Fisek, Berger, & Norman, 1995; Humphreys & Berger, 1981; Ridgeway, Berger, & Smith, 1985; Ridgeway & Walker, 1995; and Wagner & Berger, 1993.)
Expectation-states theorists believe that we generally take two types of cues into consideration when formulating expectations about ourselves and other group members. Specific-status characteristics are qualities that attest to each individual's level of ability at the task to be performed in the given situation. On a basketball team, for example, height may be a specific-status characteristic, whereas prior jury duty may determine status in a jury (Strodtbeck & Lipinski, 1985). In the Andes group, the higher-status explorers were chosen on the basis of several specific-status qualities: strength, determination, health, and maturity.

We also notice diffuse-status characteristics: general qualities of the person that the members think are relevant to ability and evaluation. Sex, age, wealth, ethnicity, status in other groups, or cultural background can serve as diffuse-status characteristics if people associate these qualities with certain skills, as did the members of the Andes group. Among the survivors, age was considered an important diffuse-status characteristic, with youth being negatively valued.

Researchers have largely confirmed expectations-states theory's prediction that individuals with positively evaluated specific-status and diffuse-status characteristics usually command more authority than those who lack status-linked qualities (Berger & Zelditch, 1985; Ridgeway & Walker, 1995; Wagner & Berger, 1993; Wilke, 1996). In police teams, officers with more work experience exercised more authority than less experienced partners (Gerber, 1996). Members of dyads working on a perceptual task deferred to their partner if he or she seemed more skilled at the task (Foddy & Smithson, 1996). People who are paid more are permitted to exert more influence over people who are paid less (Harrod, 1980; Stewart & Moore, 1992). When air force bomber crews work on nonmilitary tasks, higher ranking members are more influential (Torrance, 1954). Juries allocate more status to jurors who have served on juries previously or who have more prestigious occupations (Strodtbeck, James & Hawkins, 1957). The bulk of the research also confirms the following causal sequence in status allocation: (a) group member X displays specific- and diffuse-status characteristics, (b) group members form higher expectations about X's capabilities, and (c) group members allow X to influence them (Driskell & Mullen, 1990).

Incongruencies in Status Allocations. Individuals who deserve status are not always afforded status by their groups (Schneider & Cook, 1993). Imagine, for example, a jury that includes these three individuals:

- Dr. Prof, a 40-year-old White woman who teaches in the School of Business and who has written several books on management.
- Mr. Black, a 35-year-old African American executive with outstanding credentials and long experience in a leadership position.
- Dr. White, a 58-year-old male physician who has an active general practice.

**Specific-status characteristics:** Specific behavioral and interpersonal characteristics that group members take as evidence of one's ability at the task to be performed in the given situation.

**Diffuse-status characteristics:** General qualities, such as sex and age, that group members use to allocate status in groups.
Considerable evidence suggests that a jury of middle-class White Americans, when selecting a foreman, would be biased against Dr. Prof and Mr. Black and biased in favor of Dr. White. Dr. Prof and Mr. Black, despite their specific-status credentials, may be disqualified from positions of status in the group by their diffuse- (and completely irrelevant) status characteristics. In contrast, Dr. White poses little incongruency for the group if the group members unfairly consider advanced age, white skin, and an M.D. degree to be positive features. This phenomenon is known as status generalization: Group members let general-status (diffuse-status) characteristics influence their expectations even though these characteristics are irrelevant in the given situation (Molm, 1986; Ridgeway & Balkwell, 1997).

Status generalization explains why women and African Americans are given less status and authority in groups than are Anglo Americans and men. Despite growing changes in sexist and racist attitudes in society, stereotypical biases still make gaining status in small groups a difficult task for African Americans, and other minorities (Nielsen, 1990). Women and African Americans report more dissatisfaction about how status is allocated in groups (Cohen, 1982; Crosbie, 1979; Hembroff, 1982; McCranie & Kimberly, 1973). Women and minorities must also put extra effort into their activities and reach higher performance standards just to remain on a par with the advantaged White men (Foschi, 1996; Pugh & Wahrman, 1983). Group performance, although often improved when groups become diverse, will suffer if the group overlooks the valuable contributions offered by members who are competent but not considered worthy of high status (Galen, 1994; Jackson, 1992; Kirchler & Davis, 1986).

