

THE NATURE OF NORMS IN INDIVIDUAL SPORT TEAMS

MICHELLE M. COLMAN

ALBERT V. CARRON

University of Western Ontario, Canada

It has been suggested that the salience and legitimacy of norms for performance excellence are universal in all sport teams. However, the different task structures within sport influence the nature of interactions, which in turn, may influence the development of team norms. Thus, one purpose of this study was to examine the strength of group norms in individual sport teams. A second purpose was to determine the relationship between those norms and self-reported behaviors reflective of the norms. Participants (N = 97) of university-level individual sport teams completed a questionnaire, which assessed performance norms and behaviors for practice, competition, off-season, and team social functions. The results provided support for the conclusion that normative expectations in individual sport teams exert a weak influence. Also, generally, individual perceptions of the strength of team norms were unrelated to self-reported behaviors. The results were discussed in terms of the dynamics of the group task.

When an individual joins a group, feelings of uncertainty generally arise as a result of a lack of knowledge about how members should or should not act (Shaw, 1981). Through subsequent interaction and communication with other members, however, collective expectations regarding appropriate and inappropriate behavior become apparent. Collective expectations pertaining to appropriate and inappropriate behaviors represent group norms (Carron & Hausenblas, 1998).

In all groups (sport teams, military units, business teams, and so on), the development of common expectations (i.e., norms) contributes to a stable group structure and increased group effective-

ness (Mullen & Copper, 1994; Roethlisberger & Dickson, 1975; Shaw, 1981). In fact, group norms are assumed to serve two critical functions (Carron, 1981). One is an integrative function: Individuals who accept the norms are drawn into the group and the continuation of the group is ensured. A second is an informational function: Members are provided with knowledge about the group's reality and afforded standards against which to compare personal behavior. Interactions among group members—both task and social—are a foundation for the establishment of group norms (Mills, 1967). The significance of specific behaviors is clarified, and individual members are able to make decisions consistent with group expectations. As Vroom (1969) has noted, "Interaction among group members tends to decrease the variance in their behavior" (p. 223).

Vroom's (1969) comment notwithstanding, "Groups do not establish norms around every conceivable behavior or situation. Rather norms evolve around matters that are considered most important" (Munroe, Estabrooks, Dennis, & Carron, 1999, p. 171). Thus, not surprisingly perhaps, research with groups in which a fundamental criterion for success is performance—industrial units, sport teams, army units, for example—has focused almost exclusively on the norm for productivity (e.g., Berkowitz, 1956; Kim, 1995; Miesing & Preble, 1985; Prapavessis & Carron, 1997). In research conducted to date with sport teams, it has been demonstrated that the norm for productivity is positively associated with team leadership, team cohesion, and team success (Kim, 1992a, 1992b, 1995; Prapavessis & Carron, 1997).

This study extended previous research on group norms in sport teams by addressing five issues. The first was associated with the degree to which norms are present in individual sport teams (e.g., wrestling). Groups differ on the basis of fundamental processes, such as task dependence or interdependence and task-related interactions and communication, a point that has long been acknowledged in industrial psychology (e.g., Thompson, 1967), group dynamics theory (e.g., Steiner, 1972), and sport psychology (Donnelly, Carron, & Chelladurai, 1978). Thus, one way in which team and individual sports can be distinguished is by the level of task

interdependence among group members. In individual sports (e.g., wrestling), athletes practice and compete independently; they have relatively few required task interactions and communications. Consequently, it might be predicted that performance-related norms (i.e., collective expectations for the behavior of other members of the team) would be weak.

On the other hand, there is some evidence to support the prediction that performance-related norms would be strong in individual sports. In their meta-analysis, Mullen and Copper (1994) found that the strongest cohesion-performance effects were observed in sport teams, followed by military groups and nonmilitary real groups; the weakest effect was present in artificial groups (e.g., laboratory groups). Furthermore, when they compared groups differentiated on the basis of task type—the degree of interaction required to carry out the group task—no differences were found in the magnitude of the cohesion performance relationship. Mullen and Copper suggested that one characteristic of sport (i.e., in contrast to the other types of groups examined) that might have accounted for their results is the “salience and legitimacy of standards of excellence” (p. 224). Thus, on the basis of the Mullen and Copper findings, it might be predicted that performance-related norms would be strong in individual sport teams.

