TO TELL OR NOT TO TELL: EXAMINING TEAM SILENCE AND VOICE IN ONLINE AD HOC TEAMS

Research-in-Progress

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Abstract

Team silence is the unwillingness of team members to express concerns regarding how another team member's actions negatively impacts the team's ability to accomplish their goals; team voice is the intentional expression of these concerns to the team and/or team member. This research explores team silence and team voice in the context of online ad hoc teams in which dispersed team members, focused on their own self-interest, work together using digital collaboration tools. We consider if team members in online ad hoc teams remain silent when a team member engages in self-interested behavior that can negatively impact the team's ability to accomplish their goals. This research in progress describes a quasi-experiment that uses the context of a massively multiplayer online role playing game to explore factors that contribute toward team members' willingness to break silence and use their voice when an online ad hoc team member engages in self-interested actions.

Keywords: Collaboration, Group tasks, Group performance, Virtual teams/groups

Introduction

Teams are used extensively in the information systems domain as individuals work together to develop software, make policy decisions, manage knowledge, and govern the information systems (IS) function. Katzenbach and Smith (1993) define a team as "a small number of people with complementary skills who are committed to a common purpose, set of performance goals, and approach for which they hold themselves mutually accountable" (p. 112). Organizations have many options to configure teams, ranging from more traditional teams which tend to be long-standing, collocated teams to less traditional teams that may be online, self-organizing, and ad hoc.

In the information systems context, non-traditional teams have increased in frequency as more firms utilize digital technologies for collaboration and rely on vendors, industry partners, and other strategic alliances to accomplish tasks. An ad hoc team is a collection of individuals, usually specialists within their domain, with little investment or interest in the team as a collective and more focused on self-interest as they complete tasks with other team members (Thomsett 2005). The presence of ad hoc teams is increasing in the workplace as more organizations outsource work with contractors and leverage relationships and partnerships with firms outside of the organization, particularly in the software development context (Bushell 2004; Thomsett 2005). Firms also rely on online forms of collaboration as team members span geographical and organizational boundaries (Zigurs 2003). This changing nature of teams in teams in both the team members' promotion of self-interest and increasing use of online teams could affect the team dynamic and may alter our current understanding of teams.

In ad hoc teams, there is a stronger sense of self-interest, which could negatively impact others within a team or the team as a whole. This pursuit of self-interest could prevent specific team members or the entire team from completing tasks and accomplishing personal and team goals. Online teams must rely on technology to communicate which can introduce problems with communication and trust (Greenberg et al. 2007). Regardless of the type of team, traditional or online ad hoc, if team members notice that another team member's actions negatively impacts the team's ability to meet their performance goals, someone within the team should voice these concerns. However, it is common for individuals often remain silent about how other's performance or actions affect them (Perlowand Williams 2003). In online ad hoc team environments, in which individuals can only voice their concern by communicating via technology, the reasons why a team member remains silent may differ from other contexts. Therefore, the research question posed in this study is *"What factors encourage a team member within an online ad hoc team to break team silence and voice concerns when another team member engages in self-interested behavior that could negatively impact the team?"*

By conducting a quasi-experiment, we examine if and when individuals within an online ad hoc team break their silence to voice that another team member's self-interested behavior is negatively impacting the individual or the team. The individual may be negatively impacted due to a struggle to accomplish his/her duties within the team or a perceived attack on his/her reputation. Negative impacts to the team may be an inability to complete the objective of the team or the team struggling to complete the task in an efficient and/or effective manner.

The next section introduces the concept of team silence and team voice and identifies the hypotheses that are being examined in this research. Next, we share the setting and nature of the quasi-experiment, which is a massively multiplayer online role playing game (MMORPG) and explain why this environment is appropriate to examine this phenomenon. Anticipated findings, limitations, and future research possibilities are discussed in the conclusion of this paper.

