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Working Paper 19-066



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**AUTHOR NOTE**

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### CONTRIBUTION STATEMENT

Consumption is often social in nature. As a result, consumers are regularly asked to dedicate their money and time to social engagements, and need to manage these resources efficiently. Nevertheless, relatively little is known about how rejections of invitations for shared consumption are perceived and the downstream interpersonal consequences of rejected invitations. There are a variety of reasons why a consumer may turn down an invitation for shared consumption—a lack of interest, or limited financial and temporal resources. When consumers turn down a request for shared consumption, they typically provide an excuse in an effort to deny or reduce personal responsibility by suggesting that their declination was unintended, accidental, or the result of extenuating circumstances (Schlenker, Britt, Pennington, Murphy and Doherty 1994). The present paper evaluates the effectiveness of excuses related to money (e.g., “I don’t have money to do go out to dinner”) and time (e.g., “I don’t have time to go out to dinner”) on perceptions of trust and interpersonal connection. We propose that because time is perceived as a more personally controllable resource than money, excuses about limited time (vs. limited money) reduce trust, and in turn, reduce perceptions of interpersonal closeness. Further, we demonstrate that these effects are persistent across different types of social relationships (e.g., friends and co-workers), and the interpersonal consequences of time excuses are not accurately predicted by excuse-makers. In demonstrating this, the current research contributes to attribution theory by showing how the management of financial and temporal resources are differently attributed to personal responsibility, and provides new insights of how time and money differently impact consumer judgement

and decision-making. Practically, this paper provides evidence that communicating financial scarcity may be an interpersonally effective way to say no to social invitations.

**ABSTRACT**

The development and maintenance of interpersonal relationships require investments of both money and time—resources that are often limited in supply, but in great demand. Indeed, consumers are regularly asked to dedicate their money and time to social engagements, and need to manage these resources efficiently. Therefore, consumers often choose to cite insufficient time or money as an excuse for rejecting social invitations. But how does using the excuse of financial versus time scarcity influence interpersonal relationships? Across eight experiments, we demonstrate that using financial scarcity as an excuse (e.g., “I don’t have money”) increases perceptions of interpersonal closeness and helping behavior compared to using time scarcity as an excuse (e.g., “I don’t have time”). This effect is explained by the fact that time is perceived as a more personally controllable resource than money, resulting in consumers who cite financial (vs. temporal) constraints as being perceived as more trustworthy. However, excuse-givers do not correctly predict this difference in interpersonal outcomes. These findings advance our theoretical understanding of how excuses revolving around resource constraints affect interpersonal perceptions and behaviors and provides practical insights for consumers desiring to minimize social repercussions when turning down social invitations.

*Keywords:* communication, interpersonal relationships, money, time

### Communicating Scarcity of Time and Money on Interpersonal Connection

Imagine receiving an invitation to your friend's wedding—you learn that she is planning a destination wedding this summer in Hawaii. You want to celebrate your friend, but Hawaii is far away, so attending the wedding will require a great deal of time and money. Moreover, you have limited vacation time and limited money. Given these constraints, you decide that you are not going to attend the wedding. But how do you break the news to your friend? Do you say you are unable to attend without offering an explanation? Or do you share that you have limited resources— perhaps disclosing that you do not have enough vacation time to make the trip or mention that you do not have enough money. You are concerned that declining the invitation will hurt your friend's feelings and may signal that you don't value the friendship—so you want to say 'no' in a way that will have the smallest negative impact on your friendship.

While receiving a wedding invitation may not be an everyday occurrence, consumers are regularly invited to celebrations, get-togethers, and general socializing—to get coffee, to go out to dinner, to see a movie—by friends, family members, and co-workers. In fact, over 25,000 invitations are sent each hour on Evite, an online invitation service (Evite, 2018). Importantly, social invitations usually implicitly or explicitly ask consumers to dedicate their time, money, or both. For example, being asked to engage in shared consumption, such as going out to dinner, requires both an investment of money and of time. As a result, consumers often turn down social invitations by citing insufficient time (e.g. "I don't have time to go out to dinner") or money (e.g. "I don't have money to go out to dinner"). Nevertheless, despite the commonness of such situations, we know surprisingly little about the consequences of disclosing a scarcity of



time or money, or an inability to invest these resources in relationships, on interpersonal perceptions. For example, it is unclear whether consumers will perceive excuses that cite limited time differently from excuses that cite limited money, and how this might influence subsequent feelings of interpersonal connection.

Prior work suggests that consumers might react more favorably to communications about time (vs. money) scarcity. In particular, Liu and Aaker (2008) show that consumers respond more generously to charitable requests for time versus money. The authors attribute this effect to different mindsets instantiated by time versus money. Namely, while money activates a value-maximization mindset more closely linked to economic utility, time engenders an emotional mindset geared toward helping (Liu and Aaker 2008; Vohs, Mead and Goode 2006; Monga and Zor 2019). Similarly, while consumers regularly assess the value of their money in terms of the quality and quantity of a service they receive in transactional relationships (Clark and Mills 1979; Fiske 1992), such comparisons are less common, and may even be perceived as inappropriate, in communal-sharing relationships (Belk 1976; Clark and Mills 1979; Cropanzano and Mitchell 2005; Fiske 1992). Thus, citing a shortage of money in communal-sharing relationships may bring to mind a transactional relationship, potentially undermining the communal nature of the relationship (Kim, Zhang and Norton 2018). Accordingly, these literatures suggest that when provided with a rejection to a social invitation, consumers might react more favorably to excuses citing a scarcity of time (vs. money).

However, the allocation of one's time is often perceived as more discretionary, and under the personal control of consumers compared to how one spends money, which

often must be dedicated to necessary, non-discretionary expenses (Bureau of Labor Statistics 2016a; Bureau of Labor Statistics 2016b). Further, time is a resource that is generally seen as more available than money, both across and within individual consumers. All consumers are granted twenty four hours every day, while the amount of money available to consumers varies both within consumers across time and between consumers (Shaddy and Shah 2018). Thus, we posit that because money is viewed as less personally controllable than time, citing insufficient money (vs. time) as the reason for rejecting a social invitation will be perceived as more trustworthy. Consequently, excuses that communicate a scarcity of money will result in greater feelings of interpersonal closeness and more positive interpersonal behaviors compared to excuses communicating a scarcity of time.

The remainder of this article is organized as follows: We first briefly review prior research on communication and interpersonal relationships, focusing on literature relating to the psychology of excuse-making as well as extant work in consumer research on the psychology of time and money, to develop our conceptual model and hypotheses. We then report eight experiments to support the proposed effects and underlying mechanism. We conclude with a discussion of the theoretical and practical implications of this work as well as suggestions for future research.

## **THEORETICAL DEVELOPMENT**

### **Interpersonal Relationships and Excuse-Making in Conversation**

In the current work, we investigate the social phenomenon of excuse-making in conversation—in which a consumer provides an excuse to deny or reduce personal responsibility of an undesired or unfortunate social circumstance (Weiner, Figueroa-Muñoz and Kakiyama 1991). Excuses play an important role in social life by soothing over disruptions and embarrassing moments during social interactions. When a consumer rejects a relationship partner—such as by turning down an invitation for shared consumption (e.g., a dinner out), they usually provide an excuse that emphasizes non-personal reasons, such as illness, instead of personal reasons, like a lack of interest (Folkes 1982). In fact, excuse-making is defined as the process of shifting causal attributions for negative outcomes from sources that are relatively more central to the person's sense of self to sources that are relatively less central, thereby resulting in perceived benefits to the person's image and sense of control (Snyder and Higgins 1988). Therefore, an excuse allows the excuse-maker to disengage themselves from an undesirable interpersonal event or circumstance while also protecting the excuse-receivers feelings and self-esteem. Accordingly, for excuses to be seen as trustworthy, they must maintain self-engagement in important tasks and maintain the positive expectancies of the excuse receiver (Weiner et al. 1991) by reducing responsibility for a shortcoming (Schlenker 1997), and demonstrating that the undesired event was unintended, accidental, or the result of extenuating circumstances (Schlenker, Britt, Pennington, Murphy and Doherty 1994; Schlenker, Weigold and Doherty 1991).

Excuses often increase trust and reduce feelings of personal responsibility in negotiations, court hearings, and employment contexts. For example, when a buyer discloses financial insufficiencies (e.g., a constraint rationale; "I don't have the resources

to offer more”), they are perceived as more trustworthy and receive more friendly counteroffers than when they focus on the shortcomings of what the seller is offering (e.g., a disparagement rationale; “What you’re selling isn’t worth any more”, see Lee and Ames 2017). A constraint rationale provides an explanation as to why the buyer is unable to meet the seller’s request, while a disparagement rationale communicates a buyer’s negative impressions of the offer. Even for serious crimes, such as robbery, embezzlement, vandalism and forgery, judgments of personal causality, responsibility and blame were lessened for those who provided an excuse for their crime (Critchlow 1985). In work contexts, employees who failed in their duties but provided an excuse to their supervisor were found to be less responsible, less blameworthy, and received less severe punishment than employees who did not provide an excuse (Crant and Bateman 1993; Wood and Mitchell 1981).

While many studies have documented interpersonal benefits from excuse-making, most work has compared the effectiveness of providing an excuse versus not providing an excuse in a given circumstance. In this work, we hold constant the fact that an excuse is provided, but instead compare the effectiveness of different types of excuses on interpersonal outcomes. Specifically, we focus on excuses related to insufficient money or time—arguably the two most commonly cited excuses. In fact these are the two most common excuses given for voluntary self-exclusions from jury selection (74.2% of all excuses; see Fukurai and Butler 1991). In this paper, we also focus on excuses exchanged in affiliative contexts (e.g., among friends, peers). Consumers providing excuses in these contexts are motivated to maintain the excuse receivers’ positive expectation of themselves as a reliable relationship partner (Weiner 1985). Consequently, we evaluate

whether and when excuses about money more effectively shift causal attributions away from the self compared to excuses about time.

### Locus of Control and Perceived Personal Control

Perceived causality has been found to influence consumer evaluations and behavior and are central to the purpose of excuse-giving (e.g., Fiske et al. 2002; Laczniak, DeCarlo and Ramaswami 2001; Schlenker, Pontari and Christopher 2001). Indeed, prior work notes that an excuse attempts to shift the locus outside the person—to a situational factor—to reduce personal responsibility for a broken social contract (Schlenker, Pontari and Christopher 2001). Therefore, we focus on the central properties of perceived causality—locus and controllability (Weiner, Figueroa-Muñoz and Kakihara 1991), and evaluate how time and money differ on these properties, resulting in less negative attributions for the excuse giver in terms of perceived responsibility as well as perceptions of closeness.

Locus of control refers to the degree to which a cause can be considered internal or external to the actor. This is important because prior research suggests that time is more internal and reflective of the self than money (Reed, Aquino, and Levy 2007). In fact, activating the construct of time during a product evaluation leads consumers to focus on their experience using the product, heightening feelings of personal connection to the product (Mogilner and Aaker 2009). Similarly, expenditures of time are perceived as more reflective of one's self and one's personal values compared to expenditures of money (Gino and Mogilner 2014; Mogilner and Aaker 2009; Reed et al. 2007). Thinking

about time leads people to pursue more intrinsic goals, such as investing in interpersonal relationships (Mogilner 2010), and behaving morally (Aquino, Freeman, Reed, Lim and Felps 2009; Gino and Mogilner 2014). Likewise, consumers exhibit greater generosity when being asked for time than money because time requests activate an emotional mindset toward helping (Liu and Aaker 2008).

Meanwhile, cognitions about money encourage the pursuit of more extrinsic goals (Liu and Aaker 2008). Consumers who are primed to think about money are less sensitive to social rejection, behave less cooperatively, and become more focused on working toward personal goals (Aquino et al. 2009; Bauer, Wilkie, Kim and Bodenhausen 2012; Vohs, Mead and Goode 2006, 2008; Zhou, Vohs and Baumeister 2009). Taken together, these findings suggest that time should be perceived as more reflective of internal locus and money more reflective of external locus.

Relatedly, perceived personal control refers to the degree to which the explanation provided for a shortcoming can be perceived as controllable to the excuse-giver. An excuse attempts to reduce an actor's fault by demonstrating that the unfortunate circumstance was not of their own volition (Schlenker, Pontari and Christopher 2001).

Perceived personal control relates to time and money as some data suggests that Americans have more discretion over how they spend their time compared to how they spend their money. While Americans spend a great deal of time on leisure activities, Americans spend the majority of their money on basic living expenses (Bureau of Labor Statistics 2016a; Bureau of Labor Statistics 2016b). In general, basic needs like housing and healthcare costs have been rising and claiming a larger share of household

expenditure (Schanzenbach, Nunn, Bauer and Mumford 2016), leading to more restrictive household budgets.

Relatedly, consumers generally perceive money to be unequally available to others (Norton and Ariely 2011), but see time as more equally distributed (Shaddy and Shah 2018). Thus, time is seen as more equal and discretionary, both across consumers and over time for a single consumer, compared to the ability to spend money. As a result, time is seen as a stronger signal of one's preferences than money (Shaddy and Shah 2018)—the amount of time a consumer is willing to dedicate to acquiring a product or service is perceived to more accurately represent how much a consumer values the product compared to the amount of money they are willing to pay.

In sum, existing work suggests that time is perceived as more personally controllable than money, and more reflective of one's self. As a result, we hypothesize that excuses about insufficient time will be less successful at shifting the perceived locus of causality to an external factor and will thus be perceived as more reflective of one's preferences. In other words, saying, "I don't have time to go out to dinner" will be viewed as more internally motivated and in one's personal control compared to saying, "I don't have money to go out to dinner."

### Trustworthiness

Interpersonal trust is defined as the extent to which a person is confident in, and willing to act, on the basis of the words, actions, and decisions of another person (McAllister 1995). Perceived responsibility is a central driver of trust (e.g., Butler 1991).

