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Deceptive Realities[1]

Sender, Receiver, and Observer Perspectives in Deceptive Conversations

Deceptive interpersonal interactions are an ideal venue in which to examine the issue of reality. Interpersonal deception theory offers a framework for considering why deceivers (by convention called senders), coparticipants (i.e., targeted receivers), and observers arrive at discordant views of reality. Deceivers' ulterior motives lead them to construct through communication a version of reality contrary to what they hold to be true. Due to adherence to Gricean principles of cooperative discourse, conversational demands, and the nature of the relationship between participants, interlocutors as well as nonparticipative observers may be inclined to accept the alter reality created by senders rather than apprehend the "true" state of affairs. Recent research findings are reviewed, and original data from a pilot investigation of deception strategies are presented to illustrate ways in which senders may perpetrate deception and the extent to which receivers and observers recognize such machinations.

Communicators enter into interpersonal exchanges with an implied mutual agreement to be truthful with one another (Grice, 1989). Put differently, conversants are expected to subscribe to a social contract whereby they create messages they believe are reflective of reality. This presumption of truthfulness is linked to normative expectations for discourse; thus conversational participants should not only share the presumption but also be aware that they share it.

In situations involving deception, however, this social contract is voided. For communicators who harbor ulterior motives at the outset of an interaction or acquire them as an interchange progresses, the goal becomes one of

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creating some form of alter reality—that is, representing as truthful a message that in some way is not isomorphic with the reality held by the receiver(s), with the intent of causing said receiver(s) to accept the message as truthful.

Motivations for doing so may vary. Some communicators (hereafter referred to as senders, for ease in distinguishing them from intended recipients of their messages) deceive for instrumental reasons: to establish or maintain power over others, acquire resources, or avoid punishment. Others are motivated by relational concerns: to initiate or terminate relationships, avoid conflict, or protect the self or others. Still others deceive for reasons related to identity: to avoid embarrassment, project a more favorable image, or increase social desirability (Buller & Burgoon, 1994; Camden, Motley, & Wilson, 1984; Metts, 1989). But regardless of the motivation, the goal is still to cause the receiver to believe a message that the sender does not believe to be true and, in so doing, to benefit from the receiver's continued commitment to the presumption of truth that underlies most communicative interactions. Thus, in deceptive situations, senders' realities come to depart from receivers' realities, with perspectives and goals becoming not only different but at times contradictory.

In turn, the goals and perspectives of senders and receivers who are participants in deceptive episodes may differ further from those of disinterested or nonparticipative onlookers, creating, in our view, the potential for three distinct realities—that of the deceiver, the deceived, and the third-party observer. This makes the deceptive interaction an ideal frame through which to look more closely at the issue of differential perceptions of reality and the role of communication in constructing and perpetuating them. The analysis we offer is guided by a communication-based theory of deception—interpersonal deception theory—and relevant empirical evidence from investigations testing the theory. We also supplement these with illustrative data from a recently completed pilot study, affording further glimpses into how and why people might come to hold divergent views of reality.

Realities as Framed by Interpersonal Deception Theory

Despite the extensiveness of the academic literature on deception, most past research has been limited to focusing on the perspective and experience of only one party at a time and often under noninteractive conditions. Deception studies have typically used noninteractive designs wherein deceivers (by convention referred to as senders) and their targets (by convention referred to as receivers) do not interact face-to-face. Instead, senders deliver deceptive (and truthful) messages—sometimes to passive panels of judges, sometimes

to interviewers, sometimes to a videocamera—that are later received and evaluated by unacquainted others. Studies of this nature typically focus either on features of the sender's deception displays (i.e., on encoding patterns and skills) or the ability of nonparticipative observers to detect deception from a transcript, audiotape, or videotape of the deceptive message (i.e., on decoding issues). In practice, these methods of studying deception and detection belie the fact that deception often transpires in interactive circumstances, where both senders and receivers are active participants in creating deception, and where strategies by which senders maintain their deception and receivers or observers attempts to detect deceit can change over the course of an interaction.

