GROUP PERSONALITY COMPOSITION AND GROUP EFFECTIVENESS
An Integrative Review of Empirical Research

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This review examines relationships between group personality composition (GPC) and group effectiveness, focusing on four questions: (a) How have researchers operationalized GPC? (b) What criteria have been used as measures of group effectiveness? (c) Is GPC related to group effectiveness? (d) Under what conditions is GPC associated with group effectiveness? A review of 31 studies yielding 334 unique relationships distinguished task and relationship predictors and criteria. Findings indicate operational definitions of GPC are varied, variance scores correlate negatively with group effectiveness, and minimum scores predict as well as mean scores. GPC is related to group effectiveness, and the effect is stronger in field studies than lab studies. Implications are discussed.

Keywords: *group personality composition; personality; work teams; work groups*

Several events in the past 20 years have led to a resurgence of interest in the personality composition of work teams. First, personality has increasingly been found to be a valid predictor of performance (Hogan, Hogan, & Roberts, 1996), in part, because of the

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influence of the Big Five model of personality (Costa & McCrae, 1988; Digman, 1990). Second, research on groups has increased (Moreland, Hogg, & Haines, 1994; Neilsen, Sundstrom, & Halfhill, in press; Sanna & Parks, 1997; Sundstrom, McIntyre, Halfhill, & Richards, 2000). Third, business and industry have demonstrated a sustained increase in the use of work teams as well as a need for strategies designed to select group members (Lawler, Mohrman, & Ledford, 1998).

Work group and *work team* are defined as interdependent collections of individuals who share responsibility for specific outcomes for their organizations (Sundstrom, DeMeuse, & Futrell, 1990). Group effectiveness includes group performance and other elements of success, such as the extent to which "members' needs are more satisfied than frustrated by the group experience," and "the capability of members to work together on subsequent group tasks is enhanced or maintained" (Hackman & Oldham, 1980, p. 170). A later definition included performance plus viability, or the extent to which a group can continue to operate effectively in the future (Sundstrom, et al., 1990).

As work teams become more prevalent in business and industry, the need for effective strategies to staff these teams becomes more salient (Klimoski & Zukin, 1999). One important issue for staffing teams is the composition, or mix, of individual characteristics to put in to the team such as demographics, personal characteristics, knowledge, skills, and abilities (Halfhill, Sundstrom, Nielsen, & Weilbaecher, in press). Mohammed, Mathieu, and Bartlett (2000) noted that although the management literature has typically focused on demography and team performance (e.g., Jackson et al., 1991), the industrial-organizational literature has begun to focus on less-traditional aspects of group composition, such as the mix of cognitive ability, personality, and effectiveness (Barry & Stewart, 1997; Tziner & Eden, 1985). As a result, the literature on group personality composition (GPC) and group effectiveness has grown, enabling a review of the collective findings.

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The purpose of this review is to synthesize the available empirical literature on GPC and work group effectiveness. To date, such a review does not exist, and future empirical studies on the topic would benefit from an integration of the literature. The review attempts to address four questions: (a) How have researchers operationalized GPC? (b) What criteria have been used as measures of group effectiveness? (c) Is GPC related to group effectiveness? (d) Under what conditions does GPC correlate with measures of group effectiveness?

ANALYTICAL FRAMEWORK

Within the body of work on GPC, two major thematic categories have generated a substantial number of primary studies and are particularly important to future scholarly work in the area. In general, the way we broadly categorize personality traits (task vs. relationship) and, more specifically, the way we operationally define the traits are salient components of the current analytical framework.

Task-relationship dichotomy. The notion of a task and relationship (interpersonal or socioemotional) dichotomy in general group functioning is well established (McGrath, 1984) and is similar to what some call *taskwork* and *teamwork* (e.g., Morgan, Glickman, Woodward, Blaiwes, & Salas, 1986). The GPC literature also entertains this task and relationship distinction. Task orientation, or in this case, task-oriented personality traits, refers to those traits that aid in the completion of work-related activities (e.g., conscientiousness and achievement motivation), whereas relationship-oriented personality traits facilitate the interpersonal interactions necessary to work as a member of a team (e.g., agreeableness and cooperation). This task-relationship distinction is also perceptible among criterion measures. Task-oriented criteria measure various components of group performance (e.g., quality, quantity, and so on), and relationship-oriented criteria measure the social, or relationship aspects of group effectiveness (e.g., viability and cohesion). The resulting dichotomy in predictors and criteria produce four possible predictor-criterion combinations: task predictor –

task criterion, task predictor – relationship criterion, relationship predictor – task criterion, and relationship predictor – relationship criterion.

