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An Experimental Investigation of the Interpersonal Ramifications of Lateness to Workplace Meetings

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Abstract

Individuals often attend meetings at work to which at least one person arrives late. Building from attributional theories of interpersonal behavior, we conducted an experiment to determine the cognitive, affective, and behavioral components of people's reactions to meeting lateness. Participants read one of eight experimental vignettes that described someone arriving 5 or 15 mins late to an important or unimportant meeting, after which the person who arrived late offered either a controllable or an uncontrollable reason for being late. Participants reported greater anger and a willingness to punish the late arrival who gave a controllable excuse, whereas sympathy and pro-social intentions followed the late arrival who gave an uncontrollable excuse. To establish generalizability, we replicated the results using a survey of workers who reported on their thoughts and experiences in their last meeting to which someone arrived late. Overall, our findings also indicated that accounting for the severity of the transgression uniquely contributed to emotional and behavior reactions, which is an improvement on existing attributional models.

Keywords: workplace meetings, attribution theory, interpersonal relations

Practitioner Points

- Arriving late to workplace meetings can have negative effects on interpersonal relationships, despite the prevalence of the behavior.
- Organizations and managers should encourage all meeting attendees to arrive to meetings on time—this avoids the negative effects of lateness and also sets the stage for positive meeting interactions.
- Managers can take steps to mitigate the effects of lateness if it occurs. Agendas should be flexible to allow the movement of discussion points if someone arrives late.

An Experimental Investigation of the Interpersonal Ramifications of Lateness to Workplace Meetings

Workplace meetings, or intentional gatherings of three or more people with the common goal of discussing a work-relevant topic (Leach, Rogelberg, Warr, & Burnfield, 2009), are ubiquitous across organizations. In the United States, organizations hold approximately 11 million meetings each day (Allen, Rogelberg, & Scott, 2008), and employees in Western, English-speaking countries spend about six hours per week attending or preparing for meetings (Rogelberg, Leach, Warr, & Burnfield., 2006). About 75% of managers' working hours in large organizations (larger than 500 employees) relate to preparing for, attending, or leading meetings (Allen, Beck, Scott, & Rogelberg, 2014).

People arrive late to meetings at work millions of times each day in the United States (Rogelberg et al., 2014), and employees spend a substantial portion of their time at work attending meetings (Rogelberg et al., 2006). Despite the centrality of meetings to many organizations, little research has examined the effects of lateness to meetings. Initial evidence suggests that working adults tend to react negatively when meetings start late, especially if the delay was a result of someone not arriving on time (Rogelberg et al., 2014). One purpose of this study is to identify *why* people react negatively to meeting lateness and how lateness may affect work relationships.

This study adds to the extant literature on meetings and attributional theories in two primary ways. First, meetings are often viewed as unnecessary and inconsequential in many organizations, and little evidence links behaviors in meetings to broader interpersonal relationships at work. Building from attributional theories, we propose that meeting lateness can trigger a casual search process among on-time attendees, and that the results of that search will

inform subsequent behavioral intentions that can negatively influence relationships outside the meeting context. The findings of this study may stimulate additional research on the linkage between workplace meetings and broader social outcomes in the workplace. Second, this study addresses a key limitation of attributional theories: the lack of a component that captures the severity of an actor's behavior. Weiner's (1985a) theory, for instance, dichotomizes behavior as transgressing or non-transgressing, which thereby hinders the theory accounting for differences in the *degree* of the transgression.

Study Background

Meetings are not insular, static events; rather, meetings share a reciprocal relationship with the larger work setting. The organization affects meeting processes and outcomes (Baran, Shanock, Rogelberg, & Scott, 2012), and aspects of the meeting influence extra-meeting factors (Allen & Rogelberg, 2013; Rogelberg, Allen, Shanock, Scott, & Shuffler, 2010; Rogelberg et al., 2006). For example, Baran and colleagues (2012) found that good meeting practices (e.g., starting on time, conveniently scheduled, well-run, etc.) positively affected employees' perceived organizational support, whereas global leader member exchange positively influenced how likely employees were to engage in meeting citizenship behaviors (e.g., arriving on time and coming prepared).

Although a variety of meeting behaviors, such as interpersonal conflict, may affect relationships among employees (e.g., Kauffeld & Lehmann-Willenbrock, 2012), the degree to which non-communicative and seemingly inconsequential behaviors transfer from the meeting to the workplace more generally is unknown. Meeting lateness, the focus of the present study, is a non-communicative meeting behavior that occurs at least 3.5 million times each day in the United States (Rogelberg et al., 2014) and, in more than 60% of cases, results in the meeting

leader delaying the meeting until the late arrival is present (Rogelberg et al., 2014). In an initial study on the topic, Rogelberg and colleagues (2014) examined how individuals in Western societies determine whether a meeting attendee is late or on time. Nearly an equal number of participants classified late individuals as arriving: (a) after the meeting started, (b) after the announced meeting start time, or (c) more than 10 minutes past the announced start time. Thus, individuals identify lateness based on a combination of temporal and contextual factors.

Meeting lateness may affect meeting processes, outcomes, and the general work environment through three mechanisms. First, meeting lateness and delayed meetings, or those that start after the scheduled start time, are inextricably linked events. Over 60% of delayed meetings start late because the meeting leader waits for at least one late attendee to arrive (Rogelberg et al., 2014). Initial investigations of late-starting meetings suggest that meeting satisfaction, meeting effectiveness, and team performance are negatively affected as meeting delay increases (Landowski, Allen, Porter, Hinkel, & Ebers, 2011). Second, meeting lateness can induce a negative mood state among on-time attendees (Rogelberg et al., 2014). Research indicates that negative mood states are negatively related to performance (e.g., Eisenberger, Armeli, Rexwinkel, Lynch, & Rhoades, 2001) and creativity (Grawitch, Munz, & Kramer, 2003) and are positively related to negative socioemotional behaviors (Landowski et al., 2011). Third, building from attribution theories, meeting lateness may negatively affect the relationship quality between the late arrival and on-time attendees, which can transcend the meeting context.

Recent research on meeting lateness provides some preliminary evidence for the proposition that meeting lateness negatively affects workplace relationships. Rogelberg and colleagues (2014) qualitatively assessed participants' reactions to an individual arriving late to a workplace meeting. When the late individual arrived between 1 and 5 minutes late, 50% of

respondents reported a negative response (e.g., frustrated, upset, passed judgment, felt disrespected, etc.), 34% were not bothered, 9% planned to base their reaction on why the person was late, and 7% were empathetic with the late arrival. However, when the late attendee arrived between 6 and 10 minutes late, 61% of respondents reported a negative reaction, 21% were not bothered, 11% planned to base their reaction on why the person was late, and 7% empathized with the late arrival.

The present study expands upon the scant research on meeting lateness and addresses several points. In an attempt to replicate Rogelberg et al.'s (2014) findings using a more controlled and quantitative methodology, this study examines whether individuals respond negatively to someone who arrives late to a meeting. Next, we propose that meeting lateness operates as a social transgression in the workplace that drains accessible work resources of punctual attendees (Hobfoll, 1989), and that the subsequent stress resulting from resource loss instigates a causal search (Kelley, 1973) for the lateness event relative to the person who arrived late. That is, punctual attendees are expected to blame the late arrival or an external force for the lateness, and that the conclusion of the causal search will motivate positive or negative behavioral and emotional reactions in punctual attendees with respect to the late arrival as discussed in earlier research (Rogelberg et al., 2014).

Causal Searches

As a result of the central role that causal reasoning plays in how people interpret and think about their experiences, a considerable amount of research examines the precursors to causal reasoning (Hastie, 1984; McArthur, 1972; Uleman, Rim, Saribay, & Kressel, 2012; Weiner, 1985b). Attribution theorists (Kelley, 1972; Weiner, 1985b; Weiner, 1986) have proposed that causal searches result from functional and mastery motives, which are triggered by unexpectedness or negative valence. From a functional perspective (Kenrick, Schaller, &

Simpson, 2006), causal explanations promote survival as people associate positive and negative outcomes with specific origins. Causal thinking may also result from a mastery motive because people can exert more control and autonomy over their environment if they know, or believe they know (Sloman & Lagnado, 2014), the causal links between events or behaviors (Gendolla & Koller, 2001).