A second issue addressed in this study pertains to the relatively restricted focus of operational definitions for performance-related norms. Generally, it has been considered to be the level of work output or degree of effort expended. There is no doubt that fundamentally, team success is influenced by member work output and effort expended. However, recently, in a qualitative research study, Munroe et al. (1999) identified norms associated with a wide variety of performance-related behaviors, including, for example, attendance, punctuality, and concentration. These performance-related behaviors could be expected to influence behavior in practice and, ultimately, team success in competitions. Thus, in the present study, the presence and strength of a variety of norms associated with group performance were examined in individual sport teams.

A third issue addressed in this study arises from the limited context in which group norms for productivity have been examined to date. Previous research in sport has focused mainly on the impact of productivity norms associated with competition. However, Munroe et al. (1999) found that sport teams also establish productivity norms for practices and the off-season as well as for competitions. Thus, in the present study, the presence and strength of productivity norms in individual sports was examined for the off-season, practices, and competitions.

A fourth, highly related issue (i.e., highly related to the third issue) arises from the limited types of norms examined. Undoubtedly, norms are established around matters of importance to the group. It is unlikely, however, that the only matters of importance in task-oriented groups are those involving productivity, performance, and group achievement. Historically, the group dynamics literature has repeatedly drawn attention to the instrumental (task) and social aspects of group involvement (e.g., Festinger, Schacter, & Back, 1963; Fiedler, 1967; Lewin, 1935; Mikalachki, 1969). Thus, collective expectations could be expected to develop around task and social issues and situations. In fact, Munroe et al. (1999) identified a number of norms of a more social nature in the context of team social situations. Consequently, in the present study, the presence and strength of social norms in individual sports was examined for team social functions.

If norms reflect collective expectations for behavior, it is reasonable to expect that individual team members who perceive that a strong expectation exists in the group for a specific behavior (e.g., attendance) would behave in a manner consistent with that expectation. Therefore, a final issue addressed in this study pertained to the relationship between perceptions of the presence of team norms and self-reported behaviors indicative of those norms.

In summary, the general purpose of this study was to examine team norms in individual sports in four contexts: practices, competitions, social situations, and the off-season. Within the framework of this general purpose, two questions were examined. The first

focused on the strength of team norms in individual sport teams. The norms assessed were associated with attendance, productivity, and concentration in competitions; attendance, productivity, and concentration in practice situations; productivity and maintenance of contact in the off-season; and attendance, inclusion of others, and interaction with others in social situations.

Shaw (1981) posed the question, "How many group members must accept a standard of conduct in order for it to become a norm? Everyone? A majority?" (p. 279). He then went on to suggest,

It is clear that one cannot point to an exact proportion of group members that must accept a rule before it becomes a norm, but it is also clear that a norm is rarely accepted by all members of the group. Most students of group dynamics regard a standard as a norm if more than half of the group members agree that it is a norm. (p. 279)

The rule of thumb proposed by Shaw is useful. However, it seems unlikely that the social influence exerted by others is a "50% or none" phenomenon. Research examining both the "social influence model" (Tanford & Penrod, 1984) and the "social impact model" (Latané & Wolfe, 1981) shows that the presence of a small number of supportive others has an impact on individual behavior.

The second question examined focused on the relationship between perceptions of the presence of a team norm and individual self-reported behaviors reflective of those norms. Thus, (a) norms for attendance at practices, competitions, and social events were correlated with composite measures that reflected attendance (i.e., absenteeism, punctuality); (b) norms for productivity at practices, competitions, and the off-season were correlated with assessments of perceived exertion in those three contexts; (c) norms for inclusion of others and interaction with others in social situations were correlated with measures of social cohesion; (d) norms for concentration during practices and competitions were correlated with composite measures that reflected concentration (i.e., mistakes, poor performance); and (e) the norm for maintaining contact with teammates during the off-season was correlated with a composite measure that reflected maintenance of contact.

METHOD

PARTICIPANTS

The sample consisted of 97 athletes (30 male, 67 female) from four university-level individual sport teams (swimming, track and field, wrestling, and rowing). The athletes ranged in age from 19 to 30 years ($M = 19.4$, $SD = 1.8$). The length of team membership ranged from 1 to 5 years, with approximately one half of the sample representing 1st-year athletes (1st year = 48, 2nd to 5th year = 49).

