

How Functional Team Roles Mitigate the Effect of Conflict on Team Performance

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ABSTRACT

Work team structures are used in organizations to achieve higher performance, enable greater creativity, and create more political buy in. The literature suggests that when teams are able to coherently carry out certain functional team roles, conflict is better managed and higher performance is achieved. This study investigates these claims in a sample of 449 individuals working in 94 project teams over two project types. Findings indicate that the performance of task and social team roles was negatively related to task and relationship conflict for both work types. In addition, Spanning roles were negatively associated with conflict only for the more complex project. Finally, functional team roles were associated with team performance for both project types. The implications for researching and managing roles in work teams are discussed.

Keywords: Work Teams, Team Roles, Conflict, Performance, Team Development.

INTRODUCTION

Over the past several decades, team structures have become ubiquitous in the workplace in order to provide solutions to problems, complete work, and create implementable solutions that have achieved buy in from diverse stakeholders. Research on teams has evolved to consider the inputs brought into the team, the processes that the team engages in, the emergent states of those teams, and the outcomes that the team produces [1]. Inherent in this logic is that teams develop into unique entities and one of the defining features of these entities that has been researched for many decades are the roles that are taken by individuals within the teams and the configuration of those roles [2]. The goal of this paper is to explore the team-level presence of roles, their relationship with team conflict and the effectiveness of the team across two task types.

THE FUNCTIONS OF ROLES AND CONFLICT IN TEAMS

Team roles have been studied over many years and reviews of that research show that they have been studied in at least three ways [3]. The first attempts to define roles in terms of configurations of personality trait-like tendencies [4, 5]. A second stream of research attempts to describe the clarity or ambiguity of the roles in abstract terms and considers the relationship between these factors and outcomes [6, 7]. The third stream attempts to define typologies of behavioral roles that exist in teams [8, 9] [3]. This study will adopt the third approach. Mumford and colleagues [8] produced a typology of 10 functional team roles. After reviewing all the typologies of team roles

and broader research in leadership in teams, this typology, delineated ten team roles falling in three functional categories. While other clusters of roles have been identified, the broader functional categories of team roles appear to be known, intuitive, and robust [3] and provide a useful heuristic for building knowledge on team roles. The functional categories represent the superordinate functions that must occur within a team in order for it to be effective and consist of the Task Function, the Social Function, and the Spanning Function.

Task Functional Roles

Teams in organizations are charged with the accomplishment of objectives or working to create some value for the firm. The Task Functional roles are those roles that are directly related to the accomplishment of that work [10]. Roles such as the Contractor role that involves making task assignments and following up or the Contributor role that involves sharing critical expertise with the team are typical task roles [9].

Given the task-centered nature of the Task Functional Roles it is likely that they play an important part in driving team performance. If a team is not able to allocate its work effectively, share information fluidly, or solve task-related problems, that dysfunction would lead to lower task performance. Therefore, it is hypothesized that:

H1: Task Role Performance will be positively related to Team Performance

Social Functional Roles

In addition to the carrying out of the work, team structures are unique in that they also require the maintenance type behaviors that build the teams capacity to work together on an ongoing basis. Because teams are composed of separate members with their own identities, emotions, and perceptions, actions must be taken in the team to preserve the integrating sentiments, emergent states, and attitudes that will facilitate team functioning and learning [11]. The Communicator social role, for example, involves providing compliments and displaying gratitude to other team members and their efforts in the team. Similarly, the Calibrator role involves the laying out of teamwork-related norms that will allow the team's fluid functioning.

While Social Roles play an important part in the performance of the team, their criticality may depend on several factors [2]. For example, certain tasks may require more social interaction than others [12]. In addition, in short-term teams it may be that the lack of social role performance does not have enough time to play out in overall team performance. These two hypotheses follow:

H2: Social Role Performance will be positively related to Team Performance

H3: The relationship with Team Performance will be stronger for Task Role Performance than for Social Role Performance.

