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"Everyone Has to Do It:" A joint action approach to managing social inattention



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ABSTRACT

In an always-connected world, managing social inattention – that is, explaining the inability to interact at a particular time – can be as important as coordinating mutual availability. Inattention, particularly if repeated, can have significant relational consequences as it may be considered rude and can lead to painful social outcomes. Prior research has examined the butler lie, one strategy commonly used to manage social inattention while preserving relationships. This paper builds on that via an interview study of 47 participants that qualitatively examines perceptions of butler lies from both the senders' and receivers' perspectives. Participants see butler lies as a common and useful inattention management strategy, but these messages can have a negative effect receivers do not perceive the senders' intentions to be positive. Factors affecting the perception of intent include relationship strength and history, the stakes of the situation, and past behavior. The paper argues that inattention management should be considered a joint coordination problem characterized by a willingness to accept the pragmatic relational meaning of messages, which may differ from their literal semantic meaning. This hints at a collaborative view of deception, in which some interlocutors are aware they are being deceived and willing to accept deception.

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1. Introduction and background

A significant success of today's communication environment is that social connectivity – the ability to communicate with others – is virtually constant (Chen, 2011; Perry, O'Hara, Sellen, Brown, & Harper, 2001; Turkle, 2011). Office workers expect prompt response to emails or questions (Birnholtz, Dixon, & Hancock, 2012; Tyler & Tang, 2003); teens send thousands of texts per month to stay in constant touch with friends and family (Nielsen Research, 2010), adults have begun using text messaging (Smith, 2011a), and social media on mobile devices have enabled new modes of work and social coordination.

Even as the always-on world facilitates interaction and novel modes of coordination, however, people increasingly report being overwhelmed or distracted by interaction opportunities (Turkle, 2011). These opportunities can increase stress (Bailey & Konstan, 2006), reduce productivity (Mark, Gudith, & Klocke, 2008) and alter perceptions of personal freedom (Leshed & Sengers, 2011). In a

recent Pew study, for example, 29% of participants said they had recently turned off their mobile device simply to get a break from using it (Smith, 2011b). Similarly, Stutzman's (2011) Freedom application – which serves only to disable Internet access on a computer for a set period of time, presumably so its owner is not distracted – has been downloaded over 100,000 times. Moreover, Leonardi, Treem, and Jackson (2010) observed telecommuters strategically using communication technology to avoid rather than enable interaction, thus increasing perceived distance between them and their co-workers.

These problems reflect a fundamental shift in the ways that people manage their availability for interaction with others. We refer to this as "availability management," a phrase describing the activities and social processes related to initiating, concluding or coordinating social interactions. Historically, people were not copresent (either physically or in a mediated environment) most of the time, so availability management was largely a function of coordinating co-presence: establishing a time and place for interaction and/or initiating an interaction once co-presence was established. The ring of a telephone, for example, can be viewed as a simple means for inquiring about the possibility of mediated copresence for interaction (Hopper, 1992). Instant messaging (IM) or chat buddy lists took this a step further with explicit indicators of others' mediated presence (Boneva, Quinn, Kraut, Kiesler, & Shlovski, 2006; Chatterjee, Abhichandani, Li, Tulu, & Byun, 2005), which was often assumed to be synonymous with availability for interaction (Birnholtz, 2010).

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In an always-on world where constant connectivity and virtual co-presence are assumed, however, coordinating co-presence is no longer the key challenge in availability management. Rather, people frequently find themselves with the goal of avoiding conversations that are unwanted, disruptive or inappropriate (Perry, O'Hara, Sellen, Brown, & Harper, 2001; Weilenmann, 2003), even though the conversation is technically feasible because they are carrying a mobile device. In these cases, co-presence alone does not suffice to coordinate availability, and additional effort is needed to explain why – despite mediated co-presence and seeming availability – interaction cannot take place (Aoki & Woodruff, 2005; Vanden Abeele & Roe, 2008).

We refer to the social processes involved in avoiding or curtailing social interactions, such as ignoring unwanted interruptions or excusing oneself from an ongoing conversation as managing social inattention. An emerging body of recent work shows that deception is one common strategy people use for managing social inattention (e.g., Aoki & Woodruff, 2005; Hancock et al., 2009). While these strategies reflect theoretical notions of politeness (e.g., Brown & Levinson, 1987; Watts, 2003), pro-social or "white" lies (Camden, Motley, & Wilson, 1984; Turner, Edgely, & Olmstead, 1975) and positive self-presentation (Goffman, 1955); we argue that the switch to an always-on world renders inattention management in everyday social interactions an increasingly common strategy in ways that are not adequately captured by these theoretical frameworks. A key distinction here is that these prior theories hold relationship and impression management to be the primary outcome, whereas our focus on inattention management is geared toward understanding the range of strategies people use to achieve the goal of attaining a particular level of (un)availability in a given social or geographic context. Such strategies sometimes - but do not necessarily - reflect notions of politeness. It is only through exploratory research examining people's attitudes and perceptions of their own and others' inattention management behavior that we can advance our understanding of this phenomenon and develop theoretical models that describe it.

In the paper that follows, we present an exploratory qualitative study of how people manage their own inattention and perceive the inattention management of others in an always-connected world. Drawing on the thematic coding and analysis of in-depth interview data, we conclude by proposing a novel extension to existing theoretical frameworks and call for substantial additional research in this emerging area.

1.1. Initial research on inattention management

While not previously labeled explicitly as inattention, this concept has been preliminarily explored in recent literature. In an important paper examining the nature of the narratives that people tell around availability management, Aoki and Woodruff (2005) argue that technologies should provide space for users to make stories about when and why they want to interact. If, for example, a person does not want to be available for a call, they could tell their interlocutor that they are in a poor phone reception area. This stands in contrast to the prevailing focus on enhancing availability and coordination of co-presence (see also Boehner & Hancock, 2006).

Following the approach laid out by Aoki & Woodruff, several studies have investigated a particular linguistic strategy for social inattention, called the butler lie, which people use to avoid social interaction or account for a failure to communicate. Butler lies were first documented in a study that asked participants to identify the lies they told in instant messaging (IM). It was noted that many lies involved coordinating the initiation and conclusion of conversations, with an eye toward managing interpersonal impressions when potentially face-threatening actions, such as ending a

conversation prematurely or avoiding interaction, occurred (Hancock et al., 2009).

