

THE FUNCTIONAL PERSPECTIVE AS A LENS FOR UNDERSTANDING GROUPS

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The functional perspective is a normative approach to describing and predicting group performance that focuses on the functions of inputs and/or processes. The aim of theory and research from this perspective is to understand why some groups are successful and others are not. This article investigates theory and, to a lesser extent, research of small groups based on the functional perspective. The authors present the underlying theoretical assumptions and review theories that fit into the functional perspective from several representative areas of research. They conclude by outlining notable strengths and weaknesses associated with viewing groups from this perspective and propose some directions for future theory development.

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A perusal of contemporary books on teams and groups reveals titles such as *Teamwork: What Must Go Right/What Can Go Wrong* (Larson & LaFasto, 1989), *Groups That Work (And Those That Don't)* (Hackman, 1990), and *When Teams Work Best: 6000 Team Members and Leaders Tell What it Takes to Succeed* (LaFasto & Larson, 2001). These books reflect a growing interest on group and team performance¹ among both academic scholars and practitioners in organizations. They include examples of groups that are synergistic, producing products that exceed in quality those of individual members. But more often, they describe groups that experience difficulties in communication or coordination and perform worse than expected given the knowledge and abilities of the individual members. Theory and research that aim to understand why some teams are successful and others are not lie squarely within the functional perspective of groups.

DEFINING THE FUNCTIONAL PERSPECTIVE

The functional perspective consists of a set of theories with a family resemblance in how they view and examine groups and with a common set of underlying assumptions. Issues regarding the quality of teamwork and those factors that contribute to it or detract from it compose the functional perspective. So, for example, theorists within the functional perspective aim to develop models that link leadership style with group decision quality and illuminate how communication technology affects idea generation in groups. The functional perspective is defined as a normative approach to describing and predicting group performance that focuses on the functions of inputs and/or processes.

The functional perspective is the one most commonly used by theorists and researchers who seek to understand group perfor-

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mance effectiveness. Three core assumptions define the functional perspective: (1) groups are goal oriented; (2) group performance varies in quality and quantity, and can be evaluated; and (3) internal and external factors influence group performance via the interaction process. Each assumption is described below in more detail.

1. Groups are goal oriented. The functional perspective assumes that groups have one or more goals that identify some purpose or aim to accomplish. These goals may be social-emotional (e.g., to provide support to members), group oriented (e.g., to obtain resources for the group to continue) or task oriented (e.g., to produce a product, idea, or decision) (cf. Cartwright & Zander, 1968; McGrath, 1991). However, much of the research from the functional perspective has focused on the effective accomplishment of task-oriented goals. Task-oriented goals include production in the cognitive realm (e.g., reaching a good group decision, generating creative ideas, solving a problem, remembering information) or physical world (e.g., building widgets, performing a song).

2. Group performance varies and can be evaluated. According to the functional perspective, group performance is evaluated by some standard. That standard could be how well the group reaches its goals. Most commonly, the standard consists of normative criteria that identify how groups should perform. These criteria are typically based on a rational model (e.g., members should communicate and optimally weigh all task-relevant information). When group performance falls short of this normative standard, interventions are generated to help groups reach their potential.

3. Internal and external factors influence group performance via the interaction process. The functional perspective presumes that factors emanating from within the group (e.g., member composition, group size) and external circumstances (e.g., outside threat, time pressure) affect how the group performs. Thus, group performance is a causal outcome of these internal and external inputs. But that is not a simple, isomorphic translation. A given input can lead to many different outcomes; likewise, one outcome

can be produced by many different inputs. Moreover, inputs may interact with each other to produce a group outcome. The input-output relation is mediated by processes that occur during group interaction (e.g., communication patterns, conflict management). These interaction processes cause variations in group outcomes. A classic example of this framework is described in Hackman and Morris (1975).

Theories of small groups that are in the functional perspective tradition have several common features that reflect the assumptions described above.² The theories focus on explaining, predicting, and/or improving group performance. The conceptual relations articulated in the theories assume a sequential, causal string: Input factors influence interaction processes, which in turn influence group performance outcomes.

