

Queuing Among U2 Fans: Reactions to Social Norm Violations¹

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Two experiments examined reactions to line-intrusion scenarios among fans of the rock group U2 waiting in overnight lines to obtain desirable concert floor spots. Commitment to the goal, time investment, and ambiguity of the line-intrusion scenario were examined. Results showed that the queue is a social system influenced by norms of procedural justice (first-come, first-served). Violations of these norms were upsetting, even when the consequences did not directly influence personal outcomes (when line intrusions occurred behind a subject). Greater commitment to the goal led to more severe reactions to norm violations, whether the commitment was proximal (having waited in the line for awhile) or distal (being a committed fan). We discuss research on social norm violations.

Most people encounter lines as part of their everyday lives, including queuing in front of an automated teller machine, a public bathroom, or in an airport security area. While operations research has examined queues using mathematical modeling to examine queuing procedures and efficiency (e.g., Gross & Harris, 1998), psychological factors are important predictors of queuers' reactions to the service experience. Consumers like queues better (or dislike them less) if there are distractions while waiting, such as televisions or entertainment (Katz, Larson, & Larson, 1991). Queuers are also less frustrated if they can tell that the service provider is working hard (e.g., as opposed to chatting with coworkers) and if they can predict how long the wait will be (Larson, 1987). Disney World, for example, displays real-time queuing wait times in a centrally located display in the park so that visitors can tell which rides are least busy. In addition, approximate wait times are displayed on signs along the queue itself. Queuers are also less frustrated if it is clear that a first-come, first-served principle is at work (Larson, 1987). This is why queues frequently have a single line leading to multiple servers, such as in airport ticketing, banks, and fast-food restaurants, as opposed to a separate line for each server.

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Queuers also react in other psychologically predictable ways to their waiting. For example, people closer to the commodity being offered are more likely to overestimate the number of people ahead of them in line, whereas people further away (and in danger of not getting the desired commodity) tend to underestimate the number of people ahead of them in the line (Mann & Taylor, 1969). These authors argue that people are intrinsically motivated to misestimate the wait, but that the process is likely not deliberate.

Queuers are also affected by the number of people behind them in the line. Although a longer line behind the queuer does not objectively affect the length of a person's required wait time, Zhou and Soman (2003) found that as the number of people increases behind queuers in the line, the queuers are more likely to experience positive emotions and are less likely to leave the line early. Zhou and Soman found that queuers made downward social comparison to the less fortunate people behind them in line, and that factors that shape the degree of social comparison also influenced the size of this number-behind effect.

In general, queuing research has shown that the queue is a social system, an observation made first by Mann (1969). This point is particularly exemplified by research into the factors that predict reactions to line intrusions. In a classic study by Milgram, Liberty, Toledo, and Wackenhut (1986), confederates cut into 129 lines at train-station counters, betting parlors, and other locations in New York City. Results showed that objections to line intrusions were much more frequent when intruders cut ahead, as opposed to behind the subject in line; when there were two intruders instead of one; and when there was less distance (fewer people) between the subject and the line intruder. Overall, the percentage of subjects who reacted (by verbal, nonverbal, or physical action) varied considerably from a high of 91% when there were two intruders cutting in line right in front of the subject, to a low of 5% when there was one intruder who cut in line three places in front of the subject. Thus, people clearly felt a unique responsibility to confront the intruder if she was immediately in front of the subject, but this responsibility diminished as distance from the line intruder increased.

This finding was replicated by Schmitt, Dubé, and Leclerc (1992), who also found that the responsibility to act fell upon the person immediately behind the intruder. Furthermore, the legitimacy of the intrusions affected people's reactions. People were much more upset when the intrusion was by a customer than by a service provider (in a scenario study) and were more likely to act verbally, nonverbally, or physically (in an actual line-intrusion study) when the intrusion was by an apparent stranger, as opposed to a person who knew someone in line. In support of the argument that the line is a social system, Schmitt et al. found that queuers were more likely to object to an actual line intrusion when there were two additional queuers behind in

line than when the subject was the last person in line. The authors argued that confronting an intruder is a challenging task (in 70% of cases, people did not react to the intrusion), but that the social obligation of reacting to the intruder is enhanced when there are queuers behind in line who are also affected by the line intrusion. Schmitt et al. discussed the need for research examining other factors influencing the queuing system, including how important the goal is to the customer.