These negative effects often fade over time as group members gain experience working together. Groups that initially allocate status unfairly revise their hierarchies as they recognize the skills and abilities of previously slighted members (Watson, Kumar, & Michalasen, 1993). Given enough time, women and minorities find that they no longer need to continually prove themselves to the others (Hembroff & Myers, 1984; Markovsky, Smith, & Berger, 1984). Women and minorities who communicate their involvement in the group to the other members also tend to gain status more rapidly, as do those who act in a group-oriented manner rather than a self-oriented way (Freeze & Cohen, 1973; Martin & Sell, 1985; Pugh & Wahrman, 1983; Ridgeway, 1982). In one study, men and women deliberately adopted either a cooperative, friendly interaction style or an emotionally distant, self-centered style. The men, when they joined otherwise all-women groups, achieved high status no matter what style they exhibited. Women in otherwise all-male groups achieved high status only if they displayed a group-oriented motivation. External authorities can also undo unfair status generalizations by explicitly stressing the qualifications of women and minorities or by training group members to recognize their biases (Lundy, 1992; Ridgeway, 1989).
Social Standing

Some of the 19 Andes survivors rose to positions of authority, while others remained relatively powerless. Yet, to describe the group in just these terms would be to miss a vital part of the social structure. The individuals were not just leaders and followers, powerful and powerless; they were also friends and enemies.

Jacob Moreno, the developer of sociometry, maintains that the tendency to react to one another on a spontaneous, affective level imparts a unique quality to human groups. Our relationships with other group members take on many different shades—hate, condemnation, liking, friendship, love, and so on—but only rarely do we react neutrally to one another. Taken together, these relationships make up the group’s attraction relations, or sociometric structure (Moreno, 1960).

Sociometric Differentiation. The sociometric structure of the Andes survivors changed gradually during the long ordeal. Figure 5-3 partially summarizes the results of this sociometric differentiation process by focusing on the relationship between the rank-and-file group members and the four explorers, Turcatti, Parrado, Vizintin, and Canessa. Nearly everyone admired Turcatti and Parrado; their warmth, optimism, and physical strength buoyed the sagging spirits of the others. Vizintin and Canessa, in contrast, “did not inspire the same affection” (Read, 1974, p. 141). They liked each other but had few other friends within the group. Mangino, one of the younger men, was an exception; he liked them both. Most of the others, however, quarreled with them constantly.

Attraction patterns like those in the Andes group are not a disorganized jumble of likes and dislikes but a network of stable social relationships (Doreian, 1986). Just as members of the group can be ranked from low to high in terms of status, so, too, can the members be ordered from least liked to most liked (Maassen, Akermans, & van der Linden, 1996). Popular individuals (stars) receive the most positive sociometric nominations within the group; rejected group members (outcasts) get picked the most when group members identify whom they dislike; neglected group members (isolates) receive few nominations of any kind; and the average members are liked by several others in the group (Cote, Dodge, & Kupersmid, 1990; Newcomb, Bukowski, & Pattee, 1993). In the Andes group, for example, Parrado was admired by all; he was, sociometrically, the star of the group. Delgado, in contrast, was the group’s outcast; he had no friends in the group, and the young men ridiculed him constantly for not doing his share of the work.

Like sociometric relations in most groups, the Andes survivors’ sociometric structure tended toward reciprocity and transitivity. Vizintin, for example, liked Canessa, and Canessa liked Vizintin in return. Such reciprocity of both liking and disliking is a powerful tendency in most settings; it has been documented repeatedly in a variety of groups, including football teams, police squads, psychotherapy groups, and classroom groups (Kandel, 1978; Newcomb, 1979; Segal, 1979; Wright, Ingraham, & Blackmer, 1984). Exceptions to reciprocity sometimes occur, and some forms of attraction tend to

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**Attraction relations (sociometric structure):** Patterns of liking and disliking in a group.

**Sociometric differentiation:** The development of patterns of liking and disliking in a group.
Who liked whom in the Andes group? Lines marked with a plus sign indicate liking, lines marked with a minus sign indicate disliking, and arrows indicate the direction of the effect.

be less reciprocal than other forms of attraction, but these exceptions to the reciprocity principle are relatively rare (Segal, 1979). The Andes group also showed signs of network transitivity: Canessa liked Mangino, Mangino liked Vizintin, and in confirmation of transitivity, Canessa liked Vizintin (A → B, B → C, so A → C).

