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RESEARCH NOTE

MEDIA SELECTION AS A STRATEGIC COMPONENT OF COMMUNICATION[1]

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Why do people select the media they choose for a particular type of communication? The media choice literature has considered myriad contextual factors that influence media choice, from proximity of the communication partners, to the urgency of the situation, to time pressure, and so on. From this body of work, a contingency-based theory of media choice has emerged. An alternative approach is to investigate how communication strategies and media characteristics affect choice. We identified two approaches for investigating these issues: Te'eni's (2001) model of organizational communication and Dennis et al.'s (2008) media synchronicity theory. Using a scenario-based methodology, we asked respondents which medium they would use for a deceptive communication task and why they made that choice. We analyzed the data from the perspective of both the Te'eni and MST frameworks, enabling us to compare the extent to which each was able to explain our respondents' media choices. Both frameworks, at differing levels of communication granularity, suggest that the intent of the communication drives a strategy that ultimately informs media choice. The results suggest that the prior contingency-based explanations of media choice could be improved by not only understanding the intent of the communication, but also the strategy used by an individual to execute this communication. Additionally, we found that the more finely grained view of communication contained in MST explained more of the outcomes and was more parsimonious as well.

Keywords: Computer-mediated communication, deceptive communication, media synchronicity theory

Introduction

People engage in communication numerous times each day, every day. For most people, communication is automatic and done with little conscious thought about the parameters of the communication task, including the communication partner, the phrasing of the message, or the medium chosen. Yet, those situations where media choice is an issue, especially in a business context, have attracted a great deal of research attention, particularly in the management and MIS fields. A whole host of factors, ranging from time pressure (Bozeman 1996), to problem urgency (Straub and Karahanna 1998), to partner proximity (Straub and Karahanna 1998; Treviño et al. 2000; Webster and Treviño 1995), have been found to influ-

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ence media choice for a broad range of communication tasks. Research has also found that individuals prefer the use of multiple media in some communication contexts (Lee et al. 2009; Watson-Manheim and Belanger 2008). While prior research has investigated a plethora of factors influencing media choice, as yet there is no comprehensive theory of media choice; this research has instead relied on a contingency approach, focusing on one or a set of influential factors taken from various overarching theories (e.g., media richness theory) to explain media choice in a variety of situations. While this contingency approach has proven fruitful in some contexts, it has failed in others (Dennis et al. 2009). As such, conceptual schemes beyond the contingency approach may prove more fruitful when making media choice predictions.

One compelling alternative to the contingency-based approach is to examine how basic communication strategies and media characteristics influence choice. Two communication frameworks which can be used to explain media choice in a comprehensive manner, utilizing both strategies and media characteristics, have been proposed by Te'eni (2001) and Dennis et al. (2008). Te'eni's model of organizational communication, which is based on an extensive review of the communication literature across many different academic fields, proposes that communication is shaped by goals and strategies of the sender; these strategies, such as "control by testing and adjusting" (p. 267) are conceptualized at a fairly high level. Alternatively, Dennis and colleagues' (2008) media synchronicity theory (MST) proposes that different types of communication require a mix of relatively low level conveyance and convergence processes (i.e., strategies) that are performed more effectively utilizing different media and in different configurations depending on the communication context. It is important to note that MST is a theory intended to predict communication performance (e.g., communication speed, effectiveness), not choice. However, Dennis and colleagues (2009) subsequently conceptualized how MST can inform media choice predictions. Thus, given that both frameworks are conceptually elegant, a useful question is whether a communication strategy's approach aids in making media choice predictions, and if so, which of these two frameworks best explains such predictions? In this paper, we compare these two frameworks to try to answer these questions.

In comparing theories or frameworks, we typically seek to demonstrate which theory or framework best fits or explains a specific set of data. In trying to determine how best to do that, we settled on three different metrics for comparing how well these two frameworks explained media choice decisions: amount of variance explained, robustness, and parsimony. The amount of variance explained comes from analysis of variance tests of the relationships between each framework's inherent communication strategies and media chosen by our respondents. The Te'eni framework includes specific predictions of the relationships between strategies and media characteristics, while MST can be used to make such predictions. The extent to which those predictions are supported by our data is a measure of the robustness of the framework: the more that our predictions were supported, the more robust the framework. Finally, the most parsimonious framework is the one that explains the most variance in the data with the fewest number of constructs. The most parsimonious framework would tell the simplest but most powerful story using the fewest constructs.

It is also the case that the media choice literature, Te'eni's framework, and MST appear to only consider honest communication; that is, they don't directly conceptualize differences between honest and deceptive communication. Deception is quite common in everyday communication. Estimates of how much daily communication is deceptive range from about 20 pecent to 30 percent (DePaulo et al. 1996; George and Robb 2008; Hancock et al. 2004). Deception is also common in organizational communication. Grover (2005) and Shulman (2007) present excellent overviews of what we have learned about deception in the workplace. We acknowledge that deceptive communication is different from honest communication (for example, see DePaulo et al. 2003), but like honest communication, dishonest communication also requires a choice of media. Given the ubiquity of deceptive communication and the acknowledged presence of deception in organizational communication, a compelling case can be made to assess media choice within this context. Indeed, a deceptive communication context may be better than an honest communication context for examining questions related to media selection. While media choice is implicit in all communication events, it is especially salient where deception is involved. Deception is itself a strategic activity, where the deceiver wants more than anything else to be believed. Choosing the appropriate medium for deception can enhance the ability of the deceiver to seem credible. Participants in this study, then, were asked to consider how they would behave when asked to participate in a communication task that required them to be deceptive. We believe comparing two theories that deal with communication strategies, where the situation calls for deception, is no more and no less of a test of these theories than doing so in a situation that calls for (or simply assumes) honest communication.

To investigate our research question, we conducted a web-based survey of mid- and high-level managers. Our findings show that, while Te'eni's model is helpful in explaining the connections between communication strategies and prefer-

ences for particular media characteristics, MST was found to be a more accurate predictor of media choice. For both frameworks, there is a clear link between strategy and preferences for certain media characteristics, suggesting that our conceptual approach to inform media choice has both practical and scholarly merit. MST was also found to be more parsimonious, as it explained media choice better with fewer constructs. The next section of the paper reviews the literature on media choice and on deceptive communication. Next, we review both Te'eni's model and MST. The subsequent sections of the paper cover how we collected data, coded it, and tested both frameworks. We discuss the implications of our findings, which may help researchers determine which communication framework best fits their research. We end by presenting limitations of our study and opportunities for future research.

Media Choice

The need for effective communication and coordination drives organizational design and managerial behavior (Thompson 1967). At least since Mintzberg (1971) recognized that managerial communication was predominantly verbal, the study of communication media has been an important aspect of management science. And of course, we now possess media that 40 years ago remained largely the purview of science fiction rather than organizational fact. However, the need for effective communication is unchanged and the importance of selecting media fitted to the task is undiminished. While there is general agreement that managers frequently turn to rich media to facilitate communication (Daft et al. 1987; Kurke and Alrich 1983; Mintzberg 1971), there is no single medium that is uniformly correct and no single task that is universally representative of all managerial work.

The literature on media selection, like that on organizational communication, is extensive. According to the literature, media choice for organizational communication is based on many criteria, of which media characteristics are but one. Media selection research has examined a variety of potential factors influencing media choice, including media symbolism (Treviño et al. 1987), social influence (Fulk et al. 1990), time pressure (Bozeman 1996), recipient availability (Muller et al. 2003; Straub and Karahanna 1998), urgency of the problem (Straub and Karahanna 1998), physical distance between communication partners (Straub and Karahanna 1998; Treviño et al. 2000; Webster and Treviño 1995), number of message recipients (Treviño et al. 2000; Webster and Treviño 1995), and participant experiences and relationships (Carlson and Davis 1998; Carlson and Zmud 1999; Lee and Lee 2003). These factors and others have been investigated as antecedents to media choice, but this approach has not resulted in a unified theory of media selection that encompasses these many factors.

Arguably the most widely applied media selection theory over the past 25 years has been media richness theory (Daft and Lengel 1986), which argues that effective managers must select media that fit the equivocality of the communication task. Richer media are seen as being a better fit for equivocal, complex, unpredictable, sensitive, and emotional messages (Daft and Lengel 1986; Markus 1994; Sheer and Chen 2004; Trevino et al. 1990). However, MRT does not posit that all managers will fit their media choices to the communication task, but that only effective managers will. Actual media selections may vary widely from fit-based prescriptions, and no single medium or combination of media is uniformly the best fit for all tasks.

