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What is This?
Pluralistic Ignorance in Virtually Assembled Peers: The Case of World of Warcraft

Margaret de Larios1 and John T. Lang1

Abstract
This article presents a study of pluralistic ignorance situated within the virtual community of guilds in World of Warcraft (WoW). Pluralistic ignorance is a mistaken perception of social norms that overwhelms personal attitudes and leads to behavior contrary to an actor’s attitude, and it has never been studied in the context of a virtual world. We analyze the presence of pluralistic ignorance in WoW guilds with the use of a sample of 195 players who responded to an Internet-based survey and 15 focus group participants. Findings show that pluralistic ignorance has a demonstrably lower presence in that community of WoW players than in a physical world equivalent, suggesting a higher tendency in that community toward consistency between private attitudes and public behavior. Factors uncovered that explain this difference include anonymity, safety of the Internet as social medium, and a hypersalience of identity in the WoW player community.

Keywords
pluralistic ignorance, MMORPGs, World of Warcraft, virtual community, online gaming

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Individuals constantly look outside themselves for guidance on how they should think and behave. A decision to speak, act, inquire, share, or withhold is rarely made without taking into account the opinions and expectations of others. However, sometimes those opinions and expectations are perceived falsely. Pluralistic ignorance is the social phenomenon that occurs when a mistaken perception of social norms overwhelms personal attitudes and leads to behavior contrary to an actor’s attitude. It exists to some degree in every social group, and as such has been a useful lens for empirical studies of various social actions. While studies of pluralistic ignorance have addressed many kinds of social groups, there is one significant absence in the field: an empirical study of pluralistic ignorance has never been applied in a virtual or online community. Given that almost 80% of adults in the United States identify as Internet users (Hampton, Goulet, Rainie, & Purcell, 2011), this represents an opportunity to better understand this significant and rapidly growing aspect of social life.

Understanding changing social relations as they are developing within the context of the Internet is an important task for pluralistic ignorance research. A new and rapidly growing site of online collaboration is massively multiplayer online role-playing games (MMORPGs). In this article, we examine the effects of collaborative play in _World of Warcraft_ (WoW), the most popular MMORPG in North America, on pluralistic ignorance. Our research is concerned with the social dynamics of players within the in-game organizations known as player guilds. In particular, this research investigates members of structured raiding groups within those guilds. This research addresses the fact that “particular technologies can change the parameters on which humans interact” (Williams & Edge, 1996, p. 891) and investigates the nature and impact of those changes.

We begin with a description of pluralistic ignorance for readers who might not be familiar with the phenomenon, and a background on online gaming and virtual worlds with an emphasis on MMORPGs. We then detail our research methods and data analysis. Our findings show that pluralistic ignorance has a demonstrably lower presence in the community of WoW players than in its physical world equivalent, suggesting a generally higher tendency among members of that community toward consistency between their private attitudes and their public behaviors. We reveal several factors that help explain this difference, including anonymity, the social safety of massively multiplayer online games as a social medium, and the hypersalience of group identity among members of the WoW player community.

**Background**

*Introduction to Pluralistic Ignorance*

Allport (1924) described pluralistic ignorance as an incorrect social inference that is at once both a cause and a consequence of literal inconsistency between private attitudes and public behaviors. Though a powerful observation, the term itself is a
misnomer. Whereas ignorance implies a lack of knowledge, pluralistic ignorance describes a mistaken knowledge of others’ feelings, paired with a certainty that knowledge of others’ private attitudes is accurate (Grant, O’Neil, & Stephens, 2009; O’Gorman, 1988). The definitive properties of the phenomenon of pluralistic ignorance are that it is shared by a plurality of individuals in a social group and that there is a total absence of doubt among them. For the better part of the last century, sociologists and social psychologists have investigated the presence of pluralistic ignorance in various social groups and examined its impact. The phenomenon has been applied as a frame of understanding for many important social behaviors, including but not limited to relationship formation, rule breaking, and voting (Miller & MacFarland, 1991; Miller, Monin, & Prentice, 2000; Kim, Lee, & Yoon, 2005). Though earlier studies often attributed the occurrence of pluralistic ignorance to a lack of mutual observability among members of a social group (Greeley & Sheatsley, 1971), later research posited that because the phenomenon is a result of (misinterpreted) behavioral observation, pluralistic ignorance is more likely when mutual observability is high. This development led sociologists to address the phenomenon’s occurrence in closely gathered social groups (Grant et al., 2009; Miller & McFarland, 1991).

In socially and physically close groups, people will typically avoid talking about topics that elicit strong personal feelings. This reticence is the consequence of the mistaken idea that their peers are not comfortable talking about those topics. Politics and religion are the concerns most often subject to this unpopular speech norm (Elia soph, 1998; Eliasoph & Lichterman, 2003). To conform to the perceived norms of their social identities, individuals are likely to publicly behave in ways that contradict or ignore their private attitudes. In many social settings, it is considered proper to refrain from discussion of religion or politics. Individuals in group settings often modify their communication accordingly, even when doing so might belie a strong personal investment. For example, a study of pluralistic ignorance among nurses found that 85% of respondents considered themselves to be comfortable discussing spirituality but only 43% reported believed that the majority of their coworkers would be comfortable with that discussion (Grant et al., 2009). This indicates a significant inconsistency between private attitudes and public behaviors.