Spanning Functional Roles

More recent research on teams has highlighted the need to see teams as embedded elements of more complex social systems [13, 14]. Spanning team roles capture those critical behaviors that occur between the team and non-team actors [15]. These are roles that involve interfacing with leaders, coworkers, or extra-organizational individuals in order to help the team meet its goals and ensure its ongoing existence. One clear example of a spanning role is the Consul role. When taking

the consul role, a team member interfaces with individuals and groups outside of the team who are in a position to sponsor or support the team's work. These individuals often are the leaders responsible for assessing the performance of the team and determining its objectives.

Spanning roles are an important driver of team performance for several reasons. First, these roles enable the team to procure needed resources. By interacting with actors outside of the team the team brings new information, tools, and other resources to bear on the team's task. Also, this connection with the outside organization would have the effect of creating buy in between those responsible for evaluating the team and the team itself. Finally, the team's ability to accurately gauge the expectations held by others would be increased by such spanning behaviors. It is therefore hypothesized that:

H4: Spanning Role Performance will be positively related to Team Performance

CONFLICT IN TEAMS

One of the purposes for using team-based structures is to integrate the diverse views, knowledge, and values of multiple individuals. Inherent in this integration is the prospect of conflict that can arise among the team members. While conflict can be viewed as a negative phenomenon that reduces team unity, cohesion, and even leads to a team disbanding, it can also be viewed as a positive sign that the team is not suffering from groupthink and is thinking critically [16]. In attempting to distinguish between when conflict yields productive versus unproductive outcomes, researchers have often made the distinction between team conflict centered on the work itself and conflict centered on the other team members.

Task Conflict

Task Conflict represents conflict over how to approach the work, the validity of information, the evaluation of ideas and the like and is generally thought to be an important part of a viable team [17]. Without a willingness to honestly exchange diverging ideas, a team would not be able to fully utilize the information and expertise held by its members. Likewise, as new information is brought into the team, the team that cannot introduce conflicting information would not be able to adapt their strategies to that new information. Thus, task conflict, if managed properly, could be a strength to the team, although there is some evidence that this benefit is also task dependent [18].

So, the more effectively a team is able to carry out its task-related roles the more likely it is that diverging views and information are handled in a way to minimize perceived conflict. In addition, the effective execution of Social Roles will also help to reduce task conflict. When positivity is introduced into the team and respectful group norms are established and enforced, this would function to reduced perceived conflict related to the task. Finally, Spanning Roles have the effect of bringing additional resources and clarity into the team. This too would provide the basis for consensus-based group decision making and a reduction in conflict. It is hypothesized that:

H4: Task Conflict will be positively related to Team Performance

H5a: Task Role Performance will be negatively related to Task Conflict

H5b: Social Role Performance will be negatively related to Task Conflict

H5c: Spanning Role Performance will be negatively related to Task Conflict

Relationship Conflict

Relationship Conflict is conflict focused on personality differences, processes-oriented offenses, or lack of respect in the team. This form of conflict is thought of as being dysfunctional in a team because it diverts time, focus, and other resources away from carrying out the work [19]. In addition, this conflict would reduce emergent states such as trust and would therefore reduce the information sharing and helping behavior that helps teams perform their work. Finally, in a work environment of multi-team systems, this type of conflict may reduce the motivation of team members to work on tasks related to that team choosing instead to invest their time in teams that have less conflict.

The effective execution of team roles will likely reduce the amount of relationship conflict in the team in several ways. First, when task roles are carried out effectively there is less general friction among team members that would lead them to feel negative affect states which could be misattributed to the other team members. Also, the carrying out of the social roles, such as creating respectful team norms and communicating clearly would function to reduce relationship conflict. Finally, the clarity in purpose provided by the Spanning Roles would be helpful in making it less likely that conflict of ideas became a conflict over personalities. The following hypotheses follow:

H6: Relationship Conflict will be negatively related to Team Performance

H7a: Task Role Performance will be negatively related to Relationship Conflict

H7b: Social Role Performance will be negatively related to Relationship Conflict

H7c: Spanning Role Performance will be negatively related to Relationship Conflict

This research will expand our understanding of Team Roles, Conflict, and Performance. Next the method for testing these hypotheses will be delineated.