NORMS

The participants in the study were asked to complete the Team Norm Questionnaire (Carron, Prapavessis, & Estabrooks, 1999), designed to estimate the strength of collective expectations for the team norms identified by Munroe et al. (1999). The questionnaire contains a total of 44 situations that focus on norms for competitions, practices, the off-season, and social situations.

Norms for competitions. Initially, participants were presented with the following lead-in: "What percentage of your present teammates would be critical of you if you . . . ?" Then, 12 items were presented that were associated with normative expectations for attendance (4 items, e.g., "arrive late for competition"), concentration (4 items, e.g., "had problems concentrating during competition"), and productivity (4 items, e.g., "gave up during a competition"). Responses were obtained on a 11-point Likert-type scale anchored at the extremes by 0% and 100%.

Norms for practices. The identical lead-in was provided for the items designed to assess norms for practice situations. It was followed by 12 items designed to assess normative expectations for attendance (4 items, e.g., "failed to show up for practice"), concentration, (4 items, e.g., "lost your focus during practice"), and pro-

ductivity (4 items, e.g., “didn’t give 100%”). As was the case for norms for competitions, responses were obtained on an 11-point Likert-type scale anchored at the extremes by 0% and 100%.

Norms for social situations. The format, including the preamble, and response format was identical to that described above. A total of 12 items were provided, designed to assess the norm for attendance at team social functions (4 items, e.g., “didn’t attend team social functions”), inclusion of other teammates (4 items, e.g., “only socialized with a small percentage of your teammates”), and social interactions with other teammates (4 items, e.g., “weren’t in good spirits at social functions”).

Norms for the off-season. Again, the format was identical to that described above. A total of 8 items were provided, designed to assess norms for maintenance of contact (4 items, e.g., “didn’t keep in touch in the off-season”) and productivity (4 items, e.g., “didn’t train in the off-season to maintain a decent level of fitness”).

BEHAVIORS

A series of self-report measures considered to be reflective of the behaviors associated with the various norms were also assessed.

Productivity. Borg’s (1971) Perceived Exertion Scale was used to measure the athlete’s perceived level of effort during practices and competitions and in off-season training. Participants were asked to “circle the number that best represents how hard you work” during each of the three contexts. Responses were obtained on a 15-point scale scored from 6 (*very, very light*) to 20 (*very, very hard*). Previous research (Skinner, Hustler, Bergsteinova, & Buskirk, 1973) has indicated that the 15-point scale is both a reliable and valid method of measuring perceived exertion.

Attendance. Participants were presented with 12 behavioral situations associated with attendance in practice, competition, and team social functions. Participants were asked to respond to the sit-

uation and indicate the percentage of time he or she performed the specific behavior (e.g., arrive late for competition). Responses were obtained on a 11-point scale from 0% to 100%.

Concentration. Participants were presented with 8 behavioral situations that were associated with concentrating during practice and competition. Participants were asked to respond to the situation and indicate the percentage of time he or she performed the specific behavior (e.g., make mistakes because you lose focus during competition). Responses were obtained on an 11-point scale from 0% to 100%. In the original scale, the higher the percentage reported, the less the individual concentrated within the specific context. Thus, the values were inverted for reporting purposes.

Maintenance of contact. Participants were presented with 4 behavioral situations that were associated with maintaining contact with teammates during the off-season. Participants were asked to respond to the situation by indicating the percentage of time he or she performed the specific behavior (e.g., "I keep in touch with my teammates in the off-season"). Responses were obtained on a 9-point scale, anchored at the extremes by *not at all* and *very much so*.

Social support. The Group Environment Questionnaire (Carron, Widmeyer, & Brawley, 1985) was used to measure the athletes' perceptions of social cohesiveness in the team. Specifically, two subscales were used: Individual Attractions to the Group–Social (five items) and Group Integration–Social (four items). Individual Attractions to the Group–Social scale assesses the attractiveness of the group as a social unit and the social interactions and friendship opportunities available within the team. An example of an item (one that is negatively worded and, therefore, is reverse-scored) is, "I enjoy other parties more than team parties."

The Group Integration–Social scale assesses the individual's perceptions of the socially oriented similarity, closeness, and bonding within the group as a whole. An example of an item (one that is negatively worded and, therefore, is reverse-scored) is, "Our team

members rarely party together.” Participants were asked to “choose a number from 1 to 9 to indicate your level of agreement with each of the statements.” Responses were obtained on a 9-point scale, anchored at the extremes by *strongly disagree* and *strongly agree*.