Operational definitions of GPC variables. Barrick, Stewart, Neubert, and Mount (1998) noted that researchers typically adopt one or more of several methods of operationalizing team composition. The most common method is to calculate the mean score for the group and works under the assumption that the amount of the characteristic possessed by each individual increases the collective pool of that characteristic. This collective increase is presumed to have positive or negative impacts on the group, regardless of how it is distributed within the group.

A second method of operationalizing team composition is to assess the variability of individual personality traits. The variance and range of individual scores and proportion of team members possessing a particular trait are three ways to operationalize variance.

A third approach focuses on the minimum and maximum scores in the group. There are two ways to conceptualize the effects of this operationalization. Barrick and colleagues (1998) noted that this method assumes that one individual can significantly affect the group outcome and is measured simply by taking the lowest or highest score within the group. Examples of where this method is useful are in problem-solving groups (highest) and assembly-line work (lowest). Another way to conceptualize the effects of the minimum and maximum group scores is to think in terms of group norms. The minimum group score might represent a norm floor, and the maximum score a norm ceiling within the group.

REVIEW OF AVAILABLE RESEARCH

The literature search included major journals in industrial-organizational psychology, management, social psychology, and related disciplines and sought empirical studies of GPC and group effectiveness. Also included in the search were reference lists of

reviews of research on work groups (Cohen & Bailey, 1997; Guzzo & Dickson, 1996; Sundstrom, et al., 2000). Projects were included when researchers (a) examined aggregates labeled as work groups, task-performing groups, or decision-making groups; (b) measured individual personality with a task- or relationship-oriented trait, or both; (c) measured some group-level outcome; (d) reported results at the group level of analysis; and (e) studied at least two work groups and/or two times of measurement.

Studies were not included when (a) the focus was on the individual level of analysis (e.g., Stewart, 1996); (b) the personality trait was not relevant to the review (e.g., George, 1990); (c) specific personality traits were not identifiable among a larger set of personality traits in the analysis (e.g., Aamodt & Kimbrough, 1982; Stagner, 1969; Terborg, Castore, & DeNino, 1976); (d) the sample comprised a psychiatric population (e.g., Spring & Khanna, 1982); (e) group outcome was not specified (e.g., Haythorn, Altman, & Myers, 1966); or (f) insufficient data was provided for analysis.

STUDIES EXAMINED

General findings are presented first, followed by findings specific to the four research questions. The literature search yielded 31 empirical studies that met all criteria. They span from 1972 (Bouchard, 1972) to 2002 (Neuman, 2002), incorporating more than 1,400 groups with a combined membership of more than 6,700 individuals. The average number of teams per study is 46, and the average group included approximately five members. Nearly equal numbers of laboratory studies (16) and field studies (15) were represented. Among the 31 studies were 69 personality predictors, averaging more than 2 per study ($M = 2.33$), and more were relationship ($n = 37$) than task ($n = 32$) oriented. Fifty-eight criteria were present, ($M = 1.93$), with far more task ($n = 45$) than relationship ($n = 13$).

Several types of teams were represented in the review. Laboratory studies were dominated by problem-solving teams (71%), followed by brainstorming groups (29%). Field studies were more

diverse, with service teams being the most frequent (50%). Production teams were next (25%), followed closely by management teams (17%) and action and/or performing teams (8%). Table 1 lists each study, type and number of work groups, their size, and number and type of predictors and criteria.

FINDINGS

HOW HAVE RESEARCHERS OPERATIONALIZED GPC PREDICTORS?