METHODS

Participants

These hypotheses were investigated using a sample of 449 undergraduate business students working in 94 project teams. The average team size was 5.2 members. The teams worked on two different projects spaced about one month apart. The first project was a written case analysis. This project is considered Simple in that it required participants to carry out a limited set of behaviors that would have been easily understood and with which they likely had experience. The second project involved the researching, designing, and delivery of a management skill training session. This project is considered Complex in that both its scope and the variety of tasks and skills were higher and it required participants to carry out behaviors with which they had limited experience. The participants were primarily in their junior or senior year and received course credit for participating.

Procedure

Five member teams were formed randomly, and teams were made away of both of the projects at the beginning of the course. Because the projects were related to the course grades, it is likely that there was a significant level of motivation to perform well. At the completion of each project, participants completed the measures online and were informed that their responses would not be used for grading purposes but were encouraged to be thorough and conscientious in their responses.

Measures

All measures were captured using a 5-point likert scale format. The scale ranged from 1 (No Extent) to 5 (Very Great Extent).

Team Role Performance. Team role performance was measured using the 30-item scale developed in Mumford (2002) and Mumford, Van Iddekinge, Morgeson, and Campion (2008). This measure has three subscales for the Task Roles (15 items) the Social Roles (9 items) and the Spanning Roles (6 items). Example items include “Coordinates the work done by others so that things are done in the right order” (Task), “Steps in if there are negative feelings in the team to help resolve the difficulties” (Social), and “Gets support for the team with important people outside the team” (Spanning). The internal consistency reliabilities were all satisfactory and are shown in Table 1. Participants rated each member of their team in terms of the extent to which each team member performed each team role when they were needed for team effectiveness. These individual-level ratings were then aggregated to the team level to create a Task, Social, and Spanning performance score for each team on each project.

Team Conflict

Task and Relationship Conflict were measured using a 9-item scale based on the work by Jehn [20, 21]. An example item is “How much were personality clashes evident in your team?”

Team Performance

The team’s performance on the two projects was done by the faculty teaching the course. It was carried out without a knowledge of the role and conflict ratings and used the criteria: Completeness, Depth of Analysis, Logical Strength, Presentation, and Creativity.

RESULTS

The means, standard deviations, and internal consistency reliabilities for the study variables are displayed in Table 1. For both the simple project and the complex project task and social roles were reported at the same level within the teams with Spanning roles being reported less. It is also worth noting that the mean reported role behavior for all categories of roles increased for the second and more complex project. The standard deviations were slightly higher for the Spanning roles which is likely due to the fact that behaviors that occur outside of the team are more difficult to observe.

Table 1. Descriptive Statistics and Reliabilities for Team Level Variables.

	Simple Project		Complex Project		Alpha
	Mean	SD	Mean	SD	
Task Roles	4.24	.35	4.52	.26	.94
Social Roles	4.28	.38	4.51	.29	.92
Spanning Roles	3.75	.54	4.18	.42	.89
Task Conflict	1.54	.77	1.64	.81	.92
Relationship Conflict	1.50	.87	1.62	.89	.90
Team Performance	9.35	.26	22.9	.89	

The Inter correlations between the Team Roles, Conflict types, and Performance are shown in Table 2. Hypothesis 1 asserted that Task Roles would be positively associated with team performance. The observed relationship was significant ($r=.18$, $p<.05$) for the simple project and for the complex project ($r=.38$, $p<.01$). Thus, Hypothesis 1 was supported. Hypothesis 2, that Social roles would be positively associated with Team Performance was also supported for the simple project ($r=.21$, $p<.05$) and the complex project ($r=.32$, $p<.01$). Hypothesis 3, that task roles would be a stronger predictor of performance than social roles showed mixed results and was not supported. Finally, hypothesis 4, predicting that spanning roles would be associated with performance was not supported for the simple project ($r=.17$) but was strongly supported for the complex project ($r=.29$, $p<.01$).

Table 2. Correlations Between Team Level Team Roles, Conflict, and Performance.