Clusters, or cliques, also existed in the Andes group, for Vizintin, Canessa, and Mangino formed a unified coalition within the larger group. Others rarely hesitated to show their disdain for the members of this subgroup, but these three were joined by strong bonds of attraction. In many cases, subgroups display homophily: Members are more similar to one another than they are to the members of the total group. Members of the same racial category, for example, may join to form a coalition, or the group may separate naturally into all-male and all-female cliques (Hallinan, 1981; Schofield & Whitley, 1983; Thorne, 1993). Group members also often deliberately form and manipulate cliques within larger groups by systematically including some individuals and excluding others (Adler & Adler, 1995).

Maintaining Structural Balance. Why do most groups tend toward reciprocity, transitivity, and homophily? Fritz Heider's balance theory offers a possible answer.

Balance theory: A theoretical framework advanced by Heider that assumes that interpersonal relationships can be either balanced (integrated units with elements that fit together without stress) or unbalanced (inconsistent units with elements that conflict with one another). Heider believed that unbalanced relationships create an unpleasant tension that must be relieved by changing some element of the system.
According to Heider, attraction relations in groups are balanced when they fit together to form a coherent, unified whole. A dyad, for example, is balanced only if liking (or disliking) is mutual. If Vizintin liked Canessa but Canessa disliked Vizintin, the dyad would be unbalanced, and the result would be structural strain (Cartwright & Harary, 1956, 1970; Heider, 1958; Newcomb, 1963).

The sociometric structures of larger groups also tend to be balanced. The triad containing Vizintin, Canessa, and Mangino, for example, is balanced because everyone in it likes one another; all bonds are positive. What would happen, however, if Mangino came to dislike Canessa? According to Heider, this group would be unbalanced, since the product of the three relationships (Vizintin likes Canessa, Mangino likes Vizintin, and Mangino dislikes Canessa) is negative. In general, a group is balanced if (1) all the relationships are positive or (2) an even number of negative relationships occur in the group. Conversely, groups are unbalanced if they contain an odd number of negative relations.

Because unbalanced sociometric structures generate tension among group members, people are motivated to correct the imbalance and restore the group's equilibrium. Heider notes, however, that this restoration of balance can be achieved through either psychological changes in the individual members or interpersonal changes in the group. If Mangino initially likes only Vizintin and not Canessa, he may change his attitude toward Canessa when he recognizes the strong bond between Vizintin and Canessa. Alternatively, group members who are disliked by the other group members may be ostracized, as in the case of Delgado (Taylor, 1970). Lastly, because the occurrence of a single negative relationship within a group can cause the entire group to become unbalanced, large groups tend to include a number of smaller, better balanced cliques (Newcomb, 1981). The Andes group, for example, was somewhat unbalanced overall, but subgroups tended to be very harmonious (Cartwright & Harary, 1956, 1970; Mayer, 1975). As a result, the group was high in cohesiveness.

**Determinants of Social Standing.** Why did Parrado gain social standing in the group, and why was Delgado held in disregard? One's popularity, in large part, is determined by the interpersonal factors reviewed in Chapter 4: Similarity, complementarity, reciprocity, personality qualities, and even physical attractiveness can influence one's sociometric ranking in a group. Parrado was similar to the others in age and background, and he possessed qualities that the others admired: He was optimistic, handsome, dependable, helpful, and strong. Delgado, unfortunately, did not possess such attributes. Interaction with Delgado incurred considerable costs and yielded very few interpersonal rewards (Thibaut & Kelley, 1959).

In another group, Delgado might have been well liked, for he was quite articulate and socially skilled. In the Andes group, however, the fit between his personal qualities and the group was poor. As Lewin's concept of interactionism emphasizes, popularity cannot be predicted solely on the basis of the group members' personal qualities. Different groups value different attributes; the qualities that earn a person popularity in a boardroom differ from those that predict sociometric standing on a baseball team or in a biker gang. Thus, predictions of social standing must take into account the person-group fit—the degree to which individuals' attributes match the qualities valued by the groups to which they belong.
The impact of person-group fit on social standing has been studied extensively in children’s groups (Boivin, Dodge, & Coie, 1995; Wright, Giammarion, & Parad, 1986). Researchers in one study used sociometric methods to identify popular, rejected, neglected, and average boys in elementary school classes. They also had trained observers rate each boy’s behavior during several free-play periods, looking for evidence of aggressiveness, cooperation, and withdrawal. Supporting a “social misfit” hypothesis, the investigators found that in nonaggressive groups and socially active groups, the rejected boys engaged in the most aggressive behaviors or they too frequently played by themselves. It is interesting to note, however, that the popular boys in groups characterized by relatively high levels of hostility, fighting, and verbal abuse were not more aggressive in general, but they did display more emotional hostility when provoked by others. These results suggest that popularity in one group does not guarantee popularity in another group; a sociometric star in one group can become an outcast misfit in another.