In the current experiments on queuing, we examine reactions to various situations and queue violations among fans of the rock band U2. Fans attending U2 concerts may purchase two kinds of tickets: reserved seating or general admission (GA) tickets. Reserved seating does not require queuing, whereas GA tickets provide access to the floor of the venue on a first-come, first-served basis. The primary commodity of the U2 GA queue is to get an attractive spot on the floor in front of the stage during the concert. Fans want to get as close to the stage as possible, and preferably obtain a spot “on the rail” right in front of the stage.

At shows held in U.S. arenas, fans with GA tickets form very long, overnight queues, which typically number over 300 by the time the queue goes into the venue at around 6 p.m. for that evening’s concert. The queue is managed largely by fans themselves who organize a system in which the first fans in line keep a list with names and numbers assigned to people as they arrive. The *line Nazi* or *fan with the Sharpie* (as they are informally called) also writes the line number on the fan’s hand. Neither venue staff in the U.S. nor U2 staff generally impose queuing rules or regulations, and tend to support the fans’ self-organized system (e.g., when a fan arrives at a venue and asks a venue security guard what to do, she is likely to tell the fan to go to the front of the line to get on the list and receive a number).

The U2 queues tend to function remarkably similarly from U.S. city to U.S. city, despite a lack of formal rules and little official enforcement. Like queues explored by other social scientists, there are shared understandings about the inappropriateness of queue jumping and the need to invest time in the queue before leave-taking for short periods. By studying fans in this queue, it is possible to investigate situational and individual factors that influence reactions to queuing norm violations.

Specifically, we examine the effects of direct self-interest (intrusion occurring ahead or behind in line; Experiments 1 and 2), how much time the person had invested in the line (manipulated as line position in Experiment 1 and hours waited in Experiment 2), how committed the participant was to the goal of getting a good spot at the concert (serious fans were assumed to be more committed to this goal), and type of line-intrusion transgression. In Experiment 1, we created a scenario in which the line intruder was jumping in line next to friends, as opposed to strangers; and in Experiment 2, the line

intruder was joining friends who had (or had not) informed others around them in the queue that a friend would be joining later. We expected reactions to be more negative when basic social-justice expectations were violated, the investment in line was greater (either because of greater fan commitment or to longer waiting), or there was greater ambiguity in the line-intrusion situation. We expected more committed fans to be especially outraged at line intrusions because they have more invested (in terms of time and the expense of travel) and find the goal more desirable.

Experiment 1

Method

Participants

Participants were 283 adults (127 male, 154 female, 2 did not indicate gender) waiting in the GA line at two U2 concerts in Philadelphia, Pennsylvania, in October 2005. The mean age of participants was 30 years ($SD = 7.8$; range = 18–67). Participants were mostly White (90% White, 2% Asian/Asian American, 2% Black/African American, 3% Latino/Hispanic, and 3% other ethnicities) and educated (1% some high school, 8% completed high school, 23% some college, 49% completed college, and 19% advanced degree). Participants reported being U2 fans for an average of 7 years ($SD = 7.2$; range = 0–26 years), having attended an average of 7 prior U2 concerts ($SD = 8.8$; range = 0–75), of which an average of 3 concerts entailed waiting in the GA line ($SD = 4.0$; range = 0–24). Participants described themselves as follows: 14% said they were casual fans, 23% were enthusiastic fans, 41% were seriously dedicated fans, and 22% were hardcore fans. On these two concert days, the first fans in the GA line arrived at 9:30 p.m. and 10:30 p.m. the night before the concert the following evening.

Procedure

The researchers collected data in the queue between 9 a.m. (after the queue was well established and fans having spent the night were awake) and 5 p.m. (about 1 hr before the queue entered the venue). Participants were approached in line by two female researchers and were asked to participate in a study about U2 fans. No compensation was provided; however, refusals were very rare.

Participants were informed that their responses were completely anonymous and that completing the questionnaire indicated consent to have their

responses used for research purposes. Participants were asked not to discuss the questions with anyone while completing the questionnaire and were asked to complete the questionnaire only once. These instructions were stated verbally by the researcher and were repeated on the first page of the questionnaire. The survey and procedures were approved by the Institutional Review Board at Dickinson College.