Research Model

A team member that places his/her own needs above the needs of the team may prevent the team from accomplishing their goals. If the team is negatively affected by a self-interested team member, the fellow team members may need to alert the team member about the problem to ensure the team is able to accomplish their goals. However, team members may not feel comfortable discussing the issue with the self-interested team member.

Silence within organizations is a powerful phenomenon that has a high cost to both individuals and firms (Perlowand Williams 2003). Individuals may choose to keep information, thoughts, or feelings to themselves to foster a spirit of cooperation or due to fear that sharing their thoughts may lead to conflict, rejection, or retaliation (van Dyne et al. 2003).

The organizational silence literature examines forces in which employees choose not to share their thoughts and beliefs about problems or issues within the organization. Many factors within the organization, such as organizational structure, organizational culture, environmental characteristics, and management actions, contribute to a culture of organizational silence (Milliken et al. 2003; Morrisonand Milliken 2000). When an employee intentionally chooses to express their concerns to someone in the organization that can enact change, this is known as organizational voice (van Dyne et al. 2003).

This prior research related to organizational or employee silence and voice typically focuses on the need to express concerns to supervisors or peers about sensitive issues (e.g., Bowenand Blackmon 2003) or notifying someone in authority about an issue that is viewed as being either right or wrong (i.e., whistleblowing) (e.g., Dozierand Miceli 1985; Miceli et al. 1991). Organizational and employee silence and voice research often focuses on the potential damage that can occur to the organization because employees are unable or unwilling to voice their opinions (e.g., Morrison and Milliken 2000; Perlow and Williams 2003). The pressure to remain silent usually arises because the employee has a fear of negative consequences, such as a fear that their reputation or social relationships will be damaged, fear that no one will listen, or fear of retribution (Detert et al. 2010; Milliken et al. 2003). This pressure to remain silent also appears in other organizational interactions, such as vendor/client relationships (Jain et al. 2011).

This study examines the factors that contribute toward silence and voice among peers working together in a team. Even among peers, a strong desire to remain silent may exist even if voicing concerns could improve the team's performance. In this study, the definitions of team silence and team voice are adapted from the definitions created by van Dyne et al. (2003). We define team silence as the unwillingness of one or more team members to express concerns to a fellow team member when his/her actions negatively impact the team. This silence is a deliberate, intentional choice made by the team member to not express his/her concerns to the team. Team voice is the intentional expression by one or more team members about their concerns regarding another team member in an effort to enact change.

Since team members are focusing on their individual self-interests in an ad hoc team, team members may be more or less likely to voice their concerns to a team member or the team depending on how strongly the action impacts their own needs. Once the self-interest is identified by one or more team members, team members may take strong action to correct that behavior. However, if the team members are only communicating through online digital collaboration tools, their ability to voice their concerns are limited. While a person may be verbally silent about their concern, sometimes non-verbal cues can signal discontent (van Dyne et al. 2003). These non-verbal cues are not present in an online context, making the effort to voice opinions to the team more deliberate (Davis et al. 2009). The nature of an online ad hoc team suggests there is a duality of forces that encourage team voice and forces that encourage team silence. Using existing theory regarding organizational silence and voice, we explore factors that may influence whether or not a team member chooses to remain silent or voice their concerns about a fellow team member's self-interested actions in an online ad hoc team.

Research examining organizational silence has found that team members with less experience (both in organizational tenure and in the domain) are more likely to remain silent than those with more experience because they are more concerned about negative consequences that may arise if they voice their opinion (Milliken et al. 2003; Morrisonand Milliken 2000). Team members with less experience may have additional needs than those with more experience, thus presenting a need for them to find their voice to help the team meet the objectives. When another team member acts in a self-interested manner that negatively impacts the less experienced member, the less experienced team member may feel pressure to remain silent. Given the self-interested nature of ad hoc teams, less experienced team members may choose not to reveal their vulnerabilities to project a sense of knowledge, skill, or ability to others in the team; however, this may be in conflict with the team member's desire to help the team reach their goals. Consistent with prior research, we believe that a lack of experience will be a factor that will contribute towards team silence if another team member's self-interested actions have the potential to affect their ability to complete the task. Those with more experience with the task will have confidence in

their knowledge, skills, and abilities and will feel more comfortable voicing their concerns with the offending team member. Given past research, we hypothesize that:

H1: In an online ad hoc team environment, team members with less experience will be more likely to remain silent about an offending team member's actions.