There are three primary situations in which causal searches are likely: expectancy disconfirmation, negatively-valenced event outcomes, and outcome dependency. Expectancy disconfirmation (Hastie, 1984; Weiner, 1985b; Wong & Weiner, 1981) occurs when an event, outcome, or behavior is unexpected. Novel events (Weiner, 1985b) elicit causal searches because they are not expected. Some research (Gendolla & Koller, 2001; Meyer, Reisenzein, & Schützwohl, 1997) also indicates that expectancy disconfirmation influences causal attribution through affective surprise, as expectancy disconfirmation is the primary cause of surprise.

Outcome valence is the second pathway to causal searches (Lau, 1984; Uleman et al., 2012; Wong & Weiner, 1981). People are more likely to search for a cause to an event or behavior if the outcome is negative as opposed to positive. Frustration, goal non-attainment, stress, and conflict are examples of negatively valenced outcomes that lead to intense causal searches (Weiner, 1985b; Wong & Weiner, 1981).

Outcome dependency (Thibaut & Kelley, 1959), the third situation that affects causal searching, contributes to causal search intensity independently of event expectancy and outcome valence. People tend to make more extreme attributions, are more confident in their attributions, and are more likely to make dispositional versus situational attributions when they are highly dependent on the outcome of their assessments (Berscheid, Graziano, Monson, & Dermer, 1976).

Of the three determinants of causal search activity, meeting lateness—especially as examined in this study—may instigate causal reasoning primarily through outcome valence. People engage in more intense causal searching and form more causal attributions when an outcome is negative compared to positive, regardless of the event's expectancy (Bohner, Bless, Schwarz, & Strack, 1988). Meeting lateness may elicit particular negative outcomes, such as stress, goal non-attainment, and frustration (Weiner, 1985b; Wong & Weiner, 1981), which leads to causal search behaviors.

Conservation of resources (COR) theory (Hobfoll, 1989, 2001) may explain why meeting lateness results in negative outcomes. The theory posits that individuals experience psychological stress when they experience a loss of valued resources or when valued resources are threatened. Failure to achieve the expected return on resource investment is also experienced as loss (Hobfoll, 1989). Some of these valued resources include time for work and a sense of goal accomplishment (Hobfoll, 1998). COR theory has been used to explain a variety of workplace meeting-related outcomes such as reduced well-being as a function of time spent in meetings (Rogelberg et al., 2006), employees' perceptions about attending meetings (Allen et al., 2011), and decreased meeting effectiveness and team performance in late-starting compared to punctual meetings (Landowski et al., 2011).

Meeting lateness, and the resulting delayed meeting start time, negatively affects time for work and feelings of goal accomplishment through all of the aforementioned stressors. First, individuals lose time for work and a feeling of goal accomplishment as they wait for late attendees. Time is lost because punctual attendees could be using the time they are waiting to complete pressing, individual work tasks. Similarly, a sense of goal accomplishment is lost because less time is available to devote toward goal-relevant behaviors. Second, due to the

temporal nature of meeting lateness, time and feelings of goal accomplishment are threatened with the prospect of additional waiting. As meeting lateness increases, resources are simultaneously lost and threatened. Third, on-time attendees invest time and energy to arrive to the meeting before the scheduled start time, but, despite this investment of resources, they experience loss and the loss of expected resources in the future. As such, we anticipate that meeting lateness results in psychological stress from resource threats and losses, and, because stress is a negatively valenced event outcome, that individuals will be motivated to make causal attributions relative to meeting lateness events.

Weiner's Attributional Theory of Interpersonal Behavior

A causal search does not influence interpersonal relationships. Rather, the factors of the identified cause for an event influence subsequent cognitions and behaviors. Weiner's (1985a, 1986, 1995, 2006) attributional theory of interpersonal behavior is a global theory that includes an observer's cognitive, affective, and behavioral reactions to a transgression, which may partially explain how individuals react to others who are late to meetings. In this model, cognitive evaluations determine affective responses, which are determinants of behavioral intentions.

The outcome of the observer's assessment of causal dimensions forms the basis of how responsible the observer believes an actor was for an event. Causal dimensions include controllability, intentionality, locus of causality, and stability (Weiner, 2001, 2006), but observers rarely assess a single cause on every dimension (Wickens, Wisenthal, Flora, & Flett, 2011). Controllability refers to whether the cause was preventable or inevitable. Intentionality captures the extent to which the observer believes the actor's behavior was purposeful or unintended, and locus of causality speaks to whether the actor's behavior was caused by an

internal or external force. Locus of causality and controllability are typically confounded (Weiner, 1995, 2006) because observers tend to view internal causes as controllable and external causes as uncontrollable. Finally, stability reflects the variability of the cause over time. An example of a stable causal attribution is personal aptitude, whereas luck represents instability (Weiner, 1995).

Following assessment of the causal dimensions, the observer judges how responsible the actor was for the outcome. Greater perceived intentionality, controllability, stability, and an internal versus external cause lead to judgments of responsibility (Weiner, 1985a, 1995, 2001; Wickens et al., 2011). However, causal controllability is a necessary but not sufficient condition for assignment of responsibility (Weiner, 1995). A judgment of responsibility includes a value judgment about what the actor *should* have done differently to alter the event's outcome. In the context of meeting lateness, the observer might think, "He should have tried to arrive on time." In contrast, controllability refers to whether the actor *could* have influenced the outcome.

A positively or negatively valenced moral emotion occurs following the judgment of responsibility. Moral emotions are spurred by considerations of good and bad, right and wrong, and judgments about what someone *should* have done in a given situation (Weiner, 2006). Weiner, Graham, and Chandler (1982) found that situations that evoked anger involved personal responsibility (e.g., someone lied, someone failed to clean up a mess, etc.), whereas the lack of personal responsibility precipitated pity. Participants experienced greater anger than pity in response to controllable causes and greater pity than anger in response to uncontrollable causes. Therefore, observers who consider an actor responsible for an event experience a negative moral emotion such as anger, whereas judgments of non-responsibility result in a positive moral emotion similar or equivalent to sympathy (Weiner, 1986).

An observer's affective response following a judgment of responsibility directly affects how the observer intends to behave toward the actor in the future. Anger, for example, arises when the observer judges the actor as responsible and believes that the actor should have behaved differently (Weiner et al., 1982). Sympathy, on the other hand, follows a judgment of non-responsibility. From each of these affective responses, observers then intend to behave aggressively or pro-socially (among many other possible intentions) toward the actor. A large body of research indicates that anger typically precedes aggression (Anderson & Bushman, 2002; Aquino, Tripp, & Bies, 2001; Bies & Tripp, 2005; Weiner, 1985a, 1986, 1995; Weiner, Graham, & Reyna, 1997) and that pro-social intentions follow feelings of sympathy (Rudolph, Roesch, Greitemeyer, & Weiner, 2004; Weiner, 1986, 1995, 2006). In a recent meta-analysis of the helping and aggression literature, Rudolph and colleagues (2004) found that, across over 60 studies and 12,000 participants, sympathy and anger partially mediated the effect of responsibility on help giving behaviors and aggression.

Current Study

In the present study, we applied the entirety of Weiner's attributional theory to the meeting lateness scenario using a series of text-based vignettes. In a 2 (locus of control: internal or external) x 2 (lateness: 5 min or 15 min) x 2 (meeting importance: high or low) between-subjects design, participants were randomly assigned to read one of eight vignettes that described someone arriving late to a workplace meeting. Researchers have applied this type of experimental vignette methodology to study attributional processes across many domains, including aggressive driving (Wickens et al., 2011), personnel selection (Struthers et al., 1998), the hierarchical structure of causal reasoning (Johnson & Keil, 2014), punishment following a causal search (Weiner et al., 1997), and age discrimination (Cox & Beier, 2014).