In response to these limitations in existing research, Buller and Burgoon (1996) proposed interpersonal deception theory (IDT). As its name implies, IDT deals with deception (and truthful discourse) as it occurs in interpersonal situations and as it affects, and is affected by, the relationship and interaction between participants. Among its fundamental assumptions is that when deception occurs in interactive contexts, it is not a unidirectional activity; rather, both sender and receiver actively participate in constructing the deceptive conversation. Moreover, deception is an inherently goal-directed activity in which the goals and motives of deceivers and deceived are likely to be discrepant from one another and with those of third-party observers. Cognitive, attribution, and personal relationship research (e.g., Berger & Bradac, 1982; Brickman, 1978; Enzle, Harvey, & Wright, 1980; Surra & Ridley, 1991) has long recognized that participants in interaction hold different perceptions of their own and others' behaviors than do observers. Nowhere is this more likely to be true than in the context of deception. According to IDT, the goals, priorities, information-processing orientations, and task requirements of sender, receiver, and observer lead each to process and understand the same interaction in ways sufficiently different as to produce three distinct realities. In this way, IDT provides the theoretical framework necessary for examining differential realities held by those involved in a deceptive situation.

The Issues: Three "Realities" and Their Congruence

As conversational participants, both senders and receivers must meet numerous cognitive and behavioral demands. Senders must engage in their attempts at successful deception while addressing the requirements of encoding and decoding messages and maintaining normalcy in the conversa-

tion. Receivers' abilities to detect deception accurately are impeded by the same demands of conversational involvement, which may encourage heuristic processing of the interaction. By contrast, observers are free from the demands of conversational management and the attendant relational issues of interaction, which appears to alter not only their initial assumptions and goals but also their ability to process the interaction and to accurately detect deception. These considerations pinpoint two issues under consideration here. First, what are the respective "realities" of sender, receiver, and observer in interactions involving deception? Second, to what extent are sender, receiver, and observer realities convergent or discrepant?

To address these issues, we review relevant assumptions and postulates from IDT and selected empirical evidence generated from investigations testing the theory. These are supplemented by illustrative data from a recently completed pilot experiment. In brief, that investigation (details of which are reported more fully in Buller, Burgoon, Floyd, Chen, Viprakasit, & Granpre 1996) was designed to assess the kinds and the degree of strategic activity senders employ when deceiving during interpersonal conversations. As part of that investigation, observers watched and rated the live interaction. Senders and receivers viewed videotaped portions of the interaction immediately after its completion, during which they provided assessments of senders' verbal and nonverbal behavior when responding truthfully and deceptively. Thus they all served as instant "coders" of sender communication during truth and deception. Because the project affords a closer look at how senders, participant receivers, and nonparticipant observers may converge or diverge in their perceptions of the same performance, we highlight here those findings that provide insight into the issue of differential realities.

The Sender's Reality

Properties of the Sender's Perspective

Given the implied presumption for honesty in conversations, deceptive senders know that their actions and goals are at odds with the social expectancy for truthful discourse. Knowledge of this violation can cause physiological arousal in senders who feel guilty about their deception or who fear being caught (Ekman & Friesen, 1969, 1972; Zuckerman, DePaulo, & Rosenthal, 1981). According to IDT, such arousal often leads senders to adopt strategies aimed at fostering credibility, assessing and avoiding receiver suspicion, and maintaining control and composure. It often also leads to what Ekman and Friesen

(1969) labeled *leakage*: nonstrategic behaviors, usually nonverbal, that may betray senders' deceptive intentions and true feelings or beliefs.