Though attitude–behavior inconsistency manifests itself in a diverse number of ways, there is an unfortunate lack of theoretical interest in pluralistic ignorance across the social sciences that “can be traced to the persistent and ironic supposition that shared misconceptions of other people do not require specific explanation” (O’Gorman, 1988, p. 146). In particular, there has been no investigation of the relationship between pluralistic ignorance and Internet communities. We could not find any published academic study that had investigated the phenomenon’s occurrence in social relationships that are conducted over the Internet, or in virtual worlds. Grant, O’Neil, and Stephens (2009) suggest several avenues by which one can empirically examine or refine the study of pluralistic ignorance. In the age of the Internet, groups can easily gather in virtual space rather than face-to-face and still constitute an
assembled community. As such, our study poses a more inclusive definition of “assembled peers” than traditionally used by scholars.

The presence and nature of pluralistic ignorance in a community are closely linked to its intracommunication and other social functions, and the fast-growing virtual communities on the Internet are no exceptions. Of the 79% of adults in the United States identified as Internet users (Hampton et al., 2011), 68% agree that the Internet has a major impact on the ability of group members to communicate with one another (Rainie, Purcell, & Smith, 2011). Previous research has shown that pluralistic ignorance is an important element of in-group communication (Grant et al., 2009). As social life is increasingly conducted in virtual space, an investigation of the occurrence of pluralistic ignorance in Internet communities becomes all the more compelling.

**Introduction to Virtual Worlds and WoW**

A virtual world is an Internet-based community where participants gather in a computer-generated environment to complete tasks, create narratives, and interact with one another using animated avatars—digital proxies for their physical selves. Virtual worlds in particular host the multifarious doings and interactions of millions daily and have a history of replacing real life as some especially invested users’ priority (Kelly, 2004).

Some detractors have claimed that video games and virtual worlds are dangerous and, in a popular comparison to television and drugs, mindlessly addictive. “Half of this description is certainly wrong. There is nothing mindless about mastering a video game” (Turkle, 2002, p. 67). The same applies to virtual world role-playing games. The engrossment is necessary but mentally engaging. For a game to be successful, “players must be willing to ‘bracket’ their ‘natural’ selves and enact a fantasy self. They must lose themselves to the game” (Fine, 1983, p. 4). Embracing the fictional universe as their reality, albeit temporarily, is what gives meaning to the game. Role-playing games foster a new form of performance art (Mackay, 2001), wherein the player enacts several selves and performs new identities. The intellectual and emotional investment of people who play in virtual worlds demonstrates the “new kind of intimacy with machines that is characteristic of the nascent computer culture” (Turkle, 2002, p. 67).

For decades, sociologists have examined the form, function, content, and meaning of virtual worlds (Turkle, 1995). Even when a group is connected only by words on a screen, “words on a screen are quite capable of . . . creating a community from a collection of strangers” (Rheingold, 1987, p. 5). Some such communities eventually become strong enough to extend beyond the digital interfaces that initially brought them together. Relationships that form online not only have a genuine power to affect the real lives of the individuals involved but can also lead to in-person meetings and a transition toward person-to-person interaction (Wellman & Gulia, 1999). Just as the home, the workplace, and leisure spaces are miniature social worlds that
encapsulate the day to day, so are virtual worlds (Williams, 2009). As such, they are equally important to examine as contexts for social phenomena.

Virtual worlds are currently most associated with MMORPGs. These computer-based role-playing games owe much to their predecessors, tabletop role-playing games—so called because typical sessions saw players deploying their characters’ actions while seated around a table—and multiuser dungeons (MUDs). The basic structure of the original tabletop (also “pen-and-paper”) role-playing games is very recognizable in the MMORPGs of today, featuring “an episodic and participatory story-creation system that includes a set of quantified rules ... determining how ... characters’ spontaneous interactions are resolved” (Mackay, 2001, p. 4). MUDs, the first multiplayer real-time virtual worlds, eventually succeeded these pen-and-paper games. Usually text-based, MUDs were a combination of role-playing game, interactive storytelling, and chat forum. They expanded on the interactive possibilities of tabletop games, and when an early MUD connected to an online network for the first time, the gaming world transformed (Kelly, 2004).

The Internet soon made role-playing games available to players all over the globe, and brought together the distinct audiences of computer game players and role-players. The earliest versions of MMORPGs first appeared in the mid-1990s, and nearly two decades later they still constitute a fast-growing phenomenon in electronic gaming (BBC News, 2011). Their success can be traced in part to the fact that they transcend the possibilities offered by ordinary video games, offering something new and enticing to the already profitable video game customer.

They are as different from ordinary video games as television is from radio. They’re not really games at all, in fact. They’re living, self-contained, global, three-dimensional virtual worlds, each one the size of a real-world country filled with forests, prairies, oceans, beaches, mountains, towns, and thousands of simultaneous players. (Kelly, 2004, p. 13)

The social component marks the most profound difference between MMORPGs and other video games. By the games’ design, a single player cannot get very far or fully develop his or her character without joining forces with others: “To advance efficiently, [most players] will need to team up with other players who are working on completing the same quests and defeating the same monsters” (Chen, 2008, p. 51).

