

Paula Some

Professor Kimmelman

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The Virtual Identity: How Individual Group Members Assume
Behavioral Roles in Virtual Versus Face-to-Face Teams
And Influence Office Group Dynamics and Project Outcome

Introduction: The World Is One Office

Contemporary organizations conduct business in an information-driven global economy, where technology has paved the way for 24/7 operations that cross boundaries of geography and time. Collaborative virtual teamwork is now an essential tool for functioning and succeeding in the current business environment by giving organizations increased flexibility and responsiveness (Potter and Balthazard 424). Activities such as new product development, application software development, and supply chain integration (Reilly, Lojeski, & Ryan, 2006) benefit from the reduced travel, increased efficiency, and knowledge resource access that are possible through the virtual office, one which opens the door to a global marketplace.

Because virtual teams are now a foundation in many organizations, it is important to understand what factors can affect productivity and performance. Much research has been conducted regarding group dynamics and outcome in both virtual and FTF teams (for example: Potter and Balthazard 2002; and Warkentin, Sayeed, and Hightower 1997). This paper attempts to look further and examine the influence of behavioral roles that individual participants assume in virtual teams as a result of factors of influence. In addition, I will attempt to answer the question whether these participants assume roles or exhibit personality characteristics different

or more pronounced than in face-to-face (FTF) settings. Although much research exists concerning group dynamics and outcome, there is surprising little regarding the connection that begins with the emergence of individual behavioral roles, continues with influence on group dynamic and ends with final project outcome and participant satisfaction.

This analysis requires an interdisciplinary approach that draws from organizational psychology, management theory, and sociology. After reviewing background on teams, the report continues with identification of common behavioral roles, an examination of factors that influence both roles and the group dynamic, and a brief introduction to technologies used in virtual teamwork. In conclusion, strategies and consideration are presented that encourage proactive action by managers and team leaders when designing and implementing virtual teams.

Background: What is a Team?

In order to analyze the importance that roles individual participants assume in collaborative work, it is critical to define what is meant by a team and how teams benefit organizations from a psychological perspective. Work teams, whether virtual or FTF, are classified as a type of group. These groups are the product of a parent organization and its related structure and can be defined as “any number of people who (1) interact with one another, (2) are psychologically aware of one another, and (3) perceive themselves to be a group” (Lazarus 145). Groups are limited in size to encourage mutual interaction and mutual awareness.

Groups are further classified as formal and informal. Work teams fall into the formal group, and are specifically formed by managers to fulfill specific tasks or projects directly related to the overall mission of the parent organization. Formal groups are either permanent (such as staff departments or senior management teams) or temporary, created for a specific

purpose over a limited, specified period of time (Lazarus 146). Most of the project based work teams that exist in both virtual and FTF environments are temporary. These groups are usually well-structured with written rules or regulations and defined responsibilities. Informal groups are implicit rather than explicit (3-61) and formed by organization members based on their need to interact for reasons other than mission of the organization including common interests or physical proximity. This study will only consider behavior roles in formal work teams.

On the ideal work team, all members are committed to a common goal. Typically members have complementary skills. There is interaction between members and the team leader, and each participant holds each other mutually responsible for the outcome. Teams have a decision-making process that reflects the knowledge and experience of everyone involved, not just of the leader or supervisor (Harvard Business School 3). Work teams, and the collective group of individuals that are members, serve a number of functions. Functions that direct related to the organization's mission include: completing complex tasks, generating ideas or creative solutions, liaison and coordinating, problem-solving, facilitating complex decisions, and offering a vehicle for socialization or training. In addition, groups (Lazarus 149).

Defining the Virtual Team

With the online collaborative possibilities available through technology, there has been a complete redefinition of the working environment. Virtual teamwork tends to be defined by the extent to which communication is achieved through virtuality: "teams whose members use technology to varying degrees in working across location, temporal, and relational boundaries to accomplish an interdependent task" (Martin, Gilson, & Maynard 808). Virtual teams serve many

of the same functions as traditional, FTF teams with the added benefits of three components: extending across organizations, geographic boundaries, and flexible durations.