A second study examined butler lies told using text messaging (SMS) (Birnholtz, Guillory, Hancock, & Bazarova, 2010). Butler lies were again frequently observed, but their usage differed in important ways from IM. While IM butler lies were mostly about exiting an in-progress conversation (e.g., "Sorry, I have to go eat lunch"), butler lies in SMS were most often concerned with avoiding other social interactions (e.g., "Can't meet up later, gotta work"), presumably because an important use of SMS is coordinating other social interactions (Grinter & Eldridge, 2003). In a third study, Blackberry Messenger (BBM) and SMS were compared (Reynolds et al., 2011). Participants in this study told more butler lies to those they coordinated with most, suggesting that butler lies are important for managing relationships.

These first studies of butler lies, however, were limited in that they focused on message-level data gathered only from message senders. A more recent study examined how specific messages were perceived by both senders and receivers, showing that receivers of butler lies expect to be deceived some of the time, but are not very accurate in predicting when this occurs (Reynolds, Smith, Birnholtz, & Hancock, 2013). While analysis of individual messages allowed for a detailed understanding of message content and frequency, these methods ignored how the messages were conceptualized by senders and perceived by receivers. One key question, for example, is whether butler lies are generally perceived positively - and relationally useful - or negatively; and whether butler lies are conceptualized by senders to be deceptive, in that they are intended to mislead (e.g., Hancock, 2007) or, for example, as ostensible invitations that are not literally true, but serve a mutually understood social purpose and are not intended to deceive (Isaacs & Clark, 1990). To address these issues, our first research question in the present study is:

RQ1. How are butler lies conceptualized by senders and perceived by receivers?

1.2. Relational consequences and context

One reason that social inattention must be managed carefully is that it has potentially significant relational consequences. If one is perceived to be ignoring a friend, for example, this can require explanation or risk terminating the relationship due to perceived impoliteness (Cody & McLaughlin, 1990; Watts, 2003). Such an explanation could involve, for example, claiming one was not ignoring the friend deliberately, but either did not know they were there (i.e., the inattention was inadvertent) or were doing something that precluded interaction (i.e., the inattention was deliberate, but not intended to hurt). When one receives explanations like these, one must then decide how to react. One could challenge the explanation and perhaps affect the relationship itself (i.e., "You were not doing something else. You were ignoring me.") or accept it and move on with the interaction.

Deciding how to respond to butler lies, however, is complicated by the fact that they occur relatively infrequently as a fraction of all speech (about 2% of all messages are butler lies, on average, based on results from studies cited above), and messages of this nature are almost always intended to be perceived in a relationally positive light (Cody & McLaughlin, 1990; DePaulo & Kashy, 1998). Moreover, we generally expect others to be polite and honest with us, a phenomenon known as the truth bias (Levine, Park, & McCornack, 1999), and so may be willing in many cases to give others the benefit of the doubt when there is ambiguity. This raises the question of how receivers of these messages assess the sender's intent and decide how to respond.

There are several factors that might reasonably affect the message perception process, mostly turning on the relational and communication context of the message. One might be less likely to assume positive relational intentions (i.e., be truth biased), for example, if one has been repeatedly deceived or let down by a partner.

The stability of a relationship should also be a factor in how butler lies are perceived. This prediction is consistent with Wolfson's Bulge Theory of Speech Behavior and Social Distance (1986). She notes that more speech acts related to politeness are observed with friends and acquaintances than with strangers or intimate relations. That is, we are most blunt with strangers and intimates, because the state of these relationships is often most stable. Friendships and acquaintances, on the other hand, require more active attention. Thus, more stable relationships (e.g., best friend) may require fewer butler lies while more fragile relationships (e.g., new romantic partners, modest friends and acquaintances) should require more.

To better understand how people perceive and respond to butler lies from different contacts, we asked generally:

RQ2. How does the relational context affect how people perceive and respond to butler lies from others?

1.3. Strategies in telling butler lies

Results from prior work suggest that butler lies are a common strategy for inattention management, but extant research has not investigated the specific strategies that people use in telling butler lies. Deception has been shown to be a common strategy in relationship maintenance (DePaulo & Kashy, 1998), and others have observed that "white lies" are told strategically to manage availability for instant messaging conversations (Birnholtz, 2010; Vanden Abeele & Roe, 2008). Prior work also suggests that, in constructing socially acceptable explanations, people consider the information available to the message recipient to ensure plausibility and coherence (Read, 1992). In mediated interaction, there are clear constraints on the availability of certain types of information (e.g., location, when a message was received, etc.), and these ambiguities are sometimes strategically exploited.

A key open question, however, is how people consider the likely response to a butler lie as they decide whether and how to compose a message. Related research on audience design has shown that speakers generally take the perspective of their partner into account when constructing messages (Bell, 1984). We examine this question within the specific context of butler lies. Specifically, we asked:

RQ3. What factors do message senders consider as they compose butler lies, in terms of message content and the receiver's likely reaction?

2. Research method

2.1. Participants

Forty-seven undergraduate students (27 female, 20 male; ages 18–26) participated in this interview study. All regularly use mobile text-based messaging (SMS) to communicate with others. Interviews were conducted between November 2010 and April 2011, and all participants were compensated with extra class credit or ten dollars cash. Thirty-two of the participants had previously participated in a larger survey study on the same topic and consented to be interviewed as well. These initial participants, however, were primarily women so 15 additional male participants were recruited. Participants in the initial study and the later additions were all

recruited via advertisements on our university's web-based recruitment system for human participants. Apart from their gender distribution, there is no reason to believe the fifteen additional participants differed in any meaningful way from those who had participated in the initial study.