The Big Five (conscientiousness, agreeableness, neuroticism, openness, and extraversion) model of personality (Barrick & Mount, 1991) has gained considerable attention, perhaps accounting for its pervasiveness among the predictors observed. Conscientiousness was the most frequently used task predictor—present in 12 of 31 studies, occurring twice as often as the next most-frequent task predictor. Openness was the next most-frequent task predictor, present in 6 of the 31 studies. In all, we found nine different personality traits used as predictors of group effectiveness (trust, achievement motivation, task orientation, and Machiavellianism—in addition to the Big Five). Relationship-oriented personality predictors were slightly more varied than their task counterparts, and slightly more abundant as well. Rounding out the Big Five, extroversion, agreeableness, and emotional stability were the only personality traits used in more than one study, except trust, a facet of agreeableness.

WHAT EFFECTIVENESS CRITERIA HAVE RESEARCHERS USED?

Because this review sought to explore relationships between task- and relationship-oriented predictors and criteria, those criteria that did not fit into one of these categories were not included. For example, commitment, satisfaction, as well as customer satisfaction have elements of task and relationship orientation and were not included.

(text continues on page 92)

TABLE 1: Studies Included in the Review and Their Characteristics

					Predictors			*Predictor Operationalization*						*Criteria*			*# of Correlations Per Study*				
Brief Study	*# Teams*	*Team Size*	*Field/ Lab*	*Type Team*	*Total*	*Task*	*Rel.*	*Total*	M	*Min.*	*Max.*	*Vari.*	*%*[a]	*Total*	*Task*	*Rel.*	*Total*	*Task Task*[b]	*Task Rel.*	*Rel. Rel.*	*Rel. Task*
Barrick, Stewart, Neubert, & Mount (1998)	51	13	F	Production	4	1	3	4	x	x	x	x		4	1	3	64	4	12	36	12
Barry & Stewart (1997)	61	4	L	Problem solving	5	2	3	1					x	2	1	1	10	2	2	3	3
Bond & Shui (1997)	17	6	L	Problem solving	5	2	3	2	x			x		2	1	1	80	16	16	24	24
Brandstatter & Farthofer (1997)	4	7	L	Problem solving	3	1	2	1	x					1	0	1	9	0	3	6	0
Brandt (2000)	50	3	L	Decision making	2	1	1	1	x					3	2	1	6	2	1	1	2
Buchanan & Foti (2000)	65	3	L	Brainstorming	4	3	1	1	x					2	1	1	8	3	3	1	1
Burningham & West (1995)	13	5	F	Production	1	1	0	1	x					1	1	0	1	1	0	0	0
Camacho & Paulus (1995)	50	4	L	Brainstorming	1	0	1	1	x					1	1	0	1	0	0	0	1
Dirks (1999)	42	3	L	Problem solving	1	1	0	1	x					2	2	0	2	2	0	0	0
Eigel & Kuhnert (1996)	89	5	F	Management	1	0	1	1	x					1	1	0	1	0	0	0	1
Eller & Offerman (2001)	32	4	L	Problem solving	1	0	1	1	x					2	2	0	2	0	0	0	2

(continued)

TABLE 1 (continued)