PROCEDURE

Permission was obtained from team coaches, and participants’ informed consent was obtained. Participants were assured of the confidentiality of their responses. The questionnaire was administered at the convenience of the team, usually subsequent to a team practice. Teams were contacted after at least 4 weeks of training in the 1999-2000 university season to allow sufficient time for the development and clarification of team norms. First-year athletes were not required to complete questions pertaining to the off-season, as they had not experienced an off-season with their current team.

RESULTS

Internal consistency estimates were computed for the norm subscales (see Table 1) and self-reported behavior subscales (see Table 2). It is important to note that the attendance behavioral subscale and the concentration behavioral subscale in the context of competition did not have appropriate levels of internal consistency; therefore, these two subscales were not used in further analyses.

GENDER

As indicated above, the sample consisted of both male and female athletes. Gender has been shown to be a moderator variable in group dynamics research on, for example, leadership (Eagly & Johnson, 1990), productivity (Wood, 1987), and orientation toward competition versus cooperation (Duda, 1987). Consequently, a preliminary analysis was undertaken in the present study to determine

TABLE 1: Mean Responses and Internal Consistencies for Norm Scales

<i>Norm</i>	n	M	SD	α
Competition				
Attendance	88	59.5	47.9	.89
Productivity	97	55.2	37.8	.97
Concentration	89	45.9	31.9	.96
Practice				
Attendance	97	47.2	30.9	.93
Productivity	97	49.0	33.4	.97
Concentration				
Male	30	38.1	24.4	.87
Female	67	51.0	28.9	.88
Off-season				
Maintaining contact	49	41.1	30.7	.95
Productivity	49	37.8	27.8	.97
Team social functions				
Attendance	91	41.2	27.1	.91
Inclusion	90	43.4	26.4	.85
Interaction	91	51.1	29.9	.91

NOTE: Scale varied from 0% to 100%, indicating the percentage of teammates perceived to hold expectations for the respondent's behavior.

if gender had an influence on either normative expectations or self-reported behaviors. A series of MANOVAs showed that the only variable for which gender differences were present was concentration, Wilks's lambda = .82, $F(4, 80) = 10.06$, $p < .001$. The amount of variance explained in the dependent variables by the independent variable was 18%. Univariate F s were used to determine which dependent variables significantly contributed to group differences. Both the concentration behavioral measure and the normative expectation to concentrate during practice differed significantly based on gender, $F(1, 92) = 15.97$, $p < .001$; $F(1, 92) = 4.40$, $p < .05$, respectively. Males reported significantly less concentration during practice than females ($M = 75.4$, $SD = 15.6$; $M = 86.9$, $SD = 11.4$, respectively), and females endorsed a normative expectation to concentrate during practice significantly more than males ($M = 51.0$, $SD = 28.9$; $M = 38.1$, $SD = 24.4$, respectively).

TABLE 2: Mean Responses and Internal Consistencies for Behavioral Measures

<i>Behavior</i>	n	M	SD	α
Attendance-practice ^a	97	81.4	17.5	.77
Attendance-competition ^a	92	92.4	10.0	.30 ^b
Attendance-social ^a	89	81.1	16.8	.67
Concentration-practice ^a				
Male	30	75.4	15.6	.66
Female	67	86.9	11.4	.80
Concentration-competition ^a	94	84.4	20.2	.62 ^b
Perceived exertion-practice ^c	96	16.9	1.7	—
Perceived exertion-competition ^c	95	18.6	2.1	—
Perceived exertion-off-season training ^c	49	14.2	2.7	—
Attractions to the group-social ^d	93	6.8	1.5	.67
Group integration-social ^d	87	6.8	1.5	.68
Maintaining contact ^d	49	6.6	2.3	.92

NOTE: Dashes indicate that the internal consistency was not estimated.

a. Assessed on an 11-point scale varying from 0% to 100%.

b. Scale was not used in further analysis, based on recommendations by Nunally (1978).

c. Assessed on a 15-point scale varying from 6 to 20.

d. Assessed on a 9-point scale varying from 1 to 9.

STRENGTH OF NORMS

Table 1 shows the strength of norms in the four contexts. As the data show, the strongest norm was the expectation to attend competition (59.5%). In the context of team social functions, a weak generalized expectation was related to the qualitative nature of interactions with team members (social interaction norm = 51.1%). As well, the norm for productivity reflected a weak generalized expectancy among the individual sport team athletes during competition (55.2%), practice (49.0%), and off-season training (37.8%). Off-season norms were also weak with only 41.1% of the athletes supporting the expectation to maintain contact with teammates during the off-season and with only 37.8% supporting the expectation to train hard.