	Task Conflict		Relationship Conflict		Team Performance	
	Simple Project	Complex Project	Simple Project	Complex Project	Simple Project	Complex Project
Task Roles	-.24**	-.31**	-.33**	-.36**	.18*	.38**
Social Roles	-.32**	-.37**	-.41**	-.41**	.21*	.32**
Spanning Roles	-.14	-.39**	-.16	-.37**	.17	.29**
Task Conflict					.11	-.19**
Relationship Conflict					.02	-.32**

$N = 94$ teams comprised of 449 members. * $p < .05$, ** $p < .01$, two-tailed.

Hypotheses four and seven predicted that task and relationship conflict would predict team performance respectively. As shown in Table 2, neither task conflict ($r=.11$) or relationship conflict ($r=.02$) was related to team performance for the simple project. However, for the second and complex project both task ($r=-.19$, $p<.05$) and relationship ($r=-.32$, $p<.01$) conflict were negatively related to performance. Thus, these hypotheses were only supported for relationship conflict on the complex task. The significant observed relationship with task conflict and performance was in the opposite of the predicted direction but not inconsistent with other findings in the literature [19].

Hypotheses five and seven posited that team role performance of all three types would be negatively related to conflict of both types in the teams. These hypotheses were supported for 10 of the 12 predicted relationships with the performance of team roles being negatively related to conflict in the team. The exceptions were for the spanning roles on the simple project.

DISCUSSION

Research Implications

This study sought to better understand how team roles are related to the conflict and the performance of project teams. Its findings are important for both research and practical reasons.

The research literature on teams in organizations is informed in three key ways. First, this study demonstrates that team roles can be conceptualized in terms of their functions and at the team level. Roles are more than just parts that individuals play within a team. Team roles are also a construct that can be conceptualized at the team level and as a characteristic of the team itself. This study shows that understanding the roles taken in the team as a whole can help us understand what leads to both conflict and performance at the team level. Future research should continue to test the distinctions between team level and individual level role effects.

Second, this study expands our understanding of team roles by demonstrating their relationship with different types of conflict. The results clearly illustrate that when teams report high levels of team role behavior they are less likely to report high levels of both task and relationship conflict. It is interesting to note that both task roles and social roles strongly predicted the reporting of relationship conflict and that the execution of social roles within the team showed the highest bivariate relationships with conflict. Research in this area should also continue by including more generic measures of role conflict in addition to the typology-based measures.

Thirdly, this study finds that the relationships seem to be influenced by the type of task the project team is working on. Most of the relationships are larger in absolute terms for the more substantive and complex project than for the simpler project. This is especially true for the spanning roles. It would seem that as the work that teams are asked to do becomes more complex it will concomitantly become more important for the team to engage in boundary spanning activities that will connect them to outside sponsorship and resources to clarify the task. For simple tasks that are familiar to the team, such boundary spanning activity may be less important. This builds on recent calls to consider more temporal and contextual factors in teams research [2] and highlights the importance of testing teams theories in a way that allows for task-related variables to be considered.

Practical Implications

Several practical implications also arise from this research. The first implication is that both managers of teams and team members themselves should become familiar with and competent in the Functional Team Roles. The observed relationships here suggest that, for these functional roles, it is important that multiple members of the team can carry out the role-related behavior. If only a small minority of team members were reported as carrying out the roles that does not seem to be sufficient for optimum performance. These results suggest that managers should cross-train their teams on the roles and encourage role-switching behavior.

Second, these results show managers that conflict in teams and team role behavior are negatively related. This would suggest that modeling and training of the team roles can be used as an antidote for dysfunctional conflict or as a defense against its onset.

Finally, these results illustrate for managers that if they are assigning teams to complex work it is especially important that they encourage spanning behaviors. This can take many forms, such as verbally signaling their availability or setting up standing meetings. Importantly, it means that managers of teams must learn how to interact with and provide guidance to teams by encouraging the spanning behavior while at the same time not taking away the team's autonomy and micromanaging them. This balance will become more important as the work becomes more complex in the future.

CONCLUSION

This research has demonstrated the important of functional team roles in understanding and predicting conflict and performance in teams. Future research should explore its replicability across different team and task types as well as its implementability in the field.

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