The following sections investigate theory and, to a lesser extent, research on small groups from the functional perspective (see Hollingshead et al., 2004, for a more comprehensive review of empirical research from the functional perspective). The first section highlights seven areas of theory within the functional perspective. The second section outlines notable strengths and weaknesses associated with viewing groups from the functional perspective and proposes some directions for future theory development.

THEORIES IN THE TRADITION OF THE FUNCTIONAL PERSPECTIVE

The functional perspective has influenced the development of theory to predict and to explain group behavior. It has guided much of the empirical work conducted on small groups. Theories based on this perspective resemble those from the natural sciences with clear testable propositions about causes (inputs) and effects (processes and outputs). Much of the research generated by this perspective has been conducted using the intellectual paradigm of post-positivism (see McGrath, Kelly, & Rhodes, 1993, for a review and critique of this paradigm as it relates to the behavioral and social sciences).

Theory development in the tradition of the functional perspective has taken several forms. Some theories from this perspective, such as social decision scheme theory or the external view of teams, are fairly general and can be applied to a broad range of group tasks. Others, such as functional theory of group decision making and groupthink theory, are tied to a specific group task. Surprising empirical findings about groups, such as the collective information sharing bias or the inefficiencies of group brainstorming, have also inspired the development of new theoretical explanations.

In this section, we provide seven examples of theoretical insights that are in the functional perspective tradition. These examples span topics in classic and contemporary group research and include the social combination approach, the functional theory of group decision making, groupthink, an external view of groups, collective information sharing, conflict management, and group brainstorming. They also span the different conceptual forms described in the previous paragraph. It is important to note that the seven topics described here reflect the expertise of the coauthors and are meant to be representative rather than exhaustive. In each section, we provide a brief overview of the intellectual roots of the perspective, a description of the theory, show how that area encompasses the main assumptions of the functional perspective identified above, and present a few key findings.

SOCIAL COMBINATION APPROACH

The social combination approach to group decision making is based on social decision scheme theory, first proposed by James H. Davis (see Davis, 1969 and 1973, and Laughlin, 1980, for detailed discussions of social decision scheme theory, its origin, formal methods, and applications to various group decision tasks). The goal of the social combination approach is to predict or to explain how group members combine their individual preferences into a single group response for a given type of task. This approach can be applied only when the set of possible decision alternatives are prespecified and the group must reach a consensus on one of those alternatives (such as guilty or not guilty in a jury decision.)

This approach follows the general input-process-output framework, which typifies theories that encompass the functional perspective. The input is the actual premeeting preferences of the group members; group process is simulated using social combination models; and the output is the collective group decision. The fundamental assumption underlying this approach is that group interaction can be modeled as a mapping process from members' preferences to a single collective decision. Social combination models, also called social decision schemes, formalize the processes by which a group takes a distribution of member preferences (e.g., the number of jurors who believe the defendant is guilty and not guilty before group discussion) and combine them into a collective group decision (the jury's verdict).

Laughlin and Hollingshead (1995) postulated five different methods that groups can use to reach consensus on a collective response: voting, turn taking, demonstration, random selection, and generation of a new alternative. Each of these ways of resolving disagreement can be represented probabilistically by a different decision rule or social combination model (Laughlin, 1980). Different social combination models can be tested by comparing the actual proportion of groups selecting each alternative to the expected proportion for each social combination model. These analyses take into account the observed distributions of individual preferences across the set of alternatives.

This approach has been used in dozens of studies and applied to many group tasks, including jury decisions (e.g., Davis, Bray, & Holt, 1977), group memory performance (Hinsz, 1990), mathematical problems (Laughlin & Ellis, 1986), collective induction (Laughlin, 1988), group decision making (Stasser & Titus, 1985), and other verbal problems (Laughlin, 1980). The general finding across those studies is that the social combination model or decision rule that best predicts or explains group choices varies depending on features of the task (Davis, 1982; Laughlin, 1980). Truth-wins or truth-supported-wins models best predict the underlying group process for intellectual tasks, that is, decisions for which there exists a demonstrably correct response within a verbal or quantitative conceptual system such as a math problem (Laughlin

& Ellis, 1986). Majority or plurality models best predict the group process for judgmental tasks and evaluative, behavioral, or aesthetic judgments for which there is no demonstrably correct solution.