Excuse-making can undermine trust (Bies, Shapiro and Cummings 1988), especially when consumers fail to meet relationship needs and provide an unsatisfactory explanation because the ability to predict and understand behavior is threatened (Schlenker, Pontari and Christopher 2001). Lessening the strength of personal responsibility over the negative event should maintain the positive expectancies of the excuse receiver—that the excuse giver is a reliable relationship partner (Weiner 1985), resulting in more positive relationship evaluations. Indeed, support for this position can be found in negotiations research, wherein buyers are perceived as more trustworthy when they disclose financial constraints compared to making claims about the value of a negotiated item (Lee and Ames 2017). We propose that because financial (vs. time) constraints are perceived as external to the actor, and low on volitional control, that communicating such constraints will increase perceptions of trust (Weiner, Figueroa-Muñoz and Kakiyama 1991).

Importantly, trust not only positively influences consumers beliefs and impressions of their relationship partners (Lawler and Yoon 1996), but is also used as the basis for action. When people are trusting they often behave in ways that relinquish personal power over outcomes that are valuable to the self (Messick and Kramer 2001). When consumers trust their relationship partners, they disclose more personal information (Wheless and Grotz 1977), express greater prosocial orientation toward relationship partners (Reis et al. 2010), and express a greater willingness to help (Willner and Smith 2007). Therefore, we predict that the greater feelings of trust in others who provide financial (vs. time) excuses will lead to greater feelings of interpersonal connection and increased helping behavior. Formally stated, our hypotheses are as follows (for an illustration of the full theoretical model, see Figure 1):



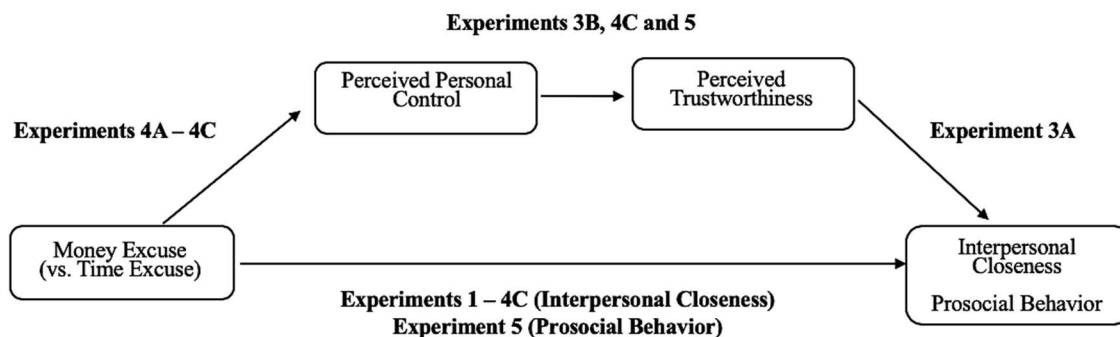
**Hypothesis 1 (H1a):** An excuse about limited time will result in lower perceptions of interpersonal closeness to the excuse maker than an excuse about limited money.

**Hypothesis 1 (H1b):** An excuse about limited time will result in less prosocial behavior to the excuse maker than an excuse about limited money.

**Hypothesis 2 (H2a):** The effect of time versus money excuses on interpersonal closeness is serially mediated by perceptions of controllability of the resource, which subsequently influences perceived trustworthiness of the excuse maker.

**Hypothesis 2 (H2b):** The effect of time versus money excuses on prosocial behavior is serially mediated by perceptions of controllability of the resource which subsequently influences perceived trustworthiness of the excuse maker.

**Figure 1. THEORETICAL MODEL AND OVERVIEW OF EXPERIMENTS**



## OVERVIEW OF EXPERIMENTS

Across eight experiments, we assess the interpersonal consequences of communicating a money excuse (e.g., “I don’t have money”) versus a time excuse (e.g., “I don’t have time”). Experiment 1 examines over 2,000 directed message tweets from

Twitter and demonstrates that tweets containing money scarcity content are significantly more likely to be ‘liked’ than tweets containing time scarcity content (H1a). In Experiment 2, we evaluate how reflecting on a recent experience in which one received a money or time excuse led to changes in feelings of interpersonal closeness (H1a). Experiments 3A and 3B explore our proposed mechanism: that time is perceived to be more personally controllable than money (H2), which impacts perceptions of trustworthiness (H2) and closeness (H2a). These effects persist across different types of relationships (i.e. between friends and co-workers), but are strongest when provided in response to an invitation for shared consumption (vs. non-shared consumption). Next, experiments 4A, 4B and 4C explore the moderating role of personal control. Specifically, we examine the effects of excuses of money versus time scarcity when resources are presented as outside of one’s personal control (experiment 4A), when an invitation is for an event in the distant versus near future (experiment 4B), and evaluate perceptions by individual differences in perceived locus of control (experiment 4C). Finally, experiment 5 evaluates the effect of money versus time excuses for rejecting social invitations on prosocial behavior (H1b) and evaluates perceived controllability and trustworthiness of the excuse (H2b).

## **EXPERIMENT 1: COMMUNICATING RESOURCE SCARCITY ON TWITTER**

As an initial investigation of excuse-making in conversation, we used netnographic data from Twitter, a social networking website on which registered users post short status update messages known as ‘tweets’. Tweets are displayed in the feed of

other users who have subscribed to the user's tweets (known as "followers"). Tweets can be directed to a specific Twitter user by addressing the user at the beginning of the tweet (e.g., "@[username]"). Compared to tweets that are directed to the general Twitter community, tweets that are directed to a specific user are more focused on the addressee, increasing interaction from the addressed user (therefore scraping direct message tweets exchanged between users allows for the evaluation of online conversations; see Honeycutt and Herring 2009). One way the addressed user is able to interact with the tweet is to click a "like" button underneath the tweet. The like button is depicted by a heart icon which turns red when clicked, and is characterized as an expression of positive sentiment for the content and/or the author of the tweet (Twitter, 2018). We evaluate the tendency for addressed users to "like" a tweet as a function of whether the tweet communicates money or time scarcity, and predict that tweets communicating money scarcity will be more likely to be "liked" than tweets communicating time scarcity.

## Methods

*Procedure.* We constructed our data set of tweets communicating resource scarcity by administering the 'twitterR' API package (Gentry 2016) at 5 p.m. Eastern Standard Time each day from January 1 to January 8, 2018. The 'twitterR' API package scraped the 500 most recent tweets that contained the phrase "don't have money", and the 500 most recent tweets that contained the phrase "don't have time," generating a total sample of 8,000 tweets. Given our interest in directed communication, we removed all

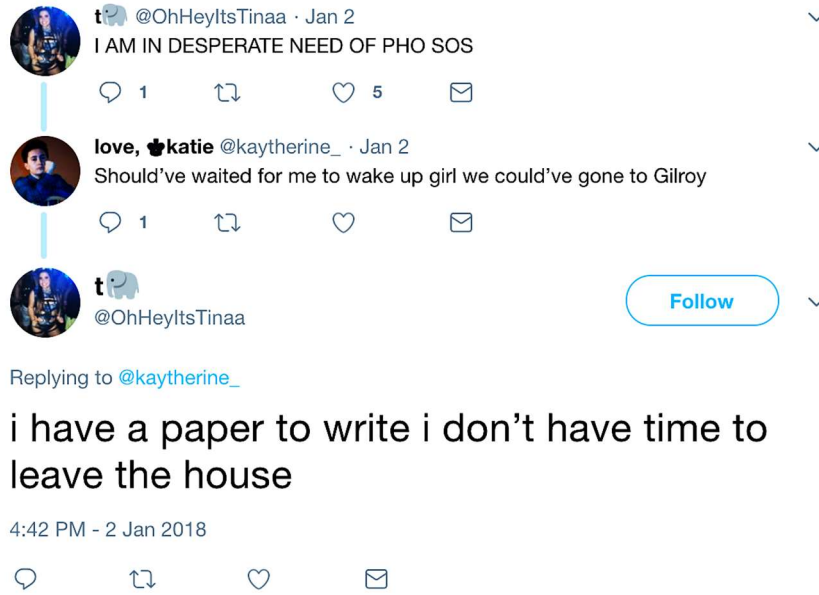
tweets that did not begin with “@[username]” and were thus directed to the entire Twitter community ( $N = 5,351$ ; tweets), resulting in a total data set of 2,649 tweets.<sup>1</sup>

We asked two independent coders who were blind to our hypotheses to evaluate the content of each tweet by identifying whether the tweet communicated scarcity of a personal resource and whether the resource discussed was money or time. Interrater reliability was high (Cohen’s  $\kappa > .90$ ); coders agreed 95.6% of the time about whether the tweet communicated personal resource scarcity (2,533 of 2,649) and 98.8% of the time about the resource discussed (2,618 of 2,649) and resolved disagreements through discussion. Tweets that did not discuss personal resource scarcity (e.g., shared scarcity,  $N = 102$ ; “@[<user name>] I wanna fly to Dublin to see you twice but we don’t have money.”), and tweets that discussed a scarcity of both money and time ( $N = 237$ ; “@[<user name>] I just don’t have the time or money, can only work part time as it is”) were excluded, leaving a final dataset of 2,310 tweets—1,218 tweets communicated time scarcity “@[<user name>] I have a paper to write, I don’t have time to leave the house”, while 1,092 communicated money scarcity “@[<user name>] I legit don’t have money for breakfast”. In addition to the content of the tweet, we scraped information about the author of the tweet including their user name, number of followers and followees, as well as whether the tweet was ‘liked’ by the user to whom the tweet was addressed (see Figure 2).

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<sup>1</sup> 33.11% of all scraped tweets were directed to a specific Twitter user, consistent with the prevalence of directed tweets among tweets directed to the general Twitter community found in previous research (see Honeycutt & Herring, 2009).

**Figure 2.** EXAMPLE TWEET COMMUNICATING TIME SCARCITY INCLUDED IN FINAL DATA SET ( $N = 2,310$ ; EXPERIMENT 1)



*Note:* Only the final tweet, “@kaytherine\_ i have a paper to write i don’t have time to leave the house” is included in the dataset (the other tweets are provided for conversational context). Our dependent measure is whether the heart below the tweet was liked by @kaytherine\_ (the user to whom the tweet is addressed).

## Results

Twitter users were less likely to ‘like’ a tweet that communicated time scarcity (24.2%) than a tweet that communicated money scarcity (48.4%,  $\chi^2(1, N = 2,310) = 146.20, p < .001$ ).

Authors of tweets communicating money scarcity had fewer followers than authors of tweets communicating time scarcity ( $M_{money} = 1,236.29, SD = 4,503.23$ ;  $M_{time} = 1,931.04, SD = 8,149.97, t(2,301) = 2.49, p = .01, d = .10$ ), and also followed significantly fewer users ( $M_{money} = 659.34, SD = 1,318.55$ ;  $M_{time} = 823.59, SD = 1,316.74, t(2,301) = 2.99, p = .003, d = .12$ ). Therefore, we ran a binary logistic

regression evaluating the propensity of a tweet being ‘liked’ as a result of the type of resource communicated while controlling for number of followers and number of people following the user. The results from this regression show that tweets that communicate money scarcity are more likely to be ‘liked’ compared to tweets communicating time scarcity (OR = 2.95, 95% CI = [2.47, 3.52],  $p < .001$ ).

## Discussion

The results from this Twitter data provide initial evidence that communication regarding money and time scarcity are common, but consumers evaluate communication about these resources quite differently—communication about time scarcity was less likely to be ‘liked’ by other users than communication about money scarcity. Further, this effect persists when controlling for individual user characteristics, such as number of followers and people following the tweeter. Of course, because the results of this study are correlational, we cannot disentangle the causal links between scarcity content and interpersonal outcomes. We address this limitation in our subsequent studies.

## **EXPERIMENT 2: RECALLED EXCUSES AND PERCEPTIONS OF INTERPERSONAL CLOSENESS**

In this experiment, we investigated consumer’s recalled experiences of receiving an excuse citing money or time scarcity, and assessed how close consumers felt to their relationship partner both before and after receiving this communication. We also begin to

explore potential mechanisms of the effects by evaluating the extent to which people perceive money and time excuses as trustworthy, valid, and status-signaling. A repeated measures design allows us to measure the effect of excuses citing time versus money scarcity that consumers have actually received, without confounding whether there may be a natural difference in the types of people who provide excuses based on insufficient time or money. Further, a repeated measures design allows us to ensure that consumers consider similarly close others when recalling people who have provided them with excuses based on time versus money scarcity.

## Methods

*Participants and Design.* Two hundred and seven adults (52.7% female;  $M_{age} = 30.30$ ,  $SD = 11.01$ ; 40.5% Caucasian) participated in a series of unrelated lab studies at a university in the northeastern United States in exchange for \$20. We randomly assigned participants to one of two conditions (excuse type: money or time).

*Procedure.* Participants reflected on a recent experience and wrote a few sentences about it in an open response window via Qualtrics. In the money excuse condition, participants read (word changes in the time excuse condition are shown in brackets):

*In this task, we are interested in your impressions of excuses others give when communicating to you why they are unable to do something. Specifically, we are interested in your impressions of money [time] excuses: when people tell you they can't do something because they don't have money [time]. To the best of your ability, please*

*recall a situation when someone told you they couldn't do something because they didn't have money [time]. Please write a few sentences about the circumstance involving the excuse.*

After writing about this experience, participants completed measures assessing their impressions of this communication and of their relationship partner.

*Perceived Closeness.* To ensure that participants were reflecting on excuses from relationship partners they felt similarly close to, participants first indicated the extent to which they felt close to their relationship partner *prior* to hearing the excuse. Responses were recorded on a seven-point Likert scale (ranging from 1, *not at all close*, to 7, *very close*) which was adapted from the single-item perceived interpersonal closeness scale (Popovic, Milne and Barrett 2003). Participants also indicated the extent to which they felt close to their relationship partner *after* hearing the excuse on the same seven-point Likert scale.

*Perceived Validity of Excuse.* Next, participants responded to the question, “*I thought that this person's excuse was valid*” on a seven-point Likert scale (ranging from 1, *strongly disagree* to 7, *strongly agree*).

*Perceived Trustworthiness.* To measure perceived trustworthiness, participants indicated the extent to which they agreed that (a) they trusted the excuse-maker, and (b) the excuse-maker seemed as though they were being honest with them on a seven-point Likert scale (ranging from 1, *strongly disagree* to 7, *strongly agree*; adapted from Pontari, Schlenker, and Christopher 2002,  $r = .78$ ).