In recent studies investigating media selection behaviors, the predominance of verbal media (i.e., face-to-face and phone) was largely confirmed across a variety of communication tasks. In King and Xia's (1997) study involving 11 distinct communication tasks, face-to-face was preferred for all but two tasks: stay in touch and exchange urgent/timely information. Telephone was preferred for both of these tasks. In five studies published since 2002, which included at least face-to-face and telephone, face-to-face was the most common choice in three studies (Murray and Peyrefitte 2007; Richardson and Smith 2007; Simon 2006) and the second most common choice in two studies (Beise et al. 2004; Bouwman and Van de Wijngaert 2002). In the two latter studies, the preferred medium was either telephone (Bouwman et al. 2002) or e-mail (Beise et al. 2004). Only Bouwman et al. (2002) did not find a clear preference for verbal media, a finding that may be at least partially explained by the somewhat lean task studied (to "satisfy an information need," p. 343). Of course the particular findings from all of these studies depend on study design and the tasks that were presented to participants, but it should be noted that participants expressed clear preferences for face-to-face and, to a lesser extent, telephone-based, communication. In all of these studies, the honesty of the communicators was assumed. Does media selection differ if the communication is dishonest?

Deceptive Communication

Deception is defined as "a message knowingly transmitted by a sender to foster a false belief or conclusion by the receiver" (Buller and Burgoon 1996, p. 205). As was stated previously, deception is a daily, relatively common occurrence (DePaulo

et al. 1996; George and Robb 2008; Hancock et al. 2004). However, a large body of communication research shows that deceptive communication differs from honest communication in many ways. For example, research has shown that deceptive communication takes longer to formulate than honest communication (Walczyk et al. 2003). Also, the communication style of those telling the truth has been found to be explicit and assertive, without hesitations or omissions, while deceptive speech has been found to be ambiguous, vague, elusive, and evasive (Annoli et al. 2003). Other research has demonstrated that honest and deceptive speech play out differently over time (Burgoon and Qin 2006). For example, language diversity has been found to be higher for truth-tellers at the beginning of an interaction, but deceivers' language showed more diversity by the end of the communication event. Still other recent research has found that people insert the utterance "um" into their speech more frequently and with longer duration when telling the truth than when lying (Arcuili et al. 2010). Further, deception is associated with physiological changes in the deceiver, and polygraphs purport to detect these changes (Vrij 2008).

According to leakage theory, deceivers attempt to hide their deception by mimicking honest communication, but controlling communication in this way makes many demands on the deceiver. The deceiver must control the words of the message, his or her body language, voice pitch, and other paralinguistic aspects of communication—so much so that control breaks down and cues to deception leak out (Ekman and Friesen 1969). In fact, leakage theory holds that deception can only be detected because it is so difficult to do well; in essence, try as they might to avoid it, deceivers emit potentially detectable cues to the act as they deceive. Communication researchers have studied these cues to deception for many decades. A meta-analysis of this research reveals a set of reliable cues to deception, as listed in Table 1 (DePaulo et al. 2003).

Given that deceptive communication is different from honest communication, it may seem that detecting deception would be quite straightforward and usually successful, given that deceivers are constantly emitting cues to their behavior. However, it turns out that people are not very good at detecting deception. On average, people are little better than chance at successful detection (Bond and DePaulo 2006), achieving a success rate around 54 percent. How could this be so? The answer lies in a heuristic most people rely on for daily communication, called the "truth bias" (McCornack and Levine 1990; McCornack and Parks 1986; Miller and Stiff 1993). According to the truth bias literature, most people accept what they experience in most communication tasks as the truth. Before they even begin trying to deceive a partner, then, deceivers have a built in advantage. Short of egregious leakage, profound physiological changes, and long delays in thinking up deceptive responses, most deceivers are likely to get away with their deceptions. The deceiver and receiver achieve a mutual understanding through their communication, but only the deceiver knows this understanding is based on dishonesty. From the receiver's perspective, there is no difference between honest and dishonest communication.

Deceptive Communication and Media Selection

Media selection studies do not typically consider deception, but organizational scholars have explored this possibility via work in agency theory (e.g., Eisenhardt 1989), impression management (Schlenker 1980), strategic manipulation (Zmud 1990), and ambiguity (Eisenberg 1984), all of which at least implicitly recognize deception as a possibility. We know very little about how the intent to engage in dishonest communication affects media selection. Given what we do know, we do not expect that media selection outcomes will be significantly different for deception when compared to similarly equivocal tasks, although the rationales for the selection could be quite distinct.

The goal of any deceiver is to be believed by the receiver. Due to the truth bias, deceivers have a built in advantage going into a deceptive encounter. However, leakage theory indicates that successful deception is difficult, even with the truth bias advantage. It would follow that a deceiver would choose a communication medium that would give him or her even more of an advantage, just as MRT's effective managers choose the most advantageous media for their communication tasks. Which media would provide deceivers with the most advantage? We know from the literature reviewed in the previous section that communicators prefer verbal media, presumably because of their experience and comfort with these media. Also, it seems intuitive that deceivers would not want to leave a written record of their deceit. Given this, we would expect that deceivers would select verbal media. However, we do not know if this is the case, and we do not know the rationale behind deceivers' choices. We turn now to two communication frameworks, those proposed by Te'eni (2001) and Dennis et al. (2008), in an attempt to explain deceivers' media choices.

Competing Frameworks

Te'eni's Communication Model

Te'eni's (2001) model of organizational communication was based on an extensive review of the organizational communication literature across several disciplines. As shown in the

Table 1. Cues to Deception from a Meta-Analysis of the Deception Literature (Based on DePaulo et al. 2003)

Visual
Compared to truth tellers, liars: • Are more nervous and tense
Paralinguistic
Compared to truth tellers, liars: • Are more vocally tense (voice tremors) • Speak in a higher pitch • Tell stories that *sound* more uncertain
Verbal
Compared to truth tellers, liars: • Provide fewer details • Make more negative statements and complaints • Stick too closely to the key elements of their story (less contextual embedding)
General
Compared to truth tellers: Liars' stories are less compelling: • Make less sense: – Less plausible – Less likely to be structured in a logical way – More discrepancies • Stories told in less engaging way • Stories told in less immediate way (extent to which person is judged to be direct, relevant, clear and personal)

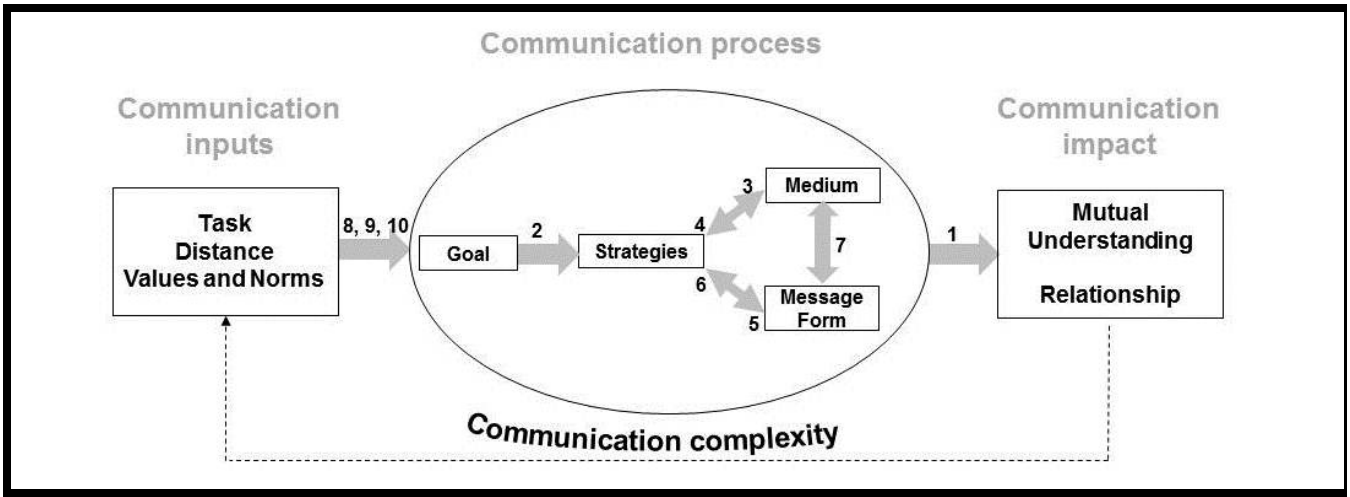

Figure 1. Te'eni's Model of Organizational Communication (Note: Numbers 1 through 10 on the model reflect sets of propositions) (Source: D. Te'eni, "*Review*: A Cognitive–Affective Model of Organizational Communication for Designing IT," *MIS Quarterly* (25:2), 2001, p. 256)