2.2. Procedure

All interviews were conducted by one or two researchers in a private room, following a protocol developed iteratively for this study (see Appendix). The protocol was written prior to beginning data collection and was refined during the initial interviews, though the set of items was reasonably stable throughout the data gathering process. Interviews lasted 20-60 min and were semistructured in nature. Depending on the participant and context, the order and priority of interview items was sometimes adjusted to fit the flow of the conversation and the applicability of items to the interviewees. Participants were asked to discuss at least one specific example of butler lie text messages they had sent and received, and were asked about aspects of those messages such as the situation in which the butler lie occurred, their thoughts, feelings and reactions about the message, their relationship with the other person in the conversation, and their general feelings about deception in text messaging. In all but two cases (where there was a technical malfunction), interviews were fully transcribed for later analysis. All participants were assigned pseudonyms, and these names were used in analysis and presentation of results.

2.3. Data analysis

The data analysis process was directed by our initial research questions and ideas, and used techniques for categorizing and coding described by Huberman and Miles (1994). Researchers first performed a close reading of transcripts, making notes and engaging in constant comparison (Glaser & Strauss, 1967). Through collaborative discussion, an open coding scheme was developed via annotation of documents, and using a spreadsheet to track categories and relevant data. Data coding included marking relevant interview transcript sections with unique codes from the coding scheme. Coding categories reflected key themes and trends in our data. Throughout the process, the coding scheme was refined in light of conceptual discussions among the researchers, and all data were subsequently re-coded for the updated categories as necessary. The coded data were then carefully analyzed to discern any additional themes and these were used to drive our analysis and the theory development described in the discussion.

While it is unclear whether we reached true theoretical saturation in our sample, there was clear repetition in what our participants told us by the end of the data gathering and analysis. The themes and coding categories drove the organization and presentation of our results.

3. Results

In this section we present results in response to our three core research questions.

3.1. Conceptualization of butler lies

Our first question was about how butler lies are conceptualized by participants. A key theme in our results was that virtually all participants felt that butler lies were common and sometimes necessary or expected. Tyler noted succinctly: "[telling butler lies] is just part of what we do." Lola explained in more detail that feelings of necessity stemmed from an increasingly full plate of communication opportunities:

There's Facebook, there's Twitter, there's cell phones. There's so many more mediums through which you need to lie. Before cell phones, if you weren't home someone would leave a message and you'd get back them at your convenience. Now there's no at your convenience, basically, because your phone is always on you. People know that so people expect you to respond immediately. So you have to constantly sort of make excuses about why you're not going to respond or why you're not going to meet them.

There was a clear tension in participants' responses about whether and how they perceived the messages as "lies" or deceptive in nature, and this reflected some dissonance. On the one hand, participants all recognized that these messages were not true in a strict sense and that lying often has negative connotations. Ryan said, "To me, a lie is a lie. Whether it's a white lie, you always have that gray area, but a lie is a lie." On the other hand, however, they also clearly felt butler lies were useful and necessary. Reflecting this tension, Zack felt that butler lies are a necessary evil:

[Butler lies] are deceptive in the sense that you're leading someone against what the truth is. But in the world today, sometimes that's necessary because, sometimes, constant communication is overwhelming. It can be seen as a necessary evil, I guess.

Nina also expressed some ambivalence toward butler lies, noting that they felt innocent and natural in a way that did not resonate with negative connotations she associates with other types of deception:

It's kind of natural, like you don't even think about what you're saying it's kind of like 'oh yeah I was napping when you called me,'... it just seems so natural and seemingly innocent that I don't feel like it's deceptive when you think of the word deceptive and think that it kind of has a negative connotation.

Nina's feelings hint at a common perception among our participants, which was that butler lies can have a positive relational effect. Similarly, Tanya noted that the sender's intent impacts whether a butler lie should be seen as deceptive:

If you're doing it just to cover your butt, then that's more deceptive. But if you're also trying to make it so that nobody's feelings get hurt, then I think that's where the deception is less, at least.

Jill further felt that butler lies such as "I'm on my way" were not deceptive as long as they were approximately true:

I think people, generally have an understanding. That it does not have to be the most precise and accurate statement. I wouldn't consider all of them really deceptive.

What all of this suggests is that asking whether these messages are conceptualized as "lies" or "deceptive" may not be the most important question to ask, because this question highlights a conflation of the truthfulness of the messages themselves and the negative connotations associated with deception or lying. Rather, what appeared to be most important to participants was the intent of the message sender. Positive perceived intent tended to outweigh the truth or deceptiveness of specific messages in how the messages were perceived.

3.2. Receivers' perceptions and message context

In the previous section, we showed that butler lies are understood to be common and even necessary, particularly when intended to preserve the relationship between sender and receiver.

Our second research question was about the effects of relational context on the use and perception of butler lies.

In general, our participants did not report being very sensitive to butler lies from others, and even said that they sometimes knew they were being deceived. Many indicated that they often did not think very deeply about the truthfulness of butler lies when they received them, such as Cathy, who, illustrating the principle of truth bias discussed above, said that "I don't really take time and think too much of it, if I do receive a deceptive text message." Leah further noted that she didn't often get upset about butler lies because:

I feel like it's something that I don't try to let bother me a lot, just because everyone has to do it from one point or another.

Instead, (as in the discussions above), participants reported the perceived intent or goal of the message to be important in assessing a message. For instance, many participants described situations where they received what they suspected were butler lies, but shared what they felt was their partner's goal of avoiding possible conflict or pain in the relationship. Dana described a conversation with her boyfriend that could have turned into a fight, which he ended by saying he was going to bed:

I could tell that he probably wasn't actually going to go to bed. He just didn't really want to get in a confrontation or a bigger argument.

She recognized that his statement about going to bed was unlikely to be true because it was well before his usual bedtime. But she perceived that his unstated goal was to avoid a potentially painful or stressful confrontation. Therefore she accepted the deception instead of further challenging him and escalating the conflict.

A key factor in whether or not participants believed the senders' intent to be positive was the perceived gravity of the situation and its effect on their relationship with the sender. When a butler lie was told in the context of an important situation or a meaningful relationship, it was perceived more negatively than lies told under other circumstances. Rita, for example, said that she would be more concerned if her boyfriend told her a butler lie about where he was or what he was doing than if a friend told a similar lie, because of the importance of trust in their relationship:

I don't have to worry about like my friend cheating on me \dots I give her more responsibility for \dots her actions, and like my boyfriend, it's like what he does affects us, so that's more of a big deal.