*Perceived Social Status.* Participants also responded to the question, “*To what extent do you think that this person probably has lower or higher status than you?*” on a

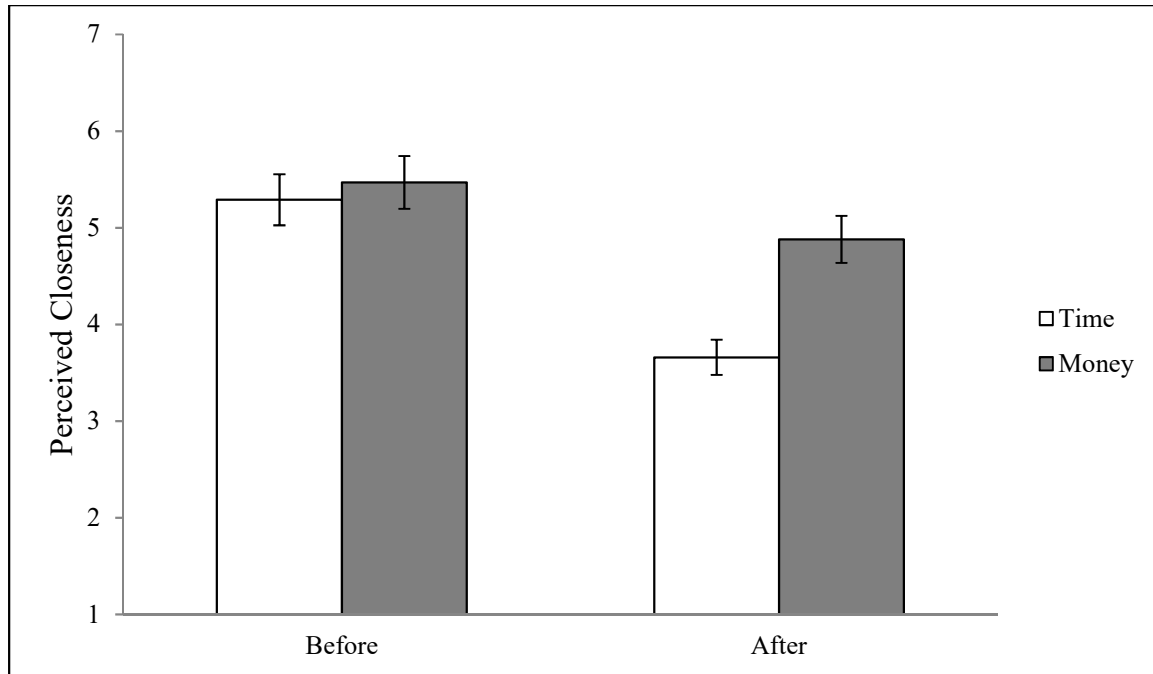


1, *lower status* to 9, *higher status* scale. We measured perceived status as previous research has found consumers who have less time available for leisure to be perceived as higher status (Bellezza, Paharia, and Keinan 2016).

## Results

*Perceived Closeness.* A repeated-measures ANOVA using perceived closeness (before vs. after) as a within-subjects factor and excuse type (money vs. time) as a between-subjects factor revealed a significant main effect for perceived closeness,  $F(1,205) = 125.53, p < .001$ , which was qualified by a significant interaction,  $F(1,205) = 27.65, p < .001$  (see Figure 3). Follow-up tests indicated that prior to receiving an excuse, participants felt equally close to relationship partners who communicated money or time scarcity ( $M_{money} = 5.47, SD = 1.37; M_{time} = 5.29, SD = 1.44, t(205) = .95, p = .35, d = .13$ ). However, after an excuse was communicated, participants felt significantly less close to relationship partners who communicated time scarcity compared to those who communicated money scarcity ( $M_{time} = 3.66, SD = 1.68; M_{money} = 4.88, SD = 1.74, t(205) = 5.16, p < .001, d = .68$ ). In fact, while participants felt less close to relationship partners after either excuse was provided, the detrimental effect of time scarcity communication on perceived closeness ( $t(104) = 10.12, p < .001, d = 1.98$ ) was nearly double that of money scarcity communication ( $t(101) = 5.18, p < .001, d = 1.03$ ).

**Figure 3.** PERCEIVED CLOSENESS BEFORE AND AFTER SCARCITY COMMUNICATION BY EXCUSE TYPE ( $N = 207$ ; EXPERIMENT 2; error bars indicate  $\pm 1 SE$  of mean)



*Perceived Validity of Excuse.* Participants thought a time excuse was significantly less valid than a money excuse ( $M_{time} = 4.01, SD = 1.98; M_{money} = 5.09, SD = 2.03, t(205) = 3.87, p < .001, d = .54$ ).

*Perceived Trustworthiness.* Participants also thought the excuse-maker was less trustworthy when they provided a time versus a money excuse ( $M_{time} = 4.42, SD = 1.83; M_{money} = 5.47, SD = 1.66, t(205) = 4.33, p < .001, d = .60$ ).

*Perceived Social Status.* There were no significant differences in perceived social status by excuse type, suggesting that our observed effects are not the result of differences in status signaling ( $M_{time} = 5.29, SD = 1.56; M_{money} = 4.98, SD = 1.56, t(203) = 1.41, p = .16, d = .20$ ).

*Mediation.* Next, consistent with our conceptual model (Figure 1), we examined whether increased closeness observed in the money excuse condition (compared to the time excuse condition) was mediated by perceptions that the excuse was valid, increasing

perceived trustworthiness. To test for mediation, we used PROCESS model 6 (Hayes and Preacher 2014). Results, shown in Table 1, demonstrate that perceptions of validity and trustworthiness partially serially mediate the relationship between communicating financial scarcity and increased closeness (95% CI, .21 to .77).

*Coding Open-Ended Data.* To better understand why participants perceived communication regarding time scarcity to be less valid than communication regarding money scarcity we asked a sample ( $N = 253$ ) from Amazon's Mechanical Turk (MTurk) to code the open response data where participant's had recalled an excuse. Each coder read and evaluated 5 responses, resulting in each response being coded an average of 6.11 times. Participants were asked to rate the extent the excuse provided in the scenario was (a) honest, (b) believable, (c) trustworthy, (d) out of the person's personal control, (e) a personal choice, (f) revealing something intimate about the person, and (g) reflected how much the person valued their relationship with the other person. All responses were recorded on a seven-point Likert scale (ranging from 1, *strongly disagree* to 7, *strongly agree*).

Consistent with the findings from the main study, coders thought time scarcity communication was less trustworthy than money scarcity communication. Time excuses were rated as less honest ( $M_{time} = 4.48, SD = 1.10; M_{money} = 5.11, SD = 1.08, t(205) = 4.20, p < .001, d = .58$ ), believable ( $M_{time} = 4.60, SD = 1.13; M_{money} = 5.23, SD = 1.05, t(205) = 4.12, p < .001, d = .57$ ), and trustworthy ( $M_{time} = 4.31, SD = 1.15, t(205) = 4.62; M_{money} = 5.04, SD = 1.11, p < .001, d = .64$ ). Coders also perceived time excuses to be more within one's personal control ( $M_{time} = 3.76, SD = 1.07; M_{money} = 4.26, SD = 1.07, t(205) = 3.32, p = .001, d = .46$ ) and more of a personal choice ( $M_{time} = 4.98, SD = .98;$

$M_{money} = 4.32, SD = .98, t(205) = 5.11, p < .001, d = .71$ ) than time excuses. Further, coders rated time excuses to be more of a reflection of how much the person valued the relationship with the other person ( $M_{time} = 4.65, SD = .91; M_{money} = 4.07, SD = 1.06, t(205) = 4.18, p < .001, d = .58$ ), than money excuses, but time and money excuses were seen as equally intimate ( $M_{time} = 3.96, SD = .90; M_{money} = 4.06, SD = 1.02, t(205) = .72, p = .47, d = .10$ ). These additional results suggest that time excuses may be perceived as less valid than money excuses because they are perceived as more personally controllable and reflective of relationship interest, which we test in our subsequent studies.

## Discussion

The results from this experiment provide further evidence that communication about money and time scarcity are common—every participant was able to recall a recent experience in which they received a money or a time excuse. Participants felt equally close to relationship partners prior to receiving a money or time excuse, suggesting that communications about money and time scarcity are not reserved for relationships that are differentially intimate. Yet, participants felt less close to their relationship partners after receiving excuses citing time scarcity compared to those who received excuses citing money scarcity. This effect is serially mediated by the perception that time excuses are less valid, which decreases trust in the communication partner. Independent coding of the open response data also confirmed differences in perceived trustworthiness and provided some initial insight into why money excuses might be perceived as more valid: they were rated as significantly more outside of one's personal control, perceived less of a choice for the excuse-provider, and more of a reflection of how much the excuse provider valued

the relationship with the excuse receiver. In addition, this experiment provided additional evidence that money and time excuses are ubiquitous—consumers recalled experiences of receiving money and time excuses in response to invitations for shared consumption, as well as in response to requests for help. Therefore, we ran a follow-up study where we introduced more experimental control by recruiting a sample of consumers who were engaged and currently planning their wedding ( $N = 64$ ). Consistent with the results of Experiment 2, we found that brides and grooms felt equally close to their invited guests before receiving a money or time excuse ( $M_{money} = 4.56, SD = 1.61; M_{time} = 4.88, SD = 1.54, t(63) = 1.44, p = .16, d = .34$ ), but after an excuse was provided, participants felt significantly less close to invited guests who declined their invitation by citing time versus financial scarcity ( $M_{money} = 4.41, SD = 1.76; M_{time} = 3.63, SD = 1.69, t(63) = 3.63, p = .001, d = .91$ ; see appendix).

In our next experiment, we wanted to further evaluate the insights gleaned from the open response coding of Experiment 2, and test whether time is perceived to be a more personally controllable resource, leading to lower impressions of trust and lower perceived closeness. Further, because money excuses were perceived to be less of a reflection of how much the person valued the relationship, we wanted to understand if the detrimental effect of a time excuse was specific to invitations for shared consumption (e.g., an event that the inviter would also attend) versus invitations for non-shared consumption (e.g., an event that the inviter would not attend).

### **EXPERIMENT 3A: SCARCITY COMMUNICATION & SHARED CONSUMPTION**

In this experiment, participants considered a circumstance in which they invited a friend to a social event and their friend declined by giving either a time or money excuse. We also crossed excuse type by the nature of the invitation: consumption that would be shared or not shared with the invitee. Because excuse making has been found to undermine trust when consumers fail to meet relationship needs (Schlenker, Pontari and Christopher 2001), and time excuses were perceived to be more reflective of relationship valuation in the results from our post-test in Experiment 2, we anticipated an interaction between excuse type and invitation type on perceived trustworthiness. In particular, we predicted that the detrimental effect of a time excuse would be attenuated for invitations to non-shared versus shared consumption. However, we predicted only a main effect of excuse type on perceptions of controllability, such that a time excuse would result in greater perceived controllability compared to a money excuse, regardless of whether an invitation was for shared or non-shared consumption.

## Methods

*Participants and Design.* We recruited 400 adults (55.3% female;  $M_{age} = 38.77$ ,  $SD = 11.82$ ; 85.5% Caucasian) through MTurk and paid a nominal fee for participating. We randomly assigned participants to a 2 (excuse type: money vs. time) x 2 (invitation type: shared consumption vs. non-shared consumption) between subjects design.

*Procedure.* Participants were asked to imagine a scenario in which they were inviting a friend to a concert. In the shared consumption condition, the instructions read

as follows (word changes in the non-shared consumption condition are shown in brackets): “*Your friend, Jeremy, is in a band. The band is playing a show this weekend. Jeremy tells you that tickets go on sale later today and hopes that you can make it. You are [not] able to attend the concert. You ask your mutual friend Rebecca if she has any interest in attending the concert with[out] you.*”

In the money excuse condition, participants then read (word changes in the time excuse condition are shown in brackets): “*When you mention this to Rebecca she says, ‘That sounds like fun, but unfortunately I can’t go. I don’t have money [time].’*”

Next, participants completed measures assessing their impressions of this communication and of the excuse-giver (Rebecca).

*Perceived Closeness.* As in experiment 2, participants indicated the extent to which they felt closer to Rebecca after hearing her excuse on a seven-point Likert scale (ranging from 1, *strongly disagree*, to 7, *strongly agree*).

*Perceived Trustworthiness.* Participants indicated the extent to which they felt Rebecca was trustworthy, cooperative, sincere and principled ( $\alpha = .93$ ; Pontari, Schlenker and Christopher 2002), on a seven-point Likert scale (ranging from 1, *not at all* to 7, *very*).

*Perceived Controllability.* Next, participants responded to two questions measuring the perceived controllability of the scarce resource: “*In general, not having money [time] is a choice for Rebecca*” and “*In general, it is possible for Rebecca to find the money [time] to do the things in life that she really wants to do.*” Both questions were measured on a seven-point Likert scale (ranging from 1, *strongly disagree* to 7, *strongly agree*) and were adapted from previous measures of perceived behavioral control (e.g.,

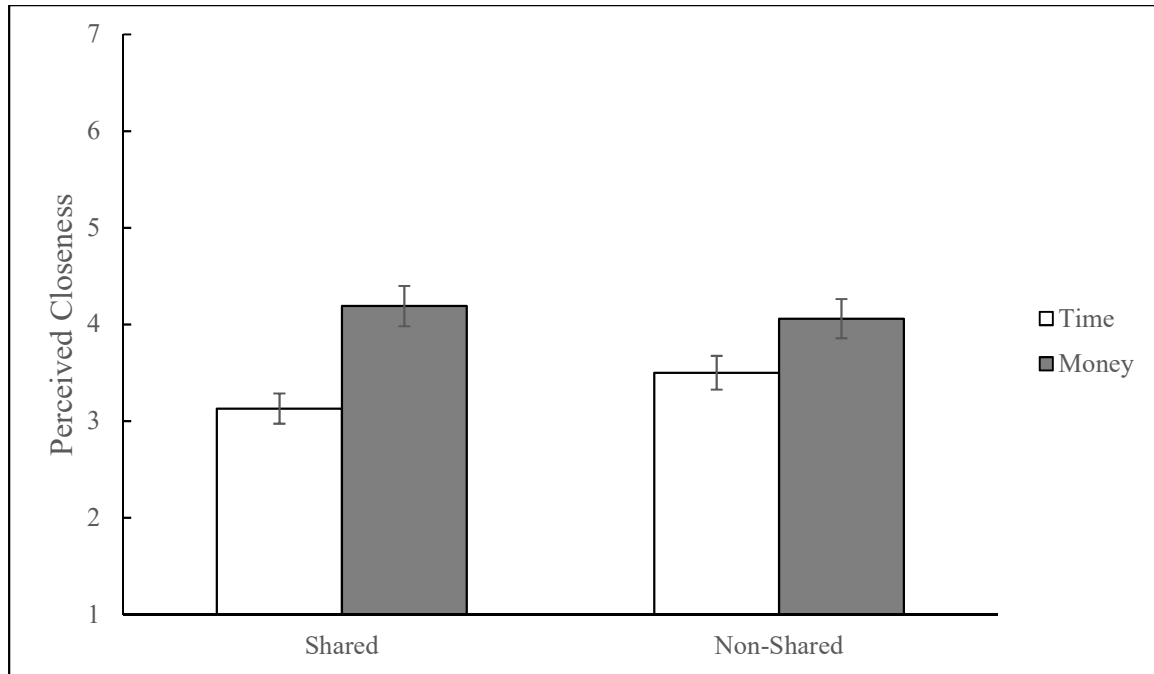
Conner, Sheeran, Norman and Armitage 2000; Sheeran and Orbell 1999,  $r = .59, p < .001$ ).