model (Figure 1), the communication act can be understood as having three parts: (1) communication inputs, (2) communication process, and (3) communication impact. According to Te'eni, the desired impact of any given communication event is a mutual understanding of the true state of things between the sender and the receiver, as well as an enhanced relationship between the two. The communication process starts with the goals of the communication event, which then

influence the strategies of the sender. These strategies influence the medium chosen for communication as well as the final form of the message. Medium and message form also influence each other. As the model shows, process is influenced by communication inputs. These include task, distance, and values and norms. Te'eni emphasizes three aspects of task: (1) analyzability—the ability to define procedures needed to complete the task, (2) variety—variation among different instances of the task, and (3) temporality—time demands for completing the task. Distance refers to two types of distance between the sender and receiver, cognitive and affective. Cognitive distance refers to differences in the communicators' interpretations before the message is sent. Affective distance refers to the emotional gap between the communicators before the message is sent. The values and norms construct is operationalized specifically as interdependence, which is related to collectivism, where the focus on the group is strong and ties with others in the group are maintained for long periods of time. Many different aspects of Te'eni's model could be further investigated, but our focus here is on the choice of strategy and media, made by the sender, so the most relevant part of the Te'eni model for us is the relationship between strategies and media characteristics.

Te'eni identified six communication strategies (Table 2), derived from his extensive review (although he acknowledges that this list is probably incomplete). The first strategy is contextualization, or the provision of explicit context in the message. Specifically, contextualization as used here refers to "the situation in which the message was created, detailing such issues as who is communicating with whom, when, and under what conditions" (p. 266). Affectivity involves including emotions, and not necessarily pleasant ones, in the message. There are two types of control, one by testing and adjusting, the other by planning. The former involves carefully monitoring the communication event and regulating and tweaking it when and where necessary, in order to better manage the message as it is being transmitted. The latter type of control involves preparing the message, its content, and its transmission ahead of time, a process that may also involve anticipating various contingencies and determining how they might be dealt with. The fifth strategy is perspective taking, where the sender actively considers the receiver's point of view. The last strategy is attention focusing; senders using this strategy attempt to "direct or even manipulate the receiver's processing of the message" (p. 266).

Te'eni's model includes three media characteristics: interactivity (the potential for immediate feedback), channel capacity (the potential to transmit a variety of cues and languages), and adaptiveness (the potential to adapt messages for particular receivers). These are reminiscent of those identified in media richness theory (MRT), according to which media can be categorized on a scale of lean to rich (Daft and Lengel 1986; Daft et al. 1987). In MRT, four basic characteristics are used to determine a media's richness: (1) speed of feedback, (2) cue multiplicity, (3) language variety, and (4) personal focus. Te'eni's interactivity is conceptually similar to speed of feedback; MRT's cue multiplicity and language variety have been combined to form his channel capacity; and adaptiveness models the same construct as personal focus.

As seen in Figure 1, Te'eni posits two relationships between strategies and communication media, one going in each direction. The relationship from strategy to media describes the role of the sender; the reverse relationship describes the role of the receiver (see labels 3 and 4 on Figure 1). We are interested primarily in the role of the sender, so our focus in on the relationships between strategy and media characteristics. Te'eni posits four specific relationships between strategies and media characteristics (note that he frames no explicit propositions about control by planning or attention focusing). Note that all four of the propositions deal with media selection for the purpose of improving the effectiveness of the communication strategy in question. Given a particular strategy, individuals are expected to choose media with specific characteristics, which will enable more effective communication.

> Te'eni Proposition 3A: For contextualization, high, rather than low, channel capacity is more effective.
>
> Te'eni Proposition 3B: For control by testing and adjusting, high, rather than low, interactivity is more effective.
>
> Te'eni Proposition 3C: For affectivity, high, rather than low, channel capacity is more effective.
>
> Te'eni Proposition 3D: For perspective taking, high, rather than low, adaptiveness is more effective.

Media Synchronicity Theory

Since Te'eni published his model in 2001, other views of media characteristics have been published. The latest and most comprehensive is the development of media synchronicity theory (MST), by Dennis et al. (2008) (Figure 2). MST was originally conceptualized to predict communication performance; later work by Dennis et al. (2009) extends its core predictions to include media choice. MST focuses on the ability of media to support synchronicity—a shared pattern of coordinated behavior among individuals as they work together. MST argues that communication is composed of two primary processes: conveyance and convergence. *Conveyance* focuses on the transmission of a diversity of informa-

Table 2. Communication Strategies (Source: D. Te'eni, "*Review*: A Cognitive–Affective Model of Organizational Communication for Designing IT," *MIS Quarterly* (25:2), 2001, pp. 251-312)

Strategy	Definition
Contextualization	Provision of explicit context in messages.
Affectivity	Provision of affective components (emotions, moods) in messages.
Control – Testing and adjusting	Testing and adjusting communication according to feedback during the process.
Control – Planning	Planning the pattern of communication and contingencies ahead of the process.
Perspective Taking	Considering the receiver's view and attitude.
Attention Focusing	Directing or manipulating the receiver's information processing.