We first expected to replicate the existing attributional model developed by Weiner. Namely, we anticipated that causal dimensions would be positively related to assignment of responsibility, that assignment of responsibility would be positively related to anger and negatively related to sympathy, and that anger would be positively associated with a willingness to punish the late arrival, whereas sympathy would be positively related with a desire to help the late arrival. The original model is depicted in Figure 1.

> *Hypotheses 1a-1c:* Causal controllability (H1a) and intentionality (H1b) will be poistively related to responsibility judgments, whereas an internal locus of causality (H1c) will be negatively related to responsibility judgments.
>
> *Hypothses 2a-2b*: Responsibility will be positively related to anger (H2a) and negatively related to sympathy (H2b).
>
> *Hypotheses 3a-3b*: Anger will be positively related to a willingness to punish the late arrival (H3a), and sympathy will be positively related to proscial intentions (H3b).

The earlier hypotheses represent a replication of Weiner's model beginning with an assessment of the dimensions of the cause, leading to judgment of responsibility, an emotional reaction, and behavioral intentions. It is important to verify that the original model fits the data in the meeting lateness context prior to modifying the model to include compotents specific to this study. One limitation of the original model is that it does not include a component that captures the degree of the personal or social transgression that initiates the entire process. The theory predicts the same emotional and behavioral response to a mildly annoying transgression (e.g., arriving a few minutes late to a meeting) as to a very powerful transgression, as long as the observer assigns the actor responsibility for the cause.

However, meeting lateness, or the degree of the transgression, may directly affect anger and sympathy outside of judgments of responsibility. Conservation of resources theory (e.g., Hobfoll, 1989) suggests that very late-starting meetings will induce greater stress than somewhat late-starting meetings. As lateness increases, additional resources are concurrently lost and threatened and the return on resource investment progressively decreases. Furthermore, resource loss is more psychologically powerful than resource gain (Hobfoll, 2001), and the effect may be magnified by progressively increasing loss (Tversky & Kahneman, 1974). Therefore, punctual meeting attendees who wait for someone to arrive have additional time to fret over resource loss (e.g., the amount of time that is wasted while waiting), worry about losing more resources in the future, and to dwell on the negative aspects of the situation, all of which may lead to a heightened sense of anger and, therefore, lessened sympathy.

Meeting lateness, although a social transgression, differs from some other transgressions in that the observer faces protracted resource loss. That is, as a temporal transgression, the observer continuously loses resources for the duration of the transgression, which in this study is five minutes or 15 minutes, and we propose that the continued loss combined with the prospect of additional loss results in stress, which inflates anger and deflates sympathetic feelings, that are not related to how responsible the transgressor was for the event. Consequently, the ensuing stress and anger may place observers in a negative state that will lead to reduced sympathy for the late arrival. Even if the observer believed the transgressor to have no responsibility after the fact, the resources are nonetheless lost and threatened *during the transgression*, which may result in stress at the time of lateness that would not necessarily be mitigated upon judging the actor as not responsible.

As such, meeting lateness is expected to positively and directly affect anger and sympathy outside of judgments of responsibility.

> *Hypotheses 4a-4b*: Meeting lateness will directly affect anger (H4a) and sympathy (H4b) outside of judgments of responsibility, such that greater lateness will be associated with greater anger (H4a) and less sympathy (H4b).

The effect of lateness on anger and sympathy may be moderated by the personal importance (or relevance) of the meeting to the observer. If the observer views the meeting as highly important and personally relevant, then the observer may be more affected by lateness than if the meeting is viewed as routine or unimportant. In the case of a personally relevant meeting, as operationlized in the present study, the observer plays a central role and depends on the outcome of the meeting. In this example, the observer is scheduled to give an important, time consuming presentation to the meeting group that will affect the individual's standing in the organization. As such, when someone arrives late to the meeting, thereby delaying the start of the important presentation, the observer may view the lateness as more personnally disrespectful and offensive than if the lateness occurred in a routine, non-important meeting. Therefore:

> *Hypothesis 5a*: The importance of the meeting will moderate the relation between meeting lateness and anger, such that the relationship will be stronger when importance/relevance is high compared to low.
>
> *Hypothesis 5b*: The importance of the meeting will moderate the relation between meeting lateness and sympathy, such that the relationship will be stronger when importance/relevance is high compared to low.

Furthermore, a key aim of this study is to examine how meeting lateness and various dimensions of the cause for lateness affect on-time attendees' perceptions of the late arrival.

However, Weiner's model does not include a dimension that captures what observers actually think about the transgressor. To address this limitation, the general attitudes of on-time attendees toward the late arrival were also examined. Individuals form attitudes, or tendencies that are expressed through a positive or negative evaluation of an object or actor (Eagly & Chaiken, 2007), based on a variety of conscious (e.g., beliefs, cognitions, emotions) and nonconscious (e.g., memory, learned associations, emotions as well) factors (Eagley & Chaiken, 2007; Fazio, 2007; Fazio & Olson, 2003). One view of attitudes expressed by Eagly and Chaiken (2007) holds that attitudes can be reciprocally formed and expressed through affective, behavioral, and cognitive processes.

For example, an individual's affect relative to an object will influence the individual's attitude, and the attitude will influence subsequent affective reactions to the object. Consistent with the Eagly and Chaiken (2007) view of attitudes, and with the notion that affect is a primary component of attitude formation and alteration (e.g., Zajonc, 1984), we anticipated that negative affect (anger) will be negatively negatively related to the interpersonal attitude toward the late arrival, whereas positive affect (sympathy) would be positively related to the observer's attitude. Experiencing sympathy, or the feeling of concern for another person's emotional state or situation (Eisenberg, 1986), may be especially likely to lead to a more positive interpersonal attitude because the observer realizes that the actor was not responsible for his or her current plight. The resulting concern, and possibly empathy, should stimulate a more positive attitude. Indeed, Struthers, Miller, Boudens, and Briggs (2001) used Weiner's attribution theory to examine coworker responses and attitude changes following a poor performance incident. They found that people who attributed poor performance of a coworker to an uncontrollable cause

experienced more sympathy and positive thoughts and feelings toward that person than when the cuase was uncontrollable. As such, we hypothesize the following.

*Hypothses 6a-6b:*Anger will be negatively related to the observer's attitude toward the late arrival (H6a), and sympathy (H6b) will be positively related to the observer's attitude toward the late arrival.

An observer's attitude toward an actor may be influenced by the affective response predicted in this model, but someone's attitude toward another person is unlikey to be formed on the basis of one transgression. Other factors of the actor, such as group status or the nature of past interactions with the observer, may influence the observer's global attitude toward the late arrival, and these factors could account for a unique desire to punish or help the actor above the initial affective responses of anger and sympathy. Although the observer has very limited information about the actor in the vignette portion of this study study, additional research supports the link between attitudes and behavioral intentions, which may operate outside of the attributional framework. Azjen's (cf 2011) theory of planned behavior, for example, suggests that behavioral intentions immediately precede behavior, and that behavioral intentions are partially a function of an individual's attitude. As such, we hypothsized that attitudes toward the late arrival would be negatively related to punishment and positively related to prosocial intentions.

Hypothesis 7a-7b: The observer's attitude toward the late arrival will be negatively related to punishment intentions (H7a), and positively related to prosocial intentions (H7b).

Lastly, we hypothesized that the model proposed that includes aspects of the transgression, the lateness scenario, and overall interpersonal evalautions of the late arrival will

best represent the data, based on a statistical comparison between the goodness of fit of the proposed model and the original. The hypothesized attributional model is displayed in Figure 2.

Method

Participants and Procedure

Using Amazon.com's Mechanical Turk (MTurk) service, approximately 300 working adults who attended at least one workplace meeting each week were recruited to participate in the study. Mturk is an online panel of workers that is likely more diverse and representative of the general population than student samples (Landers & Behrend, 2015). Participants were compensated $0.45 for completing the study. The final sample consisted of 299 primarily White (82%) and male (53%) working adults with a moderate level of organizational tenure (M = 6.40, SD = 7.34) who ranged from 19 to 76 years old (M = 35.19, SD = 12.46).