Materials

The survey requested background information (i.e., gender, age, ethnicity, educational level), information related to the current concert (what time they got in line, what their number in line was, what time they completed the survey), and fan information (how long they had been fans, how many U2 concerts they had seen in total, how many U2 concerts they had seen where they waited in the GA line). Participants were also asked to describe their level of U2 fan commitment by selecting one of four options: “*casual fan* (own some but not all of U2’s music, rarely attend U2 concerts)”; “*enthusiastic fan* (own a great deal but not all of U2’s music, occasionally attend concerts)”; “*seriously dedicated fan* (own all of U2’s music, attend concerts frequently)”; and “*hardcore fan* (own all of U2’s music, attend concerts with great regularity, and follow the band from city to city).”

Queuing attitudes. We asked two questions that were designed to address attitudes toward the GA as they relate to venue security and U2. Specifically, the items are “Venue security should be more involved in organizing and policing/enforcing rules in the GA line,” and “U2 staff should be more involved in organizing and policing/enforcing rules in the GA line.” The items were rated on a 5-point scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Another question asked “For what period of time is it acceptable for someone to hold a place in the GA line for a friend who has not yet arrived at the venue?” The item was rated on the following 8-point scale: 0 = *it is not acceptable*; 1 = *under 1 hour*; 2 = *1–2 hours*; 3 = *2–3 hours*; 4 = *3–4 hours*; 5 = *4–5 hours*; 6 = *5 hours or more*; 7 = *I have no opinion*.

Experimental manipulation. Participants read one of eight brief scenarios. The scenarios describe an incident at a U2 concert in which a person cuts in line 10 people ahead/behind. We manipulated three independent variables, including position of the person in line (either 30th or 175th), location of the intrusion (in front or behind), and type of intrusion (stranger or friend).

After participants read the scenario, they were asked four questions to assess their reactions, including how upset they might be. In response to the question “If this really happened to you, what might your reaction be? I would be . . . ,” participants rated their responses on a 5-point scale ranging

from 1 (*not at all upset*) to 5 (*extremely upset*). They also rated how likely they would be to do or say something to the person cutting into line on a 5-point scale ranging from 1 (*extremely unlikely*) to 5 (*extremely likely*); the extent to which other fans ought to say something to the person cutting in line on a 5-point scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*); and the extent to which someone in charge (e.g., venue security) should say or do something to the person cutting into line on a 5-point scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). The four dependent variables were all significantly correlated (r s ranged from .37 to .63). Thus, the four dependent variables were combined into a single index (Cronbach's $\alpha = .82$) in which higher numbers indicate a more negative reaction to the line intrusion in the scenario.

Results

We examined the effects of the experimental manipulation, and then we examined the extent to which fan commitment interacted with the experimental manipulations. Analyses of social norms toward queuing are examined in the Results section of Experiment 2 after combining the variables for both studies.

First, how did participants react to the experimental scenarios? A 2 (Location of Intrusion: ahead or behind) \times 2 (Type of Intruder: stranger or friend) \times 2 (Position in Line: 35th or 175th) ANOVA shows a main effect of type of intruder, $F(1, 274) = 20.63, p < .001$, partial $\eta^2 = .07$. Participants reacted more negatively when the intruder was a stranger ($M = 4.01$) than a friend ($M = 3.54$). There were no other significant main effects or interactions. For example, fans were mildly upset whether the intrusion was going on ahead of them in line ($M = 3.83$) or behind them in line ($M = 3.72$), and their reactions were the same whether they imagined themselves as 30th in line ($M = 3.82$) or 175th in line ($M = 3.73$).

Second, did fan commitment interact with the variables in the experimental design? Aiken and West's (1991) procedure for testing interactions between continuous and categorical variables was followed. In this multiple regression analysis, the four main effects (i.e., location of intrusion, type of intruder, position in line, fan commitment) were entered, along with all interactions. The continuous predictor variable (fan commitment) was centered to increase interpretability and to decrease problems of collinearity (Aiken & West, 1991). The results reveal two main effects: a main effect of type of intruder (friend or stranger), as previously discussed; and a main effect of fan commitment, $t(266) = 2.79, p = .006$, partial $\eta^2 = .03$, such that more committed fans reacted more negatively to the scenario. There were no

other effects. In sum, people were more upset at the intrusion situation when a stranger cut in line than an apparent friend, and more committed fans were more upset than casual fans at any line-intrusion situation. Contrary to prior research, it did not make any difference if the intrusion occurred ahead of or behind the person in line.