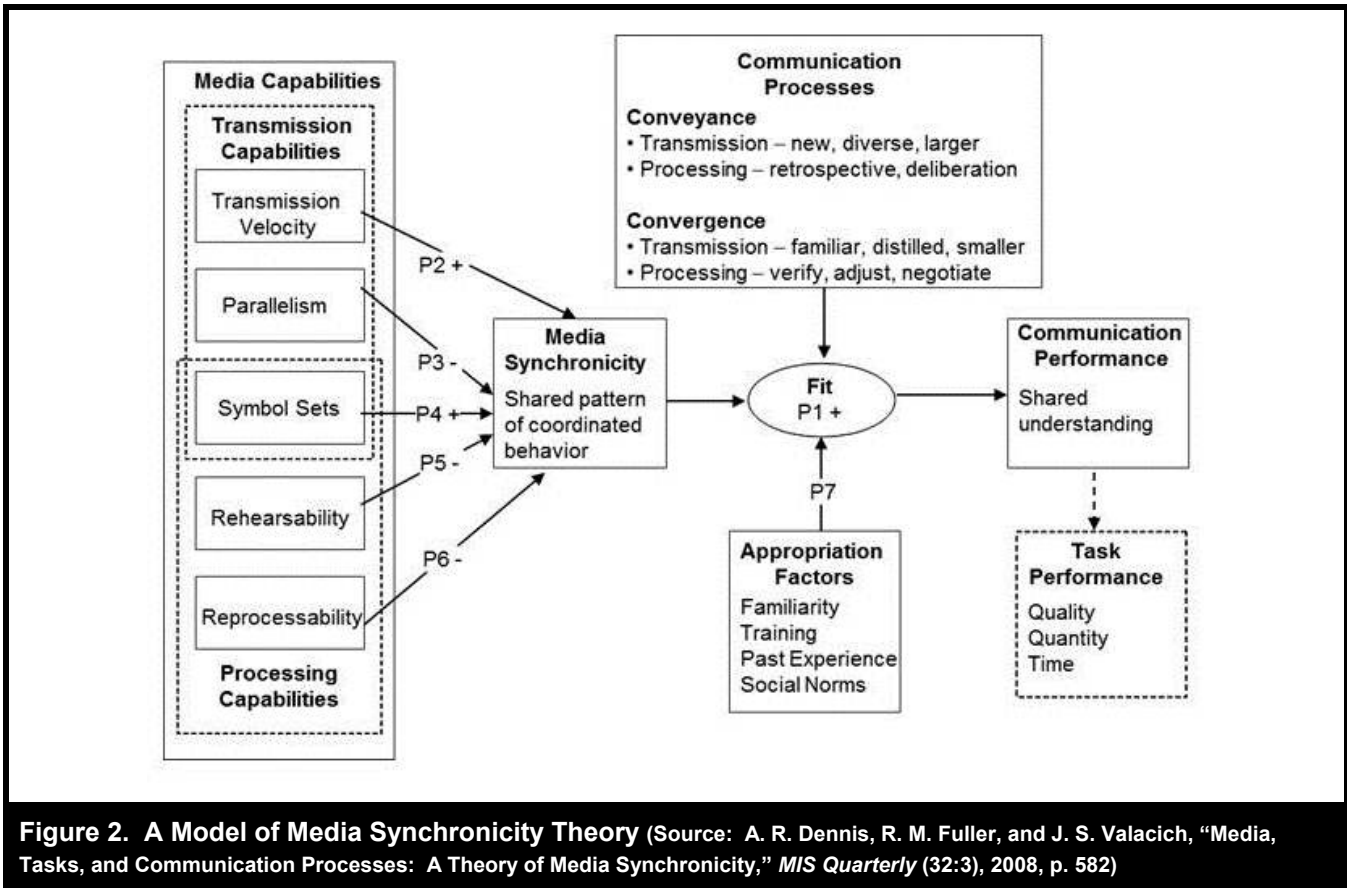

Figure 2. A Model of Media Synchronicity Theory (Source: A. R. Dennis, R. M. Fuller, and J. S. Valacich, "Media, Tasks, and Communication Processes: A Theory of Media Synchronicity," *MIS Quarterly* (32:3), 2008, p. 582)

tion from a sender of information to shape the understanding of the receiver. To aid conveyance processes, the media utilized enable fast and robust information transmission, potentially in a variety of formats or in parallel. *Convergence* focuses on clarifying the meaning or understanding of information already exchanged or shared. Convergence typically needs rapid, back and forth transmissions of small quantities of preprocessed information. Both conveyance and convergence can be conceptualized as being low-level communication strategies.

To support these communication strategies of MST, five media capabilities—symbol sets, parallelism, transmission velocity, rehearsability, and reprocessibility—are utilized. Symbol sets are the number of ways in which a medium allows information to be encoded for communication. Parallelism reflects the number of simultaneous transmissions that can effectively take place. Transmission velocity is the speed at which a medium can deliver a message to intended recipients. Rehearsability is the extent to which the medium enables the sender to rehearse or fine-tune a message during

encoding, before sending. Reprocessibility is the extent to which the medium enables a message to be reexamined or processed again, during decoding, either within the context of the communication event or after the event has passed.

MST proposes that for conveyance processes, use of media supporting lower synchronicity should result in better communication performance (e.g., asynchronous chatting, e-mail, voice mail, faxing, letter writing). For convergence processes, use of media supporting higher synchronicity should result in better communication performance (e.g., face-to-face, video conferencing, telephone, and synchronous chatting). MST argues that the successful completion of most communication tasks requires *both* conveyance and convergence processes; although for many types of communication tasks, conveyance or convergence may be the dominant communication strategy utilized (i.e., will drive the choice and/or configuration of a medium). As such, MST proposes that communication performance may be improved when individuals use a variety of media (or differing configurations of a given medium) for performing a communication task, rather than just one medium (or configuration) in order to take advantage of specific capabilities of various media (e.g., rehearsability). This review of MST suggests the following:

> MST Proposition 1: For communication following a conveyance strategy, media supporting lower synchronicity will be preferred.

> MST Proposition 2: For communication following a convergence strategy, media supporting higher synchronicity will be preferred.

Method

To investigate the roles and impacts of communication strategies and media characteristics on managerial media selection, we conducted a survey. Participants were asked to respond to five questions each about eight different communication media. (Relevant parts of the instrument are contained in Appendix A.) The media were face-to-face, telephone, video conferencing, voice mail, e-mail, instant messaging, memo, and letter. The questions dealt with the extent of familiarity with these media. These questions were followed by seven basic demographic questions. Participants then read a scenario, where they were asked to assume the role of a manager in an automotive factory, and in which they were asked by their immediate supervisor to deal with a business problem by not being completely honest. After reading the scenario, participants were asked to rate the appropriateness of each medium for deception. They were also asked to select the one medium they would actually use to carry out the deceptive task. At this point, if for some reason they did not want to do so, they could choose an option that indicated their desire not to comply with the manager's direction. Participants then completed an open-ended question that asked them to provide the reasons for their media choice or for their decision not to comply.

The study design was pilot tested with 155 participants from a sample of 1,000. The pilot study tested two scenarios with differing levels of deceptive severity. In the higher severity treatment, participants were asked to deceive a close friend, while in the lower severity treatment, participants were asked to deceive a stranger.[2] In the pilot, the two scenarios also varied by the amount of time pressure being exerted on the participant. As a result of the pilot, instant messaging was also added as a possible medium, and several other questions were dropped for parsimony and clarity.

Data Collection

Given our desire to have managers complete the survey, we outsourced our data collection to Kerr & Downs, a professional survey firm. Kerr & Downs was responsible for creating and hosting the web-based survey instrument. They contracted with another vendor to draw an appropriate sample. This particular vendor was chosen because it owns panels made up largely of middle and upper level American managers, which was the population sought for the survey. Panel membership is by invitation only, and members receive credits, redeemable for products and services, for each survey completed. Panel members are recruited using a controlled

[2] The data analyzed here were originally collected for a larger study. Part of that study was designed to test the effects of two independent variables, familiarity with the communication partner and the severity of the situation, on media choice for deceptive communication. Crossing two values for each of these variables (low and high) resulted in four different scenarios. Respondents randomly received one of these scenarios. Neither independent variable was germane to testing Te'eni's model nor for testing MST in the research described in this note; however, a particular scenario could have potentially affected the communication strategy articulated and choice of media characteristics. To test for these possible influences, we ran a MANOVA with familiarity and severity as fixed factors and media characteristics as dependent variables for each data set. For the Te'eni test, with N = 287, and media characteristics of interactivity, channel capacity, and adaptiveness, the model was not significant for familiarity (Pillai's trace = .019; $F(3, 283) = 1.799$, $p = .148$) or for severity (Pillai's trace = .022; $F(3, 283) = 2.149$, $p = .094$) or for their interaction (Pillai's trace = .005; $F(3, 283) = .503$, $p = .680$). For the MST test, with an N of 293 and media characteristics of transmission velocity, symbol sets, reprocessibility, and rehearsability, the model was not significant for familiarity (Pillai's trace = .019; $F(4,286) = 1.370$, $p = .244$) or for severity (Pillai's trace = .010; $F(4,286) = 0.689$, $p = .600$) or for their interaction (Pillai's trace = .008; $F(4,286) = .586$, $p = .673$).

"by invitation only" approach using a combination of direct mail and e-mail solicitations. All panel enrollment methods are fully compliant with guidelines formulated by CASRO (Council of American Survey Research Organizations), which counts the survey firm as a member. The management panel, established in 1999, has historically grown at a rate of 20 to 25 percent per year and experiences survey completion rates of between 20 and 30 percent.

The panel owner contacted approximately 1,200 members of its management panel by e-mail and informed them of the availability of the survey instrument on the Kerr & Downs website. These 1,200 members, out of a membership of over 700,000, were chosen randomly from the list of panel members. Kerr & Downs then screened those who responded by asking two questions, one to ensure the survey participants worked for companies with over 50 employees, and a second to ensure that potential participants had the appropriate job titles. If potential participants met these two criteria, they were directed on to the actual survey instrument.

The survey was open to these panel members for approximately six days, after which the survey site was closed. A total of 560 panel members accessed the survey site during this period, for a response rate of approximately 46 pecent, with 532 usable responses. Table 3 provides some sample demographics. Forty-three panel members were turned away because they did not meet the screening requirements. A total of 403 of the participants chose a particular medium, and 393 or 98 percent of them provided the rationale behind their choices. Overall, participants considered themselves to be highly experienced with all of the media except video-conferencing (3.10 on a 7-point scale, where 7 is the most experience and 1 is the least) and IM (rated 3.92). (Compare these ratings to those for the other media: phone: 6.60; e-mail: 6.49; face-to-face: 6.30; voice mail: 5.80; memo: 5.00; and letter: 4.89.)