IDT further postulates that, aside from feelings of guilt or fear about deceiving, senders' physiological arousal also is related to the multifunctionality of the sender role. Successful deception is a complex task that exacerbates the cognitive and behavioral demands of normal conversational involvement. On top of the regular requirements of encoding and decoding messages, maintaining conversational continuity, and managing one's image, deception requires that these behaviors be performed in accordance with the alter reality the sender is attempting to present. That is, deception requires the creation of a false impression—such as the impression that false information one has presented is reflective of reality. This is a task that requires more cognitive resources than the creation of a true impression (Gilbert, Pelham, & Krull, 1988).

To respond to these complex cognitive demands, senders employ three classes of strategic behavior. Information management refers to efforts to control message content and style so as to be less forthcoming with information (i.e., more reticent); to be vague, equivocal, and hesitant; and to disassociate oneself from the message. Behavior management refers to actions intended to prevent leakage and detection of deception, usually by restraining or suppressing behaviors that might expose deceptive intentions. Image management entails behaviors aimed at maximizing communicator credibility. Conversational participants attempt to present a poised, pleasant, and controlled demeanor to appear competent, trustworthy, and open. Specific tactics falling within each strategy are detailed in Buller and Burgoon (1994, 1996) and Burgoon, Buller, Afifi, White, and Buslig (1996).

Evidence Regarding Strategic Sender Activity in Interactive Contexts

Several interactive studies (e.g., Buller & Aune, 1987; Buller, Burgoon, Buslig, & Roiger, 1994, 1996; Buller, Strzyzewski, & Comstock, 1991; Burgoon & Buller, 1994; Burgoon, Buller, Afifi, White, & Buslig, 1996; Burgoon, Buller, Dillman, & Walther, 1995; Burgoon, Buller, Guerrero, Afifi, & Feldman, 1996) have produced deception displays in line with IDT predictions for the strategic modification of information, behavior, and image. Deceivers have managed verbal content to create messages that were more incomplete, brief, nonveridical, indirect, vague, uncertain, hesitant, and impersonal than those produced by truth tellers. Deceivers have shown evidence of managing behavior through submissiveness and initial reductions in involvement but subsequent increases in immediacy, expressivity,

and relaxation over time. And, they have displayed efforts toward image management in the form of frequent smiling and increased pleasantness over time. At the same time, they have exhibited what IDT views as nonstrategic activity—indications of heightened arousal and nervousness, dampened emotional expressivity, and some impairment of performance in the form of nonfluencies and poor impressions. The extent to which strategic or non-strategic behavior predominated also has been shown to vary with sender skills. More skilled deceivers are better able to put forth a truthful-appearing demeanor and evade detection. However, there is more to being a skilled deceiver than simply knowing which cues to suppress. Vrij, Semin, and Bull (1996) found that even when senders think they appear to be involved and expressive, observers notice a decrease in movement when senders try to deceive, supporting the idea that involvement and expressivity are impaired during deception, regardless of what the senders believe they are conveying.

Interestingly, one experiment (Burgoon, Buller, Afifi, White & Buslig, 1996) also produced suggestive evidence that the "reality" experienced, and consequently presented, by senders is partly contingent on the communication style of co-interactants. In that study, interviewees alternated between giving blocks of truthful answers and blocks of deceptive answers to questions from interviewers who adopted a nonverbally nonimmediate, normal, or highly immediate communication style. Those interviewees who began by telling the truth responded to high interviewer immediacy by being very talkative and involved, even when they shifted to deception. Presumably, for them, the interviewer style was viewed not as threatening or suspicious but rather as conveying interest. When these interviewees shifted to deception and the interviewer's style persisted, they may have felt confident about pulling off the deception, which made it easy for them to remain talkative and involved while deceiving. Thus, under this reality, they may have viewed the receiver's behavior as positive feedback about their own performance. By contrast, senders who deceived first responded to the high immediacy interviewer style with reticence—the predicted strategic response—presumably because that interviewer style felt more like an interrogation and conveyed suspicion. Deceiving interviewees were similarly reticent if the interviewer began with low immediacy, possibly because this abnormal style also communicated some skepticism. Under this reality, receiver style took on a different, more ominous meaning.