Other situations that were considered meaningful or consequential typically were those in which receivers of butler lies were relying on the sender for something, and thus were personally impacted by the lie. Even these situations, though, varied according to the perceived urgency or importance. Anne explained:

If it's urgent like a personal issue that a really close friend of mine wants to talk about versus my lab partner who wants to go over data results. Those are two different dynamics, one is more urgent and personal. Another is just, it's school work and it could be delayed for a little bit more so than, say a personal issue that your friend really needs help with.

Without evidence to the contrary, however, messages were generally perceived as having positive intent. There were cases, however, where a participant initially assumed positive intent on the part of a message sender, but later received evidence that this was not the case. This evidence negatively affected their perception of the message or messages, and the sender. In one particularly painful case, for example, Paul was told a series of butler lies by people he believed to be his friends, but who were actually using repeated butler lies as excuses for avoiding interaction with

him, with the likely goal of terminating the relationship. These repeated messages were intended to offer polite reasons for declining interaction with Paul, but their effect in the aggregate was to reveal the underlying intent, which was ultimately quite hurtful:

We were friends from seventh grade until sophomore year of high school. Then all of the sudden they started using these excuses. . . . I called them every single day in the summer, every single day and it was always an excuse for that. ... They were telling me in their own little subtle way they didn't want to be my friend, it was just like, "Why can't you just tell me what's up?" ... I was really, really unhappy for a while because of it. It was something that ruined my high school life basically. ... I feel like if they had told me in the beginning I could have just started to accept it, move on made new friends, find new people, stuff like that.

Here Paul was willing to believe the first several butler lies, believing that his friends intended to continue their social relationship but were genuinely busy. His willingness to believe their positive intent began to fade, however, as he realized that their behavior was increasingly incongruent with this interpretation. In this case, social inattention was highly consequential and painful for Paul.

There were other cases where repeated past butler lies provided evidence that affected people's interpretations of present messages. For example, Lola was invited to a party she knew she was unlikely to attend. Instead of declining the invitation, she replied "OK, I'll def try to come by" to leave the option open. Based on previous interactions, however, her friend recognized this as a butler lie, and was unwilling to believe it. He responded with a challenge to the initial message, "Ha ha, that's a No." This challenge foregrounds possible tension in the relationship by indicating he did not believe Lola was going to make an effort to stop by.

In another similar case, the implausibility of a butler lie – combined with a history of deception – provided similar evidence. As Carly described:

Well, my little brother is a big liar. Sometimes I'll call him, or text him and I'll be like, "Hey, David, what's up?" I just want to catch up with him. He's a freshman in high school, talking to his sister is not a number one priority. He'll be like, "Carly, I'm busy, I've got to go." He'll text me and be like, "In class." It'll be, like ten o'clock at night, on a Friday, "No, you're not."

In all of these examples we see that people's past inattention management behavior affects the interpretation of these messages.

More generally, we have illustrated in this section that receivers generally perceive butler lies as being sent with positive intent. There are times, however, when they receive evidence suggesting that the intent may in fact have been negative, which can be upsetting. In the next section we focus on factors senders consider in deciding whether or not to tell butler lies.

3.3. Factors considered when composing butler lies

Having examined the factors that impact people's perceptions of others' intent when telling butler lies, we next turned to our third research question, which was about the factors that participants considered when composing butler lies and predicting how their intent would be perceived. As with perceiving received butler lies, participants repeatedly mentioned the communication context and their relationship with the message receiver as important factors. Whether the relationship was important to them or not, however, participants generally agreed that butler lies were more appropriate and likely to be positively perceived in situations where the consequences of lying were lower. Specific conse-

quences varied, but participants generally referred to possible relationship damage in terms of trust or continued social engagement. Relationships that were perceived as unimportant to the sender had lower consequences and butler lies were more often told in this context. Leah, for example, said she sometimes told butler lies to people with whom she does not want a close relationship, but still wants to be polite to:

You'll just resort to that instead of just telling the truth like, 'Hey, listen, you're really annoying and I don't want to hang out with you.' [laughs] So like, 'Oh, you know, I really have a lot of homework,' which sounds better than, 'I don't like you' [laughs].

This is not to suggest at all that butler lies were used only in unimportant relationships, however. There were also many cases where participants reported using butler lies when they wanted to preserve an important relationship. Sally, for example, noted:

I think you use butler lies when you don't want to hurt someone. The irony is, you probably use butler lies with people you care more about.

In these cases, the participants believed the consequences would not be significant because the receiver of the message would understand even if they suspected it was a lie. Kim described frequently using butler lies to end conversations with a friend she met while studying abroad. Both friends often remarked that they needed to catch up more in-depth, though they generally ended conversations quickly with butler lies indicating they had to leave for some other commitment. Kim believed they shared understanding of an underlying message, that the relationship still mattered:

She knows that I do want to talk to her and maybe I just can't or don't want to right then. So I don't think she would be upset if she knew that I didn't actually have to go.

Another theme hinted at in these examples is that participants considered not only the possible consequences of a lie, but did so in light of the consequences of telling the truth. Many believed that longer-term, more stable relationships were resilient to what could be blunt statements of truth. In contrast, early stage relationships were seen as more fragile, and the truth was seen as potentially more consequential. For example, early-stage romantic relationships were seen as requiring more butler lies because they were fragile yet important, and participants did not want to hurt the receiver's feelings. As Rita explained:

I feel like it happens more with boyfriends or people you're involved with than like friends, because friends are usually a little more blunt.

The same was true in the early stages of other social relationships, as Tanya said:

[I tell more butler lies to the people who are] not so close to me. The people that are close to me, I'll tell them the truth. It doesn't matter. I don't want to have lunch with you today or whatever.

Even in strong relationships, though, participants sometimes used butler lies to avoid saying they wanted to spend time alone. Jack said he lied to his friends about his desire to stay home so that they didn't label him as "anti-social." Similarly, Marie exaggerated about the amount of housework she had to do, in order to avoid similar perceptions:

I'm going to do laundry today but I'm going to use that as my excuse for the entire day where it's only going to take me two hours. And I say that's the reason why I'm not going out; because I'm doing laundry, not because I want to be in for the night.