A person's position within the team may also affect the team's decision to remain silent or to voice concerns. Within a team, some members of the team may be viewed as more important due to their knowledge or role within the team. Although the more prominent team member does not have legitimate power within the team, they may be perceived to have referential power within the group (Frenchand Raven 1960). If this prominent team member acts in a self-interested manner, there may be more pressure to remain silent (Milliken et al. 2003). Other team members may fear offending the prominent member or that they are alone in their struggle with the problem. If there is a perception that others in the group may not hold the same opinion, a reinforcing spiral of silence develops among the group creating additional pressures to remain silent even as the problem escalates (Bowenand Blackmon 2003). Furthermore, because the group can only communicate online through digital collaboration tools, non-verbal cues are not present. Therefore, it is unknown if others may be experiencing the same problems, further reinforcing team silence. Therefore, we hypothesize:

H2a: In an online ad hoc team environment, team members will be more likely to remain silent when the offending team member has a prominent role within the team.

If the self-interested team member is not in as prominent of a role within the team, then the reinforcing pressure to remain silent should not perpetuate. Other team members should feel more freedom to voice concerns because there is less need to rely on the offending team member. Therefore, we propose that:

H2b: In an online ad hoc team environment, team members are less likely to remain silent when the offending team member has a less prominent role within the team.

Research Approach

Many studies that examine organizational silence rely on interview or survey data to learn about the history of silence or voice within an organization (e.g., Bowenand Blackmon 2003; Milliken et al. 2003). While these provide interesting findings, it requires individuals to reflect on past experiences or speak in generalizations. Other related streams of research in the information systems literature (i.e., whistle-blowing and mum effect) may perform experiments in which a respondent reads a scenario with manipulations embedded in the scenario. The respondent answers a series of questions, including a manipulation check, to respond how s/he may act in the situation described in the scenario (e.g., Park et al. 2008; Smithand Keil 2003). While these experiments provide some indication of how a person may respond to a situation in which a person is confronted with the decision to voice concerns or to remain silent, these scenarios lack a certain level of realism. A subject is responding to a fictional example and discussing how s/he may act in that hypothetical scenario. With both types of research, what is lacking is an understanding of how people actually behave in a situation in which it is necessary to voice concerns to an offending team member about how his/her actions affect others or the team.

It is challenging to identify a method to examine the phenomenon of team silence in a more realistic, but somewhat controlled setting. One approach is to have a confederate within a team act in a manner that acts in his self-interest and observe if team members remain silent or if any of the members express their voice by confronting the confederate. However, performing this type of experiment in an organizational or even academic setting could have negative consequences for the team or organization. Another possibility to examine team silence in an ad hoc team setting is to consider another type of team experience. Computer gaming is becoming increasingly popular, whether it is games on Facebook or Massively Multiplayer Online Role Playing Games (MMORPG), such as World of Warcraft. In MMORPG, players develop an avatar to represent themselves as they play the game to acquire resources and to accomplish goals. While it is possible to play these games alone, many individuals work in teams with both known and unknown fellow players. The benefit of using an environment like a MMORPG to study team silence is that a confederate in the ad hoc team can actually demonstrate self-interest within the team (i.e., a manipulation) to study the phenomena of team silence and team voice. Although not a perfect analog to the workplace (Schultze et al. 2008), MMORPG is a research setting that has the

potential to provide insight about certain organizational and group-level phenomenon (Assmann et al. 2010). MMORPG has the potential to serve as a venue for exploratory research to develop hypotheses to be further confirmed or explored in organizational settings.