FUNCTIONAL THEORY OF GROUP DECISION MAKING

The functional perspective has been used to explain how group communication contributes to, and inhibits, group decision-making and problem-solving effectiveness (Gouran & Hirokawa, 1983, 1996, 2003). From this perspective, successful group decision making and problem solving is most likely to occur when group interaction results in the fulfillment of the essential requirements of the task. If those requirements are not properly addressed, the chances of a group's making a good decision are greatly reduced.

Direct application of the functional perspective to the study of communication and group decision-making and problem-solving effectiveness is of relatively recent origin. The elements of the thinking embodied in this perspective, however, are traceable to the work of noted scholars such as John Dewey (1910), Robert Freed Bales (1950), and Irving Janis (1972, 1982, 1989; also see Janis & Mann, 1977). Especially influential was the work of Janis (1989), who helped to establish the view that group decision-making performance is directly tied to how well group members fulfill crucial task requirements during group interaction.

In its most recent applications, functional theory posits that effective group decision making and problem solving is most likely to occur when

1. Group members successfully satisfy five fundamental task requirements: (a) show a correct understanding of the issue to be resolved, (b) determine the minimal characteristics any acceptable alternative must possess, (c) identify a relevant and realistic set of alternatives, (d) examine carefully the alternatives in relationship to each previously agreed-upon characteristic of an acceptable choice, and (e) select the alternative that analysis reveals to be most likely to have the desired characteristics.

2. Group members employ appropriate interventions for overcoming cognitive, affiliative, and egocentric constraints that are interfering with the satisfaction of fundamental task requirements (Gouran & Hirokawa, 2003, p. 29).

A number of laboratory studies (e.g., Hirokawa, 1982, 1983, 1985, 1988; Hirokawa & Rost, 1992; Propp & Nelson, 1995) and case studies (e.g., Gouran, 1984, 1990; Gouran, Hirokawa, & Martz, 1986; Hirokawa, Gouran, & Martz, 1988) provide general support for the study of communication and group decision-making and problem-solving effectiveness from a functional perspective. In general, group members' assessment of the negative aspects of alternative choices is the best overall predictor of group decision-making efficacy (Orlitzky & Hirokawa, 2001). The effect of this functional variable appears to be moderated by the equivocality of the task. That is, assessment of negative qualities of alternative choices has generally been found to be most important for tasks that have several acceptable choices, none of which can easily and clearly be shown to be inherently better than other options. Other important functional variables are correct understanding of the issue to be resolved and determination of the minimal characteristics that a good choice must possess (Orlitzky & Hirokawa, 2001).

Although there is no empirical basis for concluding that the satisfaction of fundamental task requirements is a sufficient and necessary condition for effective group decision-making and problem-solving performance, the fact that case studies, experimental research, and descriptive laboratory investigations have yielded similar findings that group decision-making and problem-solving performance can be linked to group members' ability to fulfill crucial task requirements during group interaction lends credence to the study of communication and group decision-making and problem-solving performance from a functional perspective. Looking to the future, greater attention now needs to focus on the influence of input variables (e.g., group composition) on the fulfillment of crucial task requirements during group interaction.

GROUPTHINK

Groupthink theory, originally proposed by Irving Janis (1972), suggests that groups can be so strongly driven toward unanimity that this drive supersedes group members' motivation for thorough information processing and results in a poor-quality decision. Janis (1972, 1982) argued that groupthink can happen under three conditions: when the group is (a) highly cohesive, (b) insulated from ideas outside the group, and (c) under a great deal of stress (e.g., competitive environment or time constraints). Because groupthink promotes compromise and avoidance of disagreements in group decision making, this consensus-seeking tendency leads to incomplete survey of alternative courses of action, poor information search, selective bias in processing information, failure to evaluate alternatives realistically, and thus a high degree of likelihood of failure to reach group goals.