					Predictors			*Predictor Operationalization*						*Criteria*			*# of Correlations Per Study*				
Brief Study	*# Teams*	*Team Size*	*Field/ Lab*	*Type Team*	*Total*	*Task*	*Rel.*	*Total*	M	*Min.*	*Max.*	*Vari.*	*%*[a]	*Total*	*Task*	*Rel.*	*Total*	*Task Task*[b]	*Task Rel.*	*Rel. Rel.*	*Rel. Task*
Halfhill, Weilbaecher, & Sundstrom (1999)	31	5	F	Action/ Performing	2	1	1	4	x	x	x	x		2	2	0	16	8	0	0	8
Halfhill, Sundstrom, & Nielsen (2001)	40	?	F	Service	2	1	1	5	x	x	x	x	x	4	2	2	40	10	10	10	10
Halfhill & Sundstrom (2001)	60	4	F	Service	2	1	1	4	x	x	x	x		1	1	0	8	4	0	0	4
Hendrick (1979)	40	5	L	Problem solving	1	1	0	1	x					1	1	0	1	1	0	0	0
Hyatt & Ruddy (1997)	100	7	F	Service	4	1	3	1	x					6	6	0	24	6	0	0	18
Jaffee, Nebenzahl, & Gotesdyner (1989)	28	5	F	Management	2	2	0	1	x					1	1	0	2	2	0	0	0
Janz, Colquitt, & Noe (1997)	27	9	F	Service	1	1	0	1	x					3	2	1	3	2	1	0	0
Jones & White (1983)	32	4	L	Management simulation	2	1	1	1	x					1	1	0	2	1	0	0	1
Kabanoff & O'Brien (1979)	48	3	L	Problem solving	1	1	0	1	x					1	1	0	1	1	0	0	0
Kickul & Neuman (2000)	67	5	L	Decision making	3	2	1	1	x					1	1	0	3	2	0	0	1
Lamm & Myers (1976)	24	4	L	Problem solving	1	1	0	1	x					1	1	0	1	1	0	0	0
LePine, Hollenbeck, Ilgen, & Hedlund (1977)	34	4	L	Problem solving	1	1	0	1		x				1	1	0	1	1	0	0	0

Luther (2000)	8	14	F	Production	1	0	1	1	x					1	1	0	1	1				
Mohammad, Mathiew, & Bartlett (2000)	50	5	F	Service	4	1	3	1	x					2	1	1	8	1	1	3	3	
Neuman (2002)	76	4	F	Production	3	1	2	1		x				3	2	1	9	2	1	2	4	
Neuman, Wagner, & Christiansen (1999)	82	4	F	Service	5	2	3	1	x					1	1	0	5	2	0	0	3	
Neuman & Wright (1999)	79	4	F	Service	5	2	3	1		x				3	3	0	15	6	0	0	9	
Spreitzer, Noble, Mishra, & Cooke (1999)	43	6	F	Production	1	0	1	1	x					1	1	0	1	0	0	0	1	
Waung & Brice (1998)	40	3	L	Brainstorming	1	1	0	1	x					2	2	0	6	6	0	0	0	
Williams & Sternberg (1988)	32	3	L	Problem solving	2	1	1	2	x		x			1	1	0	3	1	0	0	2	
		15	F																			
Sum	1,415	149	16	L	72	34	38	46	27	7	5	5	2	58	45	13	336	88	50	86	110	
Mean	45.64				2.32	1.09	1.22	1.48						1.87	1.45	.41	10.77	2.83	1.61	2.77	3.54	

NOTE: Rel. = Relationship oriented.
a. Percentage of group members scoring above the sample mean.
b. Top refers to predictor, bottom refers to criterion.

Task-oriented outcome criteria. Group performance was by far the most frequent criterion measure, present in nearly one half of the studies (41%). In field studies, a supervisor or team leader typically rated team performance (e.g., Barrick et al., 1998). In one study, (Eigel & Khunert, 1996) productivity was measured by calculating the percentage sales change, percentage profit change, and a percentage change in customer satisfaction during the previous year for the team. In laboratory studies, group performance was typically a group score or outcome of a group problem-solving exercise (Bouchard, 1972; Williams & Sternberg, 1988), or a rating provided by an instructor or observer (Barry & Stewart, 1997).

Quantity consisted of total number of ideas for brainstorming groups (Bouchard, 1972), percentage of incomplete or unfinished service calls for maintenance teams (Hyatt & Ruddy, 1997), and percentage of days that team task assignments were completed within scheduled time limits (Neuman & Wright, 1999). Bouchard (1972) measured quality of ideas for problem-solving groups by rating the ideas on a 5-point scale. Similarly, Williams and Sternberg (1988) used multiple raters to assess the overall quality of a solution to a problem.

Efficiency was measured in the Dirks (1999) study using a ratio of the group's actual performance to its expected performance. Expected performance was calculated by summing each individual's best performance in individual trials of a tower-building exercise. Actual performance was the average number of blocks a group included in the tower. Accuracy (Neuman & Wright, 1999) was assessed as percentage of forms processed by service teams without error for the year.

