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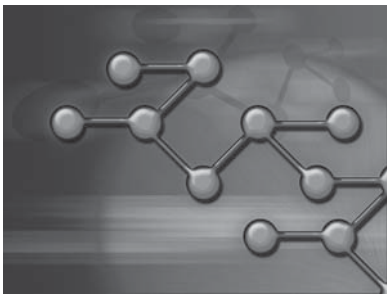
Group Processes

Never doubt that a small group of thoughtful committed people can change the world: indeed it's the only thing that ever has!

—Margaret Mead



The mission was supposed to be the crown jewel of the American space program. The *Challenger* mission was supposed to show how safe space travel had become by sending along Christa McAuliffe, a teacher from Concord, New Hampshire, who would become the first civilian in space. She was supposed to teach a 15-minute class from space. The *Challenger* mission was supposed to be a success just like the 55 previous U.S. space flights. But, what wasn't supposed to happen actually did: Fifty-eight seconds into the flight, the trouble started; a puff of smoke could be seen coming from one of the solid rocket boosters. About 73 seconds into the flight, *Challenger* exploded in a huge fireball that spread debris over several miles. The crew cockpit plummeted back to earth and hit the Atlantic Ocean, killing all seven astronauts. As millions of people watched, the two solid rocket boosters spiraled off in different directions, making the image of the letter "y" in smoke. The pattern formed would foreshadow the main question that was on everyone's mind in the days that followed the tragedy: Why?

The answer to this question proved to be complex indeed. The actual physical cause of the explosion was clear. Hot gasses burned through a rubber O-ring that was supposed to seal two segments of the solid rocket booster. Because of the exceptionally cold temperatures on the morning of the launch, the O-rings became brittle and did not fit properly. Hot gasses burned through and ignited the millions of gallons of liquid fuel on top of which *Challenger* sat. The underlying cause of the explosion, relating to the decision-making structure and process at NASA and Morton Thiokol (the maker of the solid rocket booster), took months to disentangle. What emerged was a picture of a flawed decision-making structure that did not foster open communication and free exchange of data. This flawed decision-making structure was the true cause for the *Challenger* explosion. At the

Key Questions

As you read this chapter, find the answers to the following questions:

1. What is a group?
2. Why do people join groups?
3. How do groups influence their members?
4. What effect does an audience have on performance?
5. What motivational decreases affect performance?
6. What motivational gains occur because of group interaction? What is the Kohler effect?
7. What are the potential negative aspects of groups?
8. With regard to solving problems: Are groups better than individuals, or are individuals better than groups?
9. What are hidden profiles, and what effects do they have on group decision making?

10. What is the effect of different leadership styles on group decision making?
11. How do groups reach decisions?
12. What makes a leader legitimate in the eyes of the group members?
13. What factors affect the decision-making ability and effectiveness of a group?
14. What is group polarization?
15. What is groupthink?

top of the decision-making ladder was Jesse Moore, Associate Administrator for Space Flight. It was Mr. Moore who made the final decision to launch or not to launch. Also in a top decision-making position was Arnold Aldrich, Space Shuttle Manager at the Johnson Space Center. At the bottom of the ladder were the scientists and engineers at Morton Thiokol. These individuals did not have direct access to Moore. Any information they wished to convey concerning the launch had to be passed along by executives at Morton Thiokol, who would then communicate with NASA officials at the Marshall Space Flight Center. Some people had one set of facts, others had a different set, and sometimes they did not share. The Thiokol scientists and engineers had serious reservations about launching *Challenger*. In fact, one of the engineers later said that he "knew" that the shuttle would explode and felt sick when it happened.

In addition to the communication flaws, the group involved in making the decision suffered from other decision-making deficiencies, including a sense of invulnerability (after all, all other shuttle launches went off safely), negative attitudes toward one another (characterizing the scientists and engineers as overly cautious), and an atmosphere that stifled free expression of ideas (Thiokol engineer Alan McDonald testified before congressional hearings that he felt pressured to give the green light to the launch). What went wrong? Here we had a group of highly intelligent, expert individuals who made a disastrous decision to launch *Challenger* in the cold weather that existed at launch time.

In this chapter, we explore the effects of groups on individuals. We ask, What special characteristics distinguish a group like the *Challenger* decision-making group from a simple gathering of individuals? What forces arise within such groups that change individual behavior? Do groups offer significant advantages over individuals operating on their own? For example, would the launch director at NASA have been better off making a decision by himself rather than assembling and relying on an advisory group? And what are the group dynamics that can lead to such faulty, disastrous decisions? These are some of the questions addressed in this chapter.

What Is a Group?

Groups are critical to our everyday existence. We are born into a group, we play in groups, and we work and learn in groups. We have already learned that we gain much of our self-identity and self-esteem from our group memberships. But what is a *group?* Is it simply a collection of individuals who happen to be at the same place at the same time? If this were the case, the people standing on a street corner waiting for a bus would be a group. Your social psychology class has many people in it, some of whom may know one another. Some people interact, some do not. Is it a group? Well, it is certainly an *aggregate*, a gathering of people, but it probably does not feel to you like a group.

Groups have special social and psychological characteristics that set them apart from collections or aggregates of individuals. Two major features distinguish groups: In a group, members interact with each other, and group members influence each other through this social interaction. By this definition, the collection of people at the bus stop would not qualify as a group. Although they may influence one another on a basic level (if one person looked up to the sky, others probably would follow suit), they do not truly interact. A true **group** has two or more individuals who mutually influence one another through social interaction (Forsyth, 1990). That is, the influence arises out

group An aggregate of two or more individuals who interact with and influence one another.

of the information (verbal and nonverbal) that members exchange. The *Challenger* decision-making group certainly fit this definition. The group members interacted during committee meetings, and they clearly influenced one another.

This definition of a group may seem broad and ambiguous, and in fact, it is often difficult to determine whether an aggregate of individuals qualifies as a group. To refine our definition and to get a closer look at groups, we turn now to a closer look at their characteristics.

Characteristics of Groups

Interaction and mutual influence among people in the group are only two of a number of attributes that characterize a group. What are the others?

First of all, a group typically has a purpose, a reason for existing. Groups serve many functions, but a general distinction can be made between *instrumental groups* and *affiliative groups.* Instrumental groups exist to perform some task or reach some specific goal. The *Challenger* group was an instrumental group, as are most decision-making groups. A jury is also an instrumental group. Its sole purpose is to find the truth of the claims presented in a courtroom and reach a verdict. Once this goal is reached, the jury disperses.

Affiliative groups exist for more general and, often, more social reasons. For example, you might join a fraternity or a sorority simply because you want to be a part of that group—to affiliate with people with whom you would like to be. You may identify closely with the values and ideals of such a group. You derive pleasure, self-esteem, and perhaps even prestige by affiliating with the group.

A second characteristic of a group is that group members share perceptions of how they are to behave. From these shared perceptions emerge **group norms,** or expectations about what is acceptable behavior. As pointed out in Chapter 7, norms can greatly influence individual behavior. For example, the parents of the children on a soccer team might develop into a group on the sidelines of the playing fields. Over the course of the season or several seasons, they learn what kinds of comments they can make to the coach, how much and what kind of interaction is expected among the parents, how to cheer and support the players, what they can call out during a game, what to wear, what to bring for snacks, and so on. A parent who argued with a referee or coach or who used abusive language would quickly be made to realize he or she was not conforming to group norms.

group norms Expectations concerning the kinds of behaviors required of group members.

Third, within a true group, each member has a particular job or role to play in the accomplishment of the group's goals. Sometimes, these roles are formally defined; for example, a chairperson of a committee has specific duties. However, roles may also be informal (DeLamater, 1974). Even when no one has been officially appointed leader, for example, one or two people usually emerge to take command or gently guide the group along. Among the soccer parents, one person might gradually take on additional responsibilities, such as organizing carpools or distributing information from the coach, and thus come to take on the role of leader.

Fourth, members of a group have affective (emotional) ties to others in the group. These ties are influenced by how well various members live up to group norms and how much other group members like them (DeLamater, 1974).

Finally, group members are interdependent. That is, they need each other to meet the group's needs and goals. For example, a fraternity or a sorority will fall apart if members do not follow the rules and adhere to the norms so that members can be comfortable with each other.

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What Holds a Group Together?

group cohesiveness
The strength of the relationships that link members of a group.

Once a group is formed, what forces hold it together? **Group cohesiveness**—the strength of the relationships that link the members of the group (Forsyth, 1990)—is essentially what keeps people in the group. Cohesiveness is influenced by several factors:

1. *Group members' mutual attraction.* Groups may be cohesive because the members find one another attractive or friendly. Whatever causes people to like one another increases group cohesiveness (Levine & Moreland, 1990).
2. *Members' propinquity (physical closeness, as when they live or work near each other).* Sometimes, simply being around people regularly is enough to make people feel that they belong to a group. The various departments in an insurance company—marketing, research, sales, and so on—may think of themselves as groups.
3. *Their adherence to group norms.* When members live up to group norms without resistance, the group is more cohesive than when one or two members deviate a lot or when many members deviate a little.
4. *The group's success at moving toward its goals.* Groups that succeed at reaching their goals are obviously more satisfying for their members and, therefore, more cohesive than those that fail. If groups do not achieve what the members wish for the group, they cease to exist or at the very least are reorganized.
5. *Members' identification with the group: group loyalty*: The success of a group will often depend on the degree of loyalty its member have to that group. Van Vugt and Hart (2004**)** investigated the role of social identity (how strongly the members identified with the group) in developing *group loyalty,* defined as staying in the group when members can obtain better outcomes by leaving their group. In one experiment, high (vs. low) group identifiers expressed a stronger desire to stay in the group even in the presence of an attractive (vs. unattractive) exit option. Other results revealed that high identifiers' group loyalty is explained by an extremely positive impression of their group membership even if other groups might offer more rewards. Social identity seems to act as social glue. It provides stability in groups that might otherwise collapse.

How and Why Do Groups Form?

We know that humans have existed in groups since before the dawn of history. Clearly, then, groups have survival value. Groups form because they meet needs that we cannot satisfy on our own. Let's take a closer look at what these needs are.

Meeting Basic Needs

Groups help us meet a variety of needs. In many cases, these needs, whether biological, psychological, or social, cannot be separated from one another. There are obvious advantages to group membership. Psychology is developing an evolutionary perspective, and evolutionary social psychologists view groups as selecting individual characteristics that make it more probable that an individual can function and survive in groups (Caporael, 1997; Pinker, 2002). Couched in terms of natural selection, evolution would favor those who preferred groups to those who preferred to live in isolation.

But groups meet more than biological needs. They also meet psychological needs. Our first experiences occur within the context of the family group. Some people believe that our adult reactions to groups stem from our feelings about our family. That is, we react toward group leaders with much the same feelings we have toward our fathers or mothers (Schultz, 1983). Many recruits to religious cults that demand extreme devotion are searching for a surrogate family (McCauley & Segal, 1987).

Groups also satisfy a variety of social needs, such as social support—the comfort and advice of others—and protection from loneliness. Groups make it easier for people to deal with anxiety and stress. Human beings are social beings; we don't do very well when we are isolated. In fact, research shows that social isolation—the absence of meaningful social contact—is as strongly associated with death as is cigarette smoking or lack of exercise (Brannon & Feist, 1992).