MMORPGs unite people by computer, and though their players are able to meet, converse, and play together, the extent of their connection is virtual. Exceptions to this usually occur when people who are friends or family members choose to play together. Yet, even those who play MMORPGs with friends and family meet and interact in-game with countless others users whom they do not know. According to prior research (Kelly, 2004; Stam & Scialdone, 2008), the average MMORPG player spends between 20 and 30 hours per week embedded in the universe of their game. There is a small but dedicated population of participants who actually consider the online world to be their true home; these players leave the game only when
they must meet the basic human needs for food and sleep (Castronova, 2005; Turkle, 2011). It is logical that some people feel more comfortable in that unreal place than in physical ones because “they feel that in simulation they show their better and perhaps truer self” (Turkle, 2011, p. 212).

While there are many MMORPGs, and more emerging at a steady rate, Blizzard Entertainment’s (2011) WoW dominates the field. It was no more than a footnote on a long list of popular and influential MMORPGs 8 years ago (Kelly, 2004, p. 150), but WoW is now a behemoth. At its peak, it had more than 12 million subscribers (Blizzard Entertainment, 2011). Despite a plethora of new MMORPG games that compete for players’ time and attention, it still has 10.2 million paying subscribers worldwide (Holisky, 2012). It is able to maintain its strong community support, in part, because of the gamemakers’ intentional development of opportunities within the game to be social.

It is common among role-playing games for play to be based around the completion of various quests assigned throughout the game. These quests are performed most often with the goal of reaching higher levels, and receiving the benefits of increased virtual skills, better virtual tools, and generally higher capability within the game world. Like many other MMORPGs, WoW encourages a highly collaborative playing style. The complex tasks set by the game frequently require users to band together to complete them and move forward (Ducheneaut & Yee, 2009). There is a need for consistent and intense virtual collaboration for players who desire progress within their virtual world. This dynamic has produced a formal system of long-term organized groups within the game, called guilds.

Raiding groups are a distinct, even more active, subset of player guilds. These are small groups of players within a guild who do the most complex teamwork, maintaining specialized roles and strict task distributions (Chen, 2008). If membership in a guild distinguishes casual visitors to the game world from serious players, participation in a raiding group separates the amateurs from the professionals. Active membership in a guild and/or raiding group is not the only way to have a social experience playing WoW. Many players choose to meet and interact with other players at random. However, guilds and their subdivision raiding groups are significant because they provide players a recurring, organized social experience, which makes them comparable to many other real-life social institutions.

Hypothesis

Previous research on pluralistic ignorance addresses its existence in physical communities, but has not yet examined the impact of the phenomenon on virtual worlds. We address this gap in the existing sociological literature by situating the study of pluralistic ignorance in a virtual world. To allow for comparability, our methodology is similar to that used by Grant et al. (2009) study of pluralistic ignorance among nurses. If a research population is selected using the same criteria, and the distribution of their responses differs beyond a certain margin of statistical error, the source
of that difference should be investigated. We observe how the conditions of the community work together to produce pluralistic ignorance and argue that pluralistic ignorance occurs at lower rates in this particular virtual community than in the physical community studied by Grant et al. (2009). We also attempt to determine what other social conditions affect the attitude–behavior consistency of peer groups in a virtual world. We examine the significance of virtual worlds as alternative social spaces and define some significant differences that exist between traditional social life in the physical world and the social life of virtual worlds.

**Method**

**Research Setting and Its Relevance**

Our intent is to reproduce the conditions from Grant et al.’s (2009, p. 64) study of nurses in a virtual community, with the goal of producing results that would be comparable across different media. The authors of that study note that “a variety of groups and topics could be investigated using the model and methods [they] propose.” Therefore, it is at their own suggestion for further research that we apply a variation of their methodology to a social group organized in virtual space. To successfully implement this study of pluralistic ignorance, it is essential that a population be selected that fits the specific parameters of the original study while still existing only in virtual space.

In the original study, the authors examine why registered nurses at a local hospital tend to perceive that their nurse coworker peers are uncomfortable discussing spirituality when, most of them actually care very deeply about this subject (Grant et al., 2009). The authors selected their population based on earlier researchers’ findings about where pluralistic ignorance is most likely to occur. Situations that facilitate pluralistic ignorance are those that allow mutual observability among group members, create a salient social identity for those in the group, and necessitate the maintenance of a certain level of professionalism in the group context (Miller & McFarland, 1991). Considering these criteria, players of WoW who are guild members would make ideal study subjects.

Guilds in WoW provide a structured social experience of the game, and within them players have a very high level of mutual visibility, though the mutual observations are of digital avatars, not the players themselves. While playing WoW, each player sees their own avatar in the center of the screen at all times as it travels through the game world. Floating above the avatar’s head is the player’s character name. If the player belongs to a guild, the name of the guild also publicly labels the avatar. Other avatars enter and leave the frame frequently, each marked with their own character and guild names, easily grouped into their identifying communities.

Similarly to a workplace, guilds often have regular and rigidly scheduled meeting times. Socially focused guilds have more lax regulations regarding group meetings and planning sessions, whereas guilds with a raiding focus tend to employ strict
requirements and stringent systems of punishment and demotion for transgressors. More important than group conferences are the strictly scheduled “raiding” times when the raiding parties band together to complete game objectives as a group. Members of the same guild typically spend many hours per week together, not only according to their preagreed upon schedule of structured game time but also in casual in-game gatherings. These groups consistently participate in the same virtual space and consequently monitor one another’s virtual actions.