Reviews of the empirical evidence to date on the groupthink model have found support for the basic tenet of the theory that an overly strong drive for consensus will likely lead to group failure (see, e.g., Park, 1990; Turner & Pratkanis, 1998). However, these reviews have also suggested that two of the necessary conditions that Janis (1972, 1982) articulated may be neither necessary nor sufficient for groupthink to occur. Both high cohesion and high stress have come under increasingly skeptical scrutiny suggesting that they predict neither consensus seeking nor any of the other symptoms of groupthink. Insulation from outside ideas has, however, received consistent support.

Janis's (1972, 1982) groupthink model is a nice example of a functional theory in group research. First, it assumes groups are goal oriented. Each of the political and business decision-making groups that Janis (e.g., 1982, 1985, 1989) studied had clear policy and public relations goals. For example, the Nixon White House wanted to contain any information about the Watergate break-in, and the Kennedy ExCom wanted to initiate a popular revolution to overthrow the Castro regime in Cuba. Others who have followed Janis's lead in hypothesizing groupthink have also looked at simi-

lar groups with clear goals (e.g., Esser & Lindoerfer, 1989; Hensley & Griffen, 1986; 't Hart, 1990).

Janis's (1989) work also provided a clear normative standard by which to judge groups. Janis called this "vigilant decision making" and included (a) carefully surveying the range of objectives they want to achieve, (b) carefully reviewing and formulating action alternatives, (c) rigorously searching for information bearing on the likely consequences of each alternative, (d) analyzing incoming information bearing on the likely consequences of each alternative, (e) analyzing incoming information dispassionately and thoughtfully, (f) reconsidering once-rejected action alternatives when new information comes to light, (g) confronting trade-offs that arise as a result of the conflicting costs and preferred options, and (h) making the effort to complete detailed contingency plans should key assumptions underlying the preferred plan fail to hold. Specific advice for leaders includes (i) accepting criticism and (j) providing impartial leadership. Janis specifically argued that groups ought to be evaluated by this standard. He directly tested and confirmed this notion by comparing the number of aspects of vigilance groups achieved to a historical evaluation of each group's success (Herek, Janis, & Huth, 1987).

Third, Janis's groupthink work clearly implicates group process as the primary mechanism by which good and bad outcomes are reached. To illustrate this point, groupthink occurs when group cohesiveness and a provocative situational context work together such that the members like one another and want to draw social support from one another in the highly stressful situation. Groupthink teams place such a high priority on supporting each other emotionally that they choose not to challenge one another (i.e., concurrence seeking). In short, drive for consensus is the group process mechanism by which poor outcomes occur.

EXTERNAL SYSTEMS ORIENTATION

In his seminal work on teams, *The Human Group*, George Homans (1950) examined five case studies of groups and developed a comprehensive theory of small group behavior. Whereas

Homans first analyzed the group as a set of mutually dependent elements (activity, interaction, and sentiment), he did not solely model internal group process. Part of Homans's theory was to show that a group exists in an environment. The group is seen as a system that "reacts to the environment and may to some extent change it, is itself to some degree modified by the environment, and is constantly adjusting and readjusting within itself" (p. 90). The group and the environment are thus not cause and effect but a dynamic equilibrium. The environment consists of physical, technical, and social components.

Homans's work provides an external view of teams in that teams do not exist in isolation at one moment in time but rather enter into continuing cycles of interaction with the environment. These cycles can enter positive or negative feedback loops that result in improved or declining adaptation to shifting external conditions. The key here is that the environment presents some initial and subsequent conditions that interact with team member actions aimed at adaptation to those conditions.

Kurt Lewin, another early social psychologist, also viewed teams as existing in mutual interdependence with their environment. Lewin (1936) suggested that a team's ability to adapt to its environment is related to the permeability of its boundaries and the nature of the interactions across those boundaries.