Groups also satisfy the human need for *social comparison.* We compare our feelings, opinions, and behaviors with those of other people, particularly when we are unsure about how to act or think (Festinger, 1954). We compare ourselves to others who are similar to us to get accurate information about what to do. Those in the groups with which we affiliate often suggest to us the books we read, the movies we see, and the clothes we wear.

Social comparison also helps us obtain comforting information (Taylor & Brown, 1988). Students, for example, may be better able to protect their self-esteem when they know that others in the class also did poorly on an exam. B students compare themselves favorably with C students, and D students compare themselves with those who failed. We are relieved to find out that some others did even worse than we did. This is *downward comparison,* the process of comparing our standing with that of those less fortunate.

As noted earlier, groups play a large role in influencing individual self-esteem. In fact, individuals craft their self-concept from all the groups with which they identify and in which they hold membership, whether the group is a softball team, a sorority, or a street gang.

Of course, groups are also a practical social invention. Group members can pool their resources, draw on the experience of others, and solve problems that they may not be able to solve on their own. Some groups, such as families, form an economic and social whole that functions as a unit in the larger society.

Roles in Groups

Not all members are expected to do the same things or obey precisely the same norms. The group often has different expectations for different group members. These shared expectations help to define individual roles, such as team captain (a formal role) or newcomer (an informal role) (Levine & Moreland, 1990).

Newcomers

Group members can play different roles in accordance with their seniority. Newcomers are expected to obey the group's rules and standards of behavior (its norms) and show that they are committed to being good members (Moreland & Levine, 1989). More-senior members have "idiosyncratic" credit and can occasionally stray from group norms (Hollander, 1985). They have proven their worth to the group and have "banked" that credit. Every now and then, it is all right for them to depart from acceptable behavior and spend that credit. New members have no such credit. The best chance new members have of being accepted by a group is to behave in a passive and anxious way.

Deviates

What happens when the new members find that the group does not meet their hopes or the senior members feel the recruit has not met the group's expectations? The group may try to take some corrective action by putting pressure on the member to conform. Groups will spend much time trying to convince someone who does not live up to group norms to change (Schachter, 1951). If the deviate does not come around, the group then disowns him or her. The deviate, however, usually bows to group pressure and conforms to group norms (Levine, 1989).

Deviates are rejected most when they interfere with the functioning of the group (Kruglanski & Webster, 1991). Imagine an advisor to the launch director at NASA objecting to the launch of *Challenger* after the decision had been made. No matter how persuasive the person's objection to the launch, it is very likely that the deviate would have been told to be silent; he or she would have been interfering with the group's ability to get the job done. Experimental research has verified that when a group member dissents from a group decision close to the group's deadline for solving a problem, the rejector is more likely to be condemned than if the objection is stated earlier (Kruglanski & Webster, 1991).

How Do Groups Influence the Behavior of Individuals?

We have considered why people join groups and what roles individuals play in groups. Now let's consider another question: What effect does being in a group have on individual behavior and performance? Does group membership lead to self-enhancement, as people who join groups seem to believe? Does it have other effects? Some social psychologists have been particularly interested in investigating this question. They have looked not just at the effects of membership in true groups but also at the effects of being evaluated by an audience, of being in an audience, and of being in a crowd.

Recall that groups affect the way we think and act even when we only imagine how they are going to respond to us. If you practice a speech, just imagining that large audience in front of you is enough to make you nervous. The actual presence of an audience affects us even more. But how? Let's take a look.

The Effects of an Audience on Performance

Does an audience make you perform better? Or does it make you "choke"? The answer seems to depend, at least in part, on how good you are at what you are doing. The presence of others seems to help when the performer is doing something he or she does well: when the performance is a dominant, well-learned skill, a behavior that is easy or familiar (Zajonc, 1965). If you are a class-A tennis player, for example, your serve may be better when people are watching you. The performance-enhancing effect of an audience on your behavior is known as **social facilitation.** If, however, you are performing a nondominant skill, one that is not very well learned, then the presence of an audience detracts from your performance. This effect is known as **social inhibition.**

social facilitation
The performance-enhancing effect of others on behavior; generally, simple, well-learned behavior is facilitated by the presence of others.

social inhibition
The performance-detracting effect of an audience or coactors on behavior; generally, complex, not-well-learned behaviors are inhibited by the presence of others.

The social facilitation effect—the strengthening of a dominant response due to the presence of other people—has been demonstrated in a wide range of species, including roaches, ants, chicks, and humans (Zajonc, Heingartner, & Herman, 1969). Humans doing a simple task perform better in the presence of others. On a more difficult task, the presence of others inhibits performance.

Why does this happen? How does an audience cause us to perform better or worse than we do when no one is watching? Psychologists have several alternative explanations.

Increased Arousal

Zajonc (1965) argued that a performer's effort always increases in the presence of others due to increased arousal. Increased arousal increases effort; the consequent increased effort improves performance when the behavior is dominant and impairs performance when the behavior is nondominant. If you are good at tennis, then increased arousal and, therefore, increased effort make you play better. If you are not a good tennis player, the increased arousal and increased effort probably will inhibit your performance (Figure 8.1).

Evaluation Apprehension

An alternative explanation for the effects of an audience on performance centers not so much on the increased effort that comes from arousal but on the judgments we perceive others to be making about our performance. A theater audience, for example, does not simply receive a play passively. Instead, audience members sit in judgment of the actors, even if they are only armchair critics. The kind of arousal this situation produces is known as **evaluation apprehension.** Some social scientists believe that evaluation apprehension is what causes differences in performance when an audience is present (Figure 8.2).

evaluation apprehension An explanation for social facilitation suggesting that the presence of others will cause arousal only when they can reward or punish the performer.

Those who favor evaluation apprehension as an explanation of social facilitation and social inhibition suggest that the presence of others will cause arousal only when they can reward or punish the performer (Geen, 1989). The mere presence of others does not seem to be sufficient to account for social facilitation and social inhibition (Cottrell, 1972). In one experiment, when the audience was made up of blindfolded or inattentive persons,

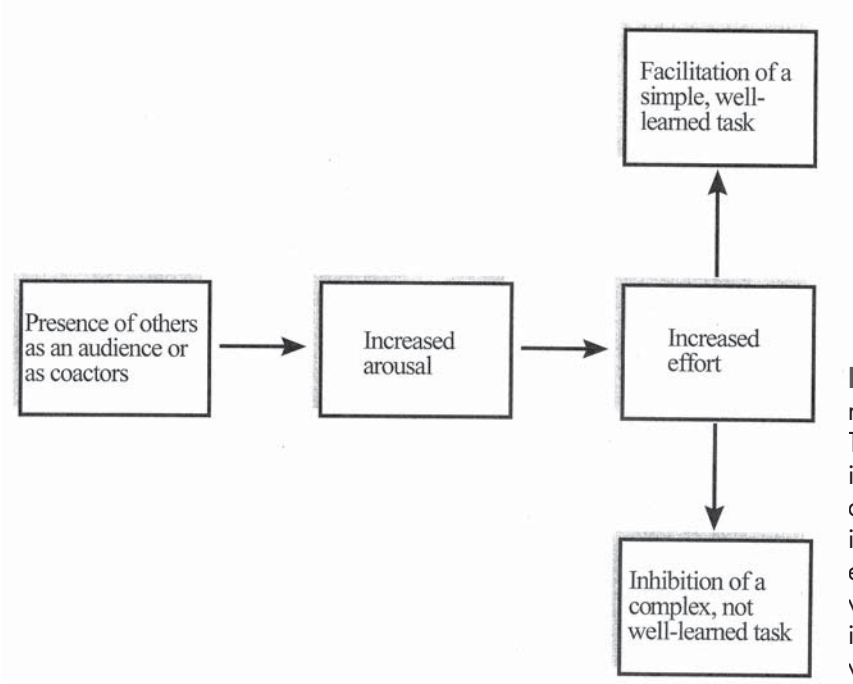


Figure 8.1 The arousal model of social facilitation. The presence of others is a source of arousal and increased effort. This increase in arousal and effort facilitates a simple, well-learned task but inhibits a complex, not well-learned task.

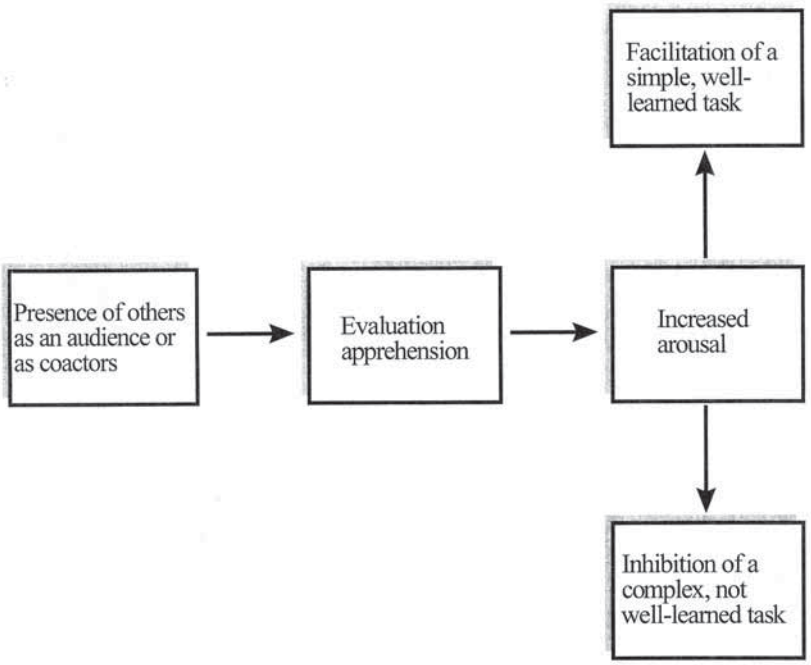


Figure 8.2 The evaluation apprehension model of social facilitation. According to this model, audience-related arousal is caused by apprehension about being evaluated.

social facilitation of performance did not occur. That is, if the audience could not see the performance, or did not care about it, then evaluation apprehension did not occur, nor did social facilitation or social inhibition (Cottrell, Wack, Sekerak, & Rittle, 1968).

The Distraction-Conflict Effect

distraction-conflict theory A theory of social facilitation suggesting that the presence of others is a source of distraction that leads to conflicts in attention between an audience and a task that affect performance.

Another explanation of the presence-of-others effect is **distraction-conflict theory** (Baron, 1986). According to this theory, arousal results from a conflict between demands for attention from the task and demands for attention from the audience. There are three main points to the theory. First, the presence of other people distracts attention from the task. Our tennis player gets all kinds of attention-demanding cues—rewards and punishments—from those watching him play. He may be aware of his parents, his ex-girlfriend, his tennis coach, an attractive stranger, and his annoying little brother out there in the crowd. This plays havoc with a mediocre serve. Second, distraction leads to conflicts in his attention. Our tennis player has just so much attentional capacity. All of this capacity ought to be focused on throwing the ball in the air and hitting it across the net. But his attention is also focused on those he knows in the crowd. Third, the conflict between these two claims for attention stresses the performer and raises the arousal level (Figure 8.3).

Group Performance: Conditions That Decrease or Increase Motivation of Group Members

We have seen that being watched affects how we perform. Let's take this a step further and examine how being a member of a group affects our performance.