Upon entering the survey, participants were randomly assigned to read one of eight vignettes, and then they imagined themselves in the situation described. Vignettes are included in the appendix. After reading the vignette, participants completed manipulation checks and associated measures. Order of measures, including the manipulation checks, and items within measures was randomized across participants. The vignette appeared on each survey page that contained items relating to the hypothetical scenario.

Across all measures, eight quality control items were included, such as "Select 'agree' for this question" to be used as a method of examining participant data quality. Over 86% of participants answered all quality items correctly, and the average score on the quality assessment was 97%. Using a conservative approach to participant removal, one participant was eliminated from the study for failing more than 75% of the quality control items (DeSimone, Harms, & DeSimone, 2015). Demographic items were presented last.

Measures

Intentionality, locus of causality, controllability, and responsibility. Modified versions of scales created by Wickens and colleagues (2011) were used to measure these constructs. Participants responded on five-point scales from *not at all* to *extremely*. Intentionality was four items ("Do you believe that the late arrival intended to be late?"), locus of causality was six items ("Would you say that the main cause of the person arriving late was due to an aspect of that person?"), responsibility was four items ("Do you think the late arrival was to blame for arriving late"), and causal controllability, used as a manipulation check, was 5 items ("Do you believe the cause of lateness was beyond the person's control?").

Attitude toward the late arrival Participants were instructed to think of the person who arrived late and indicate their agreement (1 = *strongly disagree*, 5 = *strongly agree*) to a series of five statements. Sample items include "I would befriend the late arrival" and "The late arrival's behavior was acceptable," (Hagger, Rentzelas, & Koch, 2014).

Prosocial intentions. Participants read a series of three statements that described the late arrival asking for help ("The late arrival asks for updates on the project you presented in the meeting"), and then responded how likely they would be to help the late arrival on a scale from 1 (*not at all likely*) to 5 (*extremely likely*).

Punishment. Participants, who pictured themselves as the boss, indicated how likely they would be to administer a series of four work-related punishments to the late arrival (e.g., assign the person undesirable work) (1 = *very unlikely*; 5 = *very likely*).

Anger and sympathy. From 1 (*not at all*) to 5 (*extremely*), participants responded to three items to measure sympathy (e.g., "I feel sorry for what happened to the person who arrive late,") developed by Van Dijk, Goslinga, and Ouwerkerk (2008). Along the same response

format, anger was measured using five items (Wickens et al., 2011). An example item from the anger scale was "How upset did the late arrival make you?"

Results

Descriptive statistics for all focal variables are displayed in Table 1 with data collapsed across conditions. Three independent samples *t* tests were performed to examine the effect of the experimental manipulations for lateness, causal controllability, and meeting importance. Participants in the 5-minute late condition (M = 2.16, SD = 0.49) perceived the actor to be significantly less late than participants in the 15-minute late condition (M = 3.10, SD = 0.75), $t(297) = -13.01$, $p < .001$, $d = -1.51$. Likewise, participants in the uncontrollable condition scored lower (M = 2.37, SD = 0.98) on the controllability scale than did participants in the controllable condition (M = 4.29, SD = 0.69), $t(295) = -19.41$, $p < .001$, $d = -2.26$. The meeting importance manipulation also showed evidence of success because participants in the low importance condition (M = 2.92, SD = 0.87) viewed the meeting as significantly less important than individuals in the high importance condition (M = 4.43, SD = 0.93), $t(296) = -14.26$, $p < .001$, $d = -1.66$.

Hypothesis 1-3 Testing

Measurement model. Structural equation modeling in Mplus (Muthén & Muthén, 2015) was used to test all hypotheses. Following recommendations of Kline (2011) and Anderson and Gerbing (1988), we utilized a two-step strategy to test the models proposed in Figures 1 and 2. First, a CFA model was fit to the data followed by testing of the structural models. The initial CFA model yielded good fit indices, $\chi^2(303, N = 299) = 569.19$, $p < .01$, RMSEA = .05, CFI = .95, SRMSR = .06, but one indicator of intentionality and two indicators of locus of causality were not related to the latent construct or were related in the opposite direction. Reverse-coded

items often form a methods-related factor that is based on how participants respond to and interpret items, rather than the existence of two distinct constructs (Schriesheim & Eisenbach, 1995; Spector, Van Katwyk, Brannick, & Chen, 1997; Woods, 2006), which is what may be at work with the present analyses. As such, item 3 (reverse coded) of the intentionality scale was removed along with items 1 and 2 (reverse coded) of the locus of causality scale. As shown in Table 2, all remaining indicators were significantly related to their respective latent constructs.

Next, a null latent CFA model was fit to the data, which sets the correlations among the latent factors to 0, $\chi^2(308, N = 299) = 900.95$, $p < .01$, RMSEA = .08, CFI = .89, SRMSR = .21. The purpose of this analysis is to determine whether the constrained or freely-estimated model fits the data best. If the null latent model, wherein the correlations between the latent factors is 0, fits the data better than the freely estimated model, there is little covariance among the latent factors and structural equation modeling may not be appropriate (Anderson & Gerbing, 1988; Kline, 2011; Mathieu, Gilson, & Ruddy, 2006). This constrained model fit the data significantly worse than the final CFA model without constraints, Satorra-Bentler Scaled $\chi^2(5) = 252.06$, $p < .001$. These findings provide evidence that it is appropriate to proceed with hypothesis testing using structural equation modeling.

Structural test of Weiner's model. We first tested hypotheses 1 – 3 (Figure 1), which represent Weiner's original model that does not include aspects of the transgression (in this case, degree of lateness and importance of the meeting) nor overall attitude toward the late arrival. The model demonstrated acceptable fit, $\chi^2(340, N = 299) = 669.06$, $p < .01$, RMSEA = .06, CFI = .94, SRMSR = .09, and the results of this analysis are depicted in Figure 1. As indicated, all of the hypothesized paths were significant. Hypotheses 1a, 1b, and 1c, which stated that controllability ($\gamma = .17$, $p = .01$) intentionality ($\gamma = .15$, $p < .001$), and locus of causality ($\gamma = .71$, $p < .001$)

would be positively related to responsibility, respectively, were supported. Hypothesis 2a and 2b were supported, which posited that responsibility would be positively related to anger ($\gamma = .60$, $p < .001$) and negatively related to sympathy ($\gamma = -.69$, $p < .001$). Anger was positively related to punishment ($\gamma = .65$, $p < .001$), thus providing support for hypothesis 3a, and sympathy was positively related to prosocial intentions ($\gamma = .37$, $p < .001$), which supported hypothesis 3b.

Hypothesis 4 – 7 Testing

We followed the same process outlined above to test hypotheses 4 - 7. Contrary to the original model, the hypothesized model integrates aspects of the transgression, degree of lateness and meeting importance, and introduces a novel concept of an observer's overall attitude toward the actor.

Measurement model. The measurement model used to test hypotheses 4 – 7 contained all the factors and indicators as the final model used earlier, with the addition of the observer's overall attitude toward the late arrival. The CFA fit the data well, $\chi^2(436, N = 299) = 769.98$, $p < .01$, RMSEA = .05, CFI = .95, SRMSR = .06, and each item of the attitude scale demonstrated a significant factor loading of .70 or greater.

Structural test of altered model. We fit the hypothesized model that tested hypotheses 4 – 7 and obtained a solution with good fit, $\chi^2(574, N = 299) = 966.12$, $p < .05$, RMSEA = .05, CFI = .95, SRMSR = .07. The model is shown in Figure 2. Hypothesis 4a, which stated that meeting lateness would directly affect anger outside of judgments of responsibility, was supported ($\gamma = .27$, $p < .001$), and hypothesis 4b, which stated the same for sympathy, was not supported ($\gamma = .03$, $p = .59$). The proposed interactive effects between meeting lateness and meeting importance on anger in hypothesis 5a ($\gamma = .03$, $p = .70$) and sympathy in hypothesis 5b ($\gamma = -.05$, $p = .49$) were not supported. Hypotheses 6a and 6b, which proposed that anger would

be negatively related to attitude toward the late arrival ($\gamma = -.22$, $p < .001$) and that sympathy would be positively related ($\gamma = .81$, $p < .001$), were supported. Likewise, attitude toward the late arrival was negatively related to punishment ($\gamma = -.29$, $p < .001$) and positively related to prosocial intentions ($\gamma = .57$, $p < .001$), thereby providing support for hypotheses 7a and 7b. However, once accounting for overall attitude, the direct effect from sympathy to prosocial intentions was no longer significant ($\gamma = -.13$, $p = .50$).