Discussion

In the experimental scenario, fans reacted more negatively when the intruder was a stranger than a friend, and committed fans were more upset than were casual fans. Fans did not differ in their reactions, whether the intrusion occurred ahead of or behind them in line, and position in line did not matter (i.e., 35th vs. 175th). This suggests that commitment to the goal was important (e.g., level of fan commitment), but closeness to the goal (e.g., number in line) was not. Surprisingly, fans reacted similarly to intrusions, regardless of the location of the intrusion. This contrasts with research showing that people care much more about line intrusions ahead of than behind them in line (Mann, 1969; Milgram et al., 1986; Schmitt et al., 1992). This result is discussed in detail in the General Discussion.

Although these findings are informative, there are several limitations. First, it is possible that fans did not notice all manipulated variables in the scenario, such as where in line the intrusion took place. Thus, in Experiment 2, we strengthened this manipulation by repeating it several times. We also added manipulation checks for all independent variables. Second, we unexpectedly did not find that position in line (i.e., 35th vs. 175th) mattered. It could be that participants did not fully realize (especially less experienced fans in the back of the line) how long a fan who is 35th in line has waited; or realize that in Position 175, one might not reach the queuing goal of a spot on the rail. Although number in line is exactly correlated with how long one has waited in line, the length of time waiting is the more emotionally salient variable. Thus, in Experiment 2, we changed this manipulation so that it referred to time waited in line (3 hr or 9 hr).

Third, we found more negative reactions to a clear (i.e., a stranger intrusion) than a more ambiguous (i.e., a friend intrusion) queuing norm violation. In Experiment 2, we want to examine reactions to norm violations falling in the gray areas of queuing norms. Thus, we describe a situation in which a person joins the line late, meeting up with his or her friends who have been in line all day. The friends in line have informed others around them that a friend is joining late (or have not informed nearby queuers).

Finally, we were concerned that the scenario in Experiment 1 used language that clearly defined the situation as one in which a norm violation had

occurred (e.g., “a person cuts in line”). We changed the description in Experiment 2 so that it was neutral with respect to whether a transgression had occurred (e.g., “a person enters ahead in line”). We also changed the description of the line-intrusion situation so that it occurred right before the line was about to go into the stadium (instead of when the line is “well established”) because this is the most likely time for line intrusions to occur. We also changed the proximity of the intrusion from 10 positions to 5 positions away because research shows that queuers might have little reaction toward line intrusions more than a couple of positions away (e.g., Milgram et al., 1986). Thus, in Experiment 2, three independent variables are manipulated, including where the intrusion occurs (ahead or behind in line), how much time the person has invested in the line (having waited 3 hr or 9 hr), and whether the queuers have or have not been informed of a late-arriving friend.

Experiment 2

Method

Participants

Participants were 206 U2 fans (111 male, 93 female, 2 did not indicate gender) who were waiting in the GA line at two U2 concerts in Atlanta, Georgia in November 2005. Participants' mean age was 30 years ($SD = 7.3$; range = 18–57). The participants were primarily White (90% White, 2% Asian/Asian American, 6% Latino/Hispanic, and 2% other ethnicities) and educated (6% completed high school, 20% some college, 49% completed college, and 25% advanced degree). Participants reported being U2 fans for an average of 14 years ($SD = 6.4$; range = 0–30), having attended an average of 6 prior U2 concerts ($SD = 7.9$; range = 0–50), of which an average of 3 concerts entailed waiting in the GA line ($SD = 5.4$; range 0–36). The participants described themselves as follows: 9% said they were casual fans, 26% were enthusiastic fans, 51% were seriously dedicated fans, and 12% were hardcore fans.

Procedure and Materials

The procedure was identical to that of Experiment 1. The background questions were identical to those in Experiment 1, with the exception of adding questions about queuing fairness norms.

Queuing fairness norms. Questions assessed attitudes toward various aspects of fairness in the GA line. Specifically, items stated “It is fair if a

person joins the line late in the day without having waited all day,” “It is fair to hold a place in line for a friend who joins you later in the day,” “It is fair if a group of friends take turns holding the group’s spot in line,” and “It is fair for fans at the front of the line to establish a numbering system.” Participants rated the items on a 5-point scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*).

Experimental design. Participants read one of eight brief scenarios. The scenarios described line intrusions at a U2 concert in which a person enters the line 5 people ahead (behind). We manipulated three independent variables, including the location of the intrusion (ahead or behind), the type of intrusion (people in the queue had or had not been informed of friends arriving late), and time waited in line (3 hr or 9 hr).