Research Setting

World of Warcraft (WoW) is a Massively Multiplayer Online Role Playing Game (MMORPG) in which over 12 million people subscribe to the service to play the game. In a game like World of Warcraft, players can choose to participate in guilds, which are individuals that choose to associate themselves with a certain group or clan within the game (people they know in real life or only through the game). Another alternative is for individuals to play alone and accomplish individual quests with little to no interaction with others. A third option is for people to perform tasks jointly in an ad hoc team that is formed when there is a small group of people that want to play certain types of games within the online world, such as dungeons or battlegrounds.

To test the hypotheses, the type of team interaction used is a dungeon. A dungeon is a team quest in which there are a series of tasks that need to be completed by five individuals that must work together to accomplish the goals of the dungeon. Individuals can play in a dungeon with people that they know or individuals can enter a dungeon with unknown people as an online ad hoc team. In the dungeon, the players need to work together to complete the dungeon and defeat enemies which allows each person to acquire resources in the game (such as money, gear, and points). In the dungeon, the team has a shared goal to complete the dungeon, but each individual has their own desires to acquire resources for their own personal needs, improve their player statistics, or gain experience points to increase their skill or standing within the game.

In a dungeon, each player adopts one of three roles:

- DPS – Three people within the team have the role of attacking and destroying NPC (non-player character) enemies that are within the dungeon. The DPS (damage per second) roles must defeat these enemies (often appearing in large groups or mobs) to complete the dungeon and acquire resources.

- Healer – One person within the team adopts the role to restore fellow team members that received damage during enemy attacks by healing them or resurrecting them should the team member die during an enemy encounter.

- Tank – One person within the team is the primary target for the adversaries. The NPC enemies are trying to prevent the team from accomplishing the tasks within the dungeon. The goal of the tank is to draw enemy attacks to allow the DPS team members to effectively attack the opponents.[1]

While a WoW dungeon is not an organizational setting, there are aspects of this setting that are analogous. For example, both the organizational and WoW settings require individuals to work together as a team by using their shared knowledge, skills, and resources to complete a task (e.g., design a software module or defeat a series of enemies). If the team is dysfunctional, then there are negative consequences to the team and the individuals within the team. For example, if the team cannot complete their tasks and goals, the team members do not receive the rewards and recognition for completing the task. Furthermore, the WoW setting is consistent with the definition of an ad hoc team in that the team has a shared goal, but the team members also tend to act more in their own self-interest rather than the interest of the team. There are clear differences between WoW and organizational teams as well. For example, if a team member is discontented with the team or members in the team, s/he has the power to recommend that the group remove the offending team member or the upset team member can leave the group on their own accord with little penalty. Changing team membership is usually not an option in an organizational setting. Admittedly, the negative consequences within the game are different and not as significant as

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[1] There are multiple websites that explain how dungeons work within WoW, such as http://wow.joystiq.com/2008/02/25/wow-rookie-knowing-your-place-in-an-instance/.

negative consequences in the workplace. While WoW is not a perfect analog for an organizational, online ad hoc team, the similarities can allow us to examine the phenomena of team silence and team voice in an exploratory manner.

Experimental Task

To test the hypotheses, a confederate performs manipulations to examine if and how the team breaks their silence. An individual can play in a dungeon repeatedly, so for each manipulation, the confederate adopts the same role, but is randomly assigned to unknown players for each experimental run.

This experiment is considered a quasi-experiment since there is no control group, but there is a pre-test (Shadish et al. 2001). The confederate plays normally (without applying the intervention) until the first mini-boss, which is the first major task completed within the dungeon. After this task is completed, the manipulation is performed. The completion of all of the tasks within a dungeon requires 45-60 minutes to complete. This provides time for a pre-test (i.e., no manipulation) as well as time for the manipulation to be performed and have the potential to impact the group.