Coding for Media and Te'eni's Strategies

The data used in this study on communication strategies and media characteristics were embedded in the open-ended questions that dealt with why specific media were chosen. We were interested in particular in three sets of data, those that described Te'eni's strategies, those that described MST strategies, and those that described media characteristics from each framework. The responses were coded so that they could be analyzed quantitatively. Two of the authors coded the open-ended responses for the Te'eni strategies and all of the media characteristics; two doctoral students who knew nothing about the study coded the responses for MST's conveyance or convergence strategies. Both pairs of coders used similar procedures. First, the coders familiarized themselves with the definitions of the relevant strategies. In the case of the two authors, they also familiarized themselves with the definitions of the three media characteristics from Te'eni and four of the five from MST (parallelism, the extent to which signals from multiple senders can be simultaneously transmitted over the medium, was not relevant, as the focus here was on communication from one sender to one receiver). Each set of coders then developed a set of rules to guide and standardize their coding processes. Working alone with a subset of responses, each coder examined the open-ended responses for those participants who had agreed to lie. For communication strategies, each coder first determined if a strategy had been articulated. For Te'eni's strategies, participants could have articulated multiple strategies. For each response, then, each strategy was either coded as zero (not mentioned) or one. Each pair of coders then met to compare their work, and once they had reached a consensus on the subset of responses, each independently coded the rest of the responses. At the end of this process, agreement for the two authors was 87percent; it was 83 percent for the two doctoral students. Each pair then met again to reconcile their remaining disagreements.

References to one or more media characteristics were coded by two of the authors. For each of the seven media characteristics, there were three possible codes: (1) zero for not being mentioned, (2) one for low levels of use, and (3) two for high levels of use. For example, for interactivity, a coding of 1 indicated a participant chose a medium for its low levels of interactivity, while a 2 indicated a choice of a medium with high levels of interactivity. This coding was done without knowledge of the actual medium chosen by the participant as best for being deceptive, according to the need for action expressed in the scenario.

For an example of how the coding was done, consider the following response: "don't want to leave an audit trail of the communication. Communicate verbally to make sure the person understands and get a confirmation." From the perspective of Te'eni's framework, the idea of wanting to make sure the person understands what is being communicated implies a strategy of control by testing and adjusting. The deceiver in this case wants to see the receivers' reactions to the dishonest message, to see that the person understands and that the deceiver gets a confirmation the message was believed. To get that confirmation, the deceiver may have to tweak the message as necessary in order to foster belief. As for media characteristics, to be able to read receiver reactions

Table 3. Sample Demographics (N = 403)	
Average age	42.2 years
Gender	70% male, 30% female
Ethnicity	85% white, 8% Asian, 3% Hispanic, 1% African-American, 3% other
Highest educational attainment	55% graduate, 30% undergraduate, 12% some college, 3% high school
Average length of work experience	20.4 years
Average number of years with this organization	9.3 years
Most common job titles	Account Manager, Director, Manager, Project Manager, Sales Manager, Senior Manager, Vice President

accurately, a medium with high levels of interactivity, or rapid feedback, is necessary. Interactivity would be coded as a two. Channel capacity, needed to transmit a variety of cues, would also be coded as a two. Adaptiveness would be coded as a zero, as there is no discussion of an attempt to personalize the message to a specific individual. (Other examples of coding for media characteristics and for Te'eni communication strategies are given in Appendix B.) The same open-ended response can also be interpreted from the perspective of MST. Note how the respondent wanted to ensure understanding on the part of the person being communicated with, indicating this is an example of convergence. The respondent also wanted to get a confirmation that the communication partner had indeed understood the information. Coding for media characteristics from the MST perspective would result in recognizing high levels of transmission velocity (2) and symbol sets (2). (Transmission velocity corresponds to Te'eni's interactivity, and symbol sets corresponds to Te'eni's channel capacity.) That the participant wants to communicate verbally reflects high levels of both of these media characteristics. There would also be a low level of reprocessibility (1). The participant says he or she would not want to leave a paper trail, and to do so calls for a medium with low levels of reprocessibility. (Other examples of responses and how they were coded for conveyance or convergence are given in Appendix C.)

Results

Descriptive Statistics

Here, we present descriptive statistics for the data we collected from all of the respondents (Table 4), for the data from just those respondents who were judged to articulate a communication strategy as defined by Te'eni (Tables 5 and 6), and for the data from only those respondents who were judged to favor a conveyance or convergence strategy (Table 7). Table 4 shows the frequencies of media choice, and refusal to comply, for all respondents. As can be seen from Table 4, face-to-face is the dominant choice overall. Not everyone agreed to carry out the task: 22 percent of the total sample of participants refused to comply. Few participants chose letters, voice mail, or videoconferencing, and no one chose IM.

Of the total sample of 403 who chose a medium for deceptive communication, only subsets articulated a communication strategy or indicated a choice between conveyance and convergence. A total of 287 respondents articulated at least one Te'eni communication strategy (although 96 out of 287 articulated more than one), while 293 respondents were judged to indicate either conveyance or convergence. No one who was judged to articulate a conveyance or convergence strategy chose voice mail or letters for their deceptive communication act.

Table 5 shows the frequency of the media choice decisions for those 287 respondents who articulated a Te'eni strategy. Table 6 shows how popular each of the six communication strategies was for these respondents. The most popular strategy was control by planning, with attention focusing second. The least most popular was contextualization. Table 6 also shows how communication strategies were related to medium choice. As would be expected, given the overall popularity of face-to-face communication, it was chosen by relatively large numbers of respondents for each communication strategy. Also, for certain strategies, certain media were not chosen at all. Note, for example, that no one who articulated the strategy of control by testing and adjusting chose a medium that left a record. On the other hand, note that of those who articulated a control by planning strategy, more often they chose media that left a record than media that did not. Since 96 of these 287 respondents articulated more than one strategy, the total number of media choices exceeds 287.

For the 293 respondents who indicated either conveyance or convergence, most (193) articulated a convergence strategy, with the remaining 100 articulating conveyance. Table 7 shows the frequency of media choice for these 293 respon-

Table 4. Frequencies of Media Choice for Deception for the Entire Sample (N = 403)

Medium	Number Chosen	Percentage
Face-to-face	177	34.4%
Phone	97	18.9
Memo	53	10.3
E-mail	53	10.3
Letter	17	3.3
Voice mail	5	1.0
Videoconferencing	1	0.2
Would not comply	111	21.6

Table 5. Frequencies of Media Choice for Those Who Articulated at Least One Te'eni Communication Strategy (N = 287)

Medium	Number Chosen	Percentage
Face-to-face	132	46.0%
Phone	61	21.3
E-mail	41	14.3
Memo	39	13.6
Letter	10	3.5
Voice mail	4	1.4

Table 6. Communication Strategy by Communication Medium for Those Who Articulated at Least One Te'eni Strategy (N = 287)

	Face-to-Face	Phone	Memo	E-mail	Letter	V-mail	Totals
Contextualization	17	5	7	2	0	0	31
Affectivity	34	20	0	9	0	2	65
Control by testing and adjusting	55	10	0	0	0	0	65
Control by planning	21	25	32	29	6	3	116
Perspective taking	24	9	5	2	1	0	41
Attention focusing	31	13	13	13	5	1	76

Table 7. Communication Strategy by Communication Medium for Those Who Articulated Either a Convergence or Conveyance Strategy (N = 293)

	Face-to-Face	Phone	Memo	E-mail
Conveyance	1	6	49	44
Convergence	128	63	0	2
Totals	129	69	49	46
Proportions	44.0	23.5	16.7	15.7

Table 8. Descriptive Statistics for Kruskal-Wallace and ANOVA Tests for Te'eni Model

Proposition		N	Mean	Std. Dev.	K-W results/ Anova results
3A	Contextualization	31	0.77	0.990	H = 2.12, 1 df, p = 0.145
	Other strategies	256	1.02	0.890	
3B	Testing and Adjusting	65	1.97	0.248	H = 109.37, 1 df, p < .000
	Other strategies	222	0.60	0.600	
3C	Affectivity	65	1.69	0.584	H = 49.935, 1 df, p < .000
	Other strategies	222	0.79	0.878	
3D	Perspective Taking	41	0.24	0.435	F(1,285) = 0.104, p = .748
	Other strategies	246	0.27	0.537	

dents. The most popular medium was face-to-face, with the telephone second. Table 7 also shows how conveyance and convergence were related to media choice. Face-to-face and phone were clearly preferred by those pursuing a convergence strategy, while text-based media were clearly preferred by those pursuing a conveyance strategy (compare to media choice for the Te'eni strategies in Table 6).