Relationship-oriented outcome criteria. Perhaps the most telling statistic in this category is the general lack of relationship-oriented outcome criteria used in the 31 studies. Even though there were eight different measures, only group cohesion was used in more than two studies, and conflict and viability were each present in two studies. Shared exchange (Bond & Shiu, 1997) is a composite of several scales in which group members rated team process. These items focused on areas such as free exchange of opinions,

relaxed atmosphere, constructive arguments, and empathy among members. Influence (Brandstatter & Farthofer, 1997) consisted of peer ratings among group members (including themselves) with respect to influence on the process and outcome of group work. Similarly, Mohammed and colleagues (2000) used peer ratings to assess the extent to which individuals volunteered and cooperated with one another while performing as a team member (contextual performance). Interpersonal skills (Neuman & Wright, 1999) included measures of conflict resolution and team communication.

Task-oriented criteria were more prevalent than relationship-oriented criteria, and task performance was the most widely used criteria in laboratory and field studies. A surprisingly low number of relationship criteria were used in general, as well as a conspicuous lack of viability, given the importance of the interpersonal aspects of group functioning.

IS GPC RELATED TO GROUP EFFECTIVENESS?

Table 2 lists the results of the predictor-criteria relationships found in this review. Across the 31 studies we catalogued 334 individual GPC predictor-criteria relationships. The mean score operationalization accounted for more than one half of the total relationships ($n = 171$), variance accounted for 21% of the total ($n = 70$) and the minimum score 14% ($n = 46$). The mean, minimum, and variance operationalizations produced the strongest average correlations, although the average variance correlation was negative in direction. The maximum group score and percentage of group members scoring above the mean produced weak, mean correlations. Having established that the variance operationalization is negatively correlated with group outcomes, we excluded it from several analyses where a positive relationship was expected (e.g., mean correlations for predictors and criteria in Table 2).

Task predictors – task outcomes. Among the studies in this review, 85 relationships were identified that compared task-oriented predictors with task criteria. Forty-six of these relationships were operationalized as the average group score, 15 as the

TABLE 2: List of Predictor-Criteria Relationships

Predictor-Criteria Relationship			*Predictor Operationalizations*					*Result*		
Predictor	*Criteria*	*N of r's*	M	*Minimum*	*Maximum*	*Variance*	%[a]	*Range*	M r[b]	*% Significant*[c]
Task	Task	85	46	15	6	14	4	(–.44) to (.73)	.15	37%
Relationship	Relationship	86	34	13	11	23	5	(–.52) to (.54)	–.01	34%
Task	Relationship	50	22	6	5	13	4	(–.64) to (.70)	–.03	18%
Relationship	Task	115	69	12	10	20	5	(–.52) to (.55)	.12	26%
Total		336	171	46	32	70	18			
Mean *r*			.13	.14	.05	–.13	.05			
Median *r*			.15	.17	.04	–.12	–.02			

NOTE: a. Refers to the operationalization of the predictor, in this case, percentage of group members scoring above the mean.
b. Median score is calculated without variance scores due to the proposed negative relationship with performance
c. Number of significant correlations divided by total number of correlations.

minimum group score, 14 as variance, 4 as percentage of group members scoring above the mean, and 6 as maximum group score. The correlations ranged from –.44 to .73, with a median correlation of 0.43. Thirty-one of the 85 relationships were significant (37%).

Relationship predictors – relationship outcomes. There were 86 reported relationships between relationship-oriented predictors and relationship-outcome criteria. Thirty-four were operationalized as the mean score, 13 as the minimum, 23 as the variance, 11 as the maximum score for the group, and 5 as percentage above the mean. Correlations ranged from –.52 to .54, with a median correlation of –.01. Approximately 34% of the reported correlations were significant.

Task predictors – relationship outcomes. Fifty relationships were found for the task-oriented predictor – relationship criteria analysis. The mean score was found in 22 relationships and minimum scores in 6. Variance included 13 unique relationships between task predictors and relationship criteria, maximum included 5 and percentage above the mean included 4. Correlations ranged from –.64 to .70, with a median correlation of –.03. Of the reported correlations, 18% were significant.