Model Comparison

The hypothesized model depicted in Figure 2 was then compared with Weiner's original model shown in Figure 1. The goal of this analysis was to test whether, as a set, the inclusion of meeting lateness, meeting importance, and global attitude toward the late arrival resulted in a better-fitting model than the original, and more parsimonious, attribution model proposed by Weiner.

To statistically evaluate the fit of two models, the models must be *nested*, meaning that one model may be derived from another model by constraining certain parameters in the larger model (Bentler & Satorra, 2010). The fit of Weiner's model in Figure 1 could not be statistically compared to the fit of the hypothesized model in Figure 2 because the hypothesized model contains additional variables and parameter estimates not included in the original model. In order to nest the models such that a statistical comparison could be made, all parameters tested in Figure 2 associated with meeting lateness, meeting importance, their interaction, and global attitude toward the late arrival were constrained to 0 resulting in a nested model. The fit of this nested model was then compared to the fit of the larger model using the Satorra-Bentler scaled Chi-square test (Satorra & Bentler, 2001). The hypothesized model fit the data significantly

better than the original model, Satorra-Bentler $\chi^2(7) = 435.04$, $p < .001$. Results of the model comparison are displayed in Table 3.

Generalizability Check

Despite the prevalence of vignette-based experimental studies in the attributional literature, one challenge with the method—and experimental methods in general—is the lack of direct generalizability to applied settings. To address this limitation, we analyzed additional, survey-based data in an attempt to replicate the findings obtained via the vignette method.

Participants, Procedure, and Measures

As in the focal study, participants were recruited through Amazon's MTurk service and paid $0.40. Data were collected as part of an ongoing project while the present manuscript was under review. The study was advertised as a "meetings experiences survey," and MTurk workers who completed the focal study were barred from participating. Approximately 556 participants completed the survey, 223 (40%) of whom reported that someone arrived late to their last workplace meeting. To ensure quality data, we did *not* ask participants to think about the last time someone arrived late to a meeting, but rather whether someone arrived late to their last meeting. Participants who indicated that someone arrived late completed a series of follow-up questions regarding the experience in order to examine how the attributional process functions, if at all, in real-world meeting lateness situations.

As such, these 222 participants, who regularly attended at least one workplace meeting each week, were included in the present analyses. Using the same quality control process as in the focal study, no participants were excluded due to poor data quality. Participants were 58% female, 79% White, and between 21 and 70 years old (M = 36, SD = 12). Slightly more than 69% of the participants held a college degree, and they worked in for-profit (58%), non-profit (18%),

and government (22%) sectors. Example job titles of participants were insurance claims adjuster, accountant, nurse, teacher, data analyst, heavy equipment mechanic, project manager, and carpenter.

Participants completed all measures described in the focal study, with the exception of locus of causality. For all measures, participants were instructed to consider their last meeting, to which they had already indicated someone arrived late, and to think about that person and the situation. Locus of causality and controllability were highly related (r = .76) so locus of causality was excluded from the survey to reduce length. In addition, participants also completed a 7-item measure of meeting importance/relevance (Allen & Rogelberg, 2013), because that factor was manipulated in the focal study. An example item is "My last meeting was relevant to my job," to which participants responded using a 5-point, disagree-agree scale.

Results

The analytic strategy described in the focal study was replicated in the generalizability check. First, for Weiner's model and the altered model, we established the latent variable model. Next, we fit null latent models to the data to ensure that there is enough covariance among latent factors to warrant structural equation modeling. Finally, we tested the structural models.

Replication of Weiner's model. Weiner's model, excluding locus of causality, was replicated, which resulted in a second test of hypotheses 1-3. The model demonstrated acceptable fit, $\chi^2(267, N = 223) = 508.82$, $p < .01$, RMSEA = .06, CFI = .93, SRMSR = .13. Hypothesis 1a, which stated that controllability would be positively related to responsibility, was supported ($\gamma = .76$, $p < .001$). Intentionality ($\gamma = .11$, $p = .09$) was not significantly associated with responsibility so hypothesis 1b was not supported. Hypothesis 2a and 2b were again supported, which specified that responsibility would be positively related to anger ($\gamma = .46$, $p < .001$) and

negatively related to sympathy (γ = -.41, p < .001). Anger was strongly related to punishment (γ = .62, p < .001), thus providing support for hypothesis 3a, and sympathy was positively related to prosocial intentions (γ = .33, p < .001), which supported hypothesis 3b.

Replication of altered model. The altered model included all aspects of Weiner's model, but includes an overall attitudinal component of the late arrival and a measure of meeting importance. In this data collection, we did not have an indication as to how late the person arrived to the meeting so we could not replicate hypotheses 4a-4b and 5a-5b. The remainder of the altered model was fit to the data and the model fit well, $\chi^2(578, N = 223) = 1008.37$, p < .05, RMSEA = .03, CFI = .94, SRMSR = .10. Anger was negatively associated with attitude toward the late arrival (γ = -.34, p < .001) whereas sympathy was positively related (γ = .40, p < .001), thereby providing support for hypotheses 6a and 6b, respectively. To complete the model, we found support for hypothesis 7a and 7b. Attitude toward the late arrival was negatively associated with punishment (γ = -.25, p < .001) and positively related to prosocial intentions (γ = .44, p < .001).

Model comparison. We also replicated the model comparison between Weiner's model and the altered model. Using the same procedure as described previously, the hypothesized model and a nested version representing Weiner's model were compared using the Satorra-Bentler scaled Chi-square test. As we found in the focal study, the hypothesized model fit significantly better than the original model, Satorra-Bentler $\chi^2(6) = 28.78$, p < .001.

Summary

To establish the generalizability of the two models tested in this paper, we analyzed additional data and repeated all analyses as conducted in the focal study, to the extent that such analyses were possible with the data available. Whereas participants in the focal study read a

vignette and considered how they would respond in the situation described, participants in this generalizability check thought of their *last work meeting*, and they indicated whether someone arrived late to that meeting. Although the generalizability check data did not include locus of causality or number of minutes late, our replication results are promising. First, aside from the effect of intentionality on responsibility, which may have been a function of range restriction on the intentionality scale, all paths in Weiner's original model were replicated. Second, with respect to the hypothesized model, all hypotheses were supported, with the exception of the intentionality-responsibility relationship. Third, the fit of the hypothesized model was significantly better than the original model, which we also found in the focal study.

Discussion

The purpose of this study was to apply an attribution theory framework to a common workplace problem: lateness to meetings. Do people tend to react negatively to individuals who arrive late and, if so, by what mechanism? Although Rogelberg and colleagues (2014) found that meeting lateness may have negative effects, this is the first investigation into the interpersonal effects of meeting lateness and the underlying psychological processes for those effects. Results provided support for using Weiner's attributional theory of interpersonal behavior as a mechanism to explain and predict reactions to someone arriving late to a meeting. As proposed by the theory, each causal dimension uniquely contributed to an observer's assignment of responsibility for the actor arriving late. Greater assignment of responsibility was positively related to feelings of anger and, subsequently, the desire to punish the late arrival. Conversely, participants who viewed the actor as responsible for arriving late were less likely to experience sympathy and a desire to help the late arrival in the future. These findings add to a growing, albeit small, body of literature that extends attributional theory to new and unique contexts.

Notwithstanding the strong pattern of relationships uncovered that were consistent with Weiner's attributional model, we did not find support for several of our hypotheses. First, in the focal study, lateness did not have a direct effect on sympathy outside of responsibility judgments. One reason for this finding may be that, under the right circumstances, increased degree of transgression may lead to *increased* sympathy and concern for the transgressor because the plight under which he or she suffers is likewise increased. Furthermore, our experimental vignettes did not directly focus on the late arrival's poor situation, which may have weakened relations concerning sympathy. More research should be conducted to disentangle the role of responsibility judgments and degree of transgression on sympathy.