## Results

*Perceived Closeness.* We conducted a 2x2 ANOVA to assess the impact of excuse type (money vs. time) and invitation type (shared vs. not shared) on perceived closeness. There was a main effect of excuse type,  $F(1,396) = 38.52, p < .001$ , but no main effect for invitation type,  $F(1,396) = .90, p = .34$ . However, there was a significant interaction between excuse type and invitation type,  $F(1,396) = 3.73, p = .05$ . Participants felt less close to Rebecca when receiving a time excuse than when receiving a money excuse ( $M_{time} = 3.30, SD = 1.27; M_{money} = 4.12, SD = 1.34, t(398) = 6.23, p < .001, d = .62$ ). While participants felt equally close to Rebecca when receiving a money excuse for a shared or non-shared experience ( $M_{money\_shared} = 4.19, SD = 1.40; M_{money\_non-shared} = 4.06, SD = 1.29; t(200) = .68, p = .50, d = .09$ ), a time excuse was especially detrimental to perceived closeness when given in response to an invitation for shared consumption compared to an invitation for non-shared consumption ( $M_{time\_shared} = 3.13, SD = 1.20; M_{time\_non-shared} = 3.50, SD = 1.31; t(196) = 2.10, p = .04, d = .30$ ; Figure 4).

**Figure 4.** PERCEIVED CLOSENESS BY EXCUSE TYPE AND INVITATION TYPE ( $N = 400$ ; EXPERIMENT 3A; error bars indicate  $\pm 1 SE$  of mean)





*Perceived Controllability.* Consistent with our theoretical account of perceived controllability, we found a main effect of excuse type ( $F(1,396) = 103.65, p < .001$ ), but no main effect for invitation type ( $F(1,396) = 1.03, p = .31$ ), or a significant interaction between excuse type and invitation type ( $F(1,396) = .30, p = .59$ ). Participants associated greater controllability with time relative to money ( $M_{time} = 4.59, SD = 1.33$ ;  $M_{money} = 3.17, SD = 1.47$ ;  $t(398) = 10.16, p < .001, d = 1.02$ ).

*Perceived Trustworthiness.* For perceived trustworthiness, there was a main effect of excuse type ( $F(1,396) = 39.34, p < .001$ ), a main effect for invitation type ( $F(1,396) = 4.90, p = .03$ ), and a significant interaction between excuse type and invitation type ( $F(1,396) = 4.20, p = .04$ ). Participants perceived Rebecca as less trustworthy when receiving a time versus a money excuse ( $M_{time} = 4.54, SD = 1.20$ ;  $M_{money} = 5.27, SD = 1.08$ ;  $t(398) = 6.34, p < .001, d = .63$ ), and also perceived an excuse for a shared versus non-shared consumption as less trustworthy ( $M_{shared} = 4.77, SD = 1.23$ ;  $M_{non-shared} = 5.05$ ,

$SD = 1.15$ ;  $t(398) = 2.36$ ,  $p = .02$ ,  $d = .24$ ). While participants felt Rebecca was equally trustworthy when receiving a money excuse for shared or non-shared consumption ( $M_{money\_shared} = 5.26$ ,  $SD = 1.12$ ;  $M_{money\_non-shared} = 5.28$ ,  $SD = 1.04$ ;  $t(200) = .12$ ,  $p = .90$ ,  $d = .02$ ), a time excuse was especially detrimental to perceived trustworthiness when given in response to shared versus non-shared consumption ( $M_{time\_shared} = 4.31$ ,  $SD = 1.15$ ;  $M_{time\_non-shared} = 4.80$ ,  $SD = 1.21$ ;  $t(196) = 2.88$ ,  $p = .004$ ,  $d = .41$ ).

*Mediation.* We next examined whether the decreased closeness observed in the time excuse condition was mediated by perceptions that the scarcity of the resource was controllable, and in turn, reduced perceived trustworthiness. To test for mediation, we followed the instructions outlined in Hayes and Preacher (2014) using the PROCESS Macro and tested our potential mediators sequentially with model 6. Results are shown in Table 2 and demonstrate that perceptions of controllability and trustworthiness mediate the relationship between a time excuse and decreased closeness for shared consumption (95% CI, .03, .27), and non-shared consumption (95% CI, .01, .16).

*Moderated Mediation.* While perceptions of control and trust mediated our relationship between excuse type and closeness for both shared and non-shared consumption, we next examined whether the interaction we observed between excuse type and invitation type on perceived closeness was driven by perceptions of trust. To test for moderated-mediation, we followed the instructions outlined in Hayes (2015) using the PROCESS Macro model 7. Results are shown in Table 3 and demonstrate that perceptions of trust differed in strength by invitation type (95% CI, .00 to .46). Specifically, a time excuse was particularly detrimental to perceptions of trust for invitations involving shared consumption (95% CI, .28 to .65) compared to invitations for

consumption that was not shared (95% CI, .07 to .40). Perceptions of controllability did not differ in strength by invitation type (95% CI, -.03 to .06). These results suggest that perceptions of trust (and not control) are impacted by the social nature of an invitation.

## Discussion

Replicating the results from Experiment 2, we found evidence that time (vs. money), is perceived to be a more controllable resource, which leads excuses related to time (vs. money) to be perceived as less trustworthy, thereby decreasing perceptions of closeness. While the social nature of an invitation did not impact perceptions of controllability, we found support for moderated-mediation through perceptions of trustworthiness. Communication about money scarcity resulted in similar levels of closeness and trustworthiness for shared and non-shared consumption, while communication about time scarcity was especially detrimental to perceived closeness in response to an invitation for shared consumption, and this effect was driven by different perceptions of trustworthiness.

It appears that time is a more personal and meaningful resource for relationship building, which becomes more interpersonally threatening when used as a rationale for being unavailable for shared consumption. Despite the clarity of these results, thus far, our studies have not included a control condition. Therefore, we are unable to examine whether these results are driven by time having a negative interpersonal impact or whether money excuses buffer against negative interpersonal consequences of excuse-making. Thus, in our next study we introduce a no excuse control condition to better

understand the implications of communicating limited time or money. In addition to comparing a time and a money excuse against a control condition, we also examine whether our effects persist across different types of relationships (friends vs. co-workers).

### **EXPERIMENT 3B: SCARCITY COMMUNICATION AMONG FRIENDS & COWORKERS**

The primary goal of this experiment is to demonstrate the robustness of the observed effects across different types of social relationships and to compare our effects to a no excuse control condition. Thus, we examined whether the effects of excuse type (time vs. money scarcity vs. no excuse) on feelings of interpersonal closeness exist both when excuses are provided by friends and co-workers.

#### **Methods**

*Participants and Design.* Six hundred and twelve adults (52.6% female;  $M_{age} = 38.32$ ,  $SD = 23.79$ ; 76.0% Caucasian) were recruited through MTurk and paid a nominal fee for participating. We randomly assigned participants to a 3 (excuse type: money, time or none) x 2 (relationship type: friend or co-worker) between-subjects design.

*Procedure.* Participants imagined a scenario in which they invited a friend to a social engagement. All participants read: “*You are planning a night out with some people. You propose to go out for some drinks, a nice meal, and then go to a live comedy show this coming Saturday.*” In the no excuse control condition, participants then read

(word changes in the co-worker condition are shown in brackets): “*When you mention this plan to one of your friends [co-workers] they say, ‘That sounds like fun, but unfortunately I can’t go.* For participants assigned to the time and money scarcity communication conditions, an additional sentence directly followed: *I don’t have time [money].*”

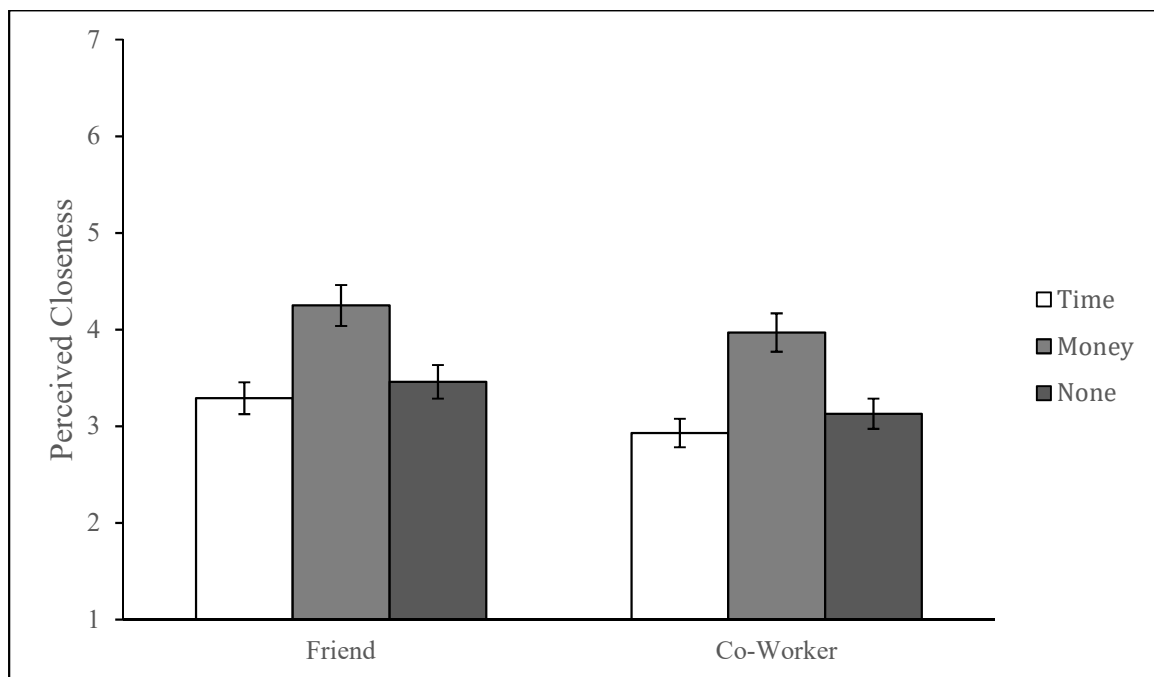
Next, participants completed the same measures from Experiment 3A assessing their impressions of this communication and their relationship partner, including perceived closeness with the relationship partner, perceived controllability ( $r = .68, p < .001$ ), and perceived trustworthiness ( $\alpha = .89$ ; Pontari, Schlenker and Christopher 2002). When measuring perceived controllability in our no excuse control condition, we asked: “*Not attending is a choice for my friend [co-worker]*” and “*It is possible for my friend [co-worker] to do the things in life that they really want to do.*” Responses were measured on the same seven-point Likert scale. (ranging from 1, *strongly disagree* to 7, *strongly agree*).

## Results

*Perceived Closeness.* We conducted a 3x2 ANOVA to assess the impact of excuse type (money, time or none) and relationship type (friend vs. co-worker) on perceived closeness. There was a main effect of excuse type,  $F(2,606) = 34.60, p < .001$ , and a significant main effect for relationship type,  $F(1,606) = 9.68, p = .002$ . However, there was no significant interaction between excuse type and relationship type,  $F(2,606) = .05, p = .95$ . As in our previous experiments, participants felt less close to a relationship

partner after receiving a time versus a money excuse ( $M_{time} = 3.09$ ,  $SD = 1.27$ ;  $M_{money} = 4.11$ ,  $SD = 1.38$ ,  $t(407) = 7.74$ ,  $p < .001$ ,  $d = .77$ ), or no excuse ( $M_{control} = 3.31$ ,  $SD = 1.25$ ;  $t(407) = 6.14$ ,  $p < .001$ ,  $d = .61$ ). There were no significant differences in perceived closeness when receiving a time excuse or no excuse ( $t(404) = 1.73$ ,  $p = .085$ ,  $d = .17$ ). However, participants perceived greater closeness to a friend than a co-worker ( $M_{friend} = 3.68$ ,  $SD = 1.35$ ;  $M_{co-worker} = 3.34$ ,  $SD = 1.38$ ;  $t(610) = 3.02$ ,  $p = .003$ ,  $d = .24$ ; Figure 4). Further, while we find greater perceptions of closeness with friends than with co-workers, we do not find a significant interaction between excuse type and relationship type, suggesting that the detrimental effect of a time excuse is robust across different types of relationships.