There is also a strong argument to be made for status as a “gamer” as the basis for a salient group identity. The broad label of “gamer” is embraced by many people who participate in and contribute to video game culture, constituting an umbrella term that encompasses a number of distinct group identities. Across game platform (e.g., gaming console vs. computer) or game genre (first-person shooter vs. fantasy role-playing game), committed and active communities have formed. Social identities become salient in more than just formally structured social institutions; social identities influence individuals in all intergroup contexts (Miller et al., 2000, p. 110). People who play WoW, especially those who are committed to guilds, routinely identify themselves that way, claiming residency in the WoW universe to players and nonplayers alike. The label of WoW player represents membership in an involved and far-reaching community, bonding together a diverse international cross section of the global population.

Finally, raiding guild members are expected to maintain a sense of responsibility and focus on the objective at hand that can be equated to the need for professionalism in the workplace. Players are held accountable for being competent in game skills, taking guild projects seriously, and maintaining an excellent attendance record for scheduled guild raids. This is not a universal experience for people who play WoW in guilds; guilds that focus more on raiding are very likely to align with this description, while social guilds often do not have the same expectations of their members. If a raiding group member is not focused and on time while raiding, and thus meeting established guild policies, he or she can get put on probation or fired from that guild just as one can from any job. The requirements of that environment could, as is true of the typical workplace, produce an atmosphere where people feel required to modify their behavior in a way that belies or at least omits their private attitudes (Williams et al., 2006).

The conditions of high mutual visibility, salient group identity, and a group need to maintain professionalism are, according to previous research, optimal for producing pluralistic ignorance. This population can therefore yield results comparable to the rates of pluralistic ignorance in assembled peers as found by Grant et al. (2009).

**Data Collection**

We began data collection by conducting an hour-long focus group with 15 WoW players. One of the authors, a nongamer, organized the focus group at the site of 2011 Blizzcon, the annual convention for Blizzard Entertainment, the company that
produces WoW. The 15 players were all members of a single guild, composed of two principal raiding groups with some overlap between them. The founding members of the guild had been playing together for approximately 4 years. The group was prompted with several open-ended questions about the guild’s in-game communication. Additionally, players talked about their general involvement in the game and their social lives for an hour. Because the focus group was audio recorded and transcribed, it helped provide data on how respondents themselves talked about WoW and, as such, shaped the content of the survey instrument. It also, crucially, provided background and insight into the workings of a guild community within WoW, and how a virtual community functions when assembled in person.

Following the focus group, we designed a self-administered online survey with 17 close-ended and six open-ended questions. We consulted two active WoW players and guild members to ensure that the word choice and questions would be well understood by the target population. The questions addressed age and gender demographics, guild type and size, and the communication practices within the guild. Several additional questions in the survey were modeled after questions used in Grant et al. (2009), to allow for comparison. The web address for the survey was advertised via social networking websites including Facebook, Twitter, and Google+. The original postings experienced high levels of traffic and were reposted multiple times by anonymous WoW players.

The survey respondents were entered into a drawing to win the prize of an in-game pet for their character. The survey was to remain open until at least 200 responses were collected. Within 24 hr of the original advertisement of the online survey, there were responses from 238 WoW players: 195 respondents answered some or all of the survey questions. Using this sample of gamers and their answers, we determine the levels of pluralistic ignorance among the population in aggregate, and look for causes of misperceptions on the individual level.

**Measures**

The measure of pluralistic ignorance in this study is the readiness of the subject pool—and their perception of their peers’ readiness—to talk about a personal concern that is often subject to an unpopular speech norm (Eliasoph, 1998). Other than spirituality, the personal concern most often subject to an unpopular speech norm in social groups is politics. We focused on politics in addition to spirituality because organizational raiding work in WoW is in many ways more thematically related to the political than to the spiritual. There is an aspect to the game that holds a spiritual element: There is an entire class of characters within the game that function as healers, characterized as priests and priestesses; as such, these common characters add a tinge of religiosity to an otherwise very secular environment. To control for the possibility of one concern carrying more salience than another, we designed the survey to include questions about both topics, investigating readiness of subject pool to talk about not just spirituality but politics as well.
To avoid the problem of respondents associating different attitude positions with the end points of an attitude rating scale, we measured most of the topics dichotomously. While some information, like unit size, is lost in collapsing certain measures, the relationships between variables are expected to remain accurate (Grant et al., 2009). We coded pluralistic ignorance as a dummy variable, measuring whether a player misperceives that the majority of their fellow guild members are uncomfortable talking about first spirituality, then politics while raiding (“I think the majority of my fellow guild members are uncomfortable discussing spirituality/politics while raiding;” 1 = yes, 0 = no). The stipulation that respondents report their comfort in discussing these topics while raiding is very intentional. Without such a specification, guild members might describe the more casual interactions that take place in guild chat channels, during game downtime. The specification functions to situate the concept of comfort or discomfort with unpopular speech norms within an environment as close to the professional setting as possible, documenting the respondents’ experience while they’re “on the clock,” so to speak. To determine the presence of this pluralistic ignorance in the group, it must be compared to the true comfort levels of the individuals involved, so we also asked respondents to report whether they themselves are comfortable talking about spirituality or politics during their organized/scheduled raiding times (1 = yes, 0 = no).