Second, the hypothesized interactive effects of lateness and meeting importance on anger and sympathy were not supported. We hypothesized that lateness would have a stronger effect on anger when an individual was personally invested in a meeting and highly dependent on its outcome, compared to when the meeting is routine and not viewed as important. Mroz, Landowski, and Allen (2016) reported such an interaction, but their model did not include judgments of responsibility as an additional determinate of anger. The present study expands the earlier model reported by Mroz and colleagues (2016) in such a way that provides additional insight into their findings. It is possible that the interactive effect they observed exists only when responsibility judgments are not included in the model. Alternatively, the meeting importance manipulation in this study may not have been strong enough or well-suited to the vignette methodology employed. With a simple text-based vignette, participants likely did not experience stress, anxiety, or worry associated with giving an important presentation in a meeting, which may have attenuated associated effects.

Overall, the findings of this study suggest that violating punctuality norms with respect to workplace meetings without a valid excuse (i.e., one that reflects an uncontrollable cause) may give rise to negative emotions and behavioral intentions. The strong, negative response that participants exhibited toward the person who arrived late were surprising because meeting lateness is so common. Indeed, lateness to meetings appears to be a particularly salient social transgression that can trigger the attributional process, even in a controlled, hypothetical setting. A number of theoretical and practical implications arise from this study.

Theoretical Implications

First, this study provides initial evidence that underscores the importance of considering specific factors of the social transgression that triggers the attributional process. One goal of the present study was to examine whether expanding Weiner's attributional theory to include contextual factors specific to the transgression as well as a global attitude toward the actor would empirically improve the model. Previous applications of Weiner's model (e.g., Wickens et al., 2011) focused on causal dimensions without considering the seriousness of the transgression that gave rise to the attribution process. A person may be viewed as maximally responsible for a variety of transgressions, and the original model proposes that the emotional and behavioral responses to the transgressions would be equivalent because responsibility judgments determine these responses. Intuitively, the nature of the transgression must play a role in emotional and behavioral responses outside of responsibility judgments because arriving late to a meeting certainly does not engender the same responses as a committing a serious crime. The empirical findings aligned with intuitive theorizing regarding how contextual factors of a transgression can influence the attributional process.

Each aspect of the transgression investigated in this study, degree of lateness and meeting importance, uniquely contributed to participants' anger outside of responsibility judgments. Responsibility judgments accounted for 36% of the variability in anger, but the combination of responsibility and characteristics of the transgression explained 45% of the variance in anger responses. Furthermore, the model that included aspects of the transgression fit the data better than the original model.

Many transgressions are not as easily quantifiable as lateness to workplace meetings. As a temporal phenomenon, lateness is defined quantitatively. Other transgressions are more nebulous. Aggressive driving (Wickens et al., 2011) or achievement failure in an education setting (e.g., Weiner, 2006), are more difficult to operationalize. Nonetheless, although researchers may face challenges in quantifying the seriousness of some social transgressions, this study indicates that doing so can provide an enhanced understanding of the mechanism that motivates responses to behavioral transgressions.

Second, the findings derived from this study indicate that ostensibly insignificant behaviors in meetings may have undesirable effects on relationships among meeting attendees—both within and outside of the meeting context. Participants imagined that they were the manager of the person who arrived late to the meeting, and then considered how they might respond to the late arrival from a managerial perspective. In this scenario, participants indicated that they would be likely to punish the late arrival using a variety of negative, workplace-related punishments, such as withholding a raise or promotion, assigning undesirable work, or providing a poor performance review. Meetings are important spaces in which employees interact with their peers and managers, and, as demonstrated in the present study and others (Allen & Rogelberg, 2013; Mroz & Allen, 2015), experiences in meetings can have far-reaching consequences.

Third, this study makes at least one contribution to the broader workplace meetings literature. In addition to the finding that a mundane, meeting-related behavior may lead to unexpected negative responses, this study also indicates that individuals hold beliefs about appropriate behavior in meetings. As with stereotypes (Devine, 1989) or leadership (Offerman, Kennedy, & Wirtz, 1994), beliefs and expectations about how meetings should be conducted and how leaders and attendees should behave may influence how people perceive others and the meeting itself. When these beliefs and expectations conflict with what actually occurs, meeting attendees may engage in a causal search and the attribution process, which can result in negative interpersonal outcomes. Despite the importance of beliefs in governing how individuals perceive and react to situations, no research has directly examined implicit, meeting-specific beliefs, which may be a particularly fruitful avenue for future research.

Practical Implications

An important practical implication is simply to arrive to meetings on time, especially if the meeting is important. Arriving on time is good, but arriving a few minutes early not only avoids the negative responses reported in this study, but also allows early attendees to engage in pre-meeting talk, which may be positively related to meeting effectiveness (Allen, Lehmann-Willenbrock, & Landowski, 2014).

If lateness cannot be avoided or does occur, the person who arrives late could engage in appropriate impression management (Leary & Kowalski, 1990) techniques in order to minimize negative reactions. This study evaluated the responses to lateness when the late arrival provided an excuse that demonstrated a controllable or an uncontrollable cause. The excuse that reflected an uncontrollable cause for lateness resulted in the least negative reactions, when compared to the controllable cause. Therefore, as part of the impression management strategy, people who

arrive late should consider the reasons for their lateness and how to best communicate these reasons to others. For instance, rather than wantonly saying “I forgot when the meeting was supposed to start,” one might say “I was so busy with work that the meeting time slipped my mind.” The first excuse represents a completely controllable cause, whereas the second is also controllable but contains additional information that could serve as a mitigating circumstance to attenuate the link between judgments of responsibility and negative moral emotions. If the reason for arriving late was completely controllable, it may be best to supply an apology without an excuse.

Good managers who lead meetings should also have several techniques available for dealing with meeting lateness when it occurs. If an agenda is used to list topics and discussion points for the meeting, which is an important tool for determining whether a meeting is necessary and accomplishes its goals (Leach et al., 2009), the most impactful items could be moved to the middle of the meeting. By having these important items in the middle, meeting leaders can start the meeting on time, thereby reducing the chance of creating a cascade of late-starting meetings, and the person who is late would not miss these items. Additionally, the agenda should be flexible enough to allow items pertaining to the late arrival to be moved to a different point in the meeting, which also makes it easier to start the meeting on time

Limitations

There are several limitations to consider before drawing any firm conclusions from this study. First, participants placed themselves in a hypothetical meeting situation, and then reported how they would feel and behave if they were in such a situation. This methodology is common among attribution-focused studies, but it cannot account for environmental or social factors that may attenuate or exacerbate the observed effects. However, we completed a follow-up study

using different participants who reflected on an actual meeting experience and the results were consistent with those obtained via the vignette methodology.

A second limitation of this study concerns the direct approach by which participants reported on the various stages of the attribution process. Most evidence suggests that individuals engage in spontaneous causal searches (Kanazawa, 1992; Uleman et al., 2012; Weiner, 1985b; Wong & Weiner, 1981), but no research, to our knowledge, has demonstrated that the stages proposed in Weiner's attributional theory occur spontaneously. Without prompting in a laboratory setting, do individuals consciously assess the cause of a social transgression in terms of controllability, intentionality, and locus of causality? And then, also without prompting, does this causal assessment lead to judgments of responsibility? By requiring participants to complete scales of anger, or punishment desires, or any of the causal dimensions, it is possible that the transgression is much more salient than it otherwise would have been had the participants not been exposed to those measures.

Third, the sample was limited to the United States, and therefore reflects American or Western European perceptions of time and punctuality. However, perspectives on time vary between cultures. For example, individuals in North America, Western Europe, East Asia, and Australia tend to rely on an external clock ("clock time") to guide events throughout the day. In contrast to clock time, South American, South Asian, and Middle Eastern cultures tend to operate according to event time (Brislin & Kim, 2003). Individuals in event-time cultures organize the day around events, allowing each event to reach a natural end before moving to the next event (Levine, 1997). Therefore, future research should seek to explore how individuals across cultures react to and define meeting lateness.