**Figure 4.** PERCEIVED CLOSENESS BY EXCUSE TYPE & RELATIONSHIP ( $N = 612$ ; EXPERIMENT 3B; error bars indicate  $\pm 1 SE$  of mean)



*Perceived Controllability.* In regards to perceived controllability, there was a main effect of excuse type ( $F(2,606) = 120.66, p < .001$ ), but no main effect for relationship type ( $F(1,606) = .01, p = .91$ ), and no significant interaction ( $F(2,606) = .90, p = .41$ ). As in experiment 3A, participants associated greater controllability with time relative to money ( $M_{time} = 4.58, SD = 1.34; M_{money} = 3.49, SD = 1.34; t(407) = 8.18, p < .001, d = .81$ ). Participants who received a declination without an excuse perceived greater controllability compared to a money excuse ( $M_{control} = 5.56, SD = 1.35; t(407) = 15.53, p < .001, d = 1.54$ ), and a time excuse ( $t(404) = 7.35, p < .001, d = .73$ ), demonstrating that excuse-making reduces perceptions of personal responsibility (Snyder and Higgins 1988).

*Perceived Trustworthiness.* There was a main effect of excuse type, ( $F(2,606) = 12.31, p < .001$ ), a main effect of relationship type ( $F(1,606) = 11.10, p = .001$ ), and a non-significant interaction between excuse type and relationship type ( $F(1,606) = 2.42, p = .09$ ). Participants perceived the excuse provider to be less trustworthy when receiving a time versus a money excuse ( $M_{time} = 4.49, SD = 1.30; M_{money} = 5.07, SD = 1.16; t(407) = 4.83, p < .001, d = .48$ ), but no difference between a time excuse and no excuse ( $M_{control} = 4.65, SD = 1.25; t(404) = 1.30, p = .20, d = .13$ ). Participants also perceived excuses from a friend as more trustworthy than those from a co-worker ( $M_{friend} = 4.91, SD = 1.21; M_{co-worker} = 4.57, SD = 1.30; t(610) = 3.31, p = .001, d = .27$ ).

*Mediation.* We evaluated whether the increased closeness observed in the money excuse condition was mediated by perceptions of personal controllability and trustworthiness compared to our time excuse condition using PROCESS (Hayes and Preacher 2014), following model 6. Results are shown in Table 4 and demonstrate that

perceptions of controllability and trustworthiness partially mediate the relationship between a money (vs. time) excuse and increased closeness among friends (95% CI, .04 to .24) and co-workers (95% CI, .06 to .47). These results provide additional evidence for our theoretical account as to why time excuses decrease interpersonal closeness compared to money excuses—time is perceived to be a more controllable resource, leading to perceptions that the excuse is less trustworthy.

## Discussion

Experiment 3B provides further evidence that a money excuse effectively attributes a social rejection to an external, non-controllable source, leading to heightened perceptions of trust and closeness. A time excuse does not effectively attribute a social rejection to an external, non-controllable source leading to no interpersonal benefits relative to providing no excuse. Offering an excuse (whether it be money or time) to a social invitation (relative to not offering an excuse) does reduce perceptions of personal control for declining (but a financial excuse is much more effective than a time excuse). However, compared to a money excuse, a time excuse reduced trust, leading to decreased closeness and these effects persisted across different types of relationships.

## **EXPERIMENT 4A: THE MODERATING ROLE OF CONTROLLABILITY**

Given the underlying role of perceived controllability in reducing trustworthiness and subsequent interpersonal closeness, it follows that the effect of excuse type on



feelings of closeness should be attenuated if time scarcity communication is accompanied by information explaining the external pressures of the resource. Thus, in this experiment, we manipulate information accommodating the communication to either be for a non-discretionary versus a discretionary reason to complement our process evidence by providing process evidence through moderation (Spencer, Zanna, and Fong 2005).

## Methods

*Participants and Design.* Four hundred seven adults (47.9% female;  $M_{age} = 36.79$ ,  $SD = 12.13$ ; 82.0% Caucasian) were recruited through MTurk and paid a nominal fee for participating. We randomly assigned participants to a 2 (excuse type: money or time) x 2 (controllability: non-discretionary or discretionary reason) between-subjects design.

*Procedure.* Participants imagined the same scenario from Study 3B in which they were inviting a friend to a social engagement. All participants read: “*You are planning a night out with some people. You propose to go out for some drinks, a nice meal, and then go to a live comedy show this coming Saturday*”.

In the money non-discretionary condition, participants then read (word changes in the money discretionary condition are shown in brackets): “*You ask your friend if they would like to join and they say, “That sounds like fun, but unfortunately I can’t go because I really need [want] to save money to buy books for my classes [register for an upcoming marathon I want to run]*”.

In the time non-discretionary condition, participants then read (word changes in the time discretionary conditions are shown in brackets): “*You ask your friend if they*

would like to join and they say, “That sounds like fun, but unfortunately I can’t go because I really need [want] to spend time studying for my classes [training for an upcoming marathon I want to run]”.

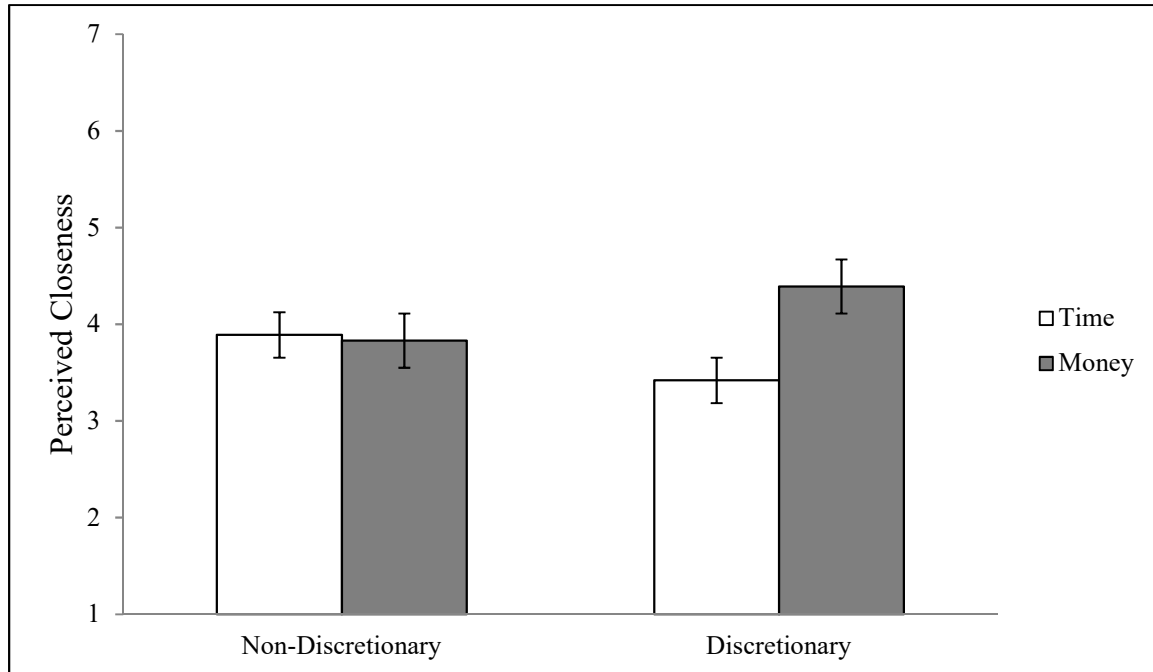
Next, participants completed the same measures from experiment 3B assessing their impressions of this communication and their relationship partner, including perceived closeness and trustworthiness ( $\alpha = .92$ ) of their friend.

## Results

*Perceived Closeness.* We conducted a 2x2 ANOVA to assess the impact of excuse type (time vs. money) and controllability (non-discretionary vs. discretionary) on perceived closeness. There was a main effect of excuse type ( $F(1,403) = 9.17, p = .003$ ), but no main effect for controllability ( $F(1,403) = .11, p = .74$ ). However, there was a significant interaction between excuse type and controllability ( $F(1,403) = 11.99, p = .001$ ). Follow up tests revealed that participants felt less close to their friend after receiving a time excuse versus a money excuse for rejecting the invitation ( $M_{time} = 3.65, SD = 1.48; M_{money} = 4.10, SD = 1.56, t(405) = 2.99, p = .003, d = .30$ ). When the reasoning for the scarcity of the resource was for something non-discretionary, (time to study or money for school books) there was no difference in perceived closeness ( $M_{money} = 3.83, SD = 1.49; M_{time} = 3.89, SD = 1.43; t(201) = .32, p = .75, d = .04$ ). Meanwhile, when the excuse was discretionary (time to train for a marathon or money to register for a marathon), communication regarding money scarcity resulted in greater feelings of closeness than communication of time scarcity ( $M_{money} = 4.39, SD = 1.59; M_{time} = 3.42,$

$SD = 1.50$ ;  $t(202) = 4.47$ ,  $p < .001$ ,  $d = .63$ ; Figure 5). These results provide evidence for moderation: when an excuse included information about external pressures (needing to allocate the resource for a non-discretionary purchase), there were no differences in perceived closeness, whereas when information was included that highlighted the choice of allocating resources to a discretionary purchase, we observed our effect as in our previous studies.

**Figure 5.** PERCEIVED CLOSENESS BY EXCUSE TYPE AND CONTROLLABILITY ( $N = 407$ ; EXPERIMENT 4A; error bars indicate  $\pm 1$  SE of mean)



*Perceived Trustworthiness.* We conducted the same analysis for perceived trustworthiness. There was a main effect of excuse type, ( $F(1,403) = 3.72$ ,  $p = .05$ ), but no main effect for controllability ( $F(1,403) = .44$ ,  $p = .51$ ), however, there was a significant interaction between excuse type and controllability ( $F(1,403) = 4.03$ ,  $p = .05$ ).

Participants perceived less trustworthiness in regards to a time excuse than a money excuse ( $M_{time} = 5.39$ ,  $SD = 1.11$ ;  $M_{money} = 5.61$ ,  $SD = 1.12$ ,  $t(405) = 1.92$ ,  $p = .05$ ,  $d = .19$ ). In regards to a non-discretionary reason, there were no differences in perceived trustworthiness between a time and money excuse ( $M_{time} = 5.47$ ,  $SD = 1.04$ ;  $M_{money} = 5.46$ ,  $SD = 1.05$ ,  $t(201) = .06$ ,  $p = .95$ ,  $d = .01$ ), however for a discretionary reason, participants perceived much less trustworthiness with a time excuse than a money excuse ( $M_{time} = 5.32$ ,  $SD = 1.17$ ;  $M_{money} = 5.75$ ,  $SD = 1.16$ ,  $t(202) = 2.65$ ,  $p = .009$ ,  $d = .37$ ).

*Moderated Mediation.* We next examined whether the interaction we observed between excuse type and reason on perceived closeness was driven by perceptions of trustworthiness by using PROCESS (Hayes 2015) following model 7. Results are shown in Table 5 and demonstrate that perceptions of trust differed in strength by reason (95% CI, -.01 to .56). Specifically, a time excuse was particularly detrimental to perceptions of trust for a discretionary reason (95% CI, .07 to .50) but not for a non-discretionary reason (95% CI, -.16 to .20).

## Discussion

Experiment 4A offers additional support for the proposed underlying process by showing that the differences in perceived closeness from communication of money and time excuses disappear under conditions when the scarcity of the resource is the result of an external constraint (e.g., a ‘needed’ non-discretionary purchase). However, when an excuse was accompanied by information regarding the internal controllability of the

resource (e.g., a ‘wanted’ discretionary purchase), differences in trustworthiness and closeness were observed.

Another factor that should impact perceptions of personal control is the timing of consumption. Consumers generally believe they will have more free time available to them in the future, but do not have this same belief for money (Monga, May and Bagchi 2017; Zauberman and Lynch 2005). Therefore, we predict that a time excuse would be more negatively received when given in response to an invitation for consumption in the distant-future (vs. near-future) consumption because consumers should perceive others to have more control over their time in the future.

#### **EXPERIMENT 4B: THE MODERATING ROLE OF CONSUMPTION TIMING**

Resource slack is the perceived surplus of a given resource available to complete a focal task (Zauberman and Lynch 2005). In general, consumers believe that they will have more resource slack for time in the future than they do in the present, but believe they will have similar slack across time for money (Monga, May and Bagchi 2017; Zauberman and Lynch 2005). Therefore, we predict that consumers will also believe that other people should have more time available to them in the future and predict that an excuse citing limited time will be most negatively received when consumption is in the distant future.

#### **Methods**

*Participants and Design.* Four hundred fifty-three adults (50.1% female;  $M_{age} = 36.07$ ,  $SD = 10.31$ ; 81.2% Caucasian) were recruited through MTurk and paid a nominal fee for participating. We randomly assigned participants to a 2 (excuse type: money vs. time) x 2 (consumption timing: near-future vs. distant-future) between-subjects design.

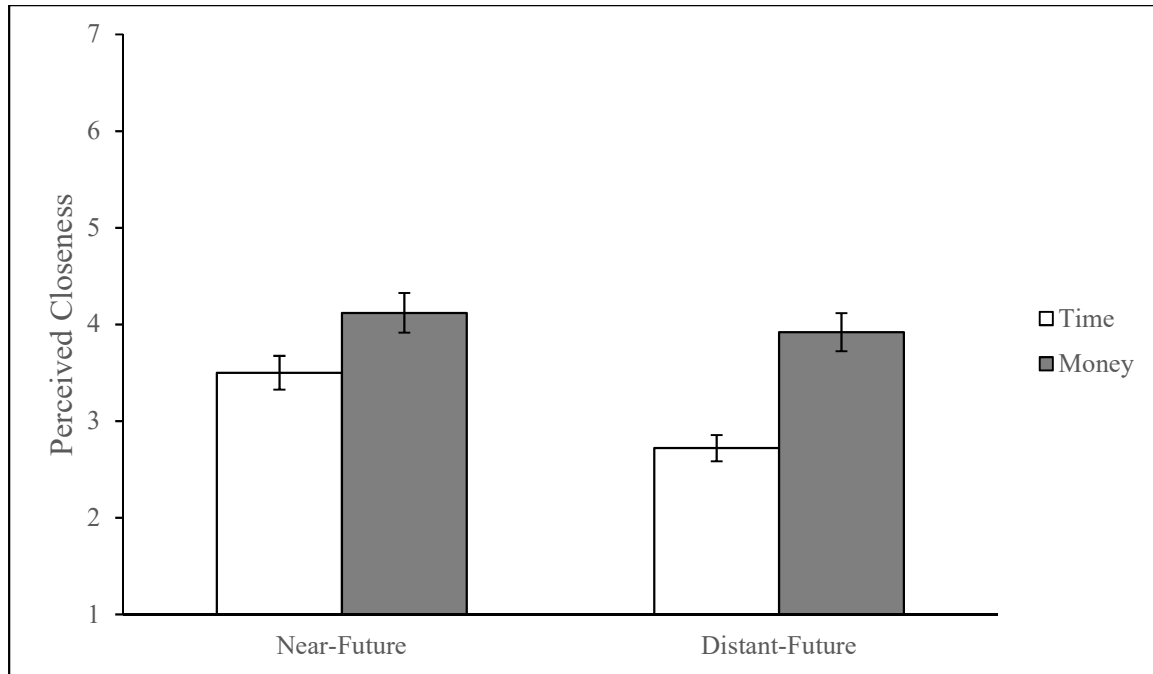
*Procedure.* Participants imagined a scenario in which they invited a friend out to dinner. All participants read: “*A new restaurant has opened in your neighborhood that you are interested in trying out. You call the restaurant to see if you can make a reservation.*” In the near-future consumption condition participants then read (word changes in the distant-future condition are shown in brackets): “*They have a table for 2 available this evening [one month from today].*” In the money excuse condition, participants then read (word changes in the time excuse condition are shown in brackets): “*You immediately call your friend and ask if they would like to go to the restaurant with you. Your friend says, ‘That sounds like fun, but unfortunately I can’t go. I don’t have money [time].*”

Next, participants completed the same measures from experiments 3A and 3B assessing their impressions of this communication and their relationship partner including perceived closeness with their relationship partner, controllability of the resource ( $r = .61$ ,  $p < .001$ ), and perceived trustworthiness ( $\alpha = .91$ ; Pontari, Schlenker and Christopher 2002).