In both manipulations, the confederate engages in self-interested behavior to alter the pace of the tasks required to complete the dungeon. If one or more team members move ahead too quickly through the dungeon, other team members do not have enough time to replenish their resources to complete their tasks within the dungeon. Without this replenishment of resources, some players are unable to perform tasks that allow the team to defeat enemies. In an organization, this happens when an individual within a team wants to hurry others along without regard to whether or not other members of the team have needs that need to be met. Other team members may need to ask questions to better understand the task, need more social interaction to feel a part of the team, or may need to wait for resources to be available to continue. When someone in the team is making the team move at a faster pace due to his own desire to finish the task quickly, others in the team may suffer.

Manipulation 1

In this manipulation, the confederate adopts the role of the tank within the dungeon. This role is prominent in this setting, testing both H1 and H2a. The tank sets the pace of the team because s/he determines which enemies to fight and when the team can proceed to the next enemy or task. When the manipulation is applied in the quasi-experiment, the confederate announces to the group "have to move this along i got to run soon." Then, the confederate proceeds to move forward throughout the dungeon as quickly as possible. The confederate only slows his pace when it is in his best interest to do so. For example, if all of his teammates die during a fight with an enemy, there is no point in the confederate moving forward until his teammates can rejoin him in the task. Continuing alone would only ensure that the confederate's character would die, bringing about a negative consequence for confederate This behavior of only slowing down when it is of interest for the confederate also reinforces his focus on his own self-interest rather than the team's interest.

Manipulation 2

In this manipulation, the confederate adopts the role of the DPS within the dungeon, which is a lower profile position to test H1 and H2b. Similar to the first manipulation, the confederate wants to alter the pace of the game to proceed more quickly, regardless of the interest of the team. The primary change in this manipulation is that the confederate has a different role within the team and is considered more expendable within the group. After the pre-test, the confederate announces to the group "have to move this along i got to run soon." He then encourages the team to complete the task more quickly through statements via online chat as he reinforces his own self-interest to the group.

Independent Variable Measurement

During each experimental run, the names of the other team members' characters are recorded and chat and event logs are recorded and stored.

To evaluate the experience level of each player for H1, four measures are obtained about each character from the WoW website. Three of the measures are objective measures of the player's skill level: the item level which is a measure of the character's overall progress and development within the game, the number of dungeons completed, and the date that the dungeon played in the experimental run was initially completed by the character.[2] The fourth measure of skill is the confederate's rating of the skill level of each player using a 7-point Likert scale.

For H2a and H2b, the confederate notes the role of each player (DPS, Healer, or Tank). The Healer (1 per dungeon) and Tank (1 per dungeon) roles are more prominent roles within the team, while the DPS role (3 per dungeon) is less prominent. This information is recorded to test H2a and H2b.

Dependent Variable Measurement

Within a WoW dungeon, there are many ways that team members can break team silence to voice their concerns. One approach is for a team member to "whisper" or send a personal message to the confederate. A second approach is for a team member to send a message to the entire group (confederate + other team members) about their concerns. A third approach to break team silence is for the team to expel the confederate from the group. Another outcome could be a more passive approach in which the other non-confederate team members choose to leave the group.

These forms of team voice are similar as to what would happen in other digital collaborations. A team member could speak to a person individually through a phone call or email about how the person's actions affect the team. A team member may mention the issue to the entire group during a conference call or in a group email. In dire circumstances, the team may (or attempt to) expel the team member or ask to be assigned to a different team.

In addition to the consideration of how the team silence is broken, we also measure when team silence how long the self-interested behavior took place before team silence was broken. We also qualitatively examine the chat logs within the game and note team interaction for additional insight into the factors that encourage team voice or team silence in an online ad hoc team.

Data Analysis and Findings

This research approach provides both quantitative and qualitative data. By examining both sources of data jointly, additional insights can be obtained than if examining only one form of data alone (Kaplanand Duchon 1988; Petterand Gallivan 2004). The qualitative data provided in the chat and event logs within the dungeon as well as the confederate's insights about the game shed light on the quantitative findings. Data collection for the first manipulation scenario is nearly complete and data collection for the second manipulation has begun. The qualitative data obtained to date has been analyzed as data is collected; however, more insight will be obtained when the complete set of quantitative data can be analyzed and compared with the qualitative findings. Final results from the experiment will be presented at the *Thirty-Second International Conference on Information Systems*.