Thus was laid the foundation of the external view of teams. The external view suggests that boundary activity is a major component of group process and one that plays a central role in predicting performance. Furthermore, it is not simply the amount of external communication that determines a team's performance but also the nature of that interaction (Ancona & Caldwell, 1992). Boundary activity is facilitated when the team boundaries are permeable. The link between boundary activity and performance is contingent on task uncertainty and complexity (Allen, 1984; Cummings, 2001; Hansen, 1999; Katz & Tushman, 1979).

The external view also emphasizes the role of the environment in shaping team process and performance and in turn being shaped by the team. Key aspects of the environment include the physical environment, team composition, organization structure, resources,

rewards, and leadership (cf. Becker, & Baloff, 1969; Hackman, 1987; Kiesler, 1978; Perrow, 1967; Sundstrom, 1999). Recent work on time and timing has also emphasized the temporal context of teams. Building on the work of McGrath and Rotchford (1983), it has been argued that temporal variables—pace, cycles, and rhythms—are key aspects of the environment that exert influence on teams. Using this temporal lens, the context is seen to play the role of external pacer, rhythm setter, creator of windows of opportunity, source of interrupts, and a key influence on the meaning of time (Ancona & Chong, 1996, 1999).

This work fits squarely in the functional perspective in that its quest is to discover what makes teams more effective. Furthermore, the predictors of effectiveness include input factors (e.g., the context) and process dimensions (e.g., boundary activity), following the input-process-output model. Its particular contribution is to highlight the impact of external boundary processes and contextual characteristics on predicting performance. Furthermore, this work highlights the interactions among internal process, external process, and performance. The key to understanding such dynamics is to move the research lens from looking inside the team for a moment to looking at the team in its environment over time.

COLLECTIVE INFORMATION SHARING

In organizational and political contexts, groups often are called on to make important decisions. Such decisions potentially can exceed the quality of decisions made by individuals, provided that group members effectively share their diverse sets of knowledge. Research suggests, however, that members of decision-making groups inadequately pool their unique knowledge. Instead, group members tend to discuss (shared) information that all members know at the expense of discussing (unshared) information known by a single member (e.g., see Stasser, 1999, and Wittenbaum & Stasser, 1996, for reviews). Failure to discuss unshared information can affect the quality of group decisions when the information is distributed among members as a hidden profile (e.g., Stasser & Stewart, 1992). In a hidden profile distribution, information sup-

porting a less desirable decision alternative is largely shared, whereas information supporting the optimal decision alternative is predominantly unshared. Members must, therefore, exchange unshared information to reach the best decision.

After the first demonstration of poor information sharing in groups by Stasser and Titus (1985), scholars attempted to develop theoretical explanations for why shared information dominates group discussions. These theories exemplify all three assumptions of the functional perspective. First, each explains a communication process that affects the performance of task-oriented groups, particularly those that reach decisions. Second, group decision quality is determined easily in a hidden profile task: The best option is the one supported by the group's collective knowledge. Third, each theory specifies inputs and processes that give rise to poor information sharing and decisions. Although new theories that explain the discussion bias continue to emerge (e.g., Greitemeyer & Schulz-Hardt, 2003), we will highlight just two as examples of the functional perspective.

Stasser (1992) explained the discussion bias in favor of shared information as due to probability. According to Stasser's (1992) information sampling model, information is randomly sampled for discussion from members' minds. Because shared information has more members' minds from which it can be sampled, it is more likely to be discussed than unshared information. This explanation reflects the functional perspective in that the number of members who know a piece of information (i.e., input) affects the probability of that information being recalled and thus discussed by the group (i.e., process). As a result, groups may fail to reach the best decision if information is distributed as a hidden profile (i.e., outcome). Stasser's model explains well why group members initially mention more shared than unshared information.