## Results

*Perceived Closeness.* We conducted a 2x2 ANOVA to assess the impact of excuse type (money vs. time) and consumption timing (near vs. distant future) on perceived closeness. There was a main effect of excuse type,  $F(1,449) = 42.00, p < .001$ , and a significant main effect for consumption timing,  $F(1,449) = 12.37, p < .001$ . There was also a significant interaction between excuse type and invitation type,  $F(1,449) = 4.12, p = .04$ . Participants felt less close to their friend after receiving a time (vs. money) excuse ( $M_{time} = 3.13, SD = 1.55; M_{money} = 4.01, SD = 1.47, t(451) = 6.22, p < .001, d = .58$ ). Participants also felt less close to their friend after receiving an excuse in response to an invitation for consumption in the distant (vs. near) future ( $M_{distant-future} = 3.34, SD = 1.63; M_{near-future} = 3.79, SD = 1.49, t(451) = 3.06, p = .002, d = .29$ ). While participants felt equally close to their friend after receiving a money excuse for the near or distant future consumption ( $M_{near-future} = 4.12, SD = 1.43; M_{distant-future} = 3.92, SD = 1.49; t(222) = 1.06, p = .29, d = .14$ ), a time excuse was especially detrimental to perceived closeness when provided in response to an invitation for consumption in the distant future ( $M_{distant-future} = 2.72, SD = 1.54; M_{near-future} = 3.50, SD = 1.48; t(227) = 3.89, p < .001, d = .51$ ; Figure 6).

**Figure 6.** PERCEIVED CLOSENESS BY EXCUSE TYPE AND CONSUMPTION TIMING ( $N = 453$ ; EXPERIMENT 4B; error bars indicate  $\pm 1 SE$  of mean)



*Perceived Controllability.* Consistent with our theoretical account of perceived controllability, we found a main effect of excuse type ( $F(1,449) = 82.67, p < .001$ ), but no main effect for consumption timing ( $F(1,449) = 2.46, p = .12$ ). However, there was a significant interaction between excuse type and consumption timing ( $F(1,449) = 4.97, p = .03$ ). As in previous experiments, participants perceived more personal control over time than money ( $M_{time} = 4.82, SD = 1.40; M_{money} = 3.54, SD = 1.62, t(451) = 8.98, p < .001, d = .84$ ). While participants perceived their friend to have a similar amount of control over their money for near and distant consumption ( $M_{near-future} = 3.58, SD = 1.62; M_{distant-future} = 3.49, SD = 1.63; t(222) = .43, p = .67, d = .06$ ), participants perceived their friend would have more control over their time in the distant future ( $M_{distant-future} = 5.10, SD = 1.29; M_{near-future} = 4.56, SD = 1.46; t(227) = 2.95, p = .004, d = .39$ ).

*Perceived Trustworthiness.* For perceived trustworthiness, there was a main effect of excuse type ( $F(1,449) = 81.08, p < .001$ ), a main effect for consumption timing



( $F(1,449) = 21.92, p < .001$ ), and a significant interaction between excuse type and invitation type ( $F(1,449) = 3.68, p = .05$ ). Participants thought their friend was less trustworthy when receiving a time versus money excuse ( $M_{time} = 4.23, SD = 1.53$ ;  $M_{money} = 5.35, SD = 1.24$ ;  $t(451) = 8.56, p < .001, d = .80$ ), and also perceived their friend as less trustworthiness when receiving an excuse for consumption in the distant versus near future ( $M_{distant-future} = 4.51, SD = 1.60$ ;  $M_{near-future} = 5.05, SD = 1.34$ ;  $t(451) = 3.91, p < .001, d = .37$ ). While participants felt their friend was more trustworthy when they received a money excuse for near versus distant-future consumption ( $M_{near-future} = 5.54, SD = 1.01$ ;  $M_{distant-future} = 5.18, SD = 1.33$ ;  $t(222) = 2.15, p = .03, d = .29$ ), a time excuse was especially detrimental to perceived trustworthiness when given in response to an invitation for distant rather than near-future consumption ( $M_{distant-future} = 3.79, SD = 1.56$ ;  $M_{near-future} = 4.63, SD = 1.40$ ;  $t(227) = 4.32, p < .001, d = .57$ ).

*Mediation.* As in our previous studies, we evaluated whether the increased closeness observed in the money excuse condition was mediated by perceptions that the scarcity of the resource was not controllable, and in turn, resulted in increased perceptions of trustworthiness. To test for mediation, we used PROCESS (Hayes and Preacher 2014) following model 6. Results are shown in Table 6 and demonstrate that perceptions of controllability and trustworthiness partially mediate the relationship between giving a financial excuse and increased closeness (95% CI, .10 to .29).

*Moderation Mediation.* We tested for moderated-mediation by using PROCESS (Hayes 2015) following model 7. Results are shown in Table 7 and demonstrate that perceptions of controllability and trust differed in strength by consumption timing. Specifically, a time excuse was particularly detrimental to perceptions of controllability

(95% CI, -.36 to -.09) and trust (95% CI, .65 to 1.20) for invitations for distant consumption compared to invitations for near-future consumption (controllability: 95% CI, -.24 to -.05; trust: 95% CI, .38 to .81).

## Discussion

Experiment 4B provided further evidence that consumers perceive less closeness to a relationship partner after receiving a time (vs. money) excuse. We replicated our finding that time (vs. money) is perceived to be more controllable and less trustworthy, ultimately resulting in increased closeness. Our effects were strongest when a time excuse was given for distant (vs. near-future) consumption, an effect explained by consumers perceiving others as having more control over their time in the distant future. This finding is consistent with previous research suggesting that consumers perceive they will have more time slack in the future (Monga May and Bagchi 2017; Zauberma and Lynch 2005). Next, we provide additional evidence for our conceptualization by investigating the influence of a theoretically relevant individual difference: the degree to which money and time resources are perceived as under one's control generally.

## **EXPERIMENT 4C: THE MODERATING ROLE OF LOCUS OF CONTROL**

Based on our theorization that the perceived controllability of time drives reductions in trustworthiness and subsequent interpersonal closeness in response to time (vs. money) excuses, the effect should be moderated by the degree to which time and

money are generally seen as controllable, as measured by a person's locus of control. Locus of control is an individual difference measuring the degree to which individuals attribute an outcome to be determined by their own behavior (Rotter 1966). Individuals with more internal control take more responsibility over the outcomes of their lives, whereas those oriented more towards external control believe in more external factors like chance, luck and fate, or the influence of powerful others. In our previous experiments, we observed that consumers generally attribute greater external responsibility to the availability of money and greater internal responsibility to the availability of time. Therefore, consumers scoring high on internal locus of control generally should attribute more internal responsibility to the availability of money and we predict that differences in perceived closeness from a money and time excuse should lessen by the extent to which consumers endorse greater internal locus of control.

## Methods

*Participants and Design.* One hundred ninety-nine adults (49.7% female;  $M_{age} = 33.98$ ,  $SD = 9.71$ ; 73.4% Caucasian) were recruited through MTurk and paid a nominal fee for participating. We randomly assigned participants to a 2 (excuse type: money or time) x continuous (internal locus of control) between-subjects design.

*Procedure.* Participants imagined the same scenario used in experiment 4A in which they were inviting a friend to a social engagement. The instructions read as follows: “*You are planning a night out with some people. You propose to go out for some drinks, a nice meal, and then go to a live comedy show this coming Saturday.*”

In the money excuse condition, participants read (word changes in the time excuse condition are shown in brackets): “*You ask your friend if they would like to join and they say, “That sounds like fun, but unfortunately I can’t go. I don’t have money [time].”*”

Next, as in our previous experiments, participants reported the extent to which they felt closer to their friend after hearing their response on a seven-point Likert scale (ranging from 1, *strongly disagree*, to 7, *strongly agree*).

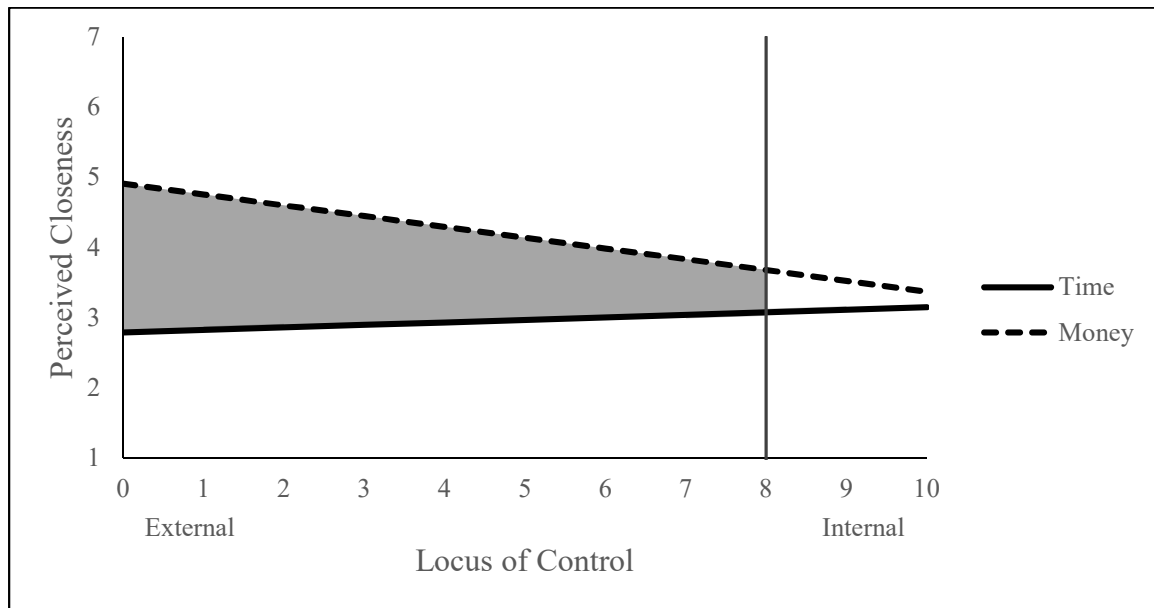
*Internal Locus of Control.* Next, participants completed a 10-item measure assessing their internal locus of control (Rotter 1966). Participants were presented with two statements assessing control beliefs—internal (e.g., “*People’s misfortunes result from the mistakes they make*”) and external (e.g., “*Many of the unhappy things in people’s lives are partly due to bad luck*”)—and selected the statement they most strongly believed to be true. Internal control selections were coded as ‘1’ while external control selections were coded as ‘0’. We summed the responses from all 10 items to generate an internal locus of control score.

## Results

*Perceived Closeness.* We conducted a 2 (excuse type: money vs. time) x continuous (internal locus of control) linear regression on perceived closeness. The model was significant,  $F(3,195) = 15.75, p < .001$ , and revealed a significant main effect for excuse type, ( $b = .39, t[198] = 6.06, p < .001$ ), such that participants perceived less closeness from a time than a money excuse. There was not a significant main effect for

internal locus of control, ( $b = .06$ ,  $t[198] = .63$ ,  $p = .53$ ), but a significant interaction between excuse type and internal locus of control, ( $b = -.23$ ,  $t[198] = -2.45$ ,  $p = .02$ ). We ran a floodlight analysis using the Johnson-Neyman (1936) technique to identify the range of locus of control for which the simple effect of scarcity type was significant (Figure 7; see also Spiller et al. 2013). This analysis revealed a significant reduction in closeness from scarce time excuse for any value of locus of control under 8.00 (at  $p < .05$ ), and provided additional evidence of the role of perceived controllability by moderation.

**Figure 7.** EXCUSE TYPE x LOCUS OF CONTROL ON CLOSENESS ( $N = 199$ ; EXPERIMENT 4C)



## Discussion

In experiment 4C, we provide further evidence for our proposed mechanism by showing that internal locus of control, or consumers' degree to which they attribute an

outcome to be determined by their own behavior, influences perceptions of closeness from time scarcity communication. Consumers scoring high on internal locus of control, who generally attribute more internal responsibility to the outcomes of their lives, felt equally close to a friend who gave a time or money excuse. However, this pattern was not observed among consumers who scored high on external locus of control- those who typically see the outcomes of their life to be subject to chance and external factors. Those scoring high on external locus of control view money as a less controllable resource, and experience less closeness with a relationship partner who provides a time excuse.

This finding also encouraged us to examine the possibility that our effects might be moderated by another important individual difference: personal time scarcity. Consistent with our theorizing, we found a time excuse to be more negatively received by consumers who generally perceived more time slack in their lives compared to consumers who perceived less time slack in their lives (see appendix for full results).