We noted earlier that people who join groups do so largely for self-enhancement: They believe that group membership will improve them in some way. They will become better speakers, better citizens, better soccer players, better dancers or singers; they will

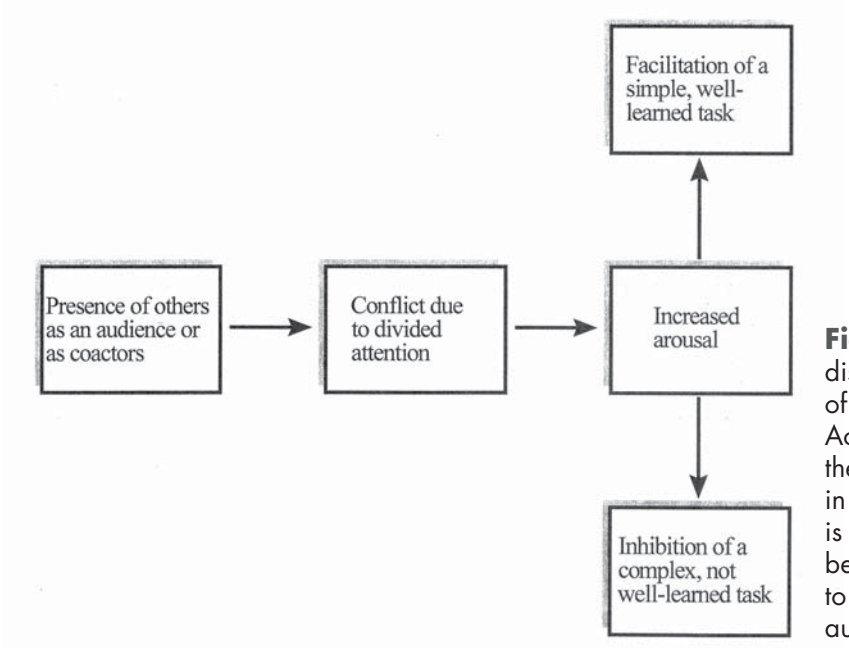


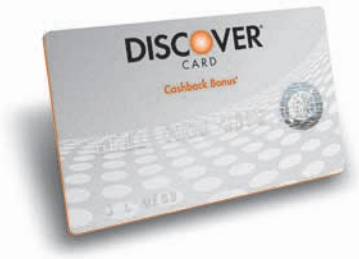
Figure 8.3 The distraction-conflict model of social facilitation. According to this model, the source of arousal in facilitation situation is related to the conflict between paying attention to the task and the audience at the same time.

meet people and expand their social circle; they will make a contribution to a cause, a political candidate, or society. Does group membership actually lead to improved performance? Or does it detract from individual effort and achievement, giving people the opportunity to underperform? Both effects have been documented.

Enhanced Performance

Imagine that you are a bicycling enthusiast. Three times a week you ride 20 miles, which takes you a little over an hour. One day you happen to come on a group of cyclists and decide to ride along with them. When you look at your time for the 20 miles, you find that your time is under 1 hour, a full 10 minutes under your best previous time. How can you account for your increased speed? Did the other riders simply act as a windshield for you, allowing you to exert less effort and ride faster? Or is there more to this situation than aerodynamics? Could it be that the mere presence of others somehow affected your behavior?

This question was asked by Norman Triplett, one of the early figures in social psychology (1898). Triplett, a cycling enthusiast, decided to test a theory that the presence of other people was sufficient to increase performance. He used a laboratory in which alternative explanations for the improvement in cycling time (e.g., other riders being a windshield) could be eliminated. He also conducted what is perhaps the first social psychological experiment. He had children engage in a simulated race on a miniature track. Ribbons were attached to fishing reels. By winding the reels, the children could drag ribbons around a miniature racetrack. Triplett had the children perform the task either alone or in pairs. He found that the children who played the game in the presence of another child completed the task more quickly than children who played the game alone. The improved performance of the children and the cyclist when they participate in a group setting rather than alone gives us some evidence that groups do enhance individual performance.



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Social Loafing and Free Rides

Is it true that the presence of others is always arousing and that participating in a group always leads to enhanced individual performance? Perhaps not. In fact, the opposite may occur. Sometimes when we are in a group situation, we relax our efforts and rely on others to take up the slack. This effect is called **social loafing.**

social loafing The performance-inhibiting effect of working in a group that involves relaxing individual effort based on the belief that others will take up the slack.

Sometimes, people are not more effortful in the presence of others; they, in fact, may loaf when working with others in groups (Harkins & Szymanski, 1987; Latané, Williams, & Harkins, 1979; Williams & Karau, 1991). In one experiment, participants were informed that they had to shout as loudly as they could to test the effects of sensory feedback on the ability of groups to produce sound. The researchers compared the noise produced by individuals who thought they were shouting or clapping alone to the noise they made when they thought they were in a group. If groups did as well as individuals, then the group production would at least equal the sum of the individual production. But the research findings showed that groups did not produce as much noise as the combined amount of noise individuals made (Latané et al., 1979). Some group members did not do as much as they were capable of doing as individuals: They loafed. In some instances, then, participation of others in the task (e.g., in a tug-of-war game) lowers individual motivation and reduces performance on the task. Simply put, people sometimes exert less effort when working on a task in a group context (Harkins & Petty, 1982).

Why should the group reduce individual performance in some cases and enhance it in others? The nature of the task may encourage social loafing. In a game of tug-of-war, if you do not pull the rope as hard as you can, who will know or care? If you don't shout as loud as you can, what difference does it make? You cannot accurately assess your own contribution, nor can other people evaluate how well you are performing. Also, fatigue increases social loafing. Hoeksema-van Orden and her coworkers had a group of people work for 20 hours continuously, individually or in a group. These researchers found that fatigue increased social loafing in groups, whereas individuals were less likely to loaf even when fatigued (Hoeksema-van Orden, Galillard, & Buunk, 1998).

Social loafing tends not to occur in very important tasks. However, many of our everyday tasks are repetitive and dull and are vulnerable to social loafing (Karau & Williams, 1993).

free riders Group members who do not do their share of the work in a group.

Regardless of the task, some individuals work harder than others in groups (Kerr, 1983). **Free riders** do not do their share of the work. Why not? They are cynical about the other members; they think others may be holding back, so they hold back also. People do not want to be suckers, doing more than their share while others take it easy. Even if they know that their coworkers are doing their share and are competent, individuals may look for a free ride (Williams & Karau, 1991).

The larger the group, the more common are social loafing and free riding. It is harder to determine individual efforts and contributions in big groups. People are likely to feel more responsible for the outcome in smaller groups (Kerr, 1989). Of course, not everyone loafs in groups, nor do people loaf in all group situations.

Motivation Gains in Groups: Social Compensation and the Kohler Effect While social loafing shows that being in a group may decrease some members' motivation to perform, that is not always the case. What decreases the likelihood of social loafing? It is less likely to occur if individuals feel that it is important to compensate for other, weaker group members (Williams & Karau, 1991). When the task is important and motivation to perform is high, then *social compensation*—working harder to make up for the weakness of others—seems to overcome the tendency toward social loafing and free riding.

Social loafing is also less likely when individual contributions can be clearly identified. Generally, when individuals can be identified and cannot simply blend in with the background of other workers, they are less likely to loaf (Williams, Harkins, & Latané, 1981). The members of an automobile manufacturing team, for example, are more careful about their tasks and less willing to pass on defective work if they have to sign for each piece they do. If responsibility for defects is clear, if positive effort and contribution are rewarded, and if management punishes free riders, then social loafing will be further diminished (Shepperd, 1993). Similarly, Shepperd and Taylor (1999) showed that if group members perceive a strong relationship between their effort and a favorable outcome for the group, social loafing does not happen, and there are no free riders.

Social loafing is a phenomenon that is very robust and occurs in a variety of situations and cultures (Forgas, Williams, & von Hippel, 2004; Karau & Williams, 1993). It has been found to be more common among men than women and among members of Eastern as opposed to Western cultures. These cultural and gender differences seem to be related to values. Many women and many individuals in Eastern cultures attach more importance to group harmony and group success and satisfaction. Many men, especially in Western cultures, attach more value to individual advancement and rewards and to other people's evaluations. Groups tend to mask individual differences. For this reason, Western men may have less inclination to perform well in group situations. The result is *social loafing* (Karau & Williams, 1993).

Karau and Williams have therefore shown that groups do not necessarily generate conditions that depress some individual members' motivations to perform well. Recently, Kerr and his coworkers have rediscovered another motivational gain in groups known as the **Kohler effect** (Kerr & Tindale, 2005; Kerr, Messe, Parke, & Sambolec, 2005; Messe et al., 2002). These researchers rediscovered work done by Kohler (1926) in which the researcher reported that a less-capable member of a two-person group (a *dyad)* working together on a task works harder and performs better than expected when the group product is to be a result of the combined (conjunctive) effort of the two members. This seems to be the opposite of social loafing. The weaker member of the group, rather than free-riding or loafing, in fact increases his or her effort. For, example, Kohler found that members of a Berlin rowing club worked harder at a physical performance task as part of a two- or three-man crew than when they performed as individuals. Hertel et al. (2000) called this a *Kohler motivation gain*. The question then was how this Kohler motivation gain occurs.

Kohler effect The effect where a less competent group member increases performance in a dyad when group performance depends on combined effort.

It is possible in a small group (and two or three is as small as one can get) that the least-competent member "knows" that her performance is crucial to a good group outcome. Or, conceivably, the weakest member might feel that she is in competition with the other members. These were but two of the possible motivations for the Kohler effect that Kerr et al. (2005) examined in their research. Kerr and his colleagues reasoned that the amount of feedback individuals were given with respect to their performance might be the crucial factor. For example, if you are not as good at the task as the other members, information about how the better members are doing should affect your effort and performance. So Kerr et al. (2005) varied the amount of feedback individuals were provided with. The results revealed that knowledge about level of performance (feedback) was not necessary for the Kohler effect (increase performance by the weaker member of the dyad). However, if the group members were anonymous and were given absolutely no feedback about performance, then motivation gain was wiped out.

With no information about the effect of the weakest member's contribution and no possibility for recognition, there is no motivation gain. Well, that's not surprising. So it appears that motivation gains in groups may occur due in part to *social comparison* effects, in which there is some competition between two group members, as well as the personal motivation of the weakest member to see how well that member can perform (Kerr et al., 2005).

Groups, Self-Identity, and Intergroup Relationships

Groups not only affect how we perform, but they also influence our individual sense of worth—our self-esteem—which, in turn, has an impact on how one group relates to other groups in a society. In 1971, Tajfel and his colleagues showed that group categorizations, along with an in-group identification, are both necessary and sufficient conditions for groups to discriminate against other groups (Rubin & Hewstone, 1998). Recall that in Chapter 4 Tajfel showed that even if people were randomly assigned to a group (minimal group categorization), they tended to favor members of that group when distributing very small rewards (the in-group bias; Tajfel, Billig, Bundy, & Flament, 1971). For example, boys in a minimal group experiment ("you overestimated the number of dots on a screen and, therefore, you are in the overestimator group") gave more money to members of their group (the in-group) than to members of the underestimator group (the out-group). Therefore, even the most minimal group situation appears to be sufficient for an in-group bias (favoring members of your group) to occur.