Family relationships presented an interesting case in terms of stability and resilience to telling the possibly blunt truth. Many participants felt that these relationships were more stable, so they were less concerned with the consequences of telling the truth. As Tom explained:

I almost never lie to my family just because they're family. I mean they would understand anything so I don't really have to hold anything back from them. And I guess you don't have to really build a relationship with your family like it's just, it's there, you just have to maintain it. And with a friend, you always have to constantly like keep building it, like if you stop then you'll lose it. If you stop like you won't lose your family ever so...

In other cases, however, butler lies were seen as appropriate with family, particularly when there was a desire to end the conversation quickly with the relationship intact. Participants were often conscious of how likely a given butler lie was to be questioned or to lead to further – unwanted – conversation with the message receiver. Ryan, for example, described using homework as an excuse to get off the phone with his dad because it ended the conversation more quickly than other potential excuses:

He's never going to say, "Well, what's the homework on? What are you studying?" ... some fun activity, he's going to ask, "Where are you going? What movie are you seeing?" or something like that.

This also raises the issue that participants considered not only the consequences of the receiver discovering a message was a lie, but also the receiver's likely reaction in light of the sender's goal of managing inattention. When constructing a butler lie directed at a parent, for example, participants often based their messages around doing schoolwork, as participants believed this was an activity likely to be received well by parents. Alexa stated, "The best thing [my mom] could hear is, 'Oh, I am going to do work'."

In this section, we have illustrated that senders carefully design their butler lies to be perceived positively. In determining how to do this, they consider the potential relational consequences of a possible lie, as well as the relationship's resilience to a possibly blunt telling of the truth.

4. Discussion

We began this study with exploratory questions about perceptions of butler lies from the perspective of both senders and receivers, and the effects of relational factors on people's use of butler lies and their strategies for managing social inattention in socially acceptable ways. Based on the analyses we presented above, we here propose a joint action approach to guide our understanding the management of social inattention.

4.1. Social inattention management as a joint process

In reflecting on our analyses and results, we realized that the coordination processes people described had much in common with Clark's (1996 influential model of language use as a coordination tool in communication. The key overarching idea for Clark is that interlocutors use language to coordinate on multiple levels of language use, including both lower-level attentional processes and higher-level establishment of intended meaning. Clark refers to this process as joint action, noting that participants in an interaction must believe that they have a shared goal they are trying to achieve.

4.1.1. Language use in managing inattention

There are several components of Clark's general model of language use relevant to understanding social inattention. First, and perhaps obviously, we assume language to play a key role in managing social inattention. As Lewis (1969) originally noted, language is the primary tool for people to solve coordination problems. Coordination problems occur whenever two people have goals that are dependent on each other's actions (Schelling, 1960). In the case of social inattention, the problem revolves around resolving a mismatch in people's desires to interact, in which both nonetheless wish to maintain positive relations. The second component is the importance of language use in managing social concerns, from social equity to face threats. We argue that this is a fundamental part of social inattention.

A central concept in Clark's model is grounding, which refers to the coordination process through which participants establish they have understood each other's utterances sufficiently for current purposes. In prior studies of butler lies, participants seemed satisfied with these messages because this strategy allowed them to achieve their current purposes, such as exiting a conversation or avoiding another interaction, without further discussion. This suggests that understanding others' utterances sufficiently for current purposes is *not* necessarily synonymous with believing these utterances to be literally true. Consider the following hypothetical example in which Alice ends a conversation with Bob:

Alice: I'd love to talk more, but I have to go eat lunch now.

Bob: Ok, let's talk later. **Alice**: Sounds good!

Accepting Alice's explanation that she has to eat lunch does not mean that Bob necessarily believes it to be true, but rather it means he is willing to accept her perceived purpose in producing the utterance (in this example, bringing the conversation to a close), rather than questioning the explanation further. Consistent with Clark's model, inferring the intended purpose (or "intent," in the terms we use above) of an utterance requires some sensitivity to the speaker's goals and understanding on the speaker's part that such an inference is likely to take place.

Speakers managing inattention often mean something by their utterance that needs to be recognized by their addressee. In the example above, Bob must consider Alice's proposal by either taking it up (e.g., "OK, let's talk later"), negotiating (e.g., "When exactly do you have to eat lunch? Can we talk for five more minutes?"), or rejecting that proposal (e.g., "No you're not. You said before that you were skipping lunch,").

When Bob accepts Alice's explanation and believes her intent is positive, we can say he is *willing to collaborate* with Alice on the meaning of this message. In this case, he will not question him further. If he is unwilling to collaborate, however, their coordination of inattention can break down in ways we described in examples presented above, and should trigger additional communication, referred to by Clark as "repair work" to clarify the intended meaning of the message (i.e., that Alice must leave the conversation) or to repair the relationship (i.e., if Bob is offended by Alice's repeated tendency to leave conversations early). Indeed we saw evidence of both successful collaboration around butler lies, such as Ryan using homework as an excuse to get off the phone with his dad, and some communication breakdowns requiring repair work, such as Lola's friend challenging her claim that she might attend a party.

In our data, we also saw clear evidence that people frequently did not rely primarily on the literal semantic meaning of butler lies (i.e., interpreting "I have to go to bed" or "brb" as accurate indicators of behavior), but rather understood the implied pragmatic intent of the message. They were generally willing to collaborate

on this understanding to avoid conflict or threats to the relationship, even when they believed the content of the message to be literally false.

There was also some evidence to suggest that some inattention management messages have become common phrases that are not expected to be interpreted in a strict semantic light, as with Jill's explanation of butler lies such as "I'm on my way" in which she feels people have a pre-existing shared understanding about the meaning of such messages. These phrases are treated by participants as "ostensible acts." Unlike deception, which occurs when the speaker leads the addressee to believe something that speaker knows to be false (Hancock, 2007), ostensible acts are not intended to be interpreted literally (Isaacs & Clark, 1990). Take, for example, the ostensible invitation "let's do lunch sometime!" followed by the response "sounds great!" In this example, both participants may mutually recognize that the invitation is a pretense, and the second speaker colludes in the pretense by responding appropriately. This is not deception because no false belief is generated. Instead, the speakers are satisfying an unstated, underlying purpose, such as communicating that, although they are unlikely to actually have lunch together, they would have enjoyed doing so (Isaacs & Clark, 1990).