Te'eni Framework Test

To test the Te'eni framework, we first tested the four propositions from his model that applied to the relationships between communication strategy and media characteristics. Second, we tested the relationship between communication strategy and the media chosen for the deceptive communication task.

To test each proposition, we used one-way analysis of variance tests. As mentioned previously, as part of coding the open responses, each media characteristic was measured on a three-point scale, where zero represents the characteristic not being mentioned, 1 represents low levels of the characteristic, and 2 represents high levels. Given unequal samples sizes, we also tested for the homogeneity of variance for each ANOVA test. For three of the four ANOVAs, the homogeneity tests were statistically significant, so we ran Kruskal-Wallis nonparametric tests for them instead. The results of the Kruskal-Wallis tests are reported below for propositions 3A through 3C. For proposition 3D, we report the results of the ANOVA. For convenience, we restate each proposition before we present the results of its being tested. Descriptive statistics for each of the propositions are contained in Table 8.

- *Te'eni Proposition 3A: For contextualization, high, rather than low, channel capacity is more effective.* This proposition was not supported ($H = 2.119$, 1 df, $p = 0.145$).

- *Te'eni Proposition 3B: For control by testing and adjusting, high, rather than low, interactivity is more effective.* The results of the Kruskal-Wallis test supported this proposition ($H = 109.371$, 1 df, $p < .000$).

- *Te'eni Proposition 3C: For affectivity, high, rather than low, channel capacity is more effective.* This proposition was also supported ($H = 49.935$, 1 df, $p < .000$).

- *Te'eni Proposition 3D: For perspective taking, high, rather than low, adaptiveness is more effective*. This proposition was not supported ($F(1,285) = 0.104$, $p < 0.748$).

We also tested the relationships between the strategies articulated by respondents and the media they chose for their deceptive communication task. We ran a MANOVA, with media choice as the dependent variable. The overall model was statistically significant ($F(6,280) = 3.33$, $p < .004$), and explained 4.7 percent of the variance. Only two of the relationships were statistically significant, however: those between the two control strategies and media choice (control by testing and adjusting, $F(1,286) = 4.80$, $p < .029$; control by planning, $F(1,286) = 4.77$, $p < .030$). As can be seen in Table 6, those who articulated a control by testing and adjusting strategy preferred only face-to-face or phone based communication. Those who articulated a control by planning strategy were the only group to prefer text-based media (e-mail, memo, and letter) to other media.

MST Test

Our tests of MST are similar to those of the Te'eni framework. First, we tested the relationships between the conveyance/convergence choice and media characteristic preferences. Next, to test our propositions, we tested the relationships between these two strategies and media choice.

To test the relationships between the conveyance/convergence choice and media characteristics, we ran a one-way ANOVA, with the four media characteristics as the dependent variables. We once again tested for the homogeneity of variance, given unequal sample sizes. The test for homogeneity was significant, so we ran a Kruskal-Wallis test instead. All four relationships were statistically significant, as follows: transmission velocity: $H = 56.660$, 1 df, $p < .000$; symbol sets: $H = 46.899$, 1 df, $p < .000$; rehearsability: $H = 33.084$, 1 df, $p < .000$; reprocessibility: $H = 33.891$, 1 df, $p < .000$. Transmission velocity and symbol sets were heavily favored by those seeking convergence; rehearsability and reprocessibility were heavily favored by those favoring conveyance. Descriptive statistics are contained in Table 9. To test for the relationship between strategy and media choice, we ran another ANOVA, with media choice as the dependent variable (the model explained 5.2 percent of the variance). Once again, the test for homogeneity of variance was significant, so we ran a Kruskal-Wallis test instead. This relationship was also statistically significant ($H = 27.844$, 1 df, $p < .000$). As can be seen in Table 7, those who described a conveyance strategy overwhelmingly preferred text-based media to other media (supporting MST Proposition 1, since text-based media tend to support lower levels of synchronicity), and those who described a convergence strategy overwhelmingly preferred face-to-face and phone communication (supporting MST Proposition 2, since these media tend to support higher levels of synchronicity).

Table 9. Descriptive Statistics for Kruskal-Wallis Tests for MST

		N	Mean	Std. Dev.	K-W results
Transmission velocity	Conveyance	100	0.51	0.611	H = 56.66, 1 df, p < .000
	Convergence	193	1.35	0.929	
Symbol sets	Conveyance	100	0.49	0.559	H = 46.89, 1 df, p < .000
	Convergence	193	1.25	0.937	
Rehearsability	Conveyance	100	0.36	0.772	H = 33.08, 1 df, p < .000
	Convergence	193	0.01	0.144	
Reprocessibility	Conveyance	100	1.00	0.985	H = 33.89, 1 df, p < .000
	Convergence	193	0.31	0.475	

Discussion

The purpose of this study was to compare two different communication strategy approaches on their ability to explain media choices. These approaches were Te'eni's model of organizational communication and MST. We sought to determine which approach best explained media choices for conducting a particular task—in this case, one that involved deception. In a web-based survey, we asked managers to select a single medium to use for a scenario where deception was required. Overall, about 22 percent of the participants refused to comply, but those that agreed to deceive overwhelmingly chose the face-to-face communication mode. However, our focus here was not on the 403 participants who chose a medium for carrying out a management-ordered deceptive task, but it was instead on the 287 who, in their justifications for media choice, articulated one or more of Te'eni's communication strategies, and on the 293 whose comments could be interpreted as suggesting either a convergence or conveyance strategy (from MST).

Although Te'eni listed six communication strategies in his model, he proposed relationships with media characteristics for only four of them. We tested his four propositions, and we found support for two, those involving the strategies of *control by testing and adjusting*, and *affectivity*. We also tested Te'eni's model by investigating the relationship between his six strategies and media choice. The model explained 4.7 percent of the variance, and the relationships between two strategies (*control by testing and adjusting* and *control by planning*) and media choice were statistically significant; a total of 181 out of the 287 (or 63 percent) who articulated one of Te'eni's strategies pursued one of these two. As such, an argument could be made that the model accurately explained the media preferences of 63 percent of the respondents. Considering the results of the hypothesis testing and the relationships between strategy and media choice, three of the six communication strategies in Te'eni's model (contextualization, perspective taking, and attention focusing) provided little explanatory power for media choice decisions in this context.

For MST, all four of the relationships between strategy and media characteristics were statistically significant. Those favoring conveyance preferred media with reprocessibility and rehearsability; those favoring convergence preferred media with high levels of transmission velocity and symbol sets. The relationship between strategy and media choice was also statistically significant and explained 5.2 percent of the variance. Respondents favoring a conveyance-focused strategy heavily preferred e-mail, memos, and letters for communication; those favoring a convergence-focused strategy heavily preferred face-to-face and phone. In fact, as Table 7 shows, 284 out of 293 respondents, or 97 percent, were able to clearly match their strategic communication approach with their media choice as suggested by MST. As pointed out in the introduction to the paper, we settled on three metrics for comparing these two theoretical approaches to communication strategy and media choice: amount of variance explained, robustness, and parsimony. For all three metrics, MST appears to provide more explanatory power in this context than does Te'eni's framework. Although both models explain relatively little variance, MST explained more (5.2 percent) than did Te'eni's framework (4.7 percent). In terms of robustness, MST also did better, matching 97 percent of strategic choices with media choice, compared to 63 percent for Te'eni's model. MST was also the more parsimonious approach, as it relied on only two communication strategies, compared to Te'eni's six, yet was able to explain media choice more completely than was Te'eni's communication model.

It is important to point out that the context of these findings includes a task that required deception. As discussed, while deceptive communication is indeed different from honest

communication, it may also follow that media choice for dishonest communication might differ from that for honest communication. However, the goal for honest and dishonest communication is essentially the same: to reach a shared mutual understanding between communication partners. Our review of the media choice literature showed that honest communicators preferred face-to-face communication for most tasks, with the telephone as their second choice. For the task used in this study, deceivers also preferred face-to-face first, with the telephone second (see Tables 4, 5, and 7). Additional research is needed to help determine when deception affects media choice differently from an otherwise comparable honest context.