Relationship predictors – task outcomes. There were 115 relationships between relationship-oriented predictors and task criteria. More than one-half of these ($n = 69$) were mean scores, 12 were minimum, 20 were variance, 5 were percentage of members scoring above the mean, and 10 were maximum group scores. Correlations ranged from –.52 to .55, with a median correlation of ($r = .12$). Of the reported correlations, 26% were significant.

UNDER WHAT CONDITIONS DOES GPC CORRELATE WITH GROUP EFFECTIVENESS?

We attempted to treat type of team as a moderating variable; however, the number of available studies for many types of teams resulted in either empty cells or $N < 3$. The next logical moderator

TABLE 3: Type of Study (Lab vs. Field) as a Moderator of the Relationship Between Predictors and Criteria

Type of Study[a]	N	*Range*	*Sample Mean* r[a]	*% Significant*[b]
Laboratory				
Task - Task	37	(–.41) to (.72)	.29	24%
Relationship - Relationship	35	(–.52) to (.54)	.01	3%
Task - Relationship	25	(–.64) to (.13)	–.01	12%
Relationship - Task	36	(–.52) to (.55)	.16	8%
Total	133			
M	33	(–.52) to (.49)	.11	12%
Field				
Task - Task	48	(–.44) to (.73)	.18	46%
Relationship - Relationship	51	(–.51) to (.53)	.18	55%
Task - Relationship	25	(–.39) to (.7)	.16	24%
Relationship - Task	79	(–.24) to (.49)	.19	34%
Total	203			
M	50.75	(–.40) to (.61)	.18	40%

NOTE: a. Variance scores are not included in these analyses due to the expected negative relationship with performance
b. Number of significant correlations divided by number of reported correlations.

appeared to be type of study, laboratory versus field. Table 3 shows type of study moderating the relationship between personality predictors and criteria. Similar to Table 2, variance scores are not included in the calculation of the sample-weighted mean because of the expected positive relationship.

GPC is particularly weak in predicting relationship-oriented group effectiveness in the laboratory. In the field, however, the sample-weighted mean correlation increases dramatically and is just as predictive for relationship criteria as for task criteria. In addition, the percentage of correlations reported as significant more than doubled in nearly every instance.

DISCUSSION

This review attempted to address four questions related to GPC and group effectiveness and was successful at addressing each of them to the extent of furthering our understanding on the subject and prompting future research. Our first research question, “How

have researchers operationalized GPC?" revealed several interesting findings. First, we learned that most GPC research has focused on Big Five traits (Barrick & Mount, 1991). This is a step in the right direction, as researchers will soon be able to determine the effects of specific traits on GPC and group effectiveness, much similar to what the individual literature has done (Hurtz & Donovan, 2000). Of course, the other side of the argument is that we may be limiting ourselves to a finite set of traits not representative of the broad domain of personality (Hough, 1992). Surprisingly, we found more relationship-oriented predictors than task-oriented predictors. Relationship-oriented personality traits such as agreeableness, emotional stability, and helpfulness may be extremely helpful in collaborative work environments. If the economy is shifting to a service orientation where collaborative work environments thrive, we would expect this trend of relationship-based predictors to continue to grow and become increasingly salient.

Specific operationalizations of predictors also yielded interesting findings. The most significant, in our opinion, was the negative relationship between the variance operationalization and group effectiveness. This implies that groups homogenize around certain personality variables, and the more heterogeneous the group becomes the more likely performance will decrease. We can only speculate as to why this might occur; however, a good guess likely involves increased conflict in the group resulting from the dispersion. Employees may refer to this phenomenon as a personality clash (Vaccaro, 1988). Future research should determine if group conflict mediates the relationship between GPC variance and group effectiveness. It was also surprising to find that the minimum personality score for the group correlated just as strongly as the mean score with group effectiveness.