Unlike many FTF teams, virtual teams are often brought together quickly, work intensely, and disband after a short period of time. Teams are usually very heterogeneous, with members joining from widespread geographic areas, multiple organizations, and different national and cultural backgrounds. They bring a wide range of expertise, tenets, and opinions (Nofi 60). Planning and thought is required to assemble a virtual team that

Environment is a substantial difference between virtual and FTF teams. Without one fixed, physical location, virtual teams meet in “virtual behavior settings” that are only accessible through the computer and rely on the electronic communications to interact (Blanchard).

Individual Identity and Roles

Within work teams, individuals assume roles. Defined by Babad, Birnbaum, and Benne, “roles are sets of expectations, rights, obligations, and patterns of predictable behaviors that persons employ when occupying particular positions” (211). Roles can also be used to characterize the self and others and are used for a basis of comparison and difference that classify “identifiable group[s] of people acting in predictable ways” (Babad, Birnbaum, Benne 211). Within a group, roles are seen from both the individual’s perspective and that of teammates. It is important to emphasize those roles reflecting behavior and social identification are different than job titles or responsibilities. From a socio-psychological perspective, roles function in clearly defining situations, minimizing ambiguity, and maximizing predictability. On work teams, particularly virtual, all participants do not share equal roles, access to resources, or equitable participation.

The roles that define individual behavior on work teams are characterized by type and degree of activity level. The following table summarizes individual behavior roles that commonly impact the group dynamic, and therefore outcome of virtual and FTF team settings. Behavioral roles are also categorized as contributing or noncontributing to the overall group dynamic.

Table 1: Individual Behavior Roles In Work Teams*

Behavioral Role	Role Category	Description
Deserter	Noncontributing	<ul style="list-style-type: none"> ▪ Highly conscientious for self ▪ Not loyal to group ▪ Relies only on self for work completion and appraisal
Deadbeat	Noncontributing	<ul style="list-style-type: none"> ▪ Free riders ▪ Take credit without completing work ▪ Low conscientiousness ▪ Social loafing ▪ Removed from accountability
The Sucker Effect	Noncontributing	<ul style="list-style-type: none"> ▪ Intentionally withhold information to gain competitive advantage ▪ Stems from fear of being labeled ▪ Subset of deadbeat/social loafing
Participant	Contributing	<ul style="list-style-type: none"> ▪ Contributes ideas and suggestions ▪ Continuous range of communication
Lurker – Private Communicator (virtual only)	Noncontributing	<ul style="list-style-type: none"> ▪ Communicates to other members via email ▪ Onlooker
Lurker – Never Communicates (virtual only)	Noncontributing	<ul style="list-style-type: none"> ▪ Never communicates to the team as a whole or individual members ▪ Onlooker
Leader – Technical Skill (virtual only)	Contributing	<ul style="list-style-type: none"> ▪ Moderator ▪ Oversees virtual system functioning
Leader - Information	Contributing	<ul style="list-style-type: none"> ▪ Offers expertise and knowledge
Leader - Social	Contributing	<ul style="list-style-type: none"> ▪ Provide social support ▪ Actively communicates across the group

*Compiled from Blanchard (2004), dePillis and Furumo (318-320), "Group/Organizational Roles", and O'Connor (2006)

Contributing

Team members that actively offer communicate through the various mechanisms available through the virtual setting and contribute ideas, suggestions, solutions, and decisions are simply labeled *participants*. Their behaviors are a positive contribution, and either help accomplish the groups' mission (task roles) or support the socio-emotional climate (maintenance roles) ("Group/Organizational Roles"). *Leaders* may fulfill multiple roles as technical, social, or informational. Their behaviors are an important and necessary contribution to group functioning, especially in virtual collaborations. *Information and social leaders* tend to have more power over influence, and the number of level of power within a group can be determined by their degree of participation and response from others. Technical leaders have control of admitting members (Blanchard).