A second explanation for the discussion bias stems from members' need for social validation: the desire to ascertain the accuracy and relevance of information (Festinger, 1954). The advantage of this explanation lies in its ability to elucidate why group members favor repeating already-mentioned shared information (e.g., Stasser, Taylor, & Hanna, 1989; Winkvist & Larson, 1998). When

group members feel uncertain about the task or situation, they may look to others to determine the relative importance of their information. When shared information is mentioned, others can attest to the importance and accuracy of that information, making members feel more certain of their own and others' task capabilities (Wittenbaum, Hubbell, & Zuckerman, 1999; Wittenbaum & Park, 2001). Moreover, hearing that others hold the same information may make that information appear more valuable and relevant (Postmes, Spears, & Cihangir, 2001; Wittenbaum et al., 1999). Encouragement from others when shared information is mentioned may lead members to favor repeating such information. This explanation fits the functional perspective well in that shared information entered into discussion (i.e., input) elevates members' evaluations of that information and the speaker (i.e., process). The outcome is continued emphasis of shared information and therefore poor decision quality when unshared information is necessary to determine the best option.

TEAM CONFLICT MANAGEMENT

Research on conflict in groups and teams has its foundations in theories of negotiation (e.g., Pruitt, 1981) and conflict resolution (Deutsch, 1973) that focus on dyadic interactions of adversarial parties. Deutsch (1973), for instance, theorized that conflicts decrease goodwill and mutual understanding and have a tendency to escalate and expand. Therefore, the experience of conflict has long been associated with poor group performance (e.g., Evans, 1965; Guetzkow & Gyr, 1954). Past theories of group conflict assume that workgroups are goal oriented and that the social interaction to reach these goals inherently leads to conflict. There will be conflict over task distribution, resource allocation, differing viewpoints, and interpersonal problems as well.

The above perspectives, however, often ignore the task environment and the focus on problem solving and task performance that the functional perspective takes into account in predicting group activity and outcomes. Three distinct types of group conflict have been recognized and researched in the last decade in organizational

settings: task conflict, relationship conflict, and process conflict (Amason, 1996; Jehn, 1995, 1997; Jehn & Mannix, 2001; Jehn, Northcraft, & Neale, 1999; Pelled, 1996). This typology takes into account the problem-solving and task focus of the functional perspective as well as interpersonal relationships in groups.

Relationship conflict is defined as disagreement over personal issues not related to work. This type of conflict often is associated with animosity and annoyance between individuals. Similar to the view of conflict in the traditional theories, relationship conflicts deplete energy and effort that could be expended toward task completion and consolidation around mutual goals.

Task conflict is defined as disagreement about work-related issues. Task conflict, which is focused on content-related issues, can enhance performance quality. Critical debate among members and open discussion regarding task issues increases group performance because members are more likely to offer and evaluate various solutions, thus reaching optimal decisions and outcomes.

Process conflict among members is about logistical and delegation issues, such as how task accomplishment should proceed in the work unit, who's responsible for what, and how things should be delegated. To best understand the effects of process conflict, group processes must be examined over time. High performing teams have moderate process conflict during the early stage of group formation (i.e., arguments deciding who is best qualified to perform a specific task), low process conflict during the middle of group task performance while members focus on the task, and a slight increase in process conflict toward completion of the task as members again discuss roles and duties to efficiently and effectively finish the task.

From a functional perspective, the type of task the group performs, the outcome desired (i.e., satisfaction, productivity, innovation), and group norms moderate the relations between conflict and performance. If the task the group is doing is complex and non-routine, a moderate level of task conflict is more effective than no conflict in producing high-quality decisions and products. If the task is routine, has standard operating procedures, and is repetitive, low levels of task conflict are more effective for task completion. Regarding group outcomes, if you want your employees to be

happy interacting with one another, you will probably view all types of conflict as negative, but you will then have substandard performance due to low levels of task and process conflict. Group norms surrounding the acceptability of conflict and openness of conflict communication also influence the conflict-performance relationship. If groups have norms that encourage task debates but discourage personal attacks, the group is more likely to be a high-functioning team with members more likely to be satisfied with the interaction and likely to remain in the group.

GROUP BRAINSTORMING

Brainstorming is a technique developed by Alex Osborn (1949) to promote the generation of novel ideas. It has become a popular means for enhancing group ideation. Osborn emphasized that group ideation would be enhanced if groups followed four simple rules: deferring judgment, focusing on generating a high quantity of ideas, saying all ideas that come to mind, and building on ideas of others.