Tajfel's findings suggested to him that individuals obtain part of their self-concept, their social identity, from their group memberships and that they seek to nourish a positive social (group) identity to heighten their own self-esteem. Groups that are successful and are held in high esteem by society enhance the esteem of its members. The opposite is also true. All of this depends on the social comparison with relevant out-groups on issues that are important to both (Mummendey & Wenzel, 1999). Favorable comparisons enhance the group and its members. Social identity, then, is a definition of the self in terms of group membership (Brewer, 1993; Caporael, 1997). Changes in the fate of the group imply changes in the self-concept of the individual members.

self-identity theory (SIT) A theory proposing that a number of factors predict one group's reaction to competing groups and concerning what may arise from identification with a social category.

Tajfel's theory is called **self-identity theory (SIT)** and proposes that a number of factors predict one group's reaction to other competing groups in society. It pertains to what may arise from identification with a social category (membership in a social, political, racial, religious group, etc.). It does not say that once we identify with a group, we inevitably will discriminate against other groups. However, SIT does lay out the conditions under which such discrimination may take place. Generally, SIT assumes that the potential that one group will tend to discriminate or downgrade another group will be affected by four factors:

1. How strongly the in-group members identify with their group
2. The importance of the social category that the in-group represents
3. The dimension on which the groups are competing (the more important the dimension, the greater the potential for conflict)
4. The group's relative status and the difference in status between the in-group and the out-group (Oakes, Haslam, & Turner, 1994)

Therefore, if members strongly identify with the group; if the group represents a crucial identification category—say, race, religion, or more affiliative groups such as a social organization; if the competition occurs on a crucial dimension (jobs, college entrance possibilities, intense sports rivalries); and if the result can be expected to affect the status of the group relative to its competitor, SIT predicts intergroup discrimination. Low or threatened self-esteem will increase intergroup discrimination because of the need to enhance one's social identity (Hogg & Abrams, 1990). Groups that are successful in intergroup discrimination will enhance social identity and self-esteem (Rubin & Hewstone, 1998).

When self-esteem is threatened by group failure, people tend to respond in ways that can maintain their positive identity and sense of reality. For example, Duck and her colleagues examined the response of groups in a hotly contested political campaign. These researchers found that individuals who strongly identified with their political party were more likely to see the media coverage of the campaign as biased and favoring the other side (Duck, Terry, & Hogg, 1998). This was particularly strong for members of the weaker political party, as SIT would predict, because the weaker party was more threatened. However, when the weaker party won, they were less likely to think that the media were biased, whereas the losing, stronger party began to think the media were biased against them.

A member who threatens the success of a group also threatens the positive image of the group. This leads to the **black-sheep effect,** the observation that whereas an attractive in-group member is rated more highly than an attractive member of an out-group, an unattractive in-group member is perceived more negatively than an unattractive out-group member (Marques & Paez, 1994). The SIT inference is that the unattractive in-group member is a serious threat to the in-group's image (Mummendey &Wenzel, 1999).

black-sheep effect The phenomenon in which an attractive in-group member is rated more highly than an attractive member of an out–group, and an unattractive in-group member is perceived more negatively than an unattractive out-group member.

The Power of Groups to Punish: Social Ostracism

Although groups may serve to increase our self-esteem by enhancing our social identity, groups have the power to exact painful, even dreadful, punishment. Baumeister and Leary (1995) observed that there is little in life so frightful as being excluded from groups that are important to us. Most of us spend much of our time in the presence of other people. The presence of others provides us not only with opportunities for positive interactions but also for risks of being ignored, excluded, and rejected. Kipling Williams (Williams, Fogas, & von Hippel, 2005; Zadro, Williams, & Richardson, 2004) provided an innovative approach to the study of the effects of being ignored or rejected by the group. Such behavior is called social **ostracism** and is defined by Williams as the act of excluding or ignoring other individuals or groups. This behavior is widespread and universal. Williams noted that organizations, employers, coworkers, friends, and family all may ignore or disengage from people (the silent treatment) to punish, control, and vent anger. The pervasiveness of ostracism is reflected by a survey conducted by Williams and his coworkers that showed that 67% of the sample surveyed said they had used the silent treatment (deliberately not speaking to a person in their presence) on a loved one, and 75% indicated that they had been a target of the silent treatment by a loved one (Faulkner & Williams, 1995). As you might imagine, the silent treatment is a marker of a relationship that is disintegrating. From the point of view of the victim of this silent treatment, social ostracism is the perception of being ignored by others in the victim's presence (Williams & Zadro, 2001).

ostracism The widespread and universal behavior of excluding or ignoring other individuals or groups.

Williams and his colleague Sommer identified several forms of ostracism (Williams & Sommer, 1997). First, they distinguish between social and physical ostracism. Physical ostracism includes solitary confinement, exile, or the time-out room in grade school. Social ostracism is summed up by phrases we all know: the cold shoulder, the silent treatment.

In the social psychological realm, *punitive ostracism* and *defensive ostracism* are among the various guises ostracism may take. Punitive ostracism refers to behaviors (ignoring, shunning) that are perceived by the victim as intended to be deliberate and harmful. Sometimes, Williams and Sommer pointed out, people also engage in defensive ostracism, a kind of preemptive strike when you think someone might feel negatively toward you.

The purpose of ostracism from the point of view of the ostracizer is clear: controlling the behavior of the victim. Ostracizers also report being rewarded when they see that their tactics are working. Certainly, defensive ostracism, ignoring someone before they can harm you or ignore you, seems to raise the self-esteem of the ostracizer (Sommer, Williams, Ciarocco, & Baumeister, 1999).

Williams developed a number of creative methods to induce the perception of being ostracized in laboratory experiments. Williams and Sommer (1997) used a ball-tossing game in which two individuals working as confederates of the experimenters either included or socially ostracized a participant during a 5-minute ball-tossing game. Participants who were waiting for a group activity to begin were placed in a waiting room that happened to have a number of objects, including a ball. Three people were involved, the two confederates and the unknowing research participant. All participants were thrown the ball during the first minute, but those in the ostracized condition were not thrown the ball during the remaining 4 minutes. The experimenter then returned to conduct the second part of the study.

After the ball-tossing ended in the Williams and Sommer (1997) experiment, participants were asked to think of as many uses for an object as possible within a specified time limit. They performed this task in the same room either collectively (in which they were told that only the group effort would be recorded) or coactively (in which their own individual performances would be compared to that of the other group members) with the two confederates. Williams and Sommer predicted that ostracized targets—those excluded from the ball tossing—would try to regain a sense of belonging by working comparatively harder on the collective task, thereby contributing to the group's success. Williams and Sommer found support for this hypothesis, but only for female participants. Whether they were ostracized in the ball-tossing task, males displayed social loafing by being less productive when working collectively than when working coactively. Females, however, behaved quite differently, depending on whether they had been ostracized or included. When included, they tended to work about as hard collectively as coactively, but when ostracized, they were actually more productive when working collectively compared to when they worked coactively.

Women also demonstrated that they were interested in regaining a sense of being a valued member of the group by displaying nonverbal commitment (i.e., leaning forward, smiling), whereas males tended to employ face-saving techniques such as combing their hair, looking through their wallets, and manipulating objects, all in the service of being "cool" and showing that they were unaffected by the ostracism. We can conclude that ostracism did threaten sense of belonging for both males and females, but ostracized females tried to regain a sense of belonging, whereas males acted to regain self-esteem (Williams & Sommer, 1997; Williams et al., 2005).

Ostracism is not limited to face-to-face contacts. The power of ostracism is observed even in computer games in which one player is excluded from a ball-tossing (Internet) computer game called *cyberball* (Zadro et al., 2004). At a predetermined point in the game, one of the players is excluded. That is, the other players no longer "throw" the ball to that person. Players that are excluded report a loss of self-esteem. A study by Smith and Williams (2004) also reported that the negative effects of ostracism are not limited to face-to-face contacts. The power of ostracism can also be felt via text messages on cell phones. Smith and Williams (2004) in the text message study devised a three-way interaction via cell phones in which all three people are initially included in the text messaging. However, in one of the conditions of the study, one participant is excluded from the conversation. That person no longer received any direct messages nor did the person see the messages exchanged between the other two text messengers. Those excluded reported feeling lower levels of belonging, control, self-esteem, and "meaningful existence" (Smith & Williams, 2004).

Deindividuation and Anonymity: The Power of Groups to Do Violence

Although ostracism refers to essentially psychological methods of exclusion from the group, other more dangerous behaviors occur in group settings. We have seen that when certain individuals feel they can't be identified by their actions or achievements, they tend to loaf. This is a common group effect. A decline in individual identity seems to mean a decline in a person's sense of responsibility. Anonymity can alter people's ethical and moral behavior.

Observers of group behavior have long known that certain kinds of groups have the potential for great mischief. Groups at sporting events have engaged in murder and mayhem when their soccer teams have lost. One element present in such groups is that the individuals are not easily identifiable. People get lost in the mass and seem to lose their self-identity and self-awareness. Social psychologists have called this loss of inhibition while engulfed in a group **deindividuation** (Zimbardo, 1969).

deindividuation
A phenomenon that occurs in large-group (crowd) situations in which individual identity is lost within the anonymity of the large group, perhaps leading to a lowering of inhibitions against negative behaviors.

People who are deindividuated seem to become less aware of their own moral standards and are much more likely to respond to violent or aggressive cues (Prentice-Dunn & Rogers, 1989). In fact, deindividuated people are quick to respond to any cues. Research suggests that when people are submerged in a group, they become impulsive, aroused, and wrapped up in the cues of the moment (Spivey & Prentice-Dunn, 1990). Their action is determined by whatever the group does.

Groups and organizations whose primary purpose involves violence often attempt to deindividuate their members. Certainly, the white sheets covering the members of the Ku Klux Klan are a prime example of this. So, too, are the training methods of most military organizations. Uniforms serve to lower a sense of self-awareness and make it easier to respond to aggressive cues.

There is some evidence that the larger the group, the more likely it is that individual group members will deindividuate. Differences have been found in the behavior of larger and smaller crowds that gather when a troubled person is threatening to leap from a building or bridge (Mann, 1981). Out of 21 such cases examined, in 10, the crowds baited the victim to jump, whereas in the remaining 11, the victim was not taunted and was often rescued. What was the difference between these two sorts of cases?

The baiting crowds tended to be larger—over 300 people. The baiting episodes were more likely to take place after dark, and the victim was usually situated higher up, typically above the 12th floor. Additionally, the longer the episode continued, the

more likely was the taunting. All these factors—the large size of the crowd, the distance between that crowd and the victim, the anonymity lent by darkness—contributed to the deindividuation of the members of the crowd. And the longer these deindividuated people waited, the more irritable they became.

Another study found that when a crowd is bent on violence, the larger the crowd, the more vicious the behavior (Mullen, 1986). Larger crowds and smaller numbers of victims can lead to atrocities such as hangings, torture, and rape.

Group Performance

Individual Decisions and Group Decisions

First of all, let's consider whether group decisions are in fact better than individual decisions. Is it better to have a team of medical personnel decide whether our CAT scan indicates we need surgery, or is that decision better left to a single surgeon? Did the launch director at NASA benefit from the workings of the group, or would he have been wiser to think through the situation on his own?

Does a Group Do Better Than the Average Person?

In general, research shows that groups do outperform individuals—at least the average individual—on many jobs and tasks (Stasser, Kerr, & Davis, 1989). Three reasons have been proposed for the observed superiority of groups over the average person. First of all, groups do a better job than the average person because they recognize truth—accept the right answer—more quickly. Second, groups are better able to reject error—reject incorrect or implausible answers (Laughlin, 1980; Laughlin, VanderStoep, & Hollingshead, 1991; Lorge & Solomon, 1955). Third, groups have a better, more efficient memory system than do individuals. This permits them to process information more effectively.