Conclusion

Limitations

Although this research is still in progress, there are recognized limitations of this work. McGrath (1991) criticized much of the research that focused on teams and groups because the experiments (and resulting theory) were developed with research based on experiments with short-term, ad hoc groups. His

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[2] Within World of Warcraft, an individual may have more than one character. The statistics obtained objectively are for the character, rather than the individual playing the game. A person may play with a character that may or may not accurately reflect their knowledge and skill (e.g., s/he has a new character that is being developed). However, these statistics do serve as a reasonable minimum idea of the skill level and knowledge level of each player.

criticism of group research and theory is that this theory had been developed using results that could not generalize to how group work is often performed within an organization. However, this study acknowledges that these types of ad hoc teams do exist in the organization and with increasing frequency since McGrath's work, mostly due to increases in outsourcing (Bushell 2004).

Another limitation is the use of a MMORPG as the setting for this study. All research methods have limitations, and this approach has its drawbacks as well as advantages. In this setting, we have no control over the people that are part of each experimental scenario. Given the large number of players on World of Warcraft at any particular time, it is highly unlikely that the same person would participate in the experiment twice, but is something that could happen. By capturing the character names, we can identify if the same character has participated in the experiment more than once, but we cannot know if the same individual has participated in the experiment more than once since an individual may have multiple characters. Also, since the identity of the individuals in the experiment will never be known, there are certain demographic information that may be helpful to control for or study (such as gender, age, individual's experience with the game, etc.) that cannot be obtained in this context. However, there is some information in this research setting that we can objectively obtain (such as skill level of the character) that could not be obtained if we used another setting.

Some may argue that a MMORPG is not analogous enough to an organizational context to serve as a reasonable setting for research (Schultze et al. 2008). However, behaviors that are conducted in game play are seen by some as consistent with behaviors that occur in other "real world" interactions. Some organizations have considered certain game play activities in World of Warcraft as a "total-immersion course in leadership" (Brownand Thomas 2006). This context provides a very interesting setting to observe human behavior and interactions that cannot always be examined in an organizational context. Therefore, we do not posit that the findings of this study could be immediately generalized to online ad hoc teams in organizations; however, we believe the findings could provide interesting insights to existing theory and could provide a foundation to study the phenomena of team silence and voice in other settings.

Contributions

As online ad hoc teams increase in frequency in the workplace, practitioners have expressed a concern for more research and guidance for these types of teams (Bushell 2004). This research addresses this call for additional research and begins an exploration about the nature of team silence within online ad hoc teams. Within the information systems function, there are a variety of contexts in which individuals within a team seem to be focused more on self-preservation than the team. In our research, we need to acknowledge these differences that may occur between traditional and online ad hoc teams and identify if our knowledge of traditional teams is still true in an online ad hoc team environment.

There are several expected contributions of this research. First is the introduction of the concept of team silence. While silence within an organizational context is not a new phenomenon, the idea of silence within a team is different from other forms of organizational silence. In this study, we used concepts from employee and organizational silence theory to develop our hypotheses. The results of this study may also be useful in identifying if the current research on organizational silence is also applicable to a team context. Second, this study uses a MMORPG as the research setting to explore how team members actually behave when confronted with an underperforming team member. This may stimulate others to consider MMORPG as a research setting to study other team-level phenomena. Third, this study examines the factors that encourage individuals to break team silence when a team member acts in his/her own self-interest rather than in the interest of the team. The results from this study could inspire other studies to study this issue in other settings, such as academic or organizational, to see if our findings are consistent with other types of team interactions. As we learn more about when team members are willing to break team silence when someone is acting in his/her own self-interest, team members can learn how to be more proactive in managing team relationships when engaging in an online ad hoc team.

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