Fourth, in this study the meeting was delayed until the late person arrived, but sometimes the meeting leader may start the meeting anyway. Previous research (e.g. Rogelberg et al., 2014) indicates that most meeting leaders will delay the meeting until the late person arrives, and in the generalizability check, approximately 74% of meetings began late if someone arrived late. However, this is not true in all cases, and our findings may be tempered if the meeting begins on time because the temporal aspect and wasted resources may not be as extreme.

Finally, participant responses may have been influenced by social desirability bias (Crowne & Marlowe, 1964), which occurs when participants respond to items in such a way to make the respondents "look good" based on societal norms. In the present study, social desirability bias may have led to deflated ratings of anger and punishment and increased ratings of sympathy and prosocial intentions. However, research suggests that any socially desirable responding in this study would have been quite minimal based on the nature of the survey items, method of survey administration, and a post-hoc indicator of socially desirable biased responding.

Social desirability bias is primarily a concern when a survey item is threatening (Sudman & Bradburn, 1974) or sensitive (Tourangeau & Yan, 2007). Threatening and sensitive items can elicit responses that are socially unacceptable or undesirable because clear social norms exist that govern the behavior or attitude. Questions related to drug use, sexual behavior, criminal behavior, voting, or income are examples of sensitive questions that are susceptible to social desirability bias (Tourangeau & Yan, 2007). The anger, punishment, sympathy, and prosocial intentions scales in the present study have no clear societal norms governing appropriate responses, and the questions are not particularly threatening. If respondents were instructed to select the socially appropriate responses for those scales (a so-called "fake good" instruction set;

Wiggins, 1959), it is unclear what those responses would be. Secondly, anonymous, self-report surveys result in the least social desirability bias in responses when compared to other methods (Tourangeau & Yan, 2007). Additionally, one method of indirectly measuring an item's sensitivity is to examine non-response rates. In the present study, non-response rates for the scales in question were no higher than any other set of items on the survey.

Future Directions

As the first study to investigate meeting lateness, or any meeting behavior, through an attribution theory framework, there are many directions at future research may take in order to expand on the present findings. In addition to examining how organizational status differentials may influence the responses to meeting lateness, future research should also investigate how an individual's history of lateness behaviors influences others' reactions. Common lateness may serve as a mitigating circumstance that alters the assessment of the causal dimensions. Conversely, meeting attendees may not even engage in the attribution process when a habitually late person is late. Expectancy disconfirmation is the primary factor that leads to causal searching, and a late person is *expected* to be late. In that situation, the expectancy is confirmed and a causal search may not be likely because the cause has already been determined: the late arrival is merely a late person. Similarly, although only one person arrived late in the focal study, multiple late arrivals could result in greater causal searches, but less responsibility placed on any single individual. In any case, there are number of logical arguments that can be proposed regarding how a history of transgressive behavior may influence the causal search and attributional process, but the issue can only be clarified with additional data.

Next, our focus in this study was *individual* reactions to meeting lateness, but workplace meetings are necessarily a group context wherein the attitudes and behaviors of group members

influence one another. In the vignette portion of the study, group dynamics, social cues, and environmental context were highly constrained as to rule out confounding variables. However, with the primary relationships established, future studies—whether experimental, observational, or survey-based—should specifically examine contextual factors that could influence how a meeting group responds when someone arrives late. One option may be to conduct an in-person laboratory study during which participants have a meeting and a confederate arrives late. The reactions of the group could then be video recorded, coded, and analyzed in conjunction with survey data. Conversely, to examine how one group member's response to lateness can influence others in the group, the confederate could be someone who arrived on time with the manipulated factor being the nature of the confederate's response to lateness.

In order to experimentally manipulate lateness, the actor in the vignette was described as arriving either five or 15 minutes past the scheduled meeting start time. In the work setting, individuals can be one second late or they could show up one minute before the meeting ends. Given the limitations of the manipulation, it is not clear whether lateness has a linear effect on anger and the other negative outcomes reported in the study. Although the two levels of lateness used in this study were consistent with what people typically define as meeting lateness, as described by Rogelberg and colleagues (2014), it is possible that, depending on the meeting or specific culture of the organization, mild lateness has no effect whereas moderate to high lateness has a very strong effect. An observational study wherein the researcher records precisely how late individuals are to meetings, followed by meeting attendees completing a survey, could shed light on the linearity or nonlinearity of how people respond to meeting lateness.

In addition, future research should explore the process by which individuals rate the cause for a transgression along the dimensions of intentionality, locus of causality, and

controllability, and what may moderate the relation between the causal dimensions and judgment of responsibility. Weiner (e.g., 1995) provides some evidence of mitigating circumstances that can result in a judgment of non-responsibility when the theory would otherwise predict high responsibility, but there are many other factors that may influence responsibility judgments. In the present study, for example, it is possible that degree of transgression affects how observers rate the cause *and* the extent to which the causal ratings lead to responsibility judgments. That is, if the meeting were very important and the actor were very late, the relationship between responsibility and anger may be magnified because the observer may be especially upset at the transgression if the observer views the actor as responsible. Unfortunately, we could not test such relationships in the present study due to limitations with the data and nature of the variables. Meeting relevance and meeting lateness were manipulated factors with two levels each. In order to examine either of these variables as an interactive effect on the responsibility to sympathy or anger relations—two latent variables—we would need to do a multigroup comparison analysis with four groups. Given the number of parameters estimated in this model, we would need about 1200 participants (the current study has only 299) or else, once the data were split, we would be estimating more parameters than we have participants. However, we encourage future studies on the topic with sufficient sample sizes.

Lastly, in an effort to limit the complexity of the design, the person arriving late in the vignette in the present study gave a controllable or an uncontrollable excuse for being late. In actual late situations, the people who arrive late may not have an opportunity to provide an excuse or even an apology, especially if the meeting leader started the meeting on time. Future research could examine the excuse and apology in more detail, to understand how interpersonal responses might vary as the available information changes.

Conclusion

This study examined how individuals react to meeting lateness, and how those reactions can influence interpersonal relationships in the workplace. Meetings are frequently viewed as inconsequential and unfortunate aspects of working life. However, this study demonstrates that even a relatively micro meeting-related behavior, arriving past the scheduled start time, can provoke anger and negative behavioral intentions, especially when the excuse for arriving late reflects a controllable cause. The model we proposed and tested provides insight into how the U.S.-based participants view meeting lateness. Further, this study raised a number of questions regarding how researchers model the attributional process and whether the process depicted truly occurs outside of laboratory settings.

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Table 1

Descriptive Statistics and Intercorrelations of Study Variables

Variable	*M* (*SD*)	1	2	3	4	5	6	7	8	9	10	11
1. Causal controllability	-	-										
2. Lateness	-	.02	-									
3. Meeting importance	-	.03	-.02	-								
4. Intentionality	1.96 (0.75)	.16**	.11	.05	(.92)							
5. Responsibility	2.99 (1.19)	.66**	.10	-.01	.35**	(.88)						
6. Locus of causality	2.16 (0.96)	.75**	.03	.07	.27**	.78**	(.88)					
7. Anger	2.28 (1.02)	.36**	.33**	.20**	.35**	.56**	.50**	(.96)				
8. Sympathy	3.16 (1.27)	-.50**	-.03	-.03	-.28**	-.61**	-.60**	-.52**	(.91)			
9. Punishment	2.16 (1.08)	.37**	.17**	.08	.32**	.52**	.46**	.63**	-.48**	(.90)		
10. Prosocial intentions	2.81 (0.79)	-.18**	-.11	.08	-.01	.19**	-.16**	-.23**	.36**	.30**	(.88)	
11. Interpersonal attitude	3.08 (1.11)	-.49**	-.12*	-.09	-.30**	-.65**	-.61**	-.62**	.84**	-.56**	.42**	(.92)

Notes. $N = 299$. Causal controllability, lateness, and meeting importance were manipulated factors. Reliability estimates on diagonals.