However, groups do not appear to live up to their potential. That is, their performance seems to be less than the sum of their parts (i.e., the individual members [Kerr & Tindale, 2005]). So let's keep that in mind as we first see what advantages groups have over individuals. Groups may possess what has been called **transactive memory systems,** a shared system for placing events into memory (encoding), storing those memories, and retrieving that information. Wegner (1996) used the example of a directory-sharing computer network to explain the three legs of a transactive memory system:

transactive memory systems Systems within groups that are sets of individual memories that allow group members to learn about each other's expertise and to assign memory tasks on that basis.

1. *Directory updating,* in which people find out what other group members know
2. *Information allocation,* the place where new information is given to the person who knows how to store it
3. *Retrieval coordination,* which refers to how information is recovered when needed to solve a particular problem

Group members learn about each other's expertise and assign memory tasks on that basis. This not only leaves others to concentrate on the memory tasks they do best, it also provides the group with memory aids. Someone in the group may be good in math, for example, so that person is assigned the task of remembering math-related information. When the group wants to recall that information, they go to this expert

and use him or her as an external memory aid. Memory thus becomes a transaction, a social event in the group. For some or all of these reasons, groups seem to outperform the average person on many decision-related tasks (Laughlin, Zander, Knievel, & Tan, 2003).

Hollingshead (1998) showed the effectiveness of transactive memory. She studied intimate couples as compared to strangers who worked on problems, some face to face and others via a computer-conferencing network. Intimate couples who were able to sit face-to-face and process their partner's verbal and nonverbal cues were able to solve problems better than couples comprised of strangers, because the intimate couples were able to retrieve more information. Intimate couples who worked via a computer-conferencing system did not do as well, again suggesting that the nonverbal cues were important in pooling information. In fact, recent research shows that in small groups in which the individual members do not submerge their personal identities but rather express them, the individuals' identification with that group is enhanced (Postmes, Spears, Lee, & Novak, 2005).

Does a Group Do Better Than Its Best Member?

We noted that research shows that groups outperform the average person. But does the group perform better than the best member, the smartest person, the "best and brightest" member of the group?

To test the hypothesis that groups can find correct responses better than individuals, college students were asked to try to discover an arbitrary rule for separating a deck of cards into those that did and did not fit the rule (Laughlin, VanderStoep, & Hollingshead, 1991). If the rule was "hearts," for example, then all cards of the hearts suit would fit the rule, and all others would not. Subjects had to guess the rule, and then test it by playing a card. The feedback from the experimenter gave them information on which to base their next guess. The researchers also varied the amount of information that subjects had to process. They presented some subjects with only two arrays of cards, others with three, and others with four: The more arrays, the more difficult the task.

The performance of four-person groups was then compared to the performance of each of the four group members, who had to do a similar task individually. The best individual was able to generate more correct guesses than the group or any other individual member. The group's performance was equal to its second-best member. The third- and fourth-best members were inferior to the group. As the task became more difficult—the arrays increased to four, which made much more information available—the performance of both the best individual and the group fell. The researchers also compared the abilities of groups and their individual members in rejecting implausible hypotheses. The fewer implausible ideas subjects or groups raised, the better they did with respect to rejecting false leads. Groups and the best individual were better at rejecting false leads than were the second-, third-, and fourth-best individuals.

This research suggests that groups in general perform as well as their best or second-best individual member working independently. You might ask, Why not just let the best member do the task? But keep in mind that it is often not possible to identify the group's best member prior to completing the task. This finding tells us that groups tend to perform competently, particularly when the information load is not overwhelming.

In addition, it may very well be that the kind of problem that the group has to deal with may influence whether or not a very good individual is or is not better than the group solution.

The Harder the Problem, the Better the Group

Recent work suggests that we may have underrated the ability of groups to reach solutions, especially more difficult problems. Crott, Giesel, and Hoffman (1998) argued that their research on group problem solving suggests that difficult tasks provoke creativity in groups. When faced with a problem that required the group to come up with a number of hypotheses to discover the correct answers, groups more than individuals were able to generate a number of novel explanations. Groups were also shown to be less likely to be prone to the confirmation bias than were individuals (Crott et al., 1998).

Similarly, Laughlin, Bonner, and Altermatt (1998) showed that groups were as good as the best individual in solving difficult inductive (proceeding from specific facts to general conclusions) problems and better than all the remaining group members. Groups are especially effective in dealing with information-rich problems because they have more resources (Tindale, Smith, Thomas, Filkins, & Sheffey, 1996).

The finding that the best member of a group may outperform the group is also modified by the *size of that group* and by the type of problem. Laughlin and his colleagues studied groups that varied in size from two to five people (Laughlin, Hatch, Silver, & Boh, 2006). The groups had to deal with a complex intellectual problem that required different strategies. The researchers first determined the best, second-best, third-best, and fourth- and fifth-best member of each group. Laughlin et al. then compared the solutions to these complex problems submitted by individual members and those submitted by three-, four-, and five-person groups. These researchers found, contrary to some previous findings, that the groups took significantly less time to solve problems and the quality of the solutions were better than those of the best member of the group. That is, each of the three-, four-, and five-person groups solved the problems more quickly and produced more complex solutions to the problems than the best individual member. And, there were no significant differences between three-, four-, and five-person groups. This is interesting because we might have expected some "motivation loss" due to free riders (see our earlier discussion) as the group got larger.

What about the two-person groups? The two-person groups performed less well than the other groups. Laughlin et al. (2006) concluded that groups of three that are "necessary and sufficient" perform better than the very best individual on *difficult intellective problems*.

We have seen how well groups perform with respect to the abilities of their members. Let's take a closer look at the workings, the dynamics, of how those decisions are made.

How do groups gather and use the information possessed by individual members? How do they reach decisions?

The Group's Use of Information: Hidden Profiles

One advantage groups have over individual decision makers is that a variety of individuals can usually bring to the discussion a great deal more information than can one person. This is usually seen as the great advantage of groups. But does the group make adequate use of that information? Research shows that group members tend to discuss information that they share and avoid discussing information that only one person has. This research on the insufficient sharing of information that one member of the group may have is known as the *hidden profile* paradigm. The hidden profile paradigm refers to a situation in which the group's task is to pick the best alternative, say the best job applicant, but the relevant information to make this choice is distributed among the group members such that no one member has enough information to make the right choice alone (Greitmeyer & Schulz-Hardt, 2003).

In one experiment, each member of a committee received common information about three candidates for student government (Stasser & Titus, 1987). Each also received information about each candidate that none of the others received (unshared information). The committee members met in four-person groups to rank the candidates. The sheer number of facts available to the members varied from one group to the next. When the number of facts was high, the raters ignored information that was unshared. That is, they rated the candidates based solely on the information that they held in common. The information they chose to share tended to support the group decision; they did not share information that would have conflicted with the decision. Because the results of this study indicate that group members try to avoid conflict by selectively withholding information, the researchers concluded that face-to-face, unstructured discussion is not a good way to inform group members of unshared information (Stasser, 1991).

There appear to be at least two reasons for the failure of face-to-face groups to report and use unshared information. The first has to do with the way people think. Whatever is most salient (the shared information) tends to overwhelm that which recedes into the background (the unshared information). In other words, group members hear the shared information and simply neglect to bring up or take into account the unshared information. The second reason is that individuals may be motivated to ignore or forget information (unshared) that they think may cause conflict. Individuals also avoid discussing or disclosing information that goes counter to the group's preferred decision (Greitemeyer & Schulz-Hardt, 2003).

The nature of a group's task may also affect how the group searches for information and uses shared and unshared facts. To investigate this possibility, experimenters hypothesized that groups would be more likely to share all information if they knew that the problem had a definitively correct answer than if the task called only for a judgment (Stasser & Stewart, 1992). Subjects in this study were given information about a crime. In some groups, all the information was given to all the members. In other groups, some information was given only to individual members. In other words, in the latter groups, some members had unshared information. In addition, half the groups were told that there was enough evidence to solve the crime, whereas others were informed that because the evidence was less than full, the group would have to make a judgment call.

The results showed that groups given the task with the correct answer were much more likely to search for the unshared information and get the right answer than groups given a judgment problem. What differed was the expectation that there was or was not a correct answer (Stasser & Stewart, 1992). When the group members think or know that the task has a definite answer, they are more forthright in bringing up anything (unshared) that could help the group. The group strategy changes because people want to search for any information that helps them to be successful. Greitmeyer and Schulz-Hardt (2003) have shown that if a hidden profile has incorrect information, you are unlikely to detect that error. If you do not share your hidden profile with others, then it is improbable that the error would be rectified.

The research of James R. Larson, Jr., showed that access to unshared information is crucial to good group decision making. For example, Larson, Christensen, Franz, and Abbot (1998) examined the decision making of medical teams. Three-person physician teams had to diagnose cases and were given shared information (to all three MDs), whereas the rest of the diagnostic data were divided among the three. Compared with

unshared information, the physicians discussed shared information earlier in the discussion. However, the unshared information, when discussed, proved to lead to more accurate (correct diagnosis) outcomes.

In other research, Larson's team reached similar conclusions. Winquist and Larson (1998) gave three-person groups the task of nominating professors for teaching awards. Discussion focused more on shared information, but the quality of the decision was determined by the amount of unshared information that was pooled in the discussion (Henningsen, Dryden, & Miller, 2003). One way to increase the likelihood that unshared hidden profiles will be brought to the discussion is to suggest to the group members that they think in a *counterfactual* way. That is, if you have some information that nobody else has, you might say "What if this is inaccurate, what would it mean?" If that is done, it seems to be the case that more unshared information sees the light of day (Galinsky & Kray, 2004).

The Effect of Leadership Style on Group Decision Making

How can we make sure groups gain access to unshared information? What is the best way of making sure that group members who have information that others do not are motivated to pool that information?

We know that leadership style is important in determining how groups function (Fiedler, 1967). In one study, researchers identified two common styles of leadership. The first, the **participative leader,** shares power with the other members of the group and includes them in the decision making. Another leadership style, the **directive leader,** gives less value to participation, emphasizes the need for agreement, and tends to prefer his or her own solution.

participative leader
A leadership style characterized by a leader who shares power with the other members of the group and includes them in the decision making.

directive leader
A leadership style involving a leader who gives less value to participation, emphasizes the need for agreement, and tends to prefer his or her own solution.

Directive and Participative Leaders

Research using these leadership styles indicated that participative leaders provoked their groups to discuss more information, both shared and unshared, than did groups with a directive leader (Larson, Foster-Fishman, & Franz, 1998). However, directive leaders were more likely to repeat information that had been pooled, especially unshared information. In other words, directive leaders made unshared information more prominent.

It seems, then, that participative leaders worked to get the group to bring out more information but that directive leaders were more active in managing the information once it was put on the table. What about the quality of the decisions? Interestingly, groups under participative leadership made many more incorrect decisions. This was counter to the researchers' expectations (Larson et al., 1998). If directive leaders have information that favors the best alternative, they use it and bring the group to a good-quality decision. They do this much better than participative leaders. The downside to directive leaders is that they may not be able to get the group members to bring out all the necessary information for good decision making.