For both deceptive and ostensible forms, however, management of inattention is collaborative in that both participants in an interaction must implicitly agree on the meaning of messages intended to account for or explain inattention. Indeed, a key attribute of inattention management seems to rest not on the literal truth of messages, but the shared interpretation of higher-level pragmatic meaning and goals. We observed many cases where participants sought to cast their inattention (i.e., failure to respond to messages, ending a conversation, etc.) in a socially acceptable light. Often this came down to making the inattention appear to be inadvertent (i.e., "I wasn't deliberately ignoring you, I was asleep.") or affected by some external force (i.e., "I was in a meeting.").

4.1.2. Relational concerns

Another key feature of Clark's joint action model is the recognition that interpersonal and relational forces shape coordination and language use. A vast amount of research has provided support for this proposition, including research on sociolinguistics and politeness (Watts, 2003), social equity (Walster, Walster, & Berscheid, 1978), and face (Goffman, 1955).

Preserving and protecting relationships was clearly a concern of participants in managing social inattention, and several attributes of relationships were cited as important in this regard including the type of relationship, its stability, and others' expectations. The stability of a relationship was seen as a factor in whether deception was used or not: stable relationships (e.g., best friend) often required fewer butler lies while more fragile relationships (e.g., new romantic partners, modest friends and acquaintances) required more, consistent with Wolfson's Bulge Theory.

We also saw evidence of failures to coordinate around butler lies, however, and these often stemmed from a combination of the relational context and the literal content of the messages. Indeed, the relational nature of our approach highlights both the appeal and the danger of using deception (e.g., butler lies) as a strategy for managing social inattention. People may be willing to collaborate by accepting deception if the intended message of the sender is congruent with their relational goals (i.e., preserving the relationship even when, say, a friend is late for a planned encounter or does not reply to a message). When the sender and receiver have differing relational goals, however, problems can arise. While our participants were willing to collaborate and accept butler lies from their friends who were occasionally unavailable, a series of such utterances may add up to an unstated, underlying

meaning of "I don't want to be your friend any more,." As Paul experienced, this type of social inattention is akin to ostracism, which can be psychologically painful and is relationally consequential (Williams & Nida, 2011).

The potential for both positive and negative relational consequences highlights the important question of how people interpret inattention management behavior of others and assess their intended meaning. While our data provide some reflection on this issue, this is a clear topic for future research as we note below.

4.2. Design implications of a joint action model of social inattention

One key finding from our results that has design implications is that willingness to collaborate around pragmatic meaning may often be more important than the literal semantic truth of messages; and this is affected substantially by the relational context of messages and by the intentional and accidental presentation of evidence in interactions. We urge designers to consider including contextual and relational information that can help users determine when a threat to collaboration might be likely.

Recent tools, such as Friend Feed (friendfeed.com), allow users to aggregate updates from multiple social media feeds in one stream. Our results suggest it may also be useful to provide message senders with a similar aggregation that lets them see the information their contacts can view about them. For example, a text messaging system might import contacts from other media (such as email and social networking sites) and provide access to information previously shared with a contact. Senders might then be better able to manage the information they share and improve the consistency of the stories they tell friends and acquaintances.

Another feature that arguably helps with this is message histories for a particular contact. Seeing these messages might make a sender more aware of recent butler lies to that person. To be clear, we are not advocating helping people deceive and possibly hurt others, but we do want to help them manage their availability and avoid communication overload. This means being sensitive not just to the need for ambiguity and crafting plausible explanations (Nardi, Whittaker, & Bradner, 2000) but also sensitivity to factors that seem to influence others' willingness to collaborate.

This also helps explain why the public was unexcited about features such as the Palm Pre's "I'm late" notification, which used the phone's GPS location and calendar data to anticipate when the user was running late for a meeting, and generating an automated notification to others (Buchanan, 2009). Such a feature could be harmful if systems do not factor in things such as the content of recent messages and closeness of the relationship. Our results show clearly that people bring more to the parsing of these messages than just the current message, and that the effects of these messages can be significant, particularly when the willingness to collaborate breaks down.

4.3. Limitations and future work

We have conducted an initial exploratory study of people's attitudes toward and reflections on their own and others' inattention management behaviors and strategies. As an exploratory study, our goal is to present an initial theoretical framework and propose substantial additional research in this area.

As with any study of this nature, there are several limitations that urge caution in the interpretation of these findings. First, we studied a student population at a university in the United States. Teens and students are among the largest users of text messaging (Nielsen Research, 2010), so they present a useful window into how this medium is used for everyday communication. At the same time, students are at a point in their lives when their social,

romantic and family relationships are in a state of change that is different from other demographic groups. As such, these results might look different in a more mature sample of the population, and we do not claim broad generalizability. It is also possible that participants did not accurately recall their experiences in describing them to us, though we have no reason to believe that this was the case and we note further that the interview protocol referenced specific messages the participants had sent.

Perceptions of deception are also heavily influenced by value systems, moral frameworks and cultural norms (Bok, 1989; Ma, Xu, Heyman, & Lee, 2011). It is possible that different populations would have very different attitudes toward both deceiving others and how to respond when one is deceived by another. We therefore urge further study of these issues in broader populations that cross demographic and cultural boundaries. The present findings represent an initial foray into a very complex and varied social environment that is likely to vary substantially across these lines, and merits careful study in multiple contexts.

As such, this work sets the stage for a range of future studies of inattention management. We propose a series of complementary qualitative and quantitative studies to more fully explore this area and develop a robust theoretical canon.

Qualitatively, our study portrays student conceptualizations and perceptions of butler lies, but additional qualitative study is necessary to see how different populations perceive and use these messages, and if other inattention management strategies are more prevalent in other communities. It is also necessary to understand how inattention management strategies play out in the full constellation of media that is available (and rapidly changing), and how the features of these media interact with people's selection of strategies in particular contexts.