As in Experiment 1, four questions assessed the participants’ reactions, including how upset they might be, how likely they would be to say or do something, the extent to which other fans should act, and the extent to which venue security (or someone else in charge) should act. The wording of the question asked about reactions to the person “joining the line,” instead of “the line cutter” as used in Experiment 1. The four dependent variables were all significantly correlated ($r_s = .53$ to $.74$) and were combined into a single index (Cronbach’s $\alpha = .86$) in which higher numbers indicate a more negative reaction to the line joining occurring in the scenario.

Manipulation checks. At the end of the six-page survey, we asked participants to recall the scenario they had read earlier, but asked participants to refrain from going back to reread the scenario. We asked how long they (in the scenario) had been waiting in line (3 hours, 9 hours, or I don’t remember/not sure); whether the person joining the line (in the scenario) was ahead of them, behind them, or I don’t remember/not sure; and finally, whether the person joining the line was joining friends who had earlier informed fans around them that this would happen, joining friends who had NOT informed fans around them that this would happen, or I don’t remember/not sure. Overall, 78 participants out of 206 (37.9%) failed a manipulation check either by checking “I don’t remember/not sure,” or answering incorrectly. These participants were excluded from the analysis of the effects of the experimental design, but were included in all other analyses.

Results

How did participants react to the experimental scenarios? A 2 (Location of Intrusion: ahead or behind) \times 2 (Type of Intrusion: did or did not inform queuers) \times 2 (Time in Line: 3 hr vs. 9 hr) ANOVA shows a main effect of type

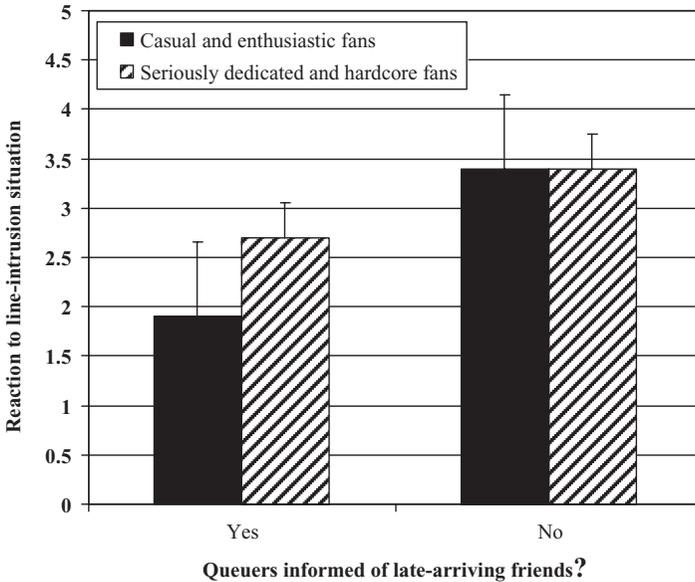


Figure 1. Mean reaction (+SE) to a hypothetical line intrusion as a function of fan commitment and type of transgression.

of intrusion, $F(1, 119) = 29.06, p < .001$, partial $\eta^2 = .20$. Participants reacted more negatively when the intruder’s friends had not asked permission ($M = 3.38$) than when the intruder’s friends had asked permission ($M = 2.40$). The results also show a main effect of time in line, $F(1, 119) = 4.97, p = .02$, partial $\eta^2 = .04$. People reacted more negatively when they imagined having waited 9 hr ($M = 3.09$) than 3 hr ($M = 2.68$). There were no other significant main effects or interactions.

As in Experiment 1, we examined if the manipulated variables interacted with the fan commitment variable. We conducted a multiple regression analysis in which we entered the centered fan commitment variable, as well as the other three independent variables and all interactions. As before, there was a main effect of type of intrusion, $t(109) = 5.61, p < .001$, partial $\eta^2 = .20$. In addition, there was a main effect of fan commitment, $t(109) = 2.64, p = .01$, partial $\eta^2 = .05$, such that more committed fans reacted more negatively to the scenario. A significant Fan Commitment \times Type of Intrusion interaction moderated these effects, $t(109) = -2.12, p = .04$, partial $\eta^2 = .04$. For clarity of display, the means are shown in Figure 1, combining the four fan commitment categories into two.