SELF-REPORTED BEHAVIORS

The mean responses for the self-reported behaviors (see Table 2) indicated that the individual sport athletes reported that they attended the majority of their practices ($M = 81.4$) and team social functions ($M = 81.1$), and exerted considerable effort during competition ($M = 18.6$) and moderate effort during off-season training ($M = 14.2$). The average response for both cohesion measures (i.e., Individual Attractions to the Group–Social and Group Integration–Social) was 6.8 on the 9-point scale.

RELATIONSHIPS BETWEEN NORMS AND BEHAVIORS

Table 3 presents the bivariate correlations between perceived norms and self-reported behaviors. It is apparent that very few of the relationships are statistically significant. In the context of off-season training, the behavior of maintaining contact with team members during the off-season was significantly related to the maintaining contact norm ($r = .347, p < .05$). In the context of team social functions, the cohesion measure, Individual Attractions to the Group–Social, was significantly related to inclusion behaviors ($r = .208, p < .01$), and Group Integration–Social was significantly related to social interaction behaviors ($r = .277, p < .05$). As well, males' perceptions regarding the team's expectations for concentrating during practice was significantly related to their self-reported concentration behaviors during practice ($r = .371, p < .05$).

DISCUSSION

One general purpose of this study was to examine the strength of team norms in individual sport teams. The results showed that the strength of team norms varied from a low of 37.8% (productivity in the off-season) to a high of 59.5% (attendance at competitions). Only four norms were more than 50%. Earlier, it was noted that Shaw (1981), after posing a question about how many group members must accept a standard in order for it to be considered a norm,

TABLE 3: Correlations Between Behavioral Measures and Perceived Norms

<i>Norm</i>	<i>Self-Report Behavior</i>	<i>Context</i>	<i>Correlation</i>
Productivity	Perceived exertion	In practices	-.124
Productivity	Perceived exertion	During competitions	.045
Productivity	Perceived exertion	In the off-season	.210
Attendance	Attendance	In practices	.049
Attendance	Attendance	At social functions	-.059
Concentration (male)	Concentration	In practices	.371*
Concentration (female)	Concentration	In practices	-.189
Maintaining contact	Maintain contact	In the off-season	.347*
Inclusion	Individual attractions to the group-social	At social functions	.208**
Interaction	Group integration- social	At social functions	.277*

* $p < .05$. ** $p < .01$.

suggested that more than half of the group was required. Using the Shaw criterion as a guideline, it must be concluded that normative expectations in individual sport teams are weak.

The results were somewhat surprising, especially those pertaining to the productivity-related norms. Performance and competition are fundamental to sport. Furthermore, norms develop around matters of most of importance to the group (Munroe et al., 1999). Therefore, it would seem reasonable to assume that if strong norms were to develop in individual sport teams, they would pertain to the productivity of the team members, especially in the context of competition. However, the norm for productivity was endorsed by slightly more than half of the athletes in the context of competition, by less than half of the athletes in the context of practice, and by only a third of the athletes in the context of off-season training.

One possible explanation for the low strength of team norms might lie in the nature of the group task. Members of individual sport teams have relatively few required task interactions and communications (Donnelly et al., 1978; Steiner, 1972; Thompson, 1967). Interaction and communication among group members are required to develop and understand the salient group norms (Mills, 1967). Thus, the minimal opportunity for interactions and commu-

nications might account for the failure for the various standards to become generalized team norms.

A second, somewhat-related possibility might lie in how the group product is derived. Individual sports are generally what Steiner (1972) referred to as additive tasks: The group product or outcome is derived by summing the contributions of individual group members. Consequently, the focus is on individual performance first; successful individual performance is necessary to benefit the team. Therefore, expectations for the behavior of others may not develop in any substantive way.

A third possible explanation considered was the nature of the sample. More than half of the sample was 1st-year athletes. Presumably, new team members would have had relatively minimal opportunities to become aware of and assimilate the dominant norms of the groups. Thus, it was hypothesized that the scores of 1st-year team members might have reduced the value for the total team. To test this hypothesis, post hoc analyses were undertaken to compare the perceptions of the strength of team norms for 1st-year athletes versus those of more experienced team members (i.e., athletes in their 2nd to 5th years). No differences were found between 1st-year and more experienced athletes in perceptions of the strength of team norms for practice, competitions, social situations, and the off-season.