Non-Contributing Team Members

Research (de Pillis and Furumo) indicates that virtual teams have more *deadbeats* (free-riders) particularly male, than face to face teams. *Deadbeats*, who typically aren't very conscientious, take credit for the group effort while others complete the work. Known otherwise as *social loafing*, this role can further be defined as "freeloading when a person is placed in a group and removed from individual accountability" (Duncan 1994 qtd. in O'Connor). There is an interesting subset of deadbeats characterized by "The Sucker Effect" that suggests that some team members in fear of being labeled as incompetent by peers and to there manipulate competitive advantage, intentionally withhold information (Schanke 1991 in O'Connor). A third role exhibited by non-contributors is the *deserter*, who is both conscientious and hard-working, but only cares about their own performance or appraisal. Like the deadbeat, the desert isn't loyal

to the group and relies on themselves. Like *deadbeats*, research has shown that males tend to have lower loyalty and higher self-interest than females (de Pillis and Furumo 319). Overall, the de Pillis and Furmo study confirmed that virtual teams have a higher percentage of *deserters* and *deadbeats* than FTF teams. In addition, their results revealed that male members of virtual teams exhibited less productivity in virtual collaborations (320).

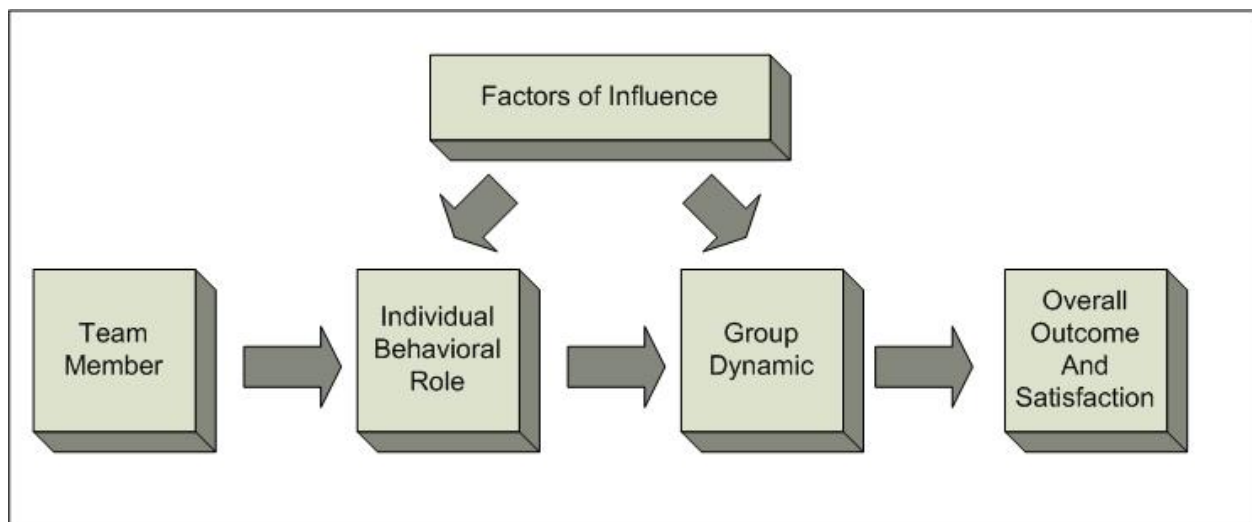
In virtual settings, level of communication between participants is also an indication of contribution. Those who are not regularly active or completely silent are labeled *lurkers*. Although these members themselves remain quiet, remaining group members recognize their presence in discussions. In comparison to guests that remain in the background in a FTF setting, *lurkers* remain in control of their involvement and may vary their degree of participation based on the particular technology being used to communicate (Blanchard). For example, someone may “show-up” for chats, but never respond to emails or regular discussion posts.

The Group Dynamic

Individual team member behavioral roles, and therefore the interaction of the entire group, are impacted by a number of interpersonal, social, organizational, and technical factors. The resulting dynamic can affect each participant’s ability to bring their unique knowledge and skill to the required task (Hackman and Morris in Potter and Balthazard 425) and thus potentially negatively effecting outcome. In addition, the group interaction style impacts communication (known to positively relate to group performance), as well as the ability to exchange information between team members (Potter and Balthazard 424). When people with no previous working relationship, no interpersonal bonds, different backgrounds, individual perspectives, and communication needs are assembled as a team (common with virtual groups), conflict can take

place that reduces productivity and satisfaction. Conflict of this nature is more frequent in virtual than FTF teams (Cisco), which further emphasizes the importance of understanding factors that influence behavioral roles and the group dynamic. The chart below illustrates the sequence of elements that affect the group dynamic and therefore overall project outcome and member satisfaction.