We coded for several independent variables that are likely to influence shared misperceptions and might contribute to the pluralistic ignorance in the sample population of WoW players. We coded each of these as dummy variables as well. First, to measure the prominence of spirituality and politics in group discussion, we coded “Spirituality is discussed often while raiding” and “Politics are discussed often while raiding” as 1 for gamers who agreed that those subjects come up regularly, and coded 0 for disagreement, indicating that those subjects are rarely subjects of group discussion. This is expected to vary positively with pluralistic ignorance.

According to our focus group research, the estimated average size of a guild is 40 players. Their understanding was that larger guilds run about 100 or 120 players, and on the smaller end. “Maybe there will be twenty or thirty people or a smaller, ten-man guild. If you had to average everybody out, [it would] probably be 40.” Therefore, to help us determine whether in-game interpersonal networks were large or small, we asked respondents whether their guild was bigger or smaller than 40 members. Respondents in guilds of over 40 people were coded as 1, and those in smaller guilds were coded as 0. We expect that guild size will vary positively with pluralistic ignorance as well.

To describe the nature of in-game interpersonal networks, an affirmative answer to “I am able to make friends with my fellow guild members” was coded as 1, with a negative coded as 0. We expect this measure to vary inversely with levels of pluralistic ignorance. Finally, the social condition of emotional labor is addressed with “I often feel like I cannot be myself while working with my guild” and “I often have to fake how I really feel while working with my guild” (1 = yes, 0 = no). We expect this measure of emotional labor, or the extent to which one feels required to manage...
or modify one’s feelings in certain situations, to vary positively with the level of pluralistic ignorance. We also asked respondents to characterize their guild as either a “raiding guild” or a “social guild.” While many guilds may identify to some degree with both of those qualities, measuring it dichotomously allowed us to identify whether there was a correlation between the level of pluralistic ignorance and the sociality of the guild.

Findings

Sixty percent of the respondents are male, 40% are female. Almost one third (29.7%) of the respondents are 24 years of age or younger, a bit more than one third (36.4%) are between 25 and 30 years old, and one third (33.8%) are 31 or older (Table 1).

On average, each plays 11–20 hr each week. Half of the respondents participate in raiding guilds and half participate in social guides. The majority (72.3%) are members of guilds larger than 40 people (Table 2).

In the case of discussing spirituality while raiding, 62% of surveyed gamers say they are comfortable, and 56% indicate a belief that the majority of their fellow guild members are also comfortable talking about spirituality. Not only are these both in the majority, but they differ by a slim margin of 6% (Table 3).

The case of politics turned out comparably. Of those surveyed, 67% claim to be comfortable discussing politics while raiding and 59% are sure that their fellow guild members were comfortable talking about it as well. As with spirituality, there was a slim margin for politics (Table 4).

We conducted a one-sample chi-square test on each measure of pluralistic ignorance against the results of the Grant et al. (2009) study, to determine the goodness of fit of our data set to the existing set and determine the statistical significance. The results do not indicate a significant difference between the personal feelings of most respondents and the perceived truth of the group for spirituality or politics (Table 5).

There is also significant consistency between the respondents’ understanding of majority attitude and the true aggregate of the majority attitude. These findings indicate a considerably lower presence of pluralistic ignorance, and therefore a much

**Table 1. Sample Demographics.**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Variable label</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td>Male</td>
<td>59.0</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>40.5</td>
</tr>
<tr>
<td></td>
<td>No answer</td>
<td>0.5</td>
</tr>
<tr>
<td>Age group (in years)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>24 or younger</td>
<td>29.7</td>
</tr>
<tr>
<td></td>
<td>25–30</td>
<td>36.4</td>
</tr>
<tr>
<td></td>
<td>31 or older</td>
<td>33.8</td>
</tr>
</tbody>
</table>

\[n = 195.\]
higher attitude–behavior consistency, in this virtual community than in the physically assembled community studied previously. This suggests that WoW, as a social medium, produces a different social reality.

Our focus group data describe some of the ways that WoW produces a distinct social reality for its members. The social culture of WoW is inevitably impacted by the social construction of the game in the popular cultural narrative. Many people outside the world of massively multiplayer online gaming have an unflattering perception of those games and the “gamers” who play them as being cultish, socially isolated, and inept at life in the physical world (Calcutt, 1999; Castronova, 2005).

While this is a false generalization, our research suggests that many WoW players have internalized this perception and, as a result, feel like they cannot discuss their preferred pastime with others who do not also play. In this manner, the lifestyle of a

Table 2. Gamer and Guild Profile.a

<table>
<thead>
<tr>
<th>Variable</th>
<th>Variable label</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours played/week</td>
<td>0–10</td>
<td>26.7</td>
</tr>
<tr>
<td></td>
<td>11–20</td>
<td>41.5</td>
</tr>
<tr>
<td></td>
<td>21–30</td>
<td>16.9</td>
</tr>
<tr>
<td></td>
<td>31–40</td>
<td>6.2</td>
</tr>
<tr>
<td></td>
<td>41 or more</td>
<td>6.7</td>
</tr>
<tr>
<td></td>
<td>No answer (missing)</td>
<td>2.1</td>
</tr>
<tr>
<td>Guild size</td>
<td>40 or less</td>
<td>27.7</td>
</tr>
<tr>
<td></td>
<td>More than 40</td>
<td>72.3</td>
</tr>
<tr>
<td>Guild type</td>
<td>Social</td>
<td>49.2</td>
</tr>
<tr>
<td></td>
<td>Raiding</td>
<td>49.7</td>
</tr>
<tr>
<td></td>
<td>No answer (missing)</td>
<td>1.0</td>
</tr>
</tbody>
</table>