Quantitatively, there is a clear need for additional studies of inattention management strategies at the message level from both the sender and receiver perspective. Such studies allow actual strategic behavior to be observed and quantified, to more fully test the theoretical premises we have described here. We also urge quantitative linguistic analysis of message-level data to understand the mechanics of inattention management, and seek, for example, evidence of cues indicating implicit agreement on pragmatic meaning or linguistic features that might signify potential breakdown in the collaborative inattention management process.

5. Conclusion

In an always-on world of constant and virtually unlimited interaction opportunities via mobile devices, the ability to manage inattention to others in a relationally sensitive way is critical to maintaining a desirable level of availability for interactions and sustaining one's social relationships. We have presented a qualitative exploration of inattention management among a college student population, focusing in particular on the use and perception of "butler lies," a documented strategy for managing social inattention. Our contribution to the study of how people interact in mediated contexts is a novel extension to prior theories of politeness and availability management that draws on Clark's framework for understanding language use as a coordination process. In the case of inattention management, we argue that what matters is not the literal truth of the message (which is often the focus in deception literature) or the sender's intent alone (which is the focus of politeness and self-presentation literature), but rather the implicit agreement by both parties on the positive pragmatic meaning of the message. Where there was evidence that this implicit agreement was not achieved, inattention management strategies were described by our participants as being less successful. We further call for additional qualitative and quantitative studies to further explore and expand these findings.

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Appendix A. Interview questions

A.1. Managing availability

- 1. Tell me about the media that you use to communicate with your friends and family. Which do you use, and for what (i.e., to catch up/talk, coordinate social plans, get an answer to a question. etc.)?
 - a. Tell me about the different media that you use. For each medium:
 - i. Who do you communicate with using this media?
 - ii. What do you communicate about using this media (i.e., to catch up/talk, coordinate social plans, get an answer to a question, etc.)?
 - b. Are there certain people that you tend to talk to via particular media? Why? What makes this happen? What about the reverse? Are there people who tend to reach you via particular media? Do you think this works well? Why or why not?
- 2. How does being available via multiple technologies affect the way you account/explain things, such as yourself or your actions?
 - a. Are there ever times when you just don't want to interact with any other people at all? Or with specific people? If so, tell me about these times. Do you do anything to reduce your contact with others? Do you use media to help you with this at all? Give me an example.

A.2. Telling butler lies

- 2. In our survey we asked you about messages that you had sent to other people that were deceptive. We were particularly interested in what we called 'butler lies' those messages that occurred when you were starting a conversation, ending a conversation or coordinating social contact with others. Here is a butler lie that you entered into the survey that you took.
 - a. Tell me about the situation when you told this deception. Who was involved? Why did you decide to be deceptive?
 - b. What did you say in your message? How did you decide what to say?
 - c. How did you feel about the deception? Did it make you feel bad? Were you worried that the recipient would find out? Why or why not? Did you do anything so that they would not find out (i.e., to cover one's tracks, etc.)
 - d. What do you think they would think if they knew the message was deceptive? Do you think they did know?

A.3. Receiving butler lies

- 4. Do you think other people tell you 'butler lies'? Do you think your partner did? If so, which messages did you think were butler lies?
- 5. How do you feel about these messages? About how often do you think you get messages like this? Can you tell when they are true (or not)? How can you tell?

- 6. If you receive a butler lie from somebody, do you ever confront them? Why or why not? Tell me about an example when you decided (not) to do this?
- 7. Do you feel like these messages are deceptive? Why or why not?
- 8. Here's a butler lie (provide a specific message). What if somebody sent this to you?

A.4. Reflections

- 9. Will this survey change your view to butler lies (to negative or positive, tolerance to butler lie)? What about changes to your behavior?
 - a. Do you think we use more or fewer butler lies than other generations (like your parents)? If you think there is a difference, what causes it?
- 10. Do you think you were good at detecting your partner's deception?
- 11. Did you pick up deception at the time of receiving the message or while filling out the survey?

References

- Aoki, P., & Woodruff, A. (2005). Making space for stories: ambiguity in the design of personal communication systems. In Proc. ACM CHI (pp. 181-190).
- Bailey, B. P., & Konstan, J. A. (2006). On the need for attention-aware systems: Measuring effects of interruption on task performance, error rate, and affective state. Computers in Human Behavior, 22, 685-708.
- Bell, A. (1984). Language style as audience design. Language and Sociology, 13, 145-204.
- Birnholtz, J. (2010). Adopt, adapt, abandon: Understanding why some young adults start, and then stop, using instant messaging. Computers in Human Behavior, 26, 1427-1433.
- Birnholtz, J., Dixon, G., & Hancock, J. (2012). Distance, ambiguity and appropriation: Structures affording impression management in a collocated organization, Computers in Human Behavior, 28, 1028-1035.
- Birnholtz, J., Guillory, J., Hancock, J. T., & Bazarova, N. (2010). "On my way" Deceptive Texting and interpersonal awareness narratives. In Proc. ACM CSCW (pp. 1-4).
- Boehner, K., & Hancock, J. (2006). Advancing ambiguity. In Proc. ACM CHI (pp. 103-107).
- Bok, S. (1989). Lying: Moral choice in public and private life (2nd ed.). New York, NY: Random House.
- Boneva, B., Quinn, R., Kraut, R., Kiesler, S., & Shlovski, I. (2006). Teenage communication in the instant messaging era. In R. Kraut, M. Brynin, & S. Kiesler (Eds.), Computers, phones and the internet: Domesticating information technology (pp. 201-218). Oxford, UK: Oxford U. Press.
- Brown, P., & Levinson, S. (1987). Politeness: Some universals in language usage. Cambridge, UK: Cambridge University Press.
- Buchanan, M. (2009). Gizmodo: Palm Pre "Oops I'm late" feature sounds kind of horrible. http://tinyurl.com/6u3bm3n> Retrieved 10.12.11.
- Camden, C., Motley, M. T., & Wilson, A. (1984). White lies in interpersonal communication: A taxonomy and preliminary investigation of social motivations. Western Journal of Speech Communication, 48(4), 309–325.
- Chatterjee, S., Abhichandani, T., Li, H., Tulu, B., & Byun, J. (2005). Instant messaging and presence technologies for college campuses. IEEE Network, 19(3), 4-13.
- Chen, B. X. (2011). Always on: How the iPhone unlocked the anything anytime anywhere future-and locked us in. Cambridge, MA: Da Capo Press.
- Clark, H. H. (1996). Using language. New York: Cambridge University Press.
- Cody, M. J., & McLaughlin, M. L. (1990). Interpersonal accounting. In H. Giles & P. Robinson (Eds.), Handbook of language and social psychology (pp. 227-255). London: Wiley
- DePaulo, B. M., & Kashy, D. A. (1998). Everyday lies in close and casual relationships. Journal of Personality and Social Psychology, 74, 63-79.
- Glaser, B. G., & Strauss, A. L. (1967). The discovery of grounded theory: Strategies for qualitative research. Hawthorne, NY: Aldine de Gruyter.