One explanation for this finding involves Schneider's (1987) attraction-selection-attrition (ASA) framework. In this model, individuals are attracted to an employer based on perceived personality fit. The employer and prospective employee determine if the attraction is substantive, resulting in a hire decision. If the employee does not fit, he or she eventually leaves. Although initially aimed at the organizational level, we believe the ASA framework is applicable

to the group level as well. If individuals and work teams do engage in the ASA process, groups would homogenize around a core set of personality traits. Deviation from those traits might evoke intragroup conflict, resulting in decreased group effectiveness. This may help explain why minimum group scores predicted group effectiveness as well as (and sometimes better than) mean scores. If groups do, in fact, homogenize around a core set of traits in time, then perhaps mean scores are range restricted for mature groups, and minimum scores emerge as more robust predictors of group effectiveness. In addition, according to the framework, maximum group scores would be even more range restricted, perhaps to the point where there simply is not enough variance to be useful in predicting group effectiveness. This is clearly an area in need of further research.

Our second research question asked, "What criteria have been used as measures of group effectiveness"? In the case of task criteria, the answer is clear—group performance. Measures of quantity, quality, and productivity augmented supervisor ratings of group performance and individual performance appraisals to account for most of the variance in task criteria. Relatively few relationship criteria were found. Group viability was present in only two cases. We call on researchers and journal editors to expect group viability to be present in a group study purporting to assess group effectiveness.

Third, we wanted to determine if GPC was related to group effectiveness. The answer is *yes*: Group personality composition is positively associated with group effectiveness. When criteria are task oriented, task and relationship predictors are associated with group effectiveness. However, no relationship exists when criteria are relationship oriented. We felt that the most logical explanation for this finding had to do with research setting. Groups assembled in a laboratory for a short period have three distinct disadvantages regarding GPC and group effectiveness. First, the focus for the group is typically limited to task accomplishment; that is, the task is often their only reason for working collaboratively, and measuring relationship criteria seems misaligned with the purpose of laboratory experiments (unless, of course, they are specifically designed

for this purpose). Second, the short time period often restricts degrees of freedom for relationship predictors to emerge. Third, relationship criteria such as cohesion and viability do not have time to develop. Thus, measuring these variables seems pointless for groups arbitrarily assembled. Given these limitations, it seemed necessary to determine if research setting moderated the GPC group-effectiveness relationship.

Our fourth and final question asked, "Under what conditions does GPC correlate with group effectiveness?" We wanted to assess the moderating effects of type of team but were limited in our number of studies. We were able to address the research setting question however, and the answer is clear: Research setting moderates relationships between GPC and group effectiveness. In field studies, relationship predictor – relationship criteria and task predictor – relationship criteria relationships were as powerful as task predictor – task criteria and relationship predictor – task criteria relationships. Relationship criteria seem much more important in the field than in the lab. In fact, laboratory correlations involving relationship criteria continued to approach zero.

Percentage of significant findings was very different for laboratory and field studies. For all four conditions, the percentage of significant correlations decreased for laboratory studies and increased for field studies, relative to the overall (premoderator breakdown) percentages.

LIMITATIONS

Available research dictated that we integrate a small number of studies, and had this been a quantitative review the number of studies integrated may have been questionable (although certainly not without precedent). However, there were sufficient studies to address the four research questions, which were intended to guide future research efforts. The importance of addressing the questions with respect to future research endeavors should be obvious. For example, it is now clear that variability in GPC is inversely related to group effectiveness. Although we have not figured out the nuances of the relationship (e.g., which traits are negatively associ-

ated with particular group outcomes), we now have the impetus to begin this line of research. We also recognize that some of the GPC variables may not fit nicely into a task or relationship category (e.g., satisfaction). However, by eliminating some of the so-called noise found in the middle we believe that the relationships found will only strengthen with a more pure dichotomy but unfortunately would leave us with too few studies to integrate.

SUMMARY AND CONCLUSIONS

The increasing use of teams and collaborative work necessitates that academicians focus on research strategies aimed at explaining group processes associated with more effective outcomes. The findings of this review have produced four unique contributions to the group composition literature that merit dissemination. First, and perhaps most important, is that GPC is positively related to group effectiveness; however, there are caveats. The first caveat is that variability has detrimental effects regarding group effectiveness. Caveat two is that minimum scores predict as well as mean scores. Caveat three, although GPC is related to group effectiveness, the association is much stronger in the field than in the laboratory.

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