\(^{a}n = 195.\)

Table 3. Accuracy of Guild Members’ Attributions of Majority and Minority Opinions on Spirituality.a

<table>
<thead>
<tr>
<th>I am comfortable talking about spirituality</th>
<th>I am uncomfortable talking about spirituality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Most guild members are comfortable talking about spirituality</td>
<td>49% Correct majority^b 8% Correct minority^c 56%</td>
</tr>
<tr>
<td>Most guild members are uncomfortable talking about spirituality</td>
<td>13% Incorrect majority^d 30% Incorrect minority^e 43%</td>
</tr>
</tbody>
</table>

\(^{a}n = 191.\) ^{b}Players in the majority who correctly impute their feelings about spiritual talk to most other players. ^{c}Players in the minority who correctly impute their feelings about spiritual talk to most other players. ^{d}Players in the minority who incorrectly impute their feelings about spiritual talk to most other players. ^{e}Players in the minority who incorrectly impute their feelings about spiritual talk to most other players.
WoW player can be bracketed from the larger population, but remain highly social among the other members of the virtual community.

Some of this reticence to talk about WoW with nongamers came across at the start of the focus group. Participants were friendly and invested, but almost formal, when they tried to explain their game experience to the focus group moderator. But when longtime WoW players who had never met the guild before joined in, the discussion became more conversational, and participants reminisced about previous versions of the game, old characters and old gaming practices. Everyone at the table became more animated, more relaxed, and more invested in that conversation between WoW players, than they ever did to the focus group leader. The difficulty of being unable to share the game with others who do not play is compounded by the fact that the game has significance in the lives of most players, as evidenced by the numbers of hours they spend playing the game each week.

"I spend all my free time [playing WoW]" was a much-echoed sentiment. Because of the role the game plays in their social life, guild members who feel judged or misunderstood because of their participation in the game feel a certain level of distance from people who do not play. Many respondents to the survey

### Table 4. Accuracy of Guild Members’ Attributions of Majority and Minority Opinions on Politics.\(^a\)

<table>
<thead>
<tr>
<th></th>
<th>I am comfortable talking about politics</th>
<th>I am uncomfortable talking about politics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Most guild members are comfortable talking about politics</td>
<td>53% Correct majority(^b) 14% Incorrect majority(^d)</td>
<td>6% Correct minority(^c) 27% Incorrect minority(^e)</td>
</tr>
<tr>
<td>Most guild members are uncomfortable talking about politics</td>
<td>67% Correct minority(^c)</td>
<td>59% Correct majority(^b)</td>
</tr>
</tbody>
</table>

\(^a\)\(n = 191\). \(^b\)Players in the majority who correctly impute their feelings about political talk to most other players. \(^c\)Players in the minority who correctly impute their feelings about political talk to most other players. \(^d\)Players in the minority who incorrectly impute their feelings about political talk to most other players. \(^e\)Players in the minority who incorrectly impute their feelings about political talk to most other players.

### Table 5. One-Sample Chi-Square Tests of Comparison to Grant, O’Neil, and Stephens (2009).\(^a\)

<table>
<thead>
<tr>
<th></th>
<th>Equal</th>
<th>Physical community</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal opinion—political talk</td>
<td>51.31(^***)</td>
<td>20.78(^***)</td>
</tr>
<tr>
<td>Attribution of majority opinion—political talk</td>
<td>19.06(^***)</td>
<td>5.70(^*)</td>
</tr>
<tr>
<td>Personal opinion—spiritual talk</td>
<td>80.77(^***)</td>
<td>N/A(^b)</td>
</tr>
<tr>
<td>Attribution of majority opinion—spiritual talk</td>
<td>15.42(^***)</td>
<td>N/A(^b)</td>
</tr>
</tbody>
</table>

\(^a\)\(n = 191\). \(^b\)Measures of spirituality were not present in both studies. \(^*\)\(p < .05\). \(^***\)\(p < .001\).
reported feeling a need to downplay or defend their involvement with WoW to their coworkers or friends outside the game. A focus group member describes a tense relationship with his roommate: “[He] chastises me about it, saying ‘Ugh you play World of Warcraft, you’re getting your money stolen … ‘ It’s not being stolen if I’m enjoying it. It’s just that one guy who’s being a cynic.” Other focus group members have similar experiences. “I don’t talk to my friends about it cause I know they’d be like, ‘Oh God, here we go … ’” A survey respondent expresses a desire to hide his or her in-game activities from coworkers: “Several have spoken about it disparagingly, so I am hesitant to discuss [it].” The same respondent goes on to explain that that only makes her feel closer to her fellow WoW players, because “it’s great to have like-minded people to share those experiences with.”