**Communication Networks**

In the Andes group, the three leaders stayed in close communication, discussing any problems among themselves before relaying their interpretations to the other group members. The other members usually routed all information to the threesome, who then informed the rest of the group. In contrast, the injured members were virtually cut off from communication with the others during the day, and they occasionally complained that they were the last to know of any significant developments.

Regular patterns of information exchange among members of a group are called **communication networks**. Like other structural features of groups, communication networks are sometimes deliberately set in place when the group is organized. Many companies, for example, adopt a hierarchical communication network that prescribes how information is passed up to superiors, down to subordinates, and horizontally to one’s equals. Even when no formal attempt is made to organize communication, an informal communication network will usually take shape over time. Moreover, this network tends to parallel status and attraction patterns. Take the Andes group as a case in point. Individuals who occupied high-status roles—the explorers, the food preparers, and the lieutenants—communicated at much higher rates and with more individuals than individuals who occupied the malingerer and injured roles (Aiken & Hage, 1968; Bacharach & Aiken, 1979; Jablin, 1979; Shaw, 1964).

**Centralization and Performance.** Researchers at the Group Networks Laboratory at the Massachusetts Institute of Technology conducted some of the first studies of communication networks in the 1950s. Harold J. Leavitt (1951), for example, created different types of networks by seating men at a circular table but separating them by means of a partition. He then gave each person a card bearing five of the following symbols: ○ ▲ ◆ ⊕ ⊗. Subjects were to identify the one symbol out of the six that was common to all the group members’ cards.

| Communication networks: Patterns of communication in a group that describe who speaks most frequently to whom (e.g., wheel, circle, or chain). |
Subjects could easily solve the problem by comparing all the cards, but Leavitt restricted the flow of communication. He would open particular slots in the partitions separating the participants to create four types of networks: the wheel, the chain, the Y, and the circle (see Figure 5–4). In the wheel network, one person in the group communicated with everyone, but the others communicated only with the individual located at the hub position. People in a chain passed along information sequentially. In the Y, only one member could contact more than one other person. And in the circle, all members could interact with two other persons. Leavitt found that in all but the circle, group members tended to send information to the more central member, who integrated the data and sent back a solution. This summarizing of

**Three-person networks**

![Three-person networks diagram](image)

**Four-person networks**

![Four-person networks diagram](image)

**Five-person networks**

![Five-person networks diagram](image)

**Figure 5–4** What kinds of communication networks are common in small groups? Researchers have studied the impact of various forms of networks by systematically opening and closing connections among individuals in small groups. Arrows indicate direction of communication, and lines without arrows are bidirectional. The X designation in the five-person groups indicates that members can communicate only with people seated across from them.

(Source: Shaw, 1964.)
the data was most easily accomplished in the wheel, as all members could interact directly with the central member, whereas in the Y and chain, the pooling process took longer (Bavelas, 1948, 1950; Bavelas & Barrett, 1951; Leavitt, 1951).

Leavitt's study, and subsequent research as well, has shown again and again that one of the most important features of a network is its degree of centralization (Shaw, 1964, 1978). With centralized networks, one of the positions is located at the "crossroads" of communications, as in the wheel and Y of Figure 5-4. As Leavitt's findings suggested, groups with this type of structure tend to use the hub position as the data-processing center, and its occupant typically collects information, synthesizes it, and then sends it back to others. In decentralized structures, like the circle or comcon (a network in which all individuals can communicate with one another), the number of channels at each position is roughly equal, so no one position is more central than another. These groups tend to use a variety of organizational structures when solving their problems, including the so-called each-to-all pattern, in which everyone sends messages in all directions until someone gets the correct answer. Centralization can also be more precisely indexed by considering the relative number of links joining the positions in the network (Bavelas, 1948, 1950; Freeman, 1977; Grofman & Own, 1982; Moxley & Moxley, 1974).