The second general purpose of this study was to examine the relationship between perceptions of the strength of team norms and self-reported behaviors reflective of those norms. Generally, an athlete's perceptions of the strength of team norms for a specific context (e.g., the norm for attendance at practice) were unrelated to his or her self-reported behavior (attendance at practice).

Apparently, in the context of individual sport teams, individual behavior is personally motivated and is only minimally influenced by the expectations of others. Personal behavior is what is important. Certainly, as Table 2 shows, the magnitude of each of the self-reported behaviors was high in every area assessed. For example, the levels of perceived exertion reported for practices and competitions demonstrated that the individual sport athletes perceived themselves to be working very hard. A high level of effort

was being exerted despite the weak strength of generalized standards for productivity.

One relatively consistent pattern of findings was the relationships between measures of cohesion and team norms for social situations. For example, the norm for inclusion was significantly related to the cohesion measure, Individual Attractions to the Group–Social. This relationship intuitively makes sense as both constructs reflect the opportunities for interactions between team members. Also, the norm for social interaction was significantly related to Group Integration–Social. Again, this relationship makes sense intuitively, as both constructs are associated with the qualitative nature of interactions that occur between teammates.

Further research might provide insight into these results. For example, conformity to group norms is influenced by the number of supportive others (supportive others who are in favor of or in opposition to the norm). Therefore, it may be useful to examine team size as a potential moderator of the norms-behavior relationship.

Also, Mullen and Copper (1994) have suggested that a defining characteristic of sport teams is the norm for productivity. The present study failed to support that perspective insofar as individual sport teams are concerned. Further research should be undertaken to determine the variety (i.e., attendance norms, productivity norms, concentration norms) and strength of team norms in interactive sport teams (e.g., volleyball, basketball).

Previous research has shown a positive relationship between task cohesion and productivity norms (Kim, 1992b). Also, in the present study, positive relationships were noted between measures of social cohesion and team norms for social situations. It also may be useful to examine high and low cohesive teams (both task and social cohesion) to determine if norms more readily develop in the former instance.

The social psychology literature (Shaw, 1981) proposes the leadership structure of the group influences the amount of conformity to group norms. For example, when the style of leadership used in a group is centralized, there tends to be less conformity to group norms. However, when a number of individuals have leadership responsibilities (i.e., decentralized leadership), there are more

individuals to exert pressure on other members to adhere to group standards. Therefore, future research should examine the leadership structure on sport teams and its effect on the saliency of team norms.

Finally, a variable that may affect the type and strength of norms developed on sport teams is goal setting. Goal setting has been identified as an effective way to improve the clarity of expectations within a group (Locke & Latham, 1984). Thus, it is proposed that a team that uses an effective goal-setting program will have well-defined, salient group norms. Future research should examine the usefulness of a goal setting program in the development of team norms and the subsequent conformity to the salient norms.

REFERENCES

- Berkowitz, L. (1956). Group norms among bomber crews: Patterns of perceived crew attitudes, "active" crew attitudes, and crew liking related to aircrew effectiveness in Far Eastern combat. *Sociometry*, *19*, 141-153.
- Borg, G. (1971). The perceptions of physical performance. In R. J. Shepard (Ed.), *Frontiers of fitness* (pp. 280-294). Springfield, IL: Charles C Thomas.
- Carron, A. V. (1981). Processes of group interaction in sport teams. *Quest*, *33*, 245-270.
- Carron, A. V., & Hausenblas, H. (1998). *Group dynamics in sport* (2nd ed.). Morgantown, WV: Fitness Information Technology.
- Carron, A. V., Prapavessis, H., & Estabrooks, P. (1999). *Team norm questionnaire*. Unpublished manuscript, University of Western Ontario, School of Kinesiology, London, Canada.
- Carron, A. V., Widmeyer, W. N., & Brawley, L. R. (1985). The development of an instrument to assess cohesion in sport teams: The group environment questionnaire. *Journal of Sport Psychology*, *3*, 244-266.
- Donnelly, P., Carron, A. V., & Chelladurai, P. (1978). Group cohesion and sport. *CAHPER sociology of sport monograph series*. Calgary, Canada: University of Calgary Publishing.
- Duda, J. L. (1987). Toward a developmental theory of children's motivation in sport. *Journal of Sport Psychology*, *9*, 130-145.
- Eagly, A. H., & Johnson, B. T. (1990). Gender and leadership style: A meta-analysis. *Psychological Bulletin*, *108*, 223-256.
- Festinger, L., Schacter, S., & Back, K. (1963). *Social pressures in informal groups*. Stanford, CA: Stanford University Press.
- Fiedler, F. E. (1967). *A theory of leadership effectiveness*. New York: McGraw-Hill.
- Kim, M. (1992a). Changes in performance norms of Japanese school athletic teams mid- to postseason. *Perceptual and Motor Skills*, *75*, 349-350.
- Kim, M. (1992b). The relation of performance norms and cohesiveness for Japanese school athletic teams. *Perceptual and Motor Skills*, *74*, 1096-1098.