When queuers had not been informed, committed fans ($M = 3.38$) and casual fans ($M = 3.40$) agreed that the behavior would be somewhat upsetting

Table 1

Fairness Attitudes Regarding Queuing Norms

Item	<i>M</i>	<i>SD</i>	Correlation with fan commitment
It is fair for fans at the front of the line to establish a numbering system.	4.35	1.09	-.04
It is fair if a group of friends take turns holding the group's spot in line.	3.83	1.13	-.24**
It is fair to hold a place in line for a friend who joins you later in the day.	2.85	1.22	-.18*
It is fair if a person joins the line late in the day without having waited all day.	1.86	1.05	-.24**
Venue staff should be more involved in organizing and policing/enforcing rules in the GA line. ^a	3.87	1.19	.17*
U2 staff should be more involved in organizing and policing/enforcing rules in the GA line. ^a	3.78	1.19	.19*

Note. Items were rated on a 5-point scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*).

^aItem presented in both experiments ($N = 480\text{--}481$). The remaining items were presented only in Experiment 2 ($N = 202$).

* $p < .01$. ** $p < .001$.

(difference *ns*). However, when queuers had been informed of the late-arriving friends, committed fans were more upset ($M = 2.74$) than were casual fans ($M = 1.91$), $F(1, 56) = 9.94$, $p = .003$, partial $\eta^2 = .15$. Thus, committed fans were more upset overall than were casual fans; and when a queuing norm was violated, committed and casual fans agreed that it would be somewhat upsetting. However, when the violation of the queuing norm was less clear, committed fans were more upset than were casual fans.

Queuing fairness norms and attitudes. Table 1 displays the means for the measured queuing norms and attitudes, as well as the correlation between each item and fan commitment. This table displays data from Experiments

1 and 2 combined (last two items) and Experiment 2 (remaining items). Fans overall said that it was unfair for a person to join the queue late without having waited all day ($M = 1.86$). However, fans also agreed that it was fair for friends to take turns ($M = 3.83$), and thought that it was probably fair for a fan to hold a place for a late-arriving fan ($M = 2.85$). These three means were all significantly different from each other, paired sample t s > 10.69 , p s $< .001$, d s = -1.43 to -0.75 . Thus, although fans appeared to adhere to the general principle that queuers should serve their time in the line, they also thought that friends can act as their representatives and hold a position in line for them. This viewpoint was echoed in the response to a question asking whether it was acceptable for someone to hold a place in the U2 GA line for a friend who had not yet arrived. On average, only 7% said that it was not acceptable.

The correlations in Table 1 show that the more committed the fans were, the more unfair they thought these situations were (p s $< .01$). The results suggest that fans in general subscribe to the procedural justice principle that you should earn your spot in line by investing time in the line. At the same time, fans (especially casual fans) think that you can have friends hold a spot or take turns waiting in the line. This is consistent with experimental data showing that serious fans were more upset in reactions to the scenario. Thus, fan commitment is an important predictor of reactions to issues of fairness. More committed queuers (e.g., serious fans) were more strict about the necessity of serving your time in line and not having friends stand in for you.

Table 1 also reveals that, overall, fans thought that venue staff ($M = 3.87$) as well as U2 staff ($M = 3.78$) should be more involved with enforcing queuing rules. Committed fans were particularly likely to hold this belief (p s $< .01$). Finally, the self-organizing system of fans (who assigned line numbers) was broadly supported ($M = 4.35$) by committed and casual fans alike.

Discussion

The experimental results show that fans reacted more negatively to intrusions when they had imagined waiting longer in line and that committed fans reacted more negatively than did casual fans. These variables reflect greater investment in line or greater commitment to the goal. Thus, people who have more invested or who find the goal more desirable are more upset. Contrary to previous research, but consistent with Experiment 1's results, it did not matter if the line intrusion occurred ahead or behind in line. We will consider this finding in the General Discussion.

Interestingly, type of intrusion and fan commitment interacted such that when queuers had not been informed of a late-arriving fan, casual fans and committed fans were equally upset; whereas when queuers had been informed, committed fans were more upset than were casual fans. This suggests that commitment to the goal does matter in perceptions of fairness, especially in the gray areas of queuing behavior (e.g., Can fans really ask permission of other fans regarding holding a spot in line for a friend?). Committed fans were more upset at queue transgressions in these gray areas. Similarly, the correlational data show that committed fans were more likely to think that venue staff and U2 staff should be more involved in policing the line, and they were more likely to think that various turn-taking schemes in the queue were unfair.