Gender and Leadership

Eagly and her colleagues have investigated the possible differences in leadership styles exhibited by men and women. These differences may be important for effective group functioning because the behavior of the leader is critical for group performance (Eagly, Johansen-Schmidt, & van Engen, 2003; Eagly & Karau, 2002). Eagly's analysis is based on social roles theory, which suggests that leaders occupy roles determined both by their position in whatever group they are part of, and by the limits imposed by gender-based expectations (Eagly & Karau, 2002). For example, if the leader is a manager of

a warehouse, that role is in part determined by the tasks that must be done to keep that warehouse functioning—scheduling workloads, monitoring inventory, dealing with unions. But each manager also has some leeway as to carrying out those functions. Eagly points out that there is often an incompatibility between leadership roles and the gendered expectations of women.

Eagly and her colleagues analyzed almost 50 studies that compared the leadership styles of males and females (Eagly et al., 2003). They found that as social roles theory predicted, leadership styles were determined by both gender and demands placed on the leaders. They found significant gender differences with respect to the type of leadership styles men and women exhibited. Women leaders were more *transformative* than were male leaders. **Transformative leaders** tend to focus on communicating the reasons behind the group's mission and to show optimism and excitement about reaching the group's goals. Transformative leaders also tend to mentor their group members and to freely promote new ideas and ways of getting things done.

transformative leader A group leader who places emphasis on communicating group goals and expressing optimism about the group's ability to reach those goals.

In contrast, male leaders are more *transactional*. That is, they deal in rewarding positive results but also focus on the mistakes and errors that members have made. Compared to transformative leaders, who may intervene before serious problems occur, **transactional leaders** may wait until problems become severe before intervening. In other words, males are more hands-off leaders, more disengaged, while females seem to be more active.

transactional leader A group leader who rewards positive outcomes but also focus on mistakes made by group members.

What do we make of these differences? Do they matter in the functioning of, say, a corporation, or a university? Eagly et al. (2003) point out that the difference between men and women leaders is relatively small. That is, gender accounts for a relatively small part of the variation of leadership styles. That being said, however, the qualities that distinguish women leaders from their male counterparts appear to be directly related to greater group effectiveness. For example, research has demonstrated the difficulty of motivating workers to adopt new safety regulations. Research has shown that hands-on positive leadership, which defines the transformational leader, can be very effective (Kelloway, Mullen, & Francis, 2006).

Why Group Members Obey Leaders: The Psychology of Legitimacy

Tyler (1997) provided insight into when and why groups voluntarily follow their leaders. In order for groups to function, the members have to decide that the leader ought to be obeyed. Although leaders often have access to coercive methods to get members to follow their orders, voluntary compliance is necessary oftentimes for a group to successfully achieve its goals.

Tyler was interested in the judgment by group members that they should voluntarily comply with the rules laid down by authorities, regardless of the probability of punishment or reward. Tyler (1997) suggested that the feeling of obligation to obey the leader is best termed **legitimacy.** Following earlier work by French and Raven (1959), a leader has legitimate power to influence, and the member has the obligation to obey when all have accepted (internalized) the central values of the group. Tyler's work suggests that the basis of a leader's legitimacy resides in its psychological foundations. That is, it is not enough for the leader to be successful in getting the group's work done, although clearly that is quite important.

legitimacy A group member's feeling of obligation to obey the group's leader.

Among the factors that are crucial for legitimacy is, first, how people are treated by authorities, regardless of how the leaders have evaluated them, and second, whether the members share group membership with the authorities. Finally, Tyler's work indicated that people value the leader's integrity more than they do the leader's competence. This description of legitimacy is called the *relational model.*

The relational model emphasizes that individuals are most likely to internalize group values when they are treated with procedural fairness (van den Bos, Wilke, & Lind, 1998). In fact, people make judgments about authorities when little information is available about them, based on whether the authorities give them dignified, fair treatment (van den Bos et al., 1998). Neidermeier, Horowitz, and Kerr (1999) reported that some groups (juries) may deliberately and willfully disobey the commands of authorities (judges) when they determine that following the authority's instructions would result in an unfair and unjust verdict. People will be more likely to accept a leader when that leader exhibits interpersonal respect, neutrality in judgment, and trustworthiness (Tyler, 1997).

Again, we should not overlook the importance of instrumental factors in leadership. Getting the group's work done is crucial. It is likely that under some circumstances, relational issues may not be important at all (Fiedler, 1967). If someone has the ability to lead a group out of a burning building, relational issues matter not. But Tyler's earlier work indicated that in judging authorities with whom we have no contact (the U.S. Congress, the Supreme Court), concerns about fairness come into play (Tyler, 1994).

Factors That Affect the Decision-Making Ability of a Group

What makes a good decision-making group? Is there a particular size that works best? What about the abilities of the group members? What other factors have an impact on the abilities and effectiveness of a group? Consider President Kennedy's advisory group that decided to invade Cuba. It was fairly large, perhaps 12 or more people attended each session, and group members were similar in temperament, background, and education. Is that a good recipe for a decision-making group?

Group Composition

Several group investigators emphasize the composition of a group as its most fundamental attribute (Levine & Moreland, 1990). Questions often arise about how to best constitute groups, especially decision-making groups. For example, some people have asked whether random selection of citizens is the best way to put together a jury, especially for a complex trial (Horowitz, ForsterLee, & Brolly, 1996).

Some researchers have investigated whether groups with high-ability members perform better than groups composed of individuals of lesser abilities. In one study, the composition of three-person battle tank crews was varied (Tziner & Eden, 1985). Some crews had all high-ability members, some had mixtures of high- and low-ability members, and others had all low-ability members. Their results showed that tank groups composed of all high-ability individuals performed more effectively than expected from the sum of their individual talents. Groups composed of all low-ability members did worse than expected.

Psychologist Robert Steinberg believes that every group has its own intelligence level, or "group IQ" (Williams & Steinberg, 1988). The group's IQ is not simply the sum of each member's IQ. Rather, it is the blending of their intellectual abilities with their personalities and social competence. In one study, Steinberg asked volunteers who had been tested on their intelligence and social skills to devise a marketing plan for a

new product, an artificial sweetener (Williams & Steinberg, 1988). Other groups had similar tasks, all of which required creative solutions. The decision-making groups that produced the most creative solutions were those that contained at least one person with a high IQ and others who were socially skillful, practical, or creative. In other words, the successful groups had a good mix of people with different talents who brought different points of view to the problem.

This research highlights the fact that everybody in the group must have the skills to make a contribution. If one member of the group is extremely persuasive or extremely good at the task, the other members may not be able to use their abilities to the best effect. According to one study, successful leaders should have IQ scores no more than 10 points higher than the average IQ score of the group (Simonton, 1985). This minimizes the possibility that the most talented person will dominate the group. If this person is more extraordinary, then the collective effort will be hurt by his or her presence (Simonton, 1985).

The gender of group members also influences problem-solving ability (Levine & Moreland, 1990). Research shows that although groups composed of all males are generally more effective than all-female groups, the success of the groups really depends on the kind of problem they have to solve. Male groups do better when they have to fulfill a specific task, whereas female groups do better at communal activities that involve friendship and social support (Wood, 1987).

Racial Effects on Group Decision Making

One might expect that the racial composition of a group might affect the type and perhaps the quality of decision making of groups. But how and why? As one example, a goal of the judicial system is to ensure that juries be formed from fair cross-sections of the population. This doesn't mean that each jury must represent a fair cross-section but that the group from which the jury is selected is a good representation of the community. Therefore, from a public policy and a constitutional point of view, diverse juries are perceived as a societal "good." But what impact does diversity have on both the process and outcomes of group decision making?

Sommers (2006) studied the effects of the racial composition of one unique group, the jury in criminal trials, on verdicts. Using a "mock jury" paradigm in which participants are asked to play the role of jurors, Sommers constructed juries that were either composed of all whites or all blacks, or were racially mixed. Mock jurors were brought to a county courthouse and essentially went through the same procedures any prospective juror would. After being formed into juries, they watched a videotaped trial of a sexual assault case involving an African American defendant and a white victim. Several questions were asked of the jurors before seeing the trial that were designed to make them think about their racial attitudes and to make them salient, uppermost in their minds.

The results suggested that the differences between racially diverse groups and racially homogeneous groups were reflected in jury decision making. For example, whites in diverse groups were more likely to be lenient toward a black defendant than were whites in all-white groups. Whites in diverse juries processed more information and brought out more facts that whites in homogeneous white groups. Diverse juries took more time to deliberate, and diverse groups discussed more racial issues.

What of verdicts? Diverse groups showed some tendency to hang, and that goes hand in hand with the longer deliberation times. However, only 1 of the 30 six-person juries in the research convicted the defendant. The racial effects in this research are primarily expressed in the quality of the jury process rather than in verdicts, generally.

Group Size

Conventional wisdom tells us that two heads are better than one. If this is so, then why wouldn't three be better than two, four better than three, and so on? Does increasing a group's size also increase its ability to arrive at correct answers, make good decisions, and reach productivity goals?

Increasing the number of members of a group does increase the resources available to the group and therefore the group's potential productivity. On the other hand, increasing group size also leads to more process loss (Steiner, 1972). In other words, the increase in resources due to more group members is counterbalanced by the increased difficulty in arriving at a decision. Large groups generally take more time to reach a decision than small groups (Davis, 1969).

Yet, smaller is not always better. We often misperceive the effect of group size on performance. Researchers interested in testing the common belief that small groups are more effective than large groups gave a number of groups the task of solving social dilemmas, problems that require individuals to sacrifice some of their own gains so that the entire group benefits, such as conserving water during a drought (Kerr, 1989).

Those who participated in the study thought that the size of their group was an important determinant of their ability to satisfactorily resolve social dilemmas. People in larger groups felt there was very little they could do to influence the decisions of the group. They tended to be less active and less aware of what was going on than comparable members of smaller groups. They believed that smaller groups would more effectively solve social dilemmas than larger groups, mainly by cooperating.

In fact, there was no difference in effectiveness between the small and large groups in solving social dilemmas. People enjoyed small groups more than large ones, but the product and the quality of the decisions of both sizes of groups were much the same. Thus, small groups offer only an **illusion of efficacy.** That is, they think they are more effective than larger groups, but the evidence suggests they may not be, based on their actual productivity (Kerr, 1989).

illusion of efficacy
The illusion that members of small groups think they are more effective than larger groups, which may not be the case.

The Group Size Effect

Price, Smith, and Lench (2006) found a group size effect in the area of risk judgment. When people are asked to make judgments about themselves or another individual, or groups of individuals, with respect to potential negative life events (heart attacks, unwanted pregnancies, etc.), they tend to rate themselves, friends, and family at the lowest risks but rate others at higher risk. So female college students rate themselves and their friends at lowest risk for unwanted pregnancies, but rate the "average college woman" at higher risk and the "average woman" at much higher risk.

There are a number of possible explanations for the group size effect in the judgment of risk, but one is that we have favorable opinions of people we know and less favorable ones of people we don't know. We are also more optimistic about ourselves and our closest friends and family. We tend to believe that our best friend will take precautions to prevent unwanted pregnancies, but the "average woman" may not be so careful or so smart. Another application of this *group size effect* can be seen in the research on stereotypes presented in Chapter 4. We have stereotypes about various social groups, but a friend of ours who is a member of one of these groups will not be likely to be perceived as having the negative qualities that the "average" and unknown member of that group is presumed to possess (Price et al., 2006).