While we have found consistent evidence that money excuses are better received than time excuses, it is not known whether people predict these consequences of money versus time excuses. We assess this in our next study. In addition, we create a circumstance in which participants actually communicate with each other and assess prosocial behavior by evaluating the number of desirable tasks that are allocated to givers of money and time excuses.

## **EXPERIMENT 5: ASSYMETRY IN PERCEPTIONS OF EXCUSE GIVERS AND RECEIVERS**

In our previous studies, we show that time is seen as a more personally controllable resource than money, which makes excuses citing time (vs. money) scarcity seem less trustworthy, thereby reducing feelings of interpersonal connection after receiving such excuses for rejecting social invitations. In our previous studies, we evaluated consumer impressions of communication regarding invitations to shared consumption, thus, in this experiment, we expand the generalizability of our findings by exploring whether these effects persist when providing a time (vs. money) excuse for not giving to charitable causes—two excuses regularly provided for declining solicitations for charitable causes (Exley 2016). As in our previous studies, we evaluate perceptions of individuals who receive communications about resource scarcity, but in this experiment we expand our exploration to also evaluate how individuals who communicate resource scarcity perceive their own communication. We test impressions of both givers and receivers of scarcity communication in a relationship dyad to evaluate whether an asymmetry exists in perceptions of trust and controllability and interpersonal outcomes. Given that time excuses are relatively common (Exley 2016), we hypothesize that consumers may fail to predict the negative consequences of communicating time scarcity.

## Methods

*Participants and Design.* Eight hundred eighteen adults (409 dyads; 49.6% female;  $M_{age} = 35.96$ ,  $SD = 11.10$ ) were recruited through MTurk and paid a nominal fee

for participating. We randomly assigned participants to a 2 (role: give or receive) x 2 (scarce resource: money or time) between-subjects design.

*Procedure.* Participants randomly assigned to the giver role responded to the prompt, “*I would give more to charity if...*” and were randomly assigned to write a few sentences about how they would give more to charity if they had more money or time. After writing, participants we informed that their response would be shared with another MTurk worker and to predict how the other worker would decide to split a shared task and evaluate the content of their response.

*Shared Task.* Excuse-givers then learned that after reading the response they had just generated, another MTurk worker (i.e., the excuse-receiver) would decide about how to split a task between the two of them. They learned that there were six images that needed to be viewed and rated: three images of puppies and three of toilets. We selected this task because we presumed that half the images would be perceived as enjoyable to rate (i.e., the puppy pictures), and half would be perceived as unenjoyable to rate (i.e., the toilet pictures). Consistent with this thinking a pretest ( $N = 200$ , 52.5% female;  $M_{age} = 37.01$ ,  $SD = 11.42$ ) found that viewing and rating pictures of puppies was predicted to be more enjoyable ( $t[198] = 28.32$ ,  $p < .001$ ,  $d = 4.01$ ), interesting ( $t[198] = 16.04$ ,  $p < .001$ ,  $d = 2.27$ ), and fun ( $t[198] = 23.16$ ,  $p < .001$ ,  $d = 3.27$ ).

Excuse-givers were then asked to predict how the other MTurk participant (i.e., the excuse-receiver) would split the task. The number of puppy pictures they predicted the excuse-receiver would assign to them was our primary dependent measure. Therefore, we treated this decision as measuring the prosocial orientation the excuse-receiver had



toward the excuse-giver (Reis et al. 2010), and predicted that a higher number of puppy pictures would be allocated to authors of money compared to time excuses.

*Mediators.* Excuse-givers predicted the extent to which they thought the excuse-receiver would think they had personal control over the scarce resource ( $r = .58, p < .001$ ) and think their response to the prompt was trustworthy ( $\alpha = .92$ ).

After making these predictions, excuse-givers viewed three images and rated the extent to which they liked them on a seven-point Likert scale (ranging from 1, *not at all* to 7, *a great deal*).

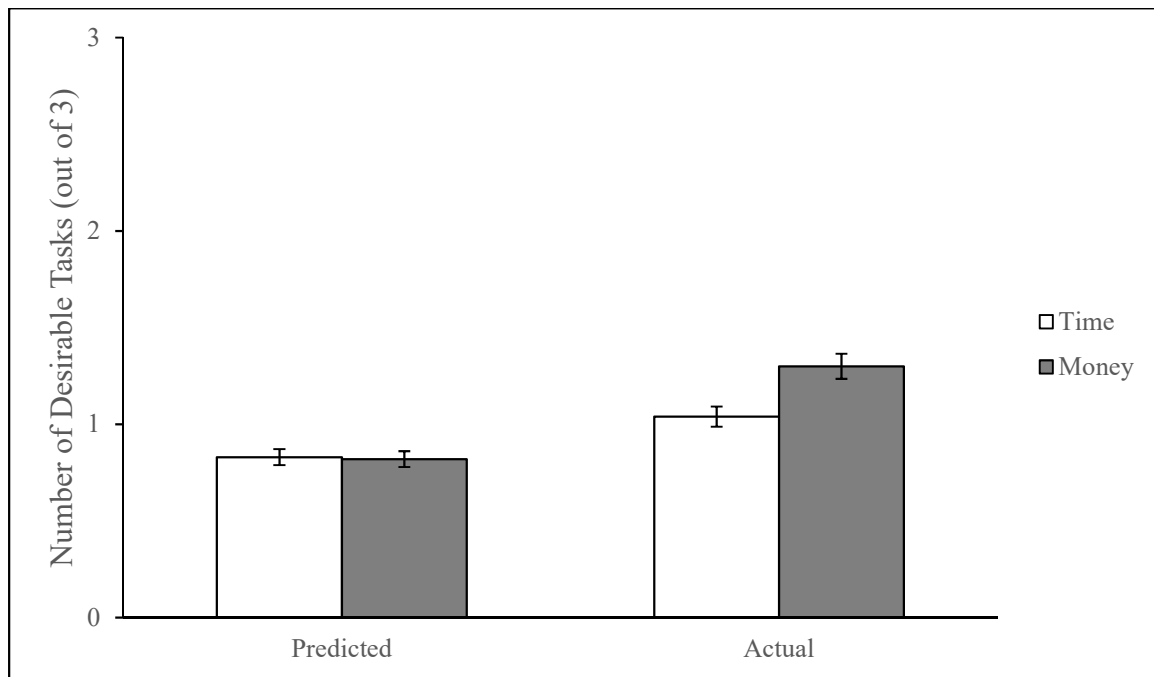
Participants randomly assigned to the role of excuse-receiver evaluated another participant's response (i.e., the excuse-giver) to the prompt, "*I would give more to charity if...*" that included communications about insufficient money or time, depending on random assignment. After reading this response, excuse-receivers allocated the six images for the rating task between themselves and the excuse-giver, and rated the response in terms of perceived trustworthiness ( $\alpha = .91$ ) and resource controllability ( $r = .59, p < .001$ ).

## Results

*Shared Task.* We conducted a repeated measures ANOVA predicting the number of desirable (puppy) pictures assigned in the shared task, using role (giver vs. receiver) as a within-subjects variable and excuse type (money vs. time) as a between-subjects variable. Therefore, we compare how excuse-givers predict the task will be split to the excuse-receivers actual decision on how to split the task. There was a main effect of role,

$F(1,407) = 27.61, p < .001$ , and a marginal effect of excuse type,  $F(1,407) = 3.37, p = .06$ . There was also a significant interaction between role and excuse type,  $F(1,407) = 4.61, p = .03$ . Excuse-givers predicted they would be assigned fewer puppy pictures than excuse-receivers actually assigned ( $M_{givers} = .82, SD = .87; M_{receivers} = 1.18, SD = 1.04; t(408) = 5.38, p < .001, d = .53$ ). While givers of money and time excuses made similar predictions ( $M_{money} = .82, SD = .84; M_{time} = .83, SD = .90; t(407) = .19, p = .85, d = .02$ ), excuse-receivers assigned a greater number of puppy pictures to givers of money excuses than to givers of time excuses ( $M_{money} = 1.30, SD = 1.07; M_{time} = 1.04, SD = .98; t(407) = 2.60, p = .01, d = .26$ ; Figure 7). This finding suggests that excuse-givers especially fail to predict the positive benefits of disclosing limited money.

**Figure 7.** DESIRABLE TASK ALLOCATION BY SCARCITY COMMUNICATION TYPE & PERSPECTIVE ( $N = 818$ ; EXPERIMENT 5; error bars indicate  $\pm 1 SE$  of mean)



*Perceived Controllability.* We conducted a repeated measures ANOVA predicting perceived controllability, using role (giver vs. receiver) as a within-subjects variable and excuse type (money vs. time) as a between-subjects variable. There was no main effect of role,  $F(1,407) = .31, p = .58$ , but there was a main effect of excuse type,  $F(1,407) = 63.22, p < .001$ . There was also a marginally significant interaction between role and excuse type,  $F(1,407) = 2.99, p = .085$ . While, givers of money excuses predicted lower perceived controllability compared to givers of time excuses ( $M_{money} = 3.45, SD = 1.49$ ;  $M_{time} = 4.15, SD = 1.60$ ;  $t(407) = 4.61, p < .001, d = .46$ ), actual discrepancies in perceptions were of a much greater magnitude ( $M_{money} = 3.21, SD = 1.52$ ;  $M_{time} = 4.28, SD = 1.58$ ;  $t(407) = 6.94, p = .001, d = .69$ ).

*Perceived Trustworthiness.* We conducted the same analysis for perceived trustworthiness. There was no main effect for role,  $F(1,407) = .36, p = .55$ , but there was a main effect for resource,  $F(1,407) = 15.72, p < .001$ . There was also a significant interaction between role and excuse type,  $F(1,407) = 10.85, p = .001$ . While, providers of money and time excuses predicted similar levels of perceived trustworthiness ( $M_{money} = 5.18, SD = 1.31$ ;  $M_{time} = 5.11, SD = 1.31$ ;  $t(407) = .53, p = .60, d = .05$ ), excuse-receivers perceived communication of money scarcity to be much more trustworthy than communication of time scarcity ( $M_{money} = 5.42, SD = 1.18$ ;  $M_{time} = 4.76, SD = 1.39$ ;  $t(407) = 5.18, p = .001, d = .51$ ).

*Mediation.* Next, we evaluated the mediating role of personal controllability and subsequent trustworthiness of excuses for the effect of excuse type on number of desirable images assigned by excuse-receivers using PROCESS (Hayes and Preacher 2014), following model 6. Results are shown in Table 8 and demonstrate that perceptions

of controllability and trustworthiness of the response fully mediate the relationship between excuse type and the assignment of more desirable tasks (95% CI, .01 to .06), providing additional evidence of the central role of perceived controllability and subsequent trustworthiness in explaining the increased prosocial orientation received from communicating limited money (vs. time).

## Discussion

Experiment 5 evaluates a behavioral measure of prosocial orientation—the number of desirable pictures allocated in a shared rating task—and found that givers of time scarcity communication receive fewer desirable pictures to rate than givers of money scarcity communication. This difference is fully mediated by how the content is perceived—recipients perceived authors of time (vs. money) excuses to have more personal control over the resource, making the content of the excuse seem less trustworthy.

In addition, we demonstrate an asymmetry in how excuses are perceived. Participants who gave excuses did not predict differences in the number of desirable tasks they would be allocated or a difference in trustworthiness by the type of excuse provided. Moreover, while communicators of scarce resources did predict they would be perceived as having more personal control over time than money, this effect was significantly underestimated. In sum, while money excuses are perceived to be less within one's control and in turn more trustworthy, leading to greater interpersonal connection and liking, consumers who generate such content do not appear to appropriately predict how

such communication will be perceived, and implications of these perceptions on interpersonal relationships and behavior. We find that consumers generally fail to predict the extent to which positive benefits may result from the disclosure of having limited money.

## **GENERAL DISCUSSION**

Eight experiments demonstrate that providing excuses that cite a scarcity of temporal resources to reject a social request leads to lower perceived interpersonal closeness and results in less helping compared to citing money scarcity as an excuse. This effect is driven by perceptions that consumers have more personal control over their temporal resources, leading consumers to perceive such excuses as less trustworthy than when consumers communicate their limited financial resources.

### **Theoretical Implications**

Our work contributes to attribution theory (e.g., Weiner 1985), and provides important insights that illuminate how consumers make causal ascriptions to important outcomes. The theory has primarily investigated how consumers perceive effort, ability, luck and the help of other people as the cause of life achievement and failure (e.g., Calder and Burnkrant 1977; Elig and Frieze 1979; Weiner 1985), and how these causal ascriptions of other's success and failures influence how consumer's evaluate and behave toward them (e.g., Fiske et al. 2002; Laczniak, DeCarlo and Ramaswami 2001). We

introduce time and money as important causal ascriptions that consumers often use as excuses for rejecting social requests, and demonstrate time use is perceived as more discretionary than money. This finding adds to the growing literature evaluating the psychology of money versus time use (e.g., Mogilner, Whillans and Norton 2018; Monga, May and Bagchi 2017; Sani & Monga 2008; Shaddy and Shah 2018; Soster, Monga and Bearden 2010; Zauberman and Lynch 2005), and provides evidence of psychological consequences of interpersonal communications about money and time.

Our finding that people fail to predict the different effect of time and money scarcity communication on trust and liking contributes to previous work on prediction and forecasting errors (e.g., Gilbert and Wilson 2007), and specifically to forecasting errors in conversation and impression management (Huang, Yeomans, Brooks, Minson and Gino 2017; Cooney, Gilbert and Wilson 2017). While consumers accurately predicted differences in perceived personal control over time and money, they failed to predict how perceived control influenced perceptions of trust and subsequent behavior.

### Practical Implications

Being able to effectively say “no” is a critical skill in regard to the management of individual resources in the pursuit of well-being. While previous literature has demonstrated that the language we use to describe our choices can influence our own thoughts and behaviors (Patrick and Hagtvedt 2012), the current research demonstrates how our language choices can influence the thoughts and behaviors of those around us and provides an evidence-based strategy that can help consumers better communicate

their limited resources to their relationship partners. Ultimately, consumers perceive others as having more control over their time than their money, and thus, when turning down a request or an invitation for shared consumption, consumers who cite limited time are perceived as untrustworthy and liked less compared to those who cite limited money. Therefore, bolstering external factors for time pressure should help elevate these negative evaluations. We demonstrate that when a time constraint was communicated as the result of an external pressure (e.g., for non-discretionary consumption), differences observed between communication about limited time and limited money are mitigated. Further, the temporal distance between the invitation and the consumption event impacts perceptions of closeness—time excuses are particularly detrimental for future (vs. immediate) consumption because consumers perceive others as having more control of future time.