Chart 1: Impact of Individual Behavior Roles and Factors of Influence on Virtual Team Outcome



Factors of Influence

Many factors influence the formation of individual behavioral roles and the group dynamic in both virtual and FTF groups. The list below, drawn from a variety of peer-reviewed literature and research studies, highlights eight areas that significantly impact individual behavior on virtual teams.

Personality

Besides their expertise, participants bring personality traits to the team that affect both behavioral role they assume and group interaction. There are five personality dimensions that

have been identified and that influence behavioral roles in virtual groups: extraversion, agreeableness conscientiousness, openness, and neuroticism (Balthazard, Potter, and Warren).

Cultural Diversity

As mentioned previously, virtual teams bring together participants from across the globe that may speak different languages or have different value systems. There are two types of diversity that impact member behavior on virtual teams. Surface diversity includes race, ethnicity, and language. Deep level diversity involves the thinking, expectations, and behavior that comprise cultural values (Staples and Zhao). Heterogeneous teams can have communication problems, misunderstandings, decreased cohesion, and increased conflict. Although research has proven that heterogeneous virtual teams have overall better performance than homogeneous teams, there is a 17 week lag time due to lack of shared understanding (Cisco). Different countries expect different levels and contexts of communication. Also critical to the acquisition of behavioral roles and group dynamic is different cultural perspectives on individualism and collectivism since these reflect willingness to prioritize team interests versus personal desires.

Intergroup Competition

All teams whether virtual or FTF are influenced by intergroup competition and usually become more closely knit. Although the atmosphere tends to be more informal, it becomes very structured and task-oriented with increased levels of loyalty and conformity. Leadership becomes more autocratic rather than democratic (Lazarus 173).

Gender

A study published in the Graziadio Business Report reveals important findings concerning gender on virtual teams that impacts this analysis. Males are likely to separate themselves from teammates in response to stress or conflict, while women respond by seeking

improved communication and team cohesion. The clash of these opposite responses can further upset the group dynamic. Furthermore, males are most comfortable with well-defined objectives and member responsibilities while women are most comfortable with well-defined tasks and when communication and maintenance activities are valued (Bolney 2001). Citing studies by Lind (1999) and Gefen and Straub (1997) Martins, Gilson, and Maynard report that women perceived their virtual teams as more inclusive and supportive and value the usefulness of emails more than men (812).

Leadership

Research by Reilly, Lojeski, and Ryan found that the leader role becomes more important on virtual teams (2006). Without proper leadership, management problems such as team identity, commitment, and collaboration become more pronounced and can undermine productivity and effect individual performance (Harvard Business School 118). Effective virtual team leadership involves an awareness of diversity and ensuring that adequate communication takes place between team members by managing various forms of technology. Unlike FTF, virtual team leaders must manage, coach, and influence the work of non-visible employees who may not even be direct reports (Canfu).

Organization Structure

Organizational structure affects the group dynamic and the attitudes of individual members of the team in several ways. Like FTF groups, lack of clear communication channels can cause problems. Information can become lost and distorted when there are too many communication links (Leavitt 1951 in Lazarus 161). If information has to trickle down through a hierarchy of authority, if too many people are involved, or if there's a lack of clear goal consensus then individuals are likely to become dissatisfied and alter their behavior towards the team and

level of participation (Lazarus 217 and 161). Individual identity and subsequent role behavior are influenced by the nature as assigned tasks, whether temporary, permanent, formally, or informally assigned. Physical location also impacts member response, but to a lesser extent in virtual settings.