The early MIT studies suggested that a centralized network was more efficient than a decentralized network. Leavitt, for example, found that individual and group error rates were lower in the centralized Y and wheel than in the more decentralized chain and circle. Other studies tended to support this conclusion, as centralized groups outscored decentralized groups in time taken to find a solution, number of messages sent, finding and correcting errors, and improvement with practice (Shaw, 1964, 1978). The only exceptions occurred when the simple tasks like that used by Leavitt were replaced with more complicated ones: arithmetic, sentence construction, problem solving, and discussion. When the task was more complex, the decentralized networks outperformed the centralized ones.

These contradictory results led Marvin E. Shaw to propose that network efficiency is related to information saturation. When a group is working on a problem, exchanging information, and making a decision, the central position in the network can best manage the inputs and interactions of the group. As work progresses and the number of communications being routed through the central member increases, however, a saturation point can be reached at which the individual can no longer efficiently monitor, collate, or route incoming and outgoing messages. Shaw notes that saturation can occur in a decentralized network, but it becomes more likely when a group with a centralized structure is working on complex problems. Because the "greater the saturation the less the efficiency the group's performance" (Shaw, 1964, p. 126), Shaw predicts that when the task is simple, centralized networks are more efficient than decentralized networks; when the task is complex, decentralized networks are superior.

**Positional Effects.** In the Andes group, the malingerers, the younger men, and the injured often complained about the food, their living conditions, and their leadership. Their morale was low, but the rest of the group hardly noticed because they so rarely communicated with them directly. These peripheral members' reactions are typical of people who find themselves in the outlying positions in centralized communication.
networks. In such networks, most of the group’s actions are controlled by whoever is in the central position, and that person can arbitrarily open and close channels of communication. Whereas central-position occupants typically report that they are very much satisfied with the group structure, the more peripheral members emphasize their dissatisfaction. Indeed, the more removed the position is from the center of the network, the less satisfied is the occupant (Eisenberg, Monge, & Miller, 1983; Krackhardt & Porter, 1986; LoVaglio & Houser, 1996). Shaw (1964) notes that since the number of peripheral positions in a centralized network exceeds the number of central positions, the overall level of satisfaction in a centralized group is lower than the level of satisfaction in a decentralized group.

Position is linked not only to satisfaction and enjoyment but also to role allocation. In Leavitt’s study, for example, participants completed a questionnaire at the close of the session that included the item “Did your group have a leader? If so, who?” The responses to this query concerning leadership indicated that the individual in the most central position of the network was chosen to be the leader by 100% of the group members in the wheel, by 85% of the group members in the Y, and by 67% of the group members in the chain. In contrast, leadership choices in the egalitarian circle were approximately equally divided across all the different positions (Freeman, 1979).

Communication in Hierarchical Networks. For reasons of efficiency and control, many organizations adopt hierarchical communication networks (Goetsch & McFarland, 1980). In such networks, information can pass either horizontally, among members on the same rung of the communication ladder, or vertically, up and down from followers to leaders and back (Jablin, 1979). Evidence indicates that upward communications are strikingly different from downward communications (Browning, 1978; Sias & Jablin, 1995). What type of information passes downward from superior to subordinate? Explanations of actions to be taken, the reasons for actions, suggestions to act in a certain manner, and feedback concerning performance are examples. Upward communications from subordinates to superiors, in contrast, include information on performance, insinuations about a peer’s performance, requests for information, expressions of distrust, factual information, or grievances concerning the group’s policies. These upward communications, moreover, tend to be fewer in number, briefer, and more guarded than downward communications. Indeed, in larger organizations, the upward flow of information may be much impeded by the mechanics of the transference process and by the low-status members’ reluctance to send information that might reflect unfavorably on their performance, abilities, and skills (Bradley, 1978; Browning, 1978; Manis, Cornell, & Moore, 1974). The reticence of low-status members means that good news travels quickly up the hierarchy, whereas the top of the ladder will be the last to learn bad news (see Jablin, 1979, 1982, for a detailed review of communication in hierarchical organizations).