Group Cohesiveness

Does a cohesive group outperform a noncohesive group? When we consider decision-making or problem-solving groups, two types of cohesiveness become important:

task-based cohesiveness and *interpersonal cohesiveness* (Zachary & Lowe, 1988). Groups may be cohesive because the members respect one another's abilities to help obtain the group's goals; this is task-based cohesiveness. Other groups are cohesive because the members find each other to be likable; this is interpersonal cohesiveness.

Each type of cohesiveness influences group performance in a somewhat different way, depending on the type of task facing the group. When a task does not require much interaction among members, task-based cohesiveness increases group productivity, but interpersonal cohesiveness does not (Zaccaro & McCoy, 1988). For example, if a group is working on writing a paper, and each member is responsible for different parts of that paper, then productivity is increased to the extent that the members are committed to doing a good job for the group. The group members do not have to like one another to do the job well.

Now, it is true that when members of the group like one another, their cohesiveness increases the amount of commitment to a task and increases group interaction as well (Zachary & Lowe, 1988). However, the time they spend interacting may take away from their individual time on the task, thus offsetting the productivity that results from task-based cohesiveness.

Some tasks require interaction, such as the *Challenger* decision-making group. On these tasks, groups that have high levels of both task-based and interactive cohesiveness perform better than groups that are high on one type but low on the other or that are low on both (Zaccaro & McCoy, 1988).

Cohesiveness can also detract from the successful completion of a task when group members become too concerned with protecting one another's feelings and do not allot enough attention to the actual task. Groups that are highly cohesive have members who are very concerned with one another. This may lead group members to stifle criticism of group decisions.

Members of strongly cohesive groups are less likely to disagree with one another than are members of less cohesive groups, especially if they are under time pressure to come up with a solution. Ultimately, then, very high cohesiveness may prevent a group from reaching a high-quality decision. Cohesiveness is a double-edged sword: It can help or hurt a group, depending on the demands of the task.

The Dynamics of Group Decision Making: Decision Rules, Group Polarization, and Groupthink

Now that we have considered various aspects of group decision making, let's consider how the decision-making process works. Although we empower groups to make many important decisions for us, they do not always make good decisions (Janis, 1972). However, the reason we use groups to make important decisions is the assumption that groups are better at it, more accurate than are individual decision makers (Hastie & Kameda, 2005).

Group Decisions: How Groups Blend Individual Choices

A **decision rule** is a rule about how many members must agree before the group can reach a decision. Decision rules set the criteria for how individual choices will be blended into a group product or decision (Pritchard & Watson, 1992). Two common decision rules are *majority rule* (the winning alternative must receive more than half the votes) and *unanimity rule* (consensus, all members must agree).

decision rule A rule concerning the number of members of a group who must agree before a group can reach a decision.

Groups will find a decision rule that leads to good decisions and stick with that rule throughout the life cycle of the group (Miller, 1989). The majority rule is used in most groups (Davis, 1980). The majority dominates both through informational social influence—controlling the information the group uses (Stasser, Kerr, & Davis, 1989)—and through normative social influence—exerting the group's will through conformity pressure.

A unanimity rule, or consensus, forces the group to consider the views of the minority more carefully than a majority rule. Group members tend to be more satisfied by a unanimity rule, especially those in the minority, who feel that the majority paid attention and considered their point of view (Hastie, Penrod, & Pennington, 1983).

The decision rule used by a group may depend on what kind of task the group is working on. When the group deals with intellective tasks—problems for which there is a definitive correct answer, such as the solution to an equation—the decision rule is truth wins. In other words, when one member of the group solves the problem, all members (who have mathematical knowledge) recognize the truth of the answer. If the problem has a less definitively correct answer, such as, say, the solution to a word puzzle, then the decision rule is that truth supported wins. When one member comes up with an answer that the others support, that answer wins (Kerr, 1991).

When the group deals with judgmental tasks—tasks that do not have a demonstrably correct answer, such as a jury decision in a complex case—then the decision rule is majority wins (Laughlin & Ellis, 1986). That is, whether the formal decision rule (the one the judge gives to the jury) is unanimity or a 9 out of 12 majority (a rule common in some states), a decision usually is made once the majority rule has been satisfied. Even if the formal rule is unanimity, all jurors tend to go along with the majority once 9 or 10 of the 12 jurors agree.

The Goodness of Decision Rules

Hastie and Kameda (2005) considered a number of group decision rules to determine which are best in reaching an accurate decision under conditions in which the correct answer is uncertain. For example, in the world of political decision making, we may find decision-making rules involving either democratic or dictatorial options. Democratic decision rules may involve a *plurality* rule, in which the winner of an election is the one who gets the most votes when no one has more than 50% of all votes cast, or a *majority* rule in which the one with more than 50% wins. This is contrasted with a dictatorial system (one "best" member decides). In contrast, nondemocratic systems often are, in essence, a "best member" rule; that is, the leader decides. Hastie and Kameda's cogent analysis shows that most of the time the plurality rules give the most adaptive outcomes—that is, the outcomes that best favor the members of the group. In fact, both *majority* rule and *plurality* rule perform quite well most of the time in helping groups determine the most accurate decision (Hastie & Kameda, 2005).

Group Polarization

group polarization
The tendency for individual, prediscussion opinion to become more extreme following group discussion.

A commonplace event observed in group decision making is that groups tend to polarize. **Group polarization** (Moscovici & Zavalloni, 1969; Myers & Lamm, 1976) occurs when the initial-decision tendency of the group becomes more extreme following group discussion. For example, researchers asked French students about their attitudes toward Americans, which prior to group discussion had been negative (Moscovici & Zavalloni, 1969). After group discussion, researchers measured attitudes again and found that group discussion tended to polarize, or pull the attitude to a more extreme position. The initial negative attitudes became even more negative after discussion.

In another study, researchers found that if a jury initially was leaning in the direction of innocence, group discussion led to a shift to leniency. If, on the other hand, the jury was initially leaning in the direction of guilt, there was a shift to severity (Myers & Lamm, 1976). Group polarization can also be recognized in some of the uglier events in the real world. Groups of terrorists become more extreme, more violent, over time (McCauley & Segal, 1987). Extremity shifts, as we have seen, appear to be a normal aspect of group decision making (Blascovich & Ginsburg, 1974).

Why does group polarization occur? Researchers have focused on two processes in group discussion: *social comparison* and *persuasive arguments.* Group discussion, as we have seen, provides opportunities for social comparison. We cannot compare how we think with how everyone else thinks. We might have thought that our private decision favored a daring choice, but then we find that other people took even riskier stands. This causes us to redefine our idea of riskiness and shift our opinion toward more extreme choices.

The second cause of group polarization is persuasive arguments (Burnstein, 1982; Burnstein & Vinokur, 1977). We already have seen that people tend to share information they hold in common. This means that the arguments put forth and supported are those the majority of group members support. The majority can often persuade others to accept those arguments (Myers & Lamm, 1975). For example, most people in Kennedy's advisory group spoke in favor of a military response to Cuba and persuaded doubters of their wisdom.

Research supports the idea that discussion polarizes groups. In one early study on the risky shift, group meetings were set up under several conditions (Wallach & Kogan, 1965). In some groups, members merely exchanged information about their views by passing notes; there was no discussion, just information exchange. In others, individuals discussed their views face-to-face. In some of the discussion groups, members were required to reach consensus; in others, they were not. The researchers found that group discussion, with or without reaching consensus, was the only necessary and sufficient condition required to produce the risky shift. The mere exchange of information without discussion was not enough, and forcing consensus was not necessary (Wallach & Kogan, 1965).

Groupthink

The late Irving Janis (1972, 1982) carried out several post hoc (after-the-fact) analyses of what he terms historical fiascos. Janis found common threads running through these decision failures. He called this phenomenon **groupthink**, "a mode of thinking that people engage in when they are deeply involved in a cohesive in-group, when the members' striving for unanimity overrides their motivation to realistically appraise alternative courses of actions" (Janis, 1982, p. 9). Groupthink is a breakdown in the rational decision-making abilities of members of a cohesive group. As we have seen, members of a highly cohesive group become motivated to reach unanimity and protect the feelings of other group members and are less concerned with reaching the best decision.

groupthink A group-process phenomenon that may lead to faulty decision making by highly cohesive group members more concerned with reaching consensus than with carefully considering alternative courses of action.

In examining poor decisions and fiascos, we have to acknowledge the benefits we gain from hindsight. From our privileged point of view here in the present, we can see what we believe to be the fatal flaws of many decisions of the past, especially those with disastrous outcomes. This is obviously dangerous from a scientific perspective (a danger that Janis recognized). It can lead us to overstate the power of groupthink processes. What would have happened, for example, if the invasion of Cuba had been

a rousing success and a democratic government installed there? How many historical decisions had all the markings of groupthink but led to good outcomes? It is important to keep a sense of perspective as we apply concepts such as groupthink to both historical and contemporary events.

Conditions That Favor Groupthink

Social psychologist Clark McCauley (1989) identified three conditions that he believed are always involved when groupthink occurs:

1. *Group insulation.* The decision-making group does not seek analysis and information from sources outside the group.
2. *Promotional leadership.* The leader presents his or her preferred solution to the problem before the group can evaluate all the evidence.
3. *Group homogeneity.* Groups that are made up of people of similar background and opinions are prone to have similar views.

These three antecedents, according to McCauley, lead the group to a premature consensus.

Symptoms of Groupthink

Groups that suffer from groupthink show a fairly predictable set of symptoms. Unlike the antecedent conditions just discussed, which increase the likelihood of groupthink, the symptoms protect the group against negative feelings and anxieties during the decision process. Janis (1972) defined several major symptoms of groupthink.

1. *The illusion of invulnerability.* Group members believe that nothing can hurt them. For example, officials at NASA suffered from this illusion. In the 25 space flights before *Challenger* exploded, not one astronaut was lost in a space-launch mission. Even when there was a near disaster aboard *Apollo 13*, NASA personnel were able to pull the flight out of the fire and bring the three astronauts home safely. This track record of extraordinary success contributed to a belief that NASA could do no wrong. Another example of this illusion can be seen in the decision on how to defend Pearl Harbor, in Honolulu, Hawaii. Prior to the Japanese attack on Pearl Harbor in 1941, advisors to the U.S. commander believed that Pearl Harbor was invincible. Typically, this illusion leads to excessive optimism: The group believes that anything it does will turn out for the better.
2. *Rationalization.* Group members tend not to realistically evaluate information presented to them. Instead, they engage in collective efforts to rationalize away damaging information. For example, prior to the space shuttle *Challenger* exploding in 1986, officials apparently rationalized away information about the O-rings, whose failure caused the explosion. Negative information about the O-rings dating back as far as 1985 was available but ignored. Six months before the disaster, a NASA budget analyst warned that the O-rings were a serious problem. His warning was labeled an “overstatement.”