Implications

This study investigated communication strategy and media choice, and it has some practical implications. Looking at the frequencies for media choice overall, we see that face-to-face communication is easily the favorite, and communication by phone is a close second. Remembering that the task in the study involved deception, one might ask why anyone would choose to communicate via text-based media. After all, text-based media are potentially dangerous to the deceiver for at least two reasons: first, they provide a record that can be studied again and again, if the receiver has the slightest indication that deception might be present, and second, they provide concrete evidence of deception if the dishonesty is uncovered. Looking at the frequencies from an MST perspective, however, provides part of the answer for this seemingly contradictory choice. Of the 293 respondents in the MST sample 193 favored convergence, and of those, 128 chose face-to-face and 63 chose the phone (Table 7). The remaining 100 favored conveyance, and of those, 49 chose memos and 44 chose e-mail. It was not unintentional or by mistake, then, that some respondents chose text-based media for their deceptive task: it was driven by their communication strategy. We see this also in the Te'eni sample, where respondents who articulated the control by planning strategy preferred text-based to other media (Table 6). While it may seem counterintuitive to choose a text-based medium for a deceptive task, the respondents who did so acted intentionally and understood it was part of their overall communication strategy. Respondents showed a relatively sophisticated understanding of the characteristics of the various media and made their choice after weighing the relative advantages and disadvantages of each with respect to the communication strategy they were pursuing. The honesty or dishonesty of a sender, then, cannot be adequately predicted simply by the medium he or she uses. Indeed, any medium may be appropriate given the deceiver's strategy and goals. In other words, these results suggest that individual differences are a significant factor involved in media choice. While all participants were asked to describe how they would perform the *same* task, different communication strategies and media were appropriated. As such, these results help to illuminate the inconsistencies in mapping media choice to a particular task in the prior research (Dennis et al. 2009). This research strongly suggests that such mapping must also consider the strategy by which a person chooses to accomplish the task.

The work reported here can also inform the study of deception in at least a few important ways. In fact, there are grounds to interpret these findings as somewhat surprising. Prior work has identified both face-to-face and phone as more likely choices for deception, with some theoretical preference for the phone (e.g., Carlson et al. 2004). Although phone was used by many of our subjects, the dominant choice was face-to-face. As such, the conclusion to draw would be that the desire to rehearse and to create some social distance from the target were outweighed by the perceived need to see the target's reactions and to adapt the message in response. However, it may be even more surprising to find a significant number of subjects selecting media that are reprocessible, such as e-mail and memo. While we would expect to find deception in such media, recall that our subjects weren't caught in the middle of an ongoing conversation; they chose reprocessible media with intention and with the full array of media to select from. Reasons behind this were somewhat more subtle. There may have been a few subjects who seemed to not recognize that what they were being asked to do was deceptive and wasn't business as usual. They wanted a paper or electronic record simply to show that they had completed the task. On the other hand, there were subjects who wanted to carefully craft a message that enabled them not to lie (while still being deceptive) and thought they would be more successful in writing. In any event, it shows a willingness on the part of employees to commit to quasi-permanent record messages that, perhaps, for a variety of reasons, would be better suited to other media.

The study also has implications for researchers and the MIS discipline. The media choice literature has long depended on contingency variables for explaining why individuals choose particular media for particular tasks. While this literature has been fruitful, and we have learned much from it, such research going forward should also include a role for communication strategy. Communication strategy, especially MST's conveyance and convergence distinction, explained media choice quite well in our analyses, in terms of both media characteristics and the medium itself; in fact, MST was able to accurately explain 97 percent of media choices. Te'eni's model was also useful in explaining some media choices, with

around 63 percent of media choices accurately explained. Not only does a strategy focus have a lot of explanatory power, it is parsimonious as well. Given the insight that different individuals pursue different communication strategies when performing the same task, these results suggest the need for diverse communication environments to better support virtual teams, online customer support environments, and so on.

While both MST and Te'eni's model were able to inform media choice, MST was clearly superior in its explanatory power, begging the question as to why this was the case. Dennis et al. (2008) argue that one of the primary reasons prior theories were not always effective at matching tasks to communication media was that both media and task were conceptualized too generally. Both MST and Te'eni conceptualize media in a similar way. In short, because media are often appropriated in different ways by different people (e.g., asynchronous e-mail can be used to support nearly synchronous chatting by some but not all), media should not be conceptualized in a monolithic fashion (e.g., phone versus e-mail), but by low-level capabilities to support different communication processes (e.g., rehearsability, parallelism, etc.). The key difference between Te'eni's model and MST for explaining media choice, however, appears to be due to the fundamental differences in how communication strategies were conceptualized.

Te'eni's model conceptualized communication strategies at a relatively aggregate level that would likely require a collection of both of the more fundamental communication strategies from MST (i.e., conveyance and convergence). In other words, our findings support MST's core premise that people choose and appropriate media to support fundamental communication processes; when communication tasks are aggregated into higher levels such as *control by testing and adjusting* or *perspective taking,* as outlined by Te'eni, greater variability occurs. As tasks and media are viewed in more aggregate forms, there will be an associated increase in the variability in which different communication partners will choose and appropriate this media. This increased variability is fueled by the need for a differing mix of conveyance and convergence processes depending on a host of contextual factors such as the choice in goals (i.e., differences in the way someone chooses to solve a task), prior history between communication partners, prior history in similar problem contexts, efficacy in appropriating media in specific ways, and so on. As such, because MST conceptualizes both communication processes (i.e., strategies) and media capabilities at a more fundamental level than does Te'eni's model, it was more accurate in mapping media choice to communication strategy. Our findings provide some guidance for appropriate theory selection for communication researchers, depending on the level of analysis applied to the communication tasks being studied. Researchers interested in investigating communication strategies at a more fundamental level would do well to choose MST as the basis for their work; those studying higher level strategies and the many different contextual factors that affect them would be better served by Te'eni's communication model. Future research should examine the efficacy of both MST and Te'eni's model to inform media choice in a broader range of contexts.

Finally, through our comparison of Te'eni's model of organizational communication and MST with a deceptive task, we have expanded the boundaries of both frameworks to encompass deceptive communication. While Te'eni is silent on the matter of deception, the creators of MST are quite explicit about the boundaries of their theory:

> We explicitly do not address situations in which the intent of some participants is to deceive other participants, although some parts of our theory may be useful in this research area (e.g., Carlson and George 2004) (Dennis et al. 2008, p. 579).

They further acknowledge that work such as that of Carlson and George (2004) applied MST outside its boundary conditions (p. 592). We have demonstrated that the basic structures of both frameworks still hold even when the communication in question is deceptive, so we have at least opened the door to a reconsideration of what the boundary conditions for each framework might be.

Limitations

As is the case with any research effort, our study had limitations. One of the limitations concerned the fact that the participants were not identified as being personally responsible for the situation described in the scenario, so that they did not completely "own" the deceptive task we asked them to undertake. They were only asked to lie to cover up their department's mistake; they were not asked to lie to cover their own errors. Given this situation, participants may have been more willing to lie, and more willing for there to be a written record of their lies, than they would have been if they had been more personally responsible for the deception in the scenario. In such a hypothetical situation, participants may have been less anxious about lying than would have been the case where they were actually expected to lie.

Generalizing our findings must be undertaken with an understanding of the communication task our managers were asked to carry out. It might be argued that extending these results

beyond even a weakly deceptive scenario would be inadvisable. However, we would note that there is no such thing as a completely generalizable task, and the task given to our subjects was one that they seemed to connect with and one that falls into a category of equivocal tasks that encompasses more that simple deception.

Also, although there is no doubt a strong link between what participants reported they would do and what they would actually do if faced with such a situation in real life, we also know from years of social science research that the correspondence between words and action is not perfect. Surely some of the participants who said they would lie would not actually do so in the same circumstance in real life. On the other hand, some of the participants who refused to lie might well rationalize deception should they be faced with a similar situation in real life.

Finally, it is worth considering reasons beyond those cited above for why MST prevailed over Te'eni's communication model in our research. It is possible that the experimental design, in which participants were given a specific task to complete, which involved what to say to whom and to what end, favored MST over Te'eni's conceptualization. Te'eni's model may fare better under a different research design, or in different circumstances. Future research is called for which compares the relative strengths and weaknesses of these two frameworks across diverse contexts and communication scenarios.