Trust

Research indicates that “Trust has been identified as the defining issue in understanding the effectiveness of virtual teams” (Handy 1995 in Cisco). Why? On virtual teams, where strangers in different physical locations have no previous social interaction or working relationship, the lack of observation and ability to pick up social cues contributes to a lack of trust. In addition, the ‘virtual silence’ caused by non-response to email or voice mail increases participant distrust of teammates. Groups that use technology with rich media, such as video-conferencing are able to build trust more quickly (Cisco). Finally, “...interdependent teams are most motivated when they trust both the expertise and collaborativeness of other team members...” (Clark qtd. in O’Connor)

Distance

Distance, both physical and psychological, plays a significant role in behaviors and group dynamics on virtual teams. Unlike FTF environments, the virtual setting removes the opportunity for social cues such as eye contact, posture, and facial expression. This reduced social presence impacts in both positive and negative ways. Without cues, participants exhibit reduced social inhibitions and are likely to express more radical opinions to compensate for less frequent, in person communication (Potter and Balthazard 438). Although members of FTF groups may feel socio-emotional distance from co-workers, the problem is much more complex when distance involved multiple cultures and communication styles can decrease trust (Reilly, Lojeski, and

Ryan). Working across geographic boundaries also requires consideration of international business etiquette and time differences. As boundaries drop across time zones, team members lose synchronicity in the work day hours (Canfu).

Technology Considerations

The heart of virtual teamwork lies in the various technologies that enable communication across boundaries. Each of the following methods provides both benefit and drawbacks for encouraging positive group dynamic and behavioral roles that contribute to productivity when FTF meeting is not possible.

1. Video conferencing
2. Telephone conferencing
3. Email
4. Fax
5. Instant messaging/chat
6. Bulletin boards/discussion boards/websites
7. Groupware: synchronous and asynchronous

Using a combination of these technologies is ideal gives groups the ability for flexibility and responsiveness (Potter and Balthazard). It is through these various technologies that group members share information, gain confidence about themselves and each other, and develop a working relationship. The quality of the communication and social experience varies greatly depending on the selected technology, and can strongly affect behavioral roles and group dynamic. Unlike the FTF environment, participants on virtual teams cannot rely on multiple

modes of communication feedback from other members such as the “give and take” in discussions. Comments can appear out of context, the conversation can lack focus, and individuals will respond at different rates. The use of rich media allows greater feedback and communication cues (Warkentin, Sayeed, and Hightower).

Strategies for Virtual Team Management and Design

Although virtual teamwork has dramatically changed and improved the efficiency of global business, organizations and managers should implement strategies to prevent individuals from acquiring noncontributing behavioral roles, experiencing negative group dynamics and realizing poor outcome. These proactive measures are designed to ensure clear communication channels for sharing ideas and can also be useful for determining team composition.

Best Practices Guidelines

Companies should implement virtual team standards across the organization. These guidelines should establish acceptable response times for communications, suggest criteria for selection of media, and offer suggestions for the frequency of communications. In addition, organizations should encourage socializing in the virtual setting. These four areas can all be helpful in establishing early shared team identity and trust (Cisco).

Training

Teams function better when participants are experienced group work, especially in a virtual environment. Offer training for new members that includes team standards and technology.

Select Appropriate Technology and Communication

When selecting technology for virtual teamwork, be aware of specifications that will assist communication between members of a heterogeneous group where relationship and swift trust building are critical. These include immediacy, symbol variety, parallelism, rehearsability, and reprocessability (Cisco). Rich media, such as videoconferencing has a positive impact by providing immediacy of feedback, participation by multiple participants, and multiple cue feedback that can simulate a FTF experience. If possible, always use rich media early in a project.

Virtual Team Planning

Leaders and managers should establish clear goals and vision, which helps team members clearly understand their functional roles, and how those roles affect the rest of the team (Reilly, Lojeski, and Ryan). Goal setting and formalizing work processes leads to cohesion, commitment, and collaboration (Martins, Gilson, and Maynard 812). Managers should also encourage informal communication within the virtual environment to create social connection between members. Most importantly, strive to create team identity early in the project. Research indicates that building a strong team identity reduces conflict, increases trust, and improves commitment and cooperation. If conflict does arise, encourage an inclusive, collaborative resolution style (Martins, Gilson, and Maynard 815).

Personality Assessment Tools

The evaluation tools used by some human resource departments can be helpful for assembling well-balanced teams.

Conclusion

Through advances in technology, virtual teamwork has become an essential component of global business operations. This research has established the connection between individual member behavioral roles, group dynamic and project outcome. In addition, because behavioral roles and factors of influence may become more pronounced in virtual rather than traditional FTF settings, recommendations are made for team composition, design, and management.

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