Although Osborn did not propose a formal theory of group ideation, his rules reflect several basic assumptions. These are that exposure to ideas from others is stimulating, limiting evaluation of ideas during the generation process will enhance the idea generation process, and generation of a large number of ideas will inevitably lead to generation of high quality ideas as well. Although there is now support for each of these assumptions (Diehl & Stroebe, 1987; Mullen, Johnson, & Salas, 1991; Paulus & Brown, 2003), much of the focus of the brainstorming literature has been on the production loss that occurs in brainstorming groups relative to similar numbers of individuals brainstorming alone (i.e., nominal groups). That is, interactive groups that share ideas orally typically generate only half as many ideas as nominal groups. This finding appears to be related to a number of factors. Group members may be inhibited by feelings of evaluation apprehension about reactions to shared ideas, they may feel a lowered motivation because of shared responsibility for group performance, and they may be blocked from sharing ideas by the competition for limited speaking

time. Each of these factors may facilitate the development of low performance norms (Paulus, Dugosh, Dzindolet, Coskun, & Putman, 2002).

Although oral brainstorming groups tend to perform poorly, recent theoretical models suggest that group idea sharing can be a basis for enhanced creativity. These models have focused primarily on cognitive stimulation potential of group interaction (Brown & Paulus, 2002; Nijstad, Diehl, & Stroebe, 2003). These models assume that ideas serve as stimuli for activation of concepts that are related through semantic networks. Ideas from others can have an impact on one's idea search process to the extent that those ideas generate ideas in related nodes or conceptual categories. Ideas from others will have an impact to the extent that one attends to those ideas and has relevant stores of knowledge. Ideas from others can "remind" one of one's own knowledge and can also allow one to build new connections. This is particularly true if one is interacting with a group that has some degree of knowledge diversity, since diverse group members can develop cognitive connections that are not possible in homogeneous groups.

Moreover, some of these benefits of group interaction may be most evident when the interaction process minimizes the negative effects of production blocking, evaluation apprehension, or social loafing. For example, the clearest demonstrations of positive effects of group brainstorming have involved procedures in which groups exchange ideas by means of writing or computers in which group members can continue generating ideas individually after the group interaction session. It also appears to be helpful to provide groups some degree of training or to use trained facilitators. It is clear from the present literature that oral brainstorming in face-to-face groups is typically not very effective. However, under the right conditions, group exchange processes can be structured to allow groups to tap their creative potential and outperform comparable numbers of individuals generating ideas without a social exchange process (see Paulus & Brown, 2003, for a review).

The brainstorming literature represents clearly the functional perspective on groups. Brainstorming groups are goal oriented in trying to achieve a high number of ideas and coincidentally high

quality ideas. The performance of groups is compared with the baseline of nominal groups to determine whether interaction is beneficial or harmful. Brainstorming is affected not only by the characteristics of the procedures and the group but also by the evaluative, normative, and motivational contexts in which the groups perform.

STRENGTHS AND WEAKNESSES

As the prior sections illustrate, theories underlying the functional perspective have been developed to describe, explain, and predict the relations between inputs, processes, and group performance. The strength of most of these theories is that they are testable. As a result of theory guided by the functional perspective, the group dynamics literature is filled with lessons for how group composition, structure, task-related goals, and interaction processes influence the effectiveness of groups and organizations. Managers and team leaders may use these lessons to implement interventions and training to help groups function more successfully.

The features that make the functional perspective attractive are also the qualities that contribute to its weaknesses. First, theory and research from the functional perspective ignore groups whose main purpose is to attain goals that are not task-related but rather are social-emotional. Therapy groups, social support groups, clubs, and Greek organizations are examples of groups with largely social-emotional goals.

Another weakness relates to the manner of assessing effective group action. Scholarship within the functional perspective evaluates group performance against some standard. The standard consists of normative criteria that identify how groups should perform. These criteria are typically based on a rational model that assumes that members should act in a manner informed by logic, facts, reason, and conscious deliberation. To the extent that group action reflects unconscious processes, social or political interests, incomplete information use, or irrational thinking, group performance is considered defective.