The Ties That Bind

On December 21, 1972, the radio announcer told Uruguay and the world the news: Two of the passengers from the missing airplane, Fernando Parrado and Roberto Canessa, had been found in a place called Los Maitenes on the River Azufre. The two
explorers had hiked for 10 days until, running low on food and supplies, they had stumbled into a farmer tending his cattle. Parrado himself guided the rescue helicopters back to the crash site, and by Christmas Day the men were back in civilization. All of them, when asked how they survived, credited the group: “the unity of the sixteen” is what saved them (Read, 1974, p. 310). And when they read the book that described their ordeal on the mountainside, they Complainted of only one inaccuracy. They felt that author Piers Paul Read failed to capture the “faith and friendship which inspired them” for 70 days.

### SUMMARY

**What are norms, and how do they structure interactions in groups?**

1. **Norms** set the standards for group behavior.
   - **Descriptive norms** define what most people do, feel, or think in the group.
   - **Injunctive norms** differentiate between desirable and undesirable actions.

2. The Sherif’s work showed that norms are consensual standards that develop over time as members personally accept the group’s standards and transmit them to others.

**What are roles? Which roles occur most frequently in groups?** **Roles** specify the types of behaviors expected of individuals who occupy particular positions within the group.

1. Roles develop as group members interact with one another (*role differentiation*), but most fall under one of two categories: task roles and socioemotional roles.

2. The same person rarely holds both the task role and the socioemotional role in the group.

3. **Role ambiguity** occurs when the behaviors associated with a role are poorly defined, whereas **role conflict** occurs when group members occupy two or more roles that call for incompatible behaviors (*interrole conflict*) or when the demands of a single role are contradictory (*intrarole conflict*).

**How and why do status hierarchies develop in groups?** Most groups develop a stable pattern of variations in *status relations* (or *authority relations*) through a status differentiation process.

1. In some instances, people compete with one another for status in groups. Individuals who speak rapidly without hesitating, advise others what to do, and confirm others’ statements are often more influential than individuals who display cues that signal submissiveness.

2. Group members’ perceptions of one another also determine status. Expectation-states theory argues that group members allocate status by considering:
   - **specific-status characteristics:** skills and aptitudes that will facilitate the group’s performance in a given context
   - **diffuse-status characteristics:** general personal qualities that the group members think indicate ability or prestige

3. When status generalization occurs, group members unfairly allow irrelevant characteristics such as race, age, or ethnic background to influence the allocation of prestige.
What factors influence the group’s sociometric structure? A group’s attraction relations (sociometric structure) develop through a sociometric differentiation process that orders group members from least liked to most liked.

1. Attraction relations tend to be reciprocal and transitive, and clusters or coalitions often exist within the group that are higher in homophily than the group as a whole.

2. As Heider’s balance theory suggests, sociometric structures also tend to be balanced: They fit together to form a coherent, unified whole.

3. Sociometric differentiation generally favors individuals who possess socially attractive qualities, such as cooperativeness or physical appeal, but social standing also depends on the degree to which the individual’s attributes match the qualities valued by the group (person-group fit).

What are the interpersonal consequences of communication networks in groups? A group’s communication network may parallel formally established paths, but most groups also have an informal network that defines who speaks to whom most frequently.

1. A group’s network, in addition to structuring communication, influences a variety of group and individual outcomes, including performance, effectiveness, and members’ level of satisfaction.

2. Centralized networks are most efficient for simple tasks. Peripheral members are often dissatisfied in such networks.

3. More information generally flows downward in hierarchical networks than flows upward, and the information that is sent upward is often unrealistically positive.

For More Information

Alive, by Piers Paul Read (1974), is the best-selling account of the young men who crashed in the Andes and survived by creating a potent group.


“Dynamics of Inclusion and Exclusion in Preadolescent Cliques,” by Patricia A. Adler and Peter Adler (1995), is a fascinating qualitative study of how children deliberately create small groups by selectively including and excluding classmates.

“Role Conflict and Role Ambiguity: A Critical Assessment of Construct Validity,” by Lynda A. King and Daniel W. King (1990), summarizes past research dealing with role stress and offers a compelling assessment of the validity of such concepts as role conflict and role ambiguity.

Status, Rewards, and Influence, edited by Joseph Berger and Morris Zelditch, Jr. (1985), is a vast compendium of in-depth analyses of various aspects of status structures in groups.