- Kim, M. (1995). Performance norms and performance by teams in basketball competition. *Perceptual and Motor Skills, 80*, 770.
- Latané, B., & Wolfe, S. (1981). The social impact of majorities and minorities. *Psychology Review, 88*, 438-453.
- Lewin, K. (1935). *A dynamic theory of personality*. New York: McGraw-Hill.
- Locke, E. A., & Latham, G. P. (1984). *Goal setting: A motivational technique that works*. Englewood Cliffs, NJ: Prentice Hall.
- Miesing, R., & Preble, J. F. (1985). Group processes and performance in a complex business simulation. *Small Group Behavior, 16*, 325-338.
- Mikalachki, A. (1969). *Group cohesion reconsidered*. London, Canada: University of Western Ontario, School of Business Administration.
- Mills, T. M. (1967). *The sociology of small groups*. Englewood Cliffs, NJ: Prentice Hall.
- Mullen, B., & Copper, C. (1994). The relation between group cohesion and performance: An integration. *Psychological Bulletin, 115* (2), 210-227.
- Munroe, K., Estabrooks, P., Dennis, P., & Carron, A. V. (1999). A phenomenological analysis of group norms in sport teams. *The Sport Psychologist, 13*, 171-182.
- Nunnally, J. C. (1978). *Psychometric theory* (2nd ed.). New York: McGraw-Hill.
- Prapavessis, H., & Carron, A. V. (1997). Sacrifice, cohesion, and conformity to norms in sport teams. *Group Dynamics: Theory, Research, and Practice, 1*(3), 231-240.
- Roethlisberger, R. J., & Dickson, W. J. (1975). A fair day's work. In P. V. Crosbie (Ed.), *Interaction in small groups* (pp. 85-94). New York: Macmillan.
- Shaw, M. E. (1981). *Group dynamics: The psychology of small group behavior* (3rd ed.). New York: McGraw-Hill.
- Skinner, J. S., Hustler, R., Bergsteinova, V., & Buskirk, E. R. (1973). The validity and reliability of a rating scale of perceived exertion. *Medicine and Science of Sports, 5*, 97-103.
- Steiner, I. D. (1972). *Group process and productivity*. New York: Academic Press.
- Tanford S., & Penrod, S. (1984). Social influence model: A formal integration of research on majority and minority influence processes. *Psychological Bulletin, 95*, 189-225.
- Thompson, J. D. (1967). *Organization in action*. New York: McGraw-Hill.
- Vroom, V. H. (1969). Industrial social psychology. In G. Lindzey & E. Aronson (Eds.), *The handbook of social psychology* (vol. 5, pp. 196-268). Reading, MA: Addison-Wesley.
- Wood, W. (1987). Meta-analytic review of sex differences in group performance. *Psychological Bulletin, 102*, 53-71.

Michelle M. Colman is a Ph.D. student at the University of Western Ontario, School of Kinesiology. She completed her undergraduate work at McMaster University and her Master's degree at the University of Ottawa. Her general area of interest is sport psychology, with a focus on group dynamics. Specifically, she is investigating norms in sport teams and their relationships to other variables within sport teams.

Albert V. Carron is a professor in the School of Kinesiology, University of Western Ontario in London, Ontario. He teaches courses that focus on the nature of group dynamics in sport and exercise groups and a course in the psychology of physical activity and exercise. His current research interests focus on the correlates of cohesion in sport and exercise groups, group norms in sport teams, and role ambiguity in sport teams.