General Discussion

These results add two important findings to our understanding of psychological factors in queuing. First, these results show that violations of procedural justice (first-come, first-served) norms are upsetting, even when the consequences do not directly influence personal outcomes. In both experiments, we found that intrusions into the line were perceived as equally upsetting whether occurring ahead of or behind the subject in line. Previous research has found that people generally do not care about line intrusions occurring behind them in line, probably because the queues studied were relatively short, with a small time and effort investment (Milgram et al., 1986; Schmitt et al., 1992). Second, greater commitment to the goal led to more severe reactions to norm violations, whether the commitment was proximal (having waited in the queue for a while) or distal (e.g., being a committed fan). Although the goal orientation of queuers might influence estimations of the length of the queue (Meyer, 1994), no research has examined the role of queuer commitment in reactions to line intrusions.

These results add to research showing that queues are social systems (e.g., Mann, 1970). The results show that individuals react not only to individual costs of line intrusion, but also to the norms, fairness, and equity rules in the queue. Clearly, people care about the context and the situation of norm violations, not just about the objective setback associated with someone intruding in line. Resistance to line intrusion as a result of individual costs (where the proximity to the desired goal is impeded) or moral outrage (the behavior of line intruders challenges principles of fairness and justice) are probably both at work in reactions to line intrusions (Schmitt et al., 1992). While difficult to separate the two empirically, we argue that they are closely related. Moral outrage that occurs as a result of intrusion

in line behind a subject may assist in ensuring order in the queue. For U2 fans, any threat to the established queue might create chaos to the entire system and, therefore, ultimately threaten one's own position in the queue. Thus, moral outrage to line intrusion may ultimately be linked to self-interest, especially when commitment is high. Future research should examine these possibilities.

Reactions to the current experimental scenarios might have been much stronger if we had asked participants to imagine line intrusions that were immediately next to the subject. Milgram et al. (1986) found that the percentage of people reacting to a line intrusion dropped rapidly from intrusions 1 position ahead (62% reacted) to 3 positions ahead (4% reacted). Schmitt et al. (1992) found even sharper drop-offs as a function of distance from the intrusion event. In fact, the person 2 positions behind the intruder was as unlikely to react as the person 8 positions behind the intruder. In the current study, we asked participants to imagine that the line intrusion occurred 10 (Experiment 1) or 5 (Experiment 2) positions away. We would likely have obtained more extreme reactions had we asked about reactions to line invasions occurring immediately next to the person in line.

One limitation of the current research is that the results might not generalize to other long queues, although in several studies of weeklong football-ticket buying queues in Australia (Mann, 1969; Mann & Taylor, 1969), the queues functioned similarly to what we observed in our research. Similarly, we cannot generalize from the current results to queuing in other countries or with other goals. Clearly, the cost of waiting and the desirability of the commodity offered vary, and influence reactions to queuing norm violations.

A second limitation is that we cannot generalize from reactions to hypothetical scenarios to actual behavior. Measuring what people feel or think about a line intrusion scenario is obviously different than measuring what people actually do when facing a line intrusion. Previous research using field studies has found that most people do not react verbally or physically to line intrusions (e.g., 70% did not react in the field study conducted by Schmitt et al., 1992), probably not because of a lack of moral outrage, but because of the discomfort of confronting the intruder. In fact, because there are so many constraints that make it likely that people will avoid confronting an intruder, we suggest that the moral outrage of people who experience line intrusions is best measured by asking about people's emotional and cognitive reactions to such situations, rather than observing their actual behavior.

One interesting direction for future research is to focus on how social norms emerge and are maintained in settings like long queues. It is puzzling that U2 queues function similarly from city to city, without formalized rules or enforcement. How are norms communicated, and what measures are

taken when norm violations occur? According to dynamic social impact theory (Latané & Bourgeois, 2001), groups may be considered complex systems of people that influence one another. The strength, immediacy, and number of sources of social influence determine changes in behaviors, attitudes, and moods of people in a group. Understanding how members of a group come to influence one another and how majority and minority opinion holders negotiate the implementation of norms is highly relevant to the research presented here. Latané and Bourgeois' model could be a useful way of examining how shared understandings about queuing (i.e., when to queue, conceptions of fairness and justice, sanctions for violating norms) emerge, and how norms are transmitted from small groups (perhaps committed fans) to the larger queue. Ultimately, these norms are the basis for a self-organizing culture that is maintained over time.

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