3. *Stereotyped views.* If group members see the enemy as too weak, evil, or stupid to do anything about the group's decision, they are displaying a stereotyped view of that enemy. An enemy need not be a military or other such foe. The enemy is any person or group that poses a threat to a group's emerging decision. The enemy in the *Challenger* decision was the group of Thiokol scientists and engineers who recommended against the launch. These individuals were characterized as being too concerned with the scientific end of things. In fact, one engineer was told to take off his engineer's hat and put on his management hat. The implication here is that engineers are too limited in their scope.
4. *Conformity pressures.* We have seen that majority influences can operate within a group to change the opinions of dissenting members. Strong conformity pressures are at work when groupthink emerges. That is, group members who raise objections are pressured to change their views. One of the engineers involved in the *Challenger* launching was initially opposed to the launch. Under extreme pressure from others, he changed his vote.
5. *Self-censorship.* Once it appears that anyone who disagrees with the group's view will be pressured to conform, members of the group who have dissenting opinions do not speak up because of the consequences. This leads to self-censorship. After the initial opposition to the *Challenger* launching was rejected rather harshly, for example, other engineers were less likely to express doubts.
6. *The illusion of unanimity.* Because of the strong atmosphere of conformity and the self-censorship of those members who have doubts about the group decision, the group harbors the illusion that everyone is in agreement. In the *Challenger* decision, a poll was taken of management personnel (only), who generally favored the launch. The engineers were present but were not allowed to vote. What emerged was a unanimous vote to launch, even though the engineers strongly disagreed. It looked as if everyone agreed to the launch.
7. *Emergence of self-appointed mindguards.* In much the same way as a person can hire a bodyguard to protect him or her, group members emerge to protect the group from damaging information. In the *Challenger* decision, managers at Morton Thiokol emerged in this role. A high-ranking Thiokol manager did not tell Arnold Aldrich about the dissension in the ranks at Thiokol. Thus, Jesse Moore was never made aware of the concerns of the Thiokol engineers.

The *Challenger* Explosion Revisited

The space program never had an in-flight disaster. Astronauts had been killed before, but in training missions, and very early in the program's development. Despite the patently dangerous nature of space travel, the possibility of disaster had been dismissed because it simply hadn't happened. In fact, it was deemed so safe that an untrained civilian, a school teacher, was chosen to be a crew member on the Challenger.

When the leaders of groups have a preferred outcome and are under pressure to make decisions quickly, it becomes highly likely that information that does not conform to the favored point of view will be ignored by decision-making groups. Understanding how groups interact and influence their members is crucial to designing procedures that will provide for rational decision-making processes.

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Chapter Review

1. What is a group?

A group is an assemblage of two or more individuals who influence one another through social interaction. Group members share perceptions of what constitutes appropriate behavior (group norms), and they have formal and informal roles. Group members are interdependent; that is, they depend on one another to meet group goals, and they have emotional (affective) ties with one another. Groups can be either instrumental (existing to perform a task or reach a goal) or affiliative (existing for more general, usually social, reasons).

Groups vary in cohesiveness, the strength of the relationships that link the members of the group. Groups may be cohesive because the members like one another (interpersonal cohesiveness), because they are physically close to one another (propinquity), because they adhere to group norms, or because they help each other do a good job and, therefore, attain group goals (task-based cohesiveness).

2. Why do people join groups?

Groups help people meet their biological, psychological, and social needs. Groups were certainly useful in the evolutionary history of humans, aiding the species in its survival. Among the basic needs groups meet are social support, protection from loneliness, and social comparison—the process by which we compare our feelings, opinions, and behaviors with those of others in order to get accurate information about ourselves. People join groups to fulfill these needs and to enhance themselves.

3. How do groups influence their members?

In addition to fulfilling members' needs, groups also influence members' individual senses of worth and self-esteem, which, in turn, has an impact on how one group relates to other groups in a society. Self-identity theory suggests that much of our self-esteem derives from the status of the groups to which we belong or with which we identify.

Members who threaten the success of a group also threaten the positive image of the group. This leads to the black-sheep effect, the observation that whereas an attractive in-group member is rated more highly than an attractive member of an out-group, an unattractive in-group member is perceived more negatively than an unattractive out-group member. Although groups may serve to increase our self-esteem by enhancing our social identity, groups also have the power to exact painful, even dreadful, punishment, including social ostracism, which is defined by Williams (1997) as the act of excluding or ignoring other individuals or groups.

4. What effect does an audience have on performance?

The presence of other people or audiences may enhance our performance, a process known as social facilitation. Other times, the presence of a critical audience or an audience with high expectations decreases performance ("choking"). Research has shown that the presence of others helps when people perform a dominant, well-learned response but diminishes performance when they perform a skill not very well learned or novel

(social inhibition). This may be due to increased effort as a result of increased arousal; or it may be due to anxiety about being judged (evaluation apprehension), which increases arousal; or, according to distraction-conflict theory, it may be due to conflicts for attention.

5. What motivational decreases affect performance?

Sometimes, being in a group enhances performance. Other times, individuals performing in groups display social loafing, a tendency not to perform to capacity. This seems to occur when the task is not that important or when individual output cannot be evaluated. When people become free riders, others often work harder to make up for their lack of effort, a process known as social compensation.

6. What motivational gains occur because of group interaction? What is the Kohler effect?

Kerr and his colleagues rediscovered work done by Kohler (1926) in which the researcher reported that a less-capable member of a two-person group (a dyad) working together on a task works harder and performs better than expected when the group product is to be a result of the combined (conjunctive) effort of the two members. This seems to be the opposite of social loafing. The weaker member of the group, rather than free riding or loafing, in fact increases his or her effort. Why does this occur? It seems that motivation gains in groups may occur due in part to social comparison effects, in which there is some competition between two group members, as well as the personal motivation of the weakest member to see how well that member can perform.

7. What are the potential negative aspects of groups?

When members of a crowd cannot be identified individually, and therefore feel they have become anonymous, they may experience deindividuation, a loss of self-identity. Their sense of personal responsibility diminishes, and they tend to lose their inhibitions. This is more likely to happen if the crowd is large or is physically distant from a victim. Deindividuation can be a factor in mob violence. Loss of personal identity can also be positive, such as when group members act without thinking to save others' lives.

Although groups may serve to increase our self-esteem by enhancing our social identity, they also have the power to exact painful, even dreadful, punishment. Kipling Williams has studied the effects of being ignored or rejected by the group. Such behavior is called social ostracism and is defined by Williams as the act of excluding or ignoring other individuals or groups. This behavior is widespread and universal. Williams noted that organizations, employers, coworkers, friends, and family all may ignore or disengage from people (the silent treatment) to punish, control, and vent anger. The pervasiveness of ostracism is reflected by a survey conducted by Williams and his coworkers that showed that 67% of the sample surveyed said they had used the silent treatment (deliberately not speaking to a person in their presence) on a loved one, and 75% indicated that they had been a target of the silent treatment by a loved one. From the point of view of the victim of this silent treatment, social ostracism is the perception of being ignored by others in the victim's presence.

8. With regard to solving problems: Are groups better than individuals, or are individuals better than groups?

   Groups are more effective in processing information than are the individual members of the group, perhaps because they use transactive memory systems, by which each member may recall different things so that the group can produce a more complete memory then any one member can. Groups do not usually perform better than their very best individual member, but recent work has shown that groups may be superior when dealing with complex problems, because they have more resources and can be more creative than can individuals. In one study, three-, four-, and five-person groups solved the problems more quickly and produced more complex solutions to the problems than the best individual member. So, when problems are really intellectually challenging, groups do better than the best member working alone.

9. What are hidden profiles, and what effects do they have on group decision making?

   "Hidden profiles" refers to a situation in which the group's task is to pick the best alternative—say, the best job applicant—but the relevant information to make this choice is distributed among the group members such that no one member has enough information to make the right choice alone. It appears that group members try to avoid conflict by selectively withholding information; the researchers concluded that face-to-face, unstructured discussion is not a good way to inform group members of unshared information.

10. What is the effect of different leadership styles on group decision making?

    Leadership is also a factor in group effectiveness. Research has identified two common styles of leadership. The first, the participative leader, is someone who shares power with the other members of the group and includes them in the decision making. Another leadership style, the directive leader, gives less value to participation, emphasizes the need for agreement, and prefers his or her solution. Groups under participative leadership made many more incorrect decisions. Participative leaders can get members to bring out more unshared information, and that is important because it is usually unshared information that leads to the most accurate decisions. However, a directive leader makes the group focus more on unshared information and therefore tends to produce fewer mistakes than do participative leaders.

    Gender accounts for a relatively small part of the variation among leadership styles. However, some research indicates that the qualities that distinguish women leaders from their male counterparts appear to be directly related to greater group effectiveness. Research has shown that hands-on positive leadership, which defines the transformational leader (the preferred style of women), can be effective.

11. How do groups reach decisions?

Decision-making groups need to develop decision rules—rules about how many people must agree—in order to blend individual choices into a group outcome. Two common decision rules are majority and unanimity (consensus). Generally, majority wins is the dominant decision rule, but the selection of a decision rule often depends on the group task.

12. What makes a leader legitimate in the eyes of the group members?

Two factors that are crucial for legitimacy are, first, how people are treated by authorities, regardless of how the leaders have evaluated them, and second, whether the members share group membership with the authorities. Finally, research shows that people value the leader's integrity more than they do the leader's competence.

13. What factors affect the decision-making ability and effectiveness of a group?

Group composition is important to the decision-making ability of a group. Groups of high-ability individuals seem to perform better than groups of low-ability individuals, but members' abilities blend and mix in unexpected ways to produce a group IQ. Groups seem to perform better when members have complementary skills but when no single member is much more talented than the others.

Group size also affects group productivity. Although increasing group size increases the resources available to the group, there is also more process loss; that is, it becomes harder to reach a decision. As more people are added to the group, the number of people who actually make a contribution—the group's functional size—does not increase.

Research has shown differences between racially diverse groups and racially homogeneous groups in jury decision making. For example, whites in diverse groups were more likely to be lenient toward a black defendant than were whites in all-white groups. Whites in diverse juries processed more information and brought out more facts that whites in homogeneous white groups. Diverse juries took more time to deliberate and diverse groups discussed more racial issues. However, racial composition did not affect verdicts.

Some groups and group processes offer an illusion of efficacy; people think they are more effective than they are. This is true of small groups, which many people erroneously think are better at solving social dilemmas than are larger groups.

Another factor in group effectiveness is group cohesiveness. When a task does not require much interaction among members, task-based cohesiveness—cohesiveness based on respect for each other's abilities—increases group productivity, but interpersonal cohesiveness—cohesiveness based on liking for each other—does not. Sometimes, interpersonal cohesiveness can impede the decision-making abilities of the group, because people are afraid of hurting each other's feelings.

14. What is group polarization?

Group decision making often results in group polarization—that is, the initial decision tendency of the group becomes more extreme following group discussion. It seems that the group discussion pulls the members' attitudes toward more extreme positions as a result of both social comparison and persuasive arguments.

15. What is groupthink?

Groups often make bad decisions when they become more concerned with keeping up their members' morale than with reaching a realistic decision. This lack of critical thinking can lead to groupthink, a breakdown in the rational decision-making abilities of members of a cohesive group. The group becomes driven by consensus seeking; members do not want to rock the boat.

Groupthink is favored by group cohesiveness, stress, and the persuasive strength of the leader. It is also more likely to occur when a group is insulated and homogeneous and has a leader who promotes a particular point of view. Several measures can be taken to prevent groupthink, including encouraging a critical attitude among members, discussing group solutions with people outside the group, and bringing in outside experts who don't agree with the group's solution.

Another approach suggests that group polarization, risk taking, and the possibility of a disastrous decision being reached all increase when a decision is framed in terms of potential failure. If all outcomes are seen as potentially negative, according to this view, group members will tend to favor the riskier ones over the more cautious ones. Finally, groupthink has been found to occur more often when the group process doesn't allow everyone to speak freely and fully and when group leaders become obsessed with maintaining morale.

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