This disinclination among WoW players to share that part of their lives with those outside the game culture has performed the function of encouraging a stronger bonding of those who do play, especially those who play together in guilds. “These guys [in my guild] are like my extended family; we don’t keep that many things from each other,” explained one survey respondent. Another agreed that “People are much more open and trusting in my guild than in the workplace.” Even if they do not know each other well, the mere fact that they have this identity as WoW players in common is enough to create a high level of comfort and trust. As one focus group member put it, “When I meet other [WoW] players in real life, it’s like finally!” That level of trust is even consistent when a connection that originated online in WoW translates into the physical world, according to one survey respondent: “I recently took a vacation with my husband to meet 6 guild members in person. We have known them for nearly 2 years in game, but I know that it’s usually different in person. [But] we immediately felt at ease and, in some ways, it was easier than being with my family!”

Indeed, the shared identity of WoW players seems to have what we have decided to call a hypersalience, which goes a step beyond an ordinarily salient identity in its effect on pluralistic ignorance. When someone who plays WoW actively meets another such person in the physical world, there is a unique bond and mutual appreciation. One focus group member described it as “an instant connection” and was affirmed by his fellow guild members. This feeling of immediate connection is a product of that hypersalient group identity, which often brings with it a strong trust of the in-group, especially in this case when the out-group, that is, people who do not play WoW, is so large (Allport, 1924). “People are much more open and trusting in my guild than in the workplace” posits one respondent, who was one of the many to cite a relatively high in-group trust. This trust among guild members creates an openness of dialogue in game. Survey respondents reported “I feel comfortable discussing anything in game” and “There are less barriers between people in my guild than there are in my workplace, so my guild-mates tend to censor themselves much less.” The openness of communication within these guilds facilitates a transparency of majority opinions in the group that result in generally lower levels of pluralistic ignorance in a community.

The higher level of attitude–behavior consistency in the virtual community of guild members in WoW can also be attributed to the “safety” of online social
interactions relative to those that take place in person. Survey responses supported this, calling the in-game environment “a safe space,” and holding that “Guild is more accepting than the workplace.” Some respondents who also feel safer and more open online than in person cited social anxiety as a reason they prefer digital communication. For them, talking to their guildmates is “easier, since there’s no ‘danger’ because it’s not face-to-face contact.” In the virtual space of WoW, an individual’s presentation of self is more within their control than in real life: “In-game, I can be another person with another background in a fantasy world environment” says a respondent. Players can, if they choose, hide behind an alternate persona that highlights the personal qualities of their own choice, which some respondents feel frees them to be as open as they wish: “It is easier to talk about my personal life] with people who do not know I look like so they aren’t judging me based on that first.”

The medium of an MMORPG carries with it an inherent degree of anonymity for the players, which also facilitates open dialogue with in the group. “As WoW is an online, and normally anonymous community, there is usually nothing that is taboo in terms of speech topics” claims one guild member. Several WoW players mentioned that they choose to keep their social life online entirely separate from their “real” life, something that is relatively easy in online gaming. As another respondent elucidates: “The layer of anonymity that the Internet provides ... gives enough freedom to be able to discuss almost anything ... the information is never going to come back to hurt you in the real world.”

Keeping a “wall between work and home life” provides additional safety in talking about topics that might otherwise be considered taboo, because keeping those worlds separate means that there are fewer social consequences for that kind of frankness. According to both survey respondents and focus group members, “It’s easier to be honest about things when you’re not face to face, but it’s easier to be rude as well. [It’s a] double-edged sword” because “[i]n game discussions have no real life repercussions.”

The virtual nature of the self that exists within the game is connected to a much lower social risk for the individual player. Conflicts that arise within the game are happening to the character, the digital proxy that may bear little or no resemblance to the actual player. Players believe that there are few real-world consequences that could befall someone who happened to incite conflict, as many survey respondents pointed out. “If you say something [offensive] you don’t worry ... they’re not ever going to know it’s you. No one’s ever going to know you said that, unless it’s someone you know,” Adds a survey respondent: In game, you “don’t have to worry about whether someone’s perceived offense will impact your livelihood.”

**Discussion**

In researching physically assembled peers, scholars have found a discrepancy between the number of subjects who claim to be comfortable talking about spirituality themselves and the number of subjects who believe that the majority of their
coworkers are comfortable discussing it. Previous studies of pluralistic ignorance in a physically assembled community indicate a distribution of pluralistic ignorance that is highly inconsistent with the findings of our investigation of virtually assembled peers. Our results suggest that pluralistic ignorance occurs at considerably different rates in the virtual community of many WoW guilds than it does in physically assembled communities. While the survey respondents are nowhere near unanimous in their own comfort with discussing politics and spirituality—there is roughly a 35/65 split on both topics—they gauged the comfort level of the group accurately. The majority of respondents demonstrate a true knowledge of their group’s attitudes, rather than a pluralistic ignorance of them.

This suggests that there is a significantly higher rate of attitude–behavior consistency in the WoW guild community than in a physical professional environment. The focus group discussions help explain some of the ways that communication and social life in the virtual universe of WoW are distinct. One concept that surfaced in the open-ended survey responses was the element of choice in one’s social group. WoW players are free to select the group of players with which they would like to start a guild, or to leave a guild should they not be satisfied with their experience there. To some extent that power of choice exists in the workplace, too, inasmuch as many people choose to join or leave certain work situations based on their social qualities. However, the component of choice in one’s social environment is much more present in a recreational context such as an MMORPG. The choice component is also related to the fact that in my research population, many people had at least one or two real-life connections to fellow guild members. While half of the survey respondents knew no one in their guild in a nonvirtual context, another 44% of respondents reported knowing “some” of their guildmates in real life before joining forces with them within the game.