* $p < .05$. ** $p < .01$.

Table 2

Measurement Model Standardized Parameter Estimates

Indicator	Parameter	Indicator	Parameter
Intentionality (Item 1)	.92	Anger (Item 1)	.92
Intentionality (Item 2)	.92	Anger (Item 2)	.93
Intentionality (Item 4)	.84	Anger (Item 3)	.82
Responsibility (Item 1)	.92	Anger (Item 4)	.90
Responsibility (Item 2)	.84	Anger (Item 5)	.91
Responsibility (Item 3)	.81	Prosocial (Item 1)	.90
Responsibility (Item 4)	.61	Prosocial (Item 2)	.58
Locus of causality (Item 3)	.63	Prosocial (Item 3)	.78
Locus of causality (Item 4)	.78		
Locus of causality (Item 5)	.93		
Locus of causality (Item 6)	.91		
Punishment (Item 1)	.84		
Punishment (Item 2)	.88		
Punishment (Item 3)	.86		
Punishment (Item 4)	.72		
Sympathy (Item 1)	.89		
Sympathy (Item 2)	.82		
Sympathy (Item 3)	.83		

Note. All indicators significant at $p < .001$.

Table 3

Comparison of Original and Hypothesized Attributional Models

Model	CFI	SRMSR	RMSEA	χ^2	*df*	Difference
Original	.89	.22	.07	1437.96	584	--
Hypothesized	.95	.07	.05	970.49	574	448.80**

Note. Model comparison conducted using the scaled Satorra-Bentler Chi-square test. The original model was constrained whereas the hypothesized model was freely estimated. Scaling correction factor for original model was 1.076 and 1.075 for the hypothesized model. ** $p < .001$.

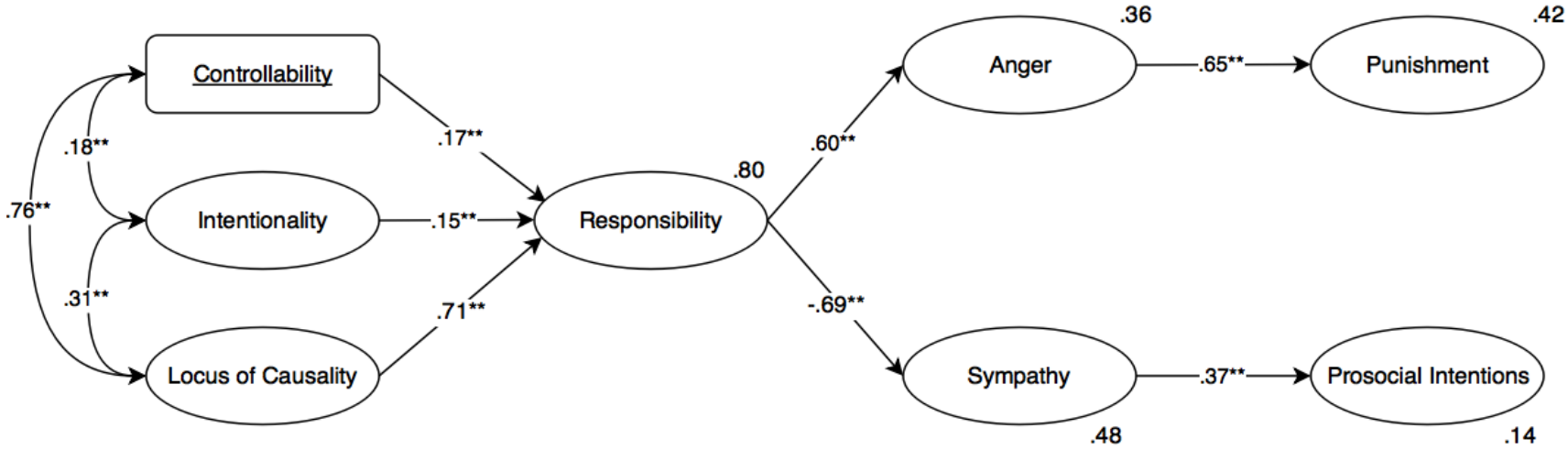

Figure 1. Results of original attributional model. Underlined variables are manipulated, observed factors. $N = 299$. R^2 displayed to top or bottom right of endogenous constructs. $^{**}p < .001$.

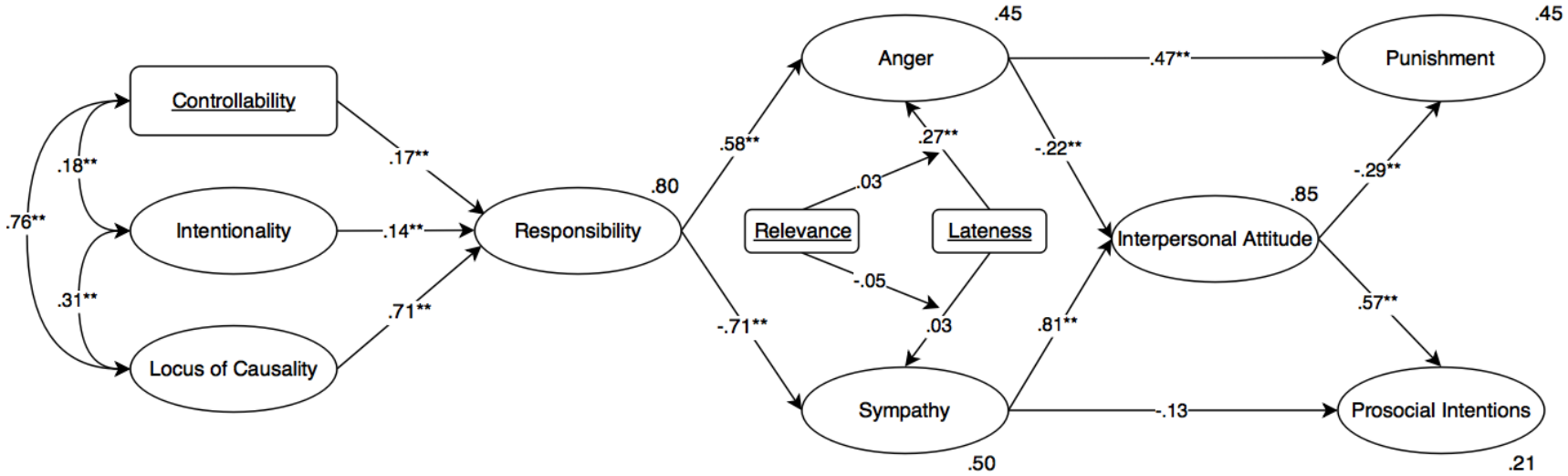

Figure 2. Results of hypothesized attributional model. Underlined variables are manipulated, observed factors. $N = 299$. R^2 displayed to top or bottom right of endogenous constructs. $^{*}p < .01$. $^{**}p < .001$.

Appendix: Vignettes

Underlined text was varied to change perceptions of meeting importance, bold indicates how late the person arrived, and italicized text represents the excuse given for arriving late.

Example: High importance x 5 mins late x controllable excuse

Imagine that it is 9:59 a.m. You are in a conference room with your boss and five other people about to have a very important, one-hour workplace meeting where you will give a presentation that you stayed up all night working on. How well the meeting attendees receive your presentation will influence your standing in the organization (e.g., the chance for a promotion). Your presentation lasts about one hour. The meeting is scheduled to start at 10:00 a.m. and it will be delayed until everyone shows up. The meeting starts **5 minutes** late because someone arrived **5 minutes** late. The person, who you don't directly work with but is a peer, said they were late *because they forgot when the meeting was supposed to start*.

Alternative text for meeting importance (underlined): a routine, one-hour workplace meeting where you will give a brief update on a project you're working on. How well the meeting attendees receive your project update will not affect your standing in the organization (e.g., the chance for a promotion). Your update lasts about 10 minutes.

Alternative text for lateness (bolded): 15 minutes

Alternative text for lateness excuse (italicized): their boss assigned them an urgent task that had to be completed before the meeting