Future Research

Although our work here confirms and elaborates on the impact of communication strategy on managerial media choice, it is by no means the last word on the subject. While our findings show that MST provides a more parsimonious and stronger model for predicting selection, there is also support for Te'eni's model and work based on both, across a variety of communication contexts, should be fruitful. In regard to the study of deception and its detection, these findings demonstrate that generic communication strategies are important factors in the deceiver's decision-making process and play a role in predicting their media choice. However, why the medium is selected and how it is used is ultimately more interesting than the medium itself. The medium is only the canvas for the deceiver's legerdemain and a palette of affordances he or she chooses to exploit. Future research must answer the question as to whether all media and strategies can be equally effective in carrying out a communication task, deceptive or not. Of particular interest is IM, which was not selected by any of our subjects. Work involving the controlled comparison of otherwise comparable honest and dishonest tasks could be very valuable. Moving this work further into the workplace, in realistic settings and involving real tasks, is necessary (Park et al. 2002). Following employees who are intent on specific communication goals (deceptive or not) and observing their process of evaluating communication strategies and media features, to see whether and how they carry out this activity, would be of significant value.

Another interesting opportunity relates to examining whether individuals would prefer to appropriate multiple media (or configurations of a given media) when performing various tasks. In MST, Dennis et al. explicitly state that it is likely that a person's communication performance may be optimal (or improved) when multiple media are utilized. Here we asked subjects to choose a single medium. Clearly, an interesting future research opportunity is to explore this relationship between communication performance and multimedia/multiconfiguration conditions. In particular, it would be very interesting to identify various task, context, and individual factors that lead to the desire to appropriate more than a single media (or configuration).

Still another fruitful area for future research involves testing Te'eni's complete organizational communication model, particularly with an eye toward deceptive communication. Here we tested only four of Te'eni's propositions, those related to the relationship between communication strategy and media selection. In the complete model, there are 10 *sets* of propositions. In our study, we did not consider, for example, the effects of goals on strategies, or of values and norms on goals. What if the communication situation involves goals related to deceit? Or if the values and norms of the communicators sanctioned some types of deceptive communication but forbade others? The overall model itself is quite complex, and future testing of it, in both honest and dishonest contexts, is called for.

Conclusions

Managerial media choice is strategic. Out of 403 respondents in our total sample, only 10 were unable (or unwilling) to articulate the rationale behind their choice. The remainder took anywhere from a few words to a several sentences to describe the reasons for their selection, with frequent consideration of media properties and communication tactics. Using either MST or Te'eni's model of organizational communication, our results clearly support the interpretation that managerial media selection is thoughtful and intentional, both from a standpoint of how they plan to put the communication

medium to use as well as more specifically how they plan to conduct communication to accomplish the task at hand.

From a media selection standpoint, MST offers the more parsimonious approach. However, Te'eni's model may provide more specificity in regard to intended communication strategy, whereas MST focuses on the mode in which the media will be employed. What seem to be counterproductive choices in terms of media characteristics can be explained by putting the selection in the context of the communication mode and strategy being used. Although the predominantly verbal media selection outcomes found here largely mirror earlier media selection studies, the rationales provided by our subjects are often also driven by specific, task-related goals. In addition to communication mode and strategy, there is room left for increasing levels of specificity related to the task. Work that focuses purely on media characteristics misses the larger perspective encompassing the goals and motivations of the participants and the strategies they intentionally employ. Our results suggest several interesting directions for future media selection and deception research, while providing a basis for understanding managerial media selection more clearly.

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RESEARCH NOTE

MEDIA SELECTION AS A STRATEGIC COMPONENT OF COMMUNICATION

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Appendix A

Selected Parts of the Survey Instrument

Q.15 Please go on to read the following scenario and answer the questions that follow it.

Q.16 **The Situation (one of 4 possible)**

You are a manager at Global Automobile Corporation (GAC) which is a manufacturer of cars and trucks for domestic and international customers. You work in the contracting department where your responsibilities include managing relationships with GAC's suppliers. Your supervisor has asked you to deal with an inquiry from another department about a part used by GAC that is manufactured by one of your suppliers.

The other department is requesting information about the part, which is a component in the ignition system, because they believe that a lower cost part may be available that would still meet both the design guidelines and GAC's rigid quality-assurance commitment. Changing to this lower cost part would reduce the total cost of the ignition system by nearly 4%.

You know that the part was actually *mis-specified by your department* in the original contract. This mistake was discovered and corrected by your department, but only after several thousand of the more expensive parts had already been delivered and used. The part was re-specified in a contract change-order and the parts currently being delivered and used are fine.

Your supervisor has decided that admitting to the mistake would make the contracting department look bad, since our own contracting guidelines were not fully followed. Therefore, your department has decided to *deny knowledge* of any contracting irregularities with the part in question and to tell the other department that we are, in fact, using the lower cost part and that they must be referring to a *draft copy* of the contract, as opposed to the *final version*.

Your Task

Your supervisor has asked you to communicate with the other department and to provide them with the following response:

- We have contracted for and are using the lower cost part.
- Your department must be referring to a *draft copy* of the contract as opposed to the *final version*. We will send you a new copy of the final version ASAP.

You don't want the contracting department to look bad and you are also in no position to argue with your supervisor or to refuse to carry out this task. Your supervisor lets you know that it is up to you how you communicate this to the other department, however, it is clearly important that they believe you.

Please take a moment to think about the above scenario. When you are ready, respond to the questions that follow.

Q17. Please rate each of the following methods of communicating this information in terms of how *appropriate* they seem to you, given the scenario described above. For each item, circle a number on the scale to the left of the item which best describes your feeling about its appropriateness, where 1 = "not at all appropriate" (NA), 4 = "neutral" (N), and 7 = "very appropriate" (VA).

Q18. Please select the one method that you would use in this scenario: _____

(a) telephone
(b) memo
(c) e-mail
(d) face-to-face
(e) letter
(f) video-conference
(g) voice mail
(h) instant messaging
(i) I would not comply with my supervisor's wishes under these circumstances.

Q19. If you chose any answer except (i), please describe why you would select this medium: _____

Q20. If you chose (i), please explain why you would not comply with your supervisor's wishes: _____

Appendix B

Examples of Coding for Te'eni's (2001) Communication Strategies

Communication Strategy or Medium Characteristic	Sample Response
Interactivity	"GIVES BOTH PARTIES THE ABILITY TO EXCHANGE AS THE CONVERSATION DEVELOPS."
Capacity	"Easy to understand, can detect subtlte [sic] body languauge [sic]"
Rehearsability	"Using email, I am able to go back and correct a mistake before sending it. I may type something and read it several times before actually sending it. That's not a luxury given in a face-to-face meeting, and other forms of communications seem too impersonal."
Reprocessibility	"So that you have an electronic trail of the information to refer to later."
Contextualization	"to be able to more fully explain the circumstances"
Affectivity	"more personal and builds trust"
Control by Testing and Adjusting	"I can gauge the response of my friend and react and adjust my presentation immediately and appropriately. I can better control delivery of my message."
Control by Planning	"This is an internal communication. It always helps to have something in writing. Using the Memo would make the response more official than using email. It also allows you to think about the verbiage and prepare how it will be presented in the memo."
Perspective Taking	"It shows you are listening and taking their concerns with the up most importance. Easier to persuade and get their buy in to the dishonesty. That's assuming you have these skill sets on selling the message."
Attention Focusing	"It would be difficult to express the instructions with a face to face encounter. The Memo could suggest small problems with the startup of the ignition production and not admit the specification errors. Since a Memo is impersonal it would be easier to edit and be sure the message is clear in what you mean to state."

Appendix C

Examples of Coding for Conveyance and Convergence (Dennis, et al 2008)

Communication Strategy	Sample Response
Conveyance	"You avoid giving the other party the opportunity to reply to your statement, and given how people usually are, there is a chance that your reply might satisfy their immediate need and push the request back to a lower priority project."
	"It's quick and would provide me with a tracking and copy of the e-mail to delay any question as to whether it was completed, recieved [sic] and read."
Convergence	"I wouldn't want there to be any room for misunderstanding or miscommunication. I would be able to answer all questions up front and know the issue was resolved when I walked away."
	"I can gauge the response of my friend and react and adjust my presentation immediately and appropriately. I can better control delivery of my message."

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