These preexisting connections, especially between people who know each other outside of a professional context, might contribute to the likelihood that guildmates would presume their views to be similar on topics like the appropriateness of discussing politics and spirituality while raiding. In addition, the option of anonymity or an alternate persona, the lack of consequences in the physical world for virtual transgressions, and an absence of the factors that can make in-person interaction more awkward or emotionally demanding all function together to decrease the power of an unpopular speech norm to restrict conversation, rendering commonly taboo topics like politics and spirituality more accessible for casual conversation. This produces a higher level of attitude–behavior consistency, and therefore lower levels of pluralistic ignorance.

The hypersalience of the group identity bonds the players of games like WoW in a way that transcends the typical casual online interactions of people who have never met in person. The concept of the game as a socially isolated activity is absolutely a misperception. Massively multiplayer online games are highly social experiences. Indeed, they are necessarily social experiences, designed with intention by the game makers, so that advancement and success beyond a certain point is not possible
without extensive network building, group work, and collaboration. Players are constantly meeting and interacting with other people from all over the world (Kelly, 2004), and forming deep connections that can last for years. Though this research indicates that the social life of WoW is different from the social life of the physical world, the virtual space of WoW is no less real for that.

**Summary and Conclusion**

This study sought to advance the empirical research on pluralistic ignorance and to illuminate differences between social life in person and social life online by examining the occurrence of pluralistic ignorance in the virtual community of raiders in WoW. Toward that end, we compared levels of pluralistic ignorance in physically assembled communities to levels of pluralistic ignorance in a virtual community. The evidence suggests that its markedly lower occurrence in the WoW players surveyed is a product of a higher attitude–behavior consistency among members of those virtual communities. Our combined survey and focus group method allowed us to paint a broad picture of the social dynamics in WoW that factor into the community’s relatively low levels of pluralistic ignorance. The results suggest that the safety of the Internet as a social medium and the hypersalience of the WoW guild member group identity contribute to that higher attitude–behavior consistency, which in turn lowers levels of pluralistic ignorance.

As an initial exploration of pluralistic ignorance in a virtual setting, our results are more suggestive than conclusive. Our hope is that this study demonstrates the utility of studying pluralistic ignorance in online communities. The potential status of WoW gamer as a hypersalient identity, and its impact on the presence of pluralistic ignorance in the group, provides rich opportunities for future ethnographic research. Moreover, identifying and defining hypersalience gives us a conceptual tool to explore pluralistic ignorance in communities online and offline. Three future avenues of exploration become apparent. First, one could explore the impact of hypersalient group identity on levels of pluralistic ignorance across groups that form around offline shared interests. Second, it would be interesting to explore whether pluralistic ignorance is more closely tied to the hypersalience of group identity than to the medium of communication. Third, it would be useful to ascertain whether following friends to a new setting, such from an offline interest group to an online activity like gaming, affects determinations of pluralistic ignorance.

Our findings have some potentially confounding outside factors. The issue of self-selection into the study affects the survey sample in particular. It is possible that the social experiences of WoW players who are inclined to respond to online surveys are dissimilar from the experiences of people who would not choose to respond. There may be a correlation between willingness to participate and closeness with their peer group, and future studies of this phenomenon would do well to account for this in the research design. The relationship between the answers given by the participants and the timeline of their experience in their guilds also becomes an issue.
under analysis. Accounting for turnover within guilds, changing levels of trust and attitude–behavior consistency over time, and guild stability could impact findings. As one participant noted, guild members “definitely talk about other things [outside of the game, such as religion and politics], because we’ve been playing together for so long.” The relative age of a guild could influence the pluralistic ignorance of its members, as trust and communication develop over time. Given the sampling and methodology, the results should be interpreted tentatively rather than conclusively; the results provide limited insight into the social conditions of MMORPGs and virtual worlds in general. However, these limitations do not affect the important contributions to a conceptual understanding of pluralistic ignorance in a virtual setting, which is the primary focus of the research.

Moreover, this research also generated many questions worthy of more detailed future exploration. For instance, how would the presence of pluralistic ignorance shift in a different virtual community? What exactly is the role of preexisting social connections in this increased attitude–behavior consistency? While WoW is an excellent space within which to investigate online communication using pluralistic ignorance, there are many online communities beyond the world of MMORPGs that might yield compelling results in a similar study. This line of research might also benefit from being applied to a larger sample, or by examining different indicating factors of attitude–behavior inconsistency.

The academic community would benefit from a broader knowledge of about factors that contribute to attitude–behavior consistency that are specific to online communities, and it’s important to know more about the effects of attitude–behavior consistency on the greater social patterns among virtual peers. There is of course much more to say about the occurrence of pluralistic ignorance in the emerging frontier of virtual communities; this is still a new topic of study. The social dynamics in some WoW guilds revealed by this study challenges discourse that posits that the Internet leads to isolation or is simply community moved online. This step was an important one toward an understanding of the growing interdependence of virtual communication and society.

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