- Goffman, E. (1955). On face work: An analysis of ritual elements in social interaction. Psychiatry, 18, 213-231.
- Grinter, R., & Eldridge, M. (2003). Wan2tlk?: Everyday text messaging. In Proc. ACM CHI (pp. 441-448).
- Hancock, J. T., Birnholtz, J., Bazarova, N., Guillory, J., Perlin, J., & Amos, B. (2009). Butler lies: Awareness, deception and design. In Proc. ACM CHI (pp. 517-526).
- Hancock, J. T. (2007). Digital deception: When, where and how people lie online. In K. McKenna, T. Postmes, U. Reips, & A. N. Joinson (Eds.), Ocford handbook of internet psychology (pp. 287-301). Oxford, UK: Oxford U. Press.
- Hopper, R. (1992). Telephone conversation. Bloomington: Indiana University Press. Huberman, A. M., & Miles, M. B. (1994). Data management and analysis methods. In Lincoln & Denzin (Eds.), Handbook of qualitative research. Thousand Oaks, CA: Sage.
- Isaacs, E., & Clark, H. H. (1990). Ostensible invitations. Language in Society, 19, 493-509.
- Leonardi, P. M., Treem, J. W., & Jackson, M. H. (2010). The connectivity paradox: Using technology to both decrease and increase perceptions of distance in distributed work arrangements. Journal of Applied Communication Research, 38(1), 85-105.
- Leshed, G., & Sengers, P. (2011). "I lie to myself that I have freedom in my own schedule": Productivity tools and experiences of busyness. In Proc. ACM CHI (pp. 905 - 914)
- Levine, T. R., Park, H. S., & McCornack, S. A. (1999). Accuracy in detecting truths and lies: Documenting the "veracity effect". Communication Monographs, 66, 125-144.
- Lewis, D. K. (1969). Convention: A philosophical study. Cambridge: Harvard University Press.
- Ma, F., Xu, F., Heyman, G. D., & Lee, K. (2011). Chinese children's evaluations of white lies: Weighing the consequences for recipients. Journal of Experimental Child Psychology, 108, 308-321.
- Mark, G., Gudith, D., & Klocke, U. (2008). The cost of interrupted work: More speed and stress. In Proc. ACM CHI (pp. 107-110).
- Nardi, B., Whittaker, S., & Bradner, E. (2000). Interaction and outeraction: Instant messaging in action. In Proc. ACM CSCW (pp. 79-88).
- Nielsen Research. (2010). U.S. teen mobile report: Calling yesterday, texting today, using apps tomorrow. http://tinyurl.com/32h5go6 Retrieved 10.12.11.
- Perry, M., O'Hara, K., Sellen, A., Brown, B., & Harper, R. (2001). Dealing with mobility: Understanding access anytime, anywhere. ACM TOCHI, 8, 323-347.
- Read, S. (1992). Constructing accounts: The role of explanatory coherence. In M. L. McLaughlin, M. J. Cody, & S. Read (Eds.), Explaining the self to others (pp. 3-19). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Reynolds, L., Gillette, S., Marder, J., Miles, Z., Vodenski, P., Weintraub, A., Birnholtz, J., Hancock, J. (2011). Contact stratification and deception, In Proc. ACM CSCW (pp. 221-224).
- Reynolds, L., Smith, M., Birnholtz, J., Hancock, J. (2013). "Butler lies from both sides: Actions and perceptions of unavailability management in texting", In Proc. ACM CSCW (pp. 769-778).
- Schelling, T. C. (1960). The strategy of conflict. Cambridge: Harvard University Press. Smith, A. (2011a). Americans and text messaging. Pew Research Center's Internet & American Life Project. Washington DC: Pew Research Center.
- Smith, A. (2011b). Americans and their cell phones. Pew Research Center's Internet & American Life Project. Washington DC: Pew Research Center.
- Stutzman, F. (2011). Productivity in the age of social media. In T. Scholz (Ed.), The digital media pedagogy reader. New York: Institute for Distributed Creativity, Comment Press.
- Turkle, S. (2011). Alone together: Why we expect more from technology and less from each other. New York: Basic Books.
- Turner, R. E., Edgely, C., & Olmstead, G. (1975). Information control in conversation: Honesty is not always the best policy. Kansas Journal of Sociology, 11, 69.
- Tyler, J. R., & Tang, J. C. (2003). When can i expect an email response? A study of rhythms in email usage. In Proc. ECSCW (pp. 14-18).
- Vanden Abeele, M., & Roe, K. (2008). White cyberlies: The use of deceptive instant messaging statuses as a social norm, paper presented at the conference of the International Communication Association. Canada: Montreal.

 Walster, E. H., Walster, G. W., & Berscheid, E. (1978). Equity: Theory and research.
- Rockleigh, NI: Allyn and Bacon,
- Watts, R. J. (2003). Politeness. Cambridge, UK: Cambridge U. Press.
- Weilenmann, A. (2003). I can't talk now, I'm in a fitting room: Formulating availability and location in mobile-phone conversations. Environment and Planning A, 35, 1589-1605.
- Williams, K. D., & Nida, S. A. (2011). Ostracism: Consequences and coping. Current Directions in Psychological Science, 20, 71-75.
- Wolfson, N. (1986). The bulge: A theory of speech behavior and social distance. Penn Working Papers in Educational Linguistics, 2, 55-83.