One common way that consumers communicate insufficient time is to explain that they have already committed their time to another engagement. For instance, if a consumer is invited out to dinner but explains that they will be out-of-town during the proposed dinner, the perceived controllability of being unable to attend could be lessened as the excuse provides an external (e.g., non-discretionary) rationale for why they cannot attend. In an additional study (see appendix), we evaluated whether perceptions of trust and closeness differed for a money (“I don’t have money”), time (“I don’t have time”), or an out-of-town (“I will be out of town”) excuse. An out-of-town excuse was perceived to be more trustworthy and resulted in greater impressions of interpersonal closeness than a time excuse, but a money excuse was still a better buffer against the negative consequences of rejecting a social invitation. Consistent with our findings in Experiment 4A, this difference suggests that communicating constraints of time may require

additional information that explain the external and uncontrollable factors (e.g., “I will be out of town *because I have to go to my sister’s wedding*”) of the time commitment. This additional information might reassure the excuse-receiver that the excuse-giver is not simply choosing to do something else with their time because they are not interested in the relationship.

Certainly, there may be a number of circumstances that may reduce the effectiveness of a money excuse, or giving a money excuse may seem inappropriate. For instance, responding to an invitation that is relatively low-cost (e.g., getting a cup of coffee), or when a consumer has relatively more wealth than their relationship partner (e.g., supervisors communicating to their employees). In regards to a low-cost event, we ran an additional study (see appendix) where we manipulated whether the invitation was for coffee (low-cost) or for a dinner out (high-cost) and found that even for a low-cost event, a money excuse was perceived as more trustworthy and resulted in greater interpersonal connection than a time excuse. These results suggest that perceived personal control may be more about the mere availability of the resource rather than the underlying expense.

In regards to circumstances where the availability of money may be differently available to relationship partners (and this difference is relatively understood by both parties as might be true between a supervisor and employee), a person might feel unable to give an excuse about limited money. If a money excuse does not feel like an available excuse option, how can consumers best reject a social invitation without providing a time excuse? In an additional experiment (see appendix) we tested the effectiveness of an energy excuse (e.g., “I don’t have energy”) to a time (e.g., “I don’t have time”), and a



money (e.g., “I don’t have money”) excuse. While consumers generally consider energy to be internal to an individual (Ajzen 1985, 2002), there is also evidence that energy can be depleted (Baumeister, Muraven and Tice 2000; Baumeister and Vohs 2017), and cannot be immediately restored by pure will (Tice, Baumeister, Shmueli and Muraven 2007). We found an energy and money excuse to result in similar perceptions of trust and closeness. Therefore, for consumers who may wish to avoid talking about money, or under circumstances where discussing finances might seem less appropriate, it does appear that communicating about limited energy will result in improved interpersonal outcomes over communications of limited time.

Consumers may be selective about when and to whom they disclose money or time constraints as a function of the availability of their own resources. Indeed, in an additional experiment (see appendix), we found our effects to be moderated by the recipients own experience of scarcity in their daily life. Consumers who experience more time scarcity were less sensitive to the negative effects of a time excuse on perceptions of interpersonal closeness. This effect was attributable to the fact that people who experience more scarcity of time in their daily lives perceived less controllability of the resource, making time excuses seem more valid and trustworthy.

In terms of self-presentation strategies, consumers may selectively disclose scarcity of a resource they know their conversation partner can identify with or has had previous experience with and this strategy might be effective at managing interpersonal impressions. Group members have been found to evaluate each other more positively when they share information confirming each other’s preferences because this information is perceived as more accurate and important than information that is

disconfirming to preferences (Mojzisch, Kerschreiter, Faulmüller, Vogelgesang and Schulz-Hardt 2014). More research is needed to better understand the motives and consequences for consumers who communicate limited resources, and to better understand how shared (and unshared) values, experiences and preferences influence the decision to disclose and how this information is ultimately received.

### Limitations and Future Directions

One question that arises from these studies is whether these effects would be observed in oral conversation, as the studies here all involve written communication. While participants recalled excuses from real life conversations in Experiment 2, and we evaluated real conversational exchanges online in Experiment 5, future work might explicitly examine whether the medium in which the excuse is communicated—written text or verbal communication—influences perceptions of the excuse-giver. Research suggests that in a disagreement, hearing a person explain his or her beliefs makes the person seem more mentally capable (Schroeder, Kardas and Epley 2017) and increases empathy (Kraus 2017), but it is unclear if a time excuse communicated verbally will result in more positive (or negative) evaluations of the excuse giver compared to when the excuse is written. Future research should investigate this question.

It is worth noting that our work evaluated one-time (versus repeated) encounters, and it is likely that the effect of communicating resource scarcity on interpersonal connection might produce different effects over repeated interactions. Given that the stable availability of a resource contributes to impressions of personal control over a

resource (Weiner et al. 1991), the frequency with which a relationship partner uses an excuse might influence perceptions of trust and interpersonal connection. If a relationship partner consistently claims to not have money that the availability of this resource might be perceived as more stable and more within the excuse-maker's control, attenuating the effects observed in this work.

Future research could explore when and why consumers choose to share a time constraint rather than a financial constraint in response to an invitation for shared consumption or a request for help. While our research suggests that communication partners will more positively receive excuses about limited money than limited time, we do not explore how consumers feel about *themselves* when they communicate limited money or limited time. In fact, previous research shows that financially constrained consumers engage in less purchase-related word-of-mouth because they believe that rehearsing their monetary expenditures will reinforce negative feelings about their limited financial situation (Paley, Tully and Sharma 2018). It is possible that giving a financial excuse damages self-esteem and results in a negative emotional experience for the excuse-giver.

### Concluding Remarks

This research expands what we know about two of life's most valuable resources. While previous research has shown that time is perceived as more central to the self (Liu and Aaker 2008), with more positive implications for well-being (Mogilner, Whillans and Norton 2018), we extend this research by showing a potential downside of

communication about time versus money. Specifically, we show that communications about limited time can lead to more negative interpersonal judgements than communications about limited money. This is important because consumers report being increasingly concerned with having enough time (Perlow 1999) and money (Reheault 2011) to meet their needs, yet feel uncomfortable communicating their limited resources to others (Devaney 2018). This research suggests that citing financial constraints as a reason for rejecting social invitations will result in more positive interpersonal outcomes than citing time constraints. Ultimately, when discussing limited resources, it is essential to demonstrate lack of personal controllability. While most consumers report that they avoid discussing their limited resources and instead go into debt to keep up with their friends (Devaney 2018), we hope this work will give consumers insight into how communicating limited resources can help maintain interpersonal relationships and in turn, help facilitate better management of money and time.

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Table 1  
Validity and Trustworthiness Partially Mediate the Link between a Money Excuse and Increased Closeness (Experiment 2)

	Money Excuse to mediator (path a)	Validity to Trustworthiness (path b)	Mediator to Closeness (path c)	Indirect effects of a Money Excuse on Closeness (ab paths)	Total effect of a Money Excuse to Closeness (path d)	Direct effect of a Money Excuse to Closeness (d-prime path)	Bootstrap results: 95% CI range
Validity	1.08***		.08	.08 (.10)	1.22***	.56**	[-.09, .34]
Validity & Trustworthiness	1.08***	.71***	.56***	.43 (.14)			[.21, .77]
Trustworthiness	.29*		.56***	.16 (.10)			[.00, .38]

\* $p < .05$

\*\* $p < .01$

\*\*\* $p < .001$



Table 2

Controllability and Trustworthiness Partially Mediate the Link between a Money Excuse and Increased Closeness (Experiment 3A)

	Money Excuse to mediator (path a)	Controllability to Trustworthiness (path b)	Mediator to Closeness (path c)	Indirect effects of a Money Excuse on Closeness (ab paths)	Total effect of a Money Excuse to Closeness (path d)	Direct effect of a Money Excuse to Closeness (d-prime path)	Bootstrap results: 95% CI range
SHARED CONSUMPTION							
Controllability	-1.51***		-.01	.02 (.09)	1.06***	.50**	[-.15, .22]
Controllability & Trustworthiness	-1.51***	-.15**	.58***	.13 (.06)			[.03, .27]
Trustworthiness	.71***		.58***	.41 (.12)			[.20, .66]
NOT SHARED CONSUMPTION							
Controllability	-1.35***		.09	.03 (.10)	.55**	.49*	[-.34, .09]
Controllability & Trustworthiness	-1.35***	-.14**	.39***	-.49 (.14)			[.01, .16]
Trustworthiness	.29		.39***	-.39 (.10)			[-.02, .27]

\*\*\* $p < .001$ \*\* $p < .01$ \* $p < .05$

Table 3  
Moderated-Mediation by Invitation Type (Experiment 3A)

Regression Paths	(a)	(b)	(c')				
	Money Excuse to Mediator	Excuse x Invitation to Mediator	Mediator to Closeness	Direct Effect	Indirect Effect, 95% CI		Index of Moderated Mediation, 95% CI
					Shared Consumption	Non-Shared Consumption	
Controllability	-1.35***	-.15	-.04	.76***	.05 (.08) [-.10, .23]	.05 (.07) [-.10, .20]	.01 (.02) [-.03, .06]
Trustworthiness	.48**	.46*	.48***	.47***	.46 (.09) [.28, .65]	.23 (.08) [.07, .40]	.22 (.11) [.00, .46]

Table 4  
 Controllability and Trustworthiness Partially Mediate the Link between a Money Excuse and Increased Closeness  
 for Friends and Co-workers (Experiment 3B)

	Money Excuse to mediator (path a)	Controllability to Trustworthiness (path b)	Mediator to Closeness (path c)	Indirect effects of a Money Excuse on Closeness (ab paths)	Total effect of a Money Excuse to Closeness (path d)	Direct effect of a Money Excuse to Closeness (d-prime path)	Bootstrap results: 95% CI range
FRIEND							
Controllability	-.90***		.10	-.10 (.06)	.96***	.84***	[-.23, .02]
Controllability & Trustworthiness	-.90***	-.25**	.56***	.13 (.05)			[.04, .24]
Trustworthiness	.17		.56***	.09 (.09)			[-.10, .29]
CO-WORKER							
Controllability	-1.26***		.01	-.01 (.09)	1.04***	.66***	[-.19, .17]
Controllability & Trustworthiness	-1.26***	-.22***	.52***	.25 (.10)			[.06, .47]
Trustworthiness	.48**		.52***	-.14 (.05)			[.05, .25]

\*\*\* $p < .001$

\*\* $p < .01$

\* $p < .05$

Table 5  
Trustworthiness Mediates the Link between a Money Excuse and Increased Closeness for a Discretionary Reason but not a Non-Discretionary Reason (Experiment 4A)

Regression Paths	(a)	(b)	(c')				
	Money Excuse to Mediator	Excuse x Reason to Mediator	Mediator to Closeness	Direct Effect	Indirect Effect, 95% CI		Index of Moderated Mediation, 95% CI
					Non-Discretionary	Discretionary	
Trustworthiness	.03	.42*	.62***	.30*	.02 (.09) [-.16, .20]	.28 (.11) [.07, .50]	.26 (.15) [.00, .56]

*Note:* The effect of a money excuse on perceived closeness without inclusion of mediators (c) was  $B = .54$ ,  $SE = .15$ ;  $p = .003$ .

\* $p < .05$

\*\*\* $p < .001$

Table 6

Controllability and Trustworthiness Partially Mediate the Link between a Money Excuse and Increased Closeness (Experiment 4B)

	Money Excuse to mediator (path a)	Controllability to Trustworthiness (path b)	Mediator to Closeness (path c)	Indirect effects of a Money Excuse on Closeness (ab paths)	Total effect of a Money Excuse to Closeness (path d)	Direct effect of a Money Excuse to Closeness (d-prime path)	Bootstrap results: 95% CI range
Controllability	-1.28***		.14***	.18 (.05)	.88***	.33*	[-.29, -.07]
Controllability & Trustworthiness	-1.28***	-.22***	.65***	.18 (.05)			[.10, .29]
Trustworthiness	.71***		.65***	.55 (.10)			[.36, .75]

\*\*\* $p < .001$ \*\* $p < .01$ \* $p < .05$

Table 7  
Moderated-Mediation by Consumption Timing (Experiment 4B)

Regression Paths	(a)	(b)	(c')				
	Money Excuse to Mediator	Excuse x Timing to Mediator	Mediator to Closeness	Direct Effect	Indirect Effect, 95% CI		Index of Moderated Mediation, 95% CI
					Near Consumption	Distant Consumption	
Controllability	-.97***	-.63*	.14***	-.12**	-.14 (.05) [-.24, -.05]	-.22 (.07) [-.36, -.09]	-.08 (.04) [-.19, -.01]
Trustworthiness	.91***	.49*	.65***	.61***	.59 (.11) [.38, .81]	.91 (.14) [.65, 1.20]	.32 (.17) [.00, .65]

Table 8  
 Controllability and Trustworthiness Fully Mediate the Link between a Money Scarcity Communication and Desirable Task Allocation  
 (Experiment 5)

	Money Scarcity to mediator (path a)	Controllability to Trustworthiness (path b)	Mediator to # of Desirable Tasks (path c)	Indirect effects of Money Scarcity on # of Desirable Tasks (ab paths)	Total effect of Money Scarcity to # of Desirable Tasks (path d)	Direct effect of Money Scarcity to # of Desirable Tasks (d-prime path)	Bootstrap results: 95% CI range
Controllability	-1.07***		-.12***	.13 (.04)	.26**	.05	[.06, .21]
Controllability & Trustworthiness	-1.07***	-.22***	.13***	.03 (.01)			[.01, .06]
Trustworthiness	.42**		.13***	.05 (.02)			[.01, .11]

\*\* $p < .01$

\*\*\* $p < .001$