Theorists in the functional tradition generally assume that they understand group processes and outcomes better than do group members. However, such an approach fails to understand group processes from the perspective of the goals and interests of the group members. For example, a decision-making group may entertain jokes and small talk at the expense of discussing all unique information available to its members. Failure to select the best decision alternative may not, however, be a concern to the group whose main interest is to balance decision quality with cohesion maintenance. To the extent that the functional perspective rigidly views effective task accomplishment as the group goal, interesting processes regarding how groups satisfy multiple goals during task completion are not understood.

Because the functional perspective views group outcomes as the linear function of inputs and processes, it cannot explain cyclical, nonlinear group dynamics. Group action is presumed to result from a chainlike series of events, with outcomes representing an endpoint in the chain. However, certain inputs and processes might contribute to outcomes, which then contribute to different inputs and group processes. The functional perspective cannot account for complex, adaptive, dynamic systems over time (McGrath, Arrow, & Berdahl, 2000).

Finally, Pavitt (1994) argued that researchers studying group interaction from the functional perspective have not yet met the two theoretical commitments necessary for theory adoption: explanation and consistent description. To meet explanation, the theory must establish a set of functions necessary for successful group interaction, and it must include a persuasive account for why these functions are present in group interactions based on some type of generative mechanism capable of meeting those functions. Consistent description must include an account of the necessary functions that lie unambiguously on one level of abstraction. Pavitt believed that the search for a viable generative mechanism would be challenging for functional theorists, and suggested that researchers explore factors that influence group members' decisions about what they say during group interactions.

OPPORTUNITIES FOR FUTURE THEORY DEVELOPMENT

Even though most small group research has been conducted through the lens of the functional perspective, there is a great opportunity for researchers to develop more sophisticated theories about the relations between inputs, processes, and outcomes. Research from the functional perspective has focused on some inputs, processes, and outcomes to the exclusion of others. It focuses largely on outcomes related to group task performance and goals relating to production and effectiveness. Additional theory is needed to explore other outcomes such as member satisfaction and learning, group solidarity and viability, and organizational level consequences. Group maintenance and member satisfaction are other goals that might be served by functions (McGrath, 1991) and could be addressed through this perspective. Hackman and Walton's (1986) model of effective leadership is one of the few examples of theory that incorporates goals other than production. Another direction for functional perspective theory is to explore the interrelations among multiple types of task-related processes, including negotiation, decision making, and idea generation.

Finally, more theory is needed that delineates greater complexity between input variables, processes, and outcomes. Theory from this perspective could expand beyond simple input-process-output chains. Although most research from the functional perspective assumes that group processes have causal effects on group performance, there is a small literature that specifically suggests reverse causality: Past performance has a causal effect on future group process. In other words, that outputs affect processes rather than vice versa (Guzzo, Wagner, MacGuire, Herr, & Hawley, 1986; Staw, 1975). The possibility of reverse causality has received very little empirical or theoretical attention. A cyclic functional theory could include previous group outcomes as inputs into the input-process-output chain, allowing functional perspective research to begin examining dynamic systems.

CONCLUSION

The functional perspective provides a useful framework for understanding a variety of group performance issues. No doubt, its lessons will help researchers and practitioners to design environments and interventions that yield successful teams. Many questions still lie unanswered in the search to understand group performance. As a result, we hope that this article inspires additional theory and research within the functional perspective to help expand its scope and utility. No one perspective can do a sufficient job of explaining the full array of group experiences. We encourage readers to use the functional perspective in conjunction with other perspectives in this special issue to obtain a balanced approach to understanding small group processes.

NOTES

1. We use the terms *groups* and *teams* interchangeably throughout this article.
2. Our conception differs from other uses of the term *functional theory*, which relates to sociological and anthropological theories of societies or social systems in which social reality is seen as "objective" and emphasizes social structures as maintaining social order (Burrell & Morgan, 1979; Parsons, 1964). In contrast to our conception of the functional perspective, the underlying assumption in these functional theories is that the system itself does not intentionally set goals but, rather, certain goals are presumed by the theory, for example, survival, fit into the larger society, and so forth.

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