These patterns imply that senders are sensitive to cues from their receivers. In that respect, they are "plugged into" objective reality in the sense of processing differential social information. However, interpretation is bound to vary, depending on the timing of receiver cues vis-à-vis sender deception.

When deceivers can reasonably ascribe abnormal interaction patterns to dispositional or situational factors other than their own deceit, they may be able to overcome their own fears of detection and respond with a normal demeanor themselves. However, when faced with peculiar behavior from the receiver that coincides with their own deceit, they may interpret such deviant behavior as indicative of suspicion on the receiver's part. Put differently, their own deception goals and detection concerns naturally become filters through which any feedback from the receiver is assessed. Under these circumstances, we might reasonably expect senders and receivers to diverge in their interpretations of one another's behavior.

The view of deception displays promulgated by IDT, then, is that some portion of the display is deliberate rather than inadvertent, as indicated by labeling various verbal and nonverbal cues as strategic. But labeling it as such does not necessarily make it so. The pilot investigation discussed next therefore explored the extent to which senders try to manage their image, the informational content of their messages, and accompanying nonverbal behaviors. To the extent that they do so, and do so successfully, receivers are bound to be misled and apprehend a different reality than the one that senders believe to be true. To the extent that deception displays are primarily involuntary or accidental, we might expect receivers to recognize them as dissembling and, "peeking behind the facade," arrive at a reality similar to that held by the sender.

Evidence From the Pilot Investigation of Deception Strategies

Only relevant here are the assessments in common from senders, receivers, and observers of senders' verbal and nonverbal behaviors. Study participants were 46 students from upper-division business courses (selected because they tend to be older and have had work experience, making them more comparable to the general public). Because the study was billed as a comparison of how discussions of personal topics differ between strangers and friends, some participants interacted with friends, others interacted with strangers, and others were randomly assigned to an observer role, for a total of 18 interacting dyads (13 strangers, 5 friends), 10 of which had observers. A coin toss determined the assignment to sender (Person A), receiver (Person B), or observer (Person C) roles, with the stipulation that observers were always unacquainted with participants. The relatively small and uneven sample sizes across roles and degree of acquaintance necessarily make the data to be reported more suggestive than definitive. Nevertheless, some of the results are intriguing enough to merit attention here.

The interaction task required participants to discuss in succession several topics taken from a card game designed to encourage open communication. Unlike many previous deception studies, both sender and receiver were active participants in the discussion, which was to approximate a normal conversation. Senders (Persons A) were asked to tell the truth on some questions and "to give answers that fall short of being the truth, the whole truth, and nothing but the truth" on others. Color-coded numbers cued senders when to deceive. Truth and deception order were counterbalanced so that for the two target topics to be examined here, half of the senders gave truthful responses for the first topic and deceptive ones for the second topic, whereas the remaining half followed the reverse order. Receivers (Persons B), who were blind to the deception manipulation, were told that their main objective was to keep the interaction flowing smoothly. Observers (Persons C) watched the discussion through a one-way mirror and were cued by a research assistant to complete ratings of Person A after the first target topic.

After the interaction, senders and receivers (Persons A and B) viewed Person A's videotaped performance during the first and second target topics and, after each, rated Person A's verbal and nonverbal behaviors. The videotape viewing served as a form of cued recall for the actual live performances and enabled senders to witness their own performance as a receiver or observer would. The Likert-format ratings (60 items in all) were combined into measures of information management (four composite dimensions of veridicality, information completeness, directness or relevance, and clarity or personalism), behavior management (five related to nonverbal involvement—immediacy, expressivity, altercentrism, conversation management, and social anxiety—plus two related to pleasantness and dominance), and image management (believability and quality of impression created by Person A's performance). Reliabilities ranged from to .51 to .94.

Information management. The four variables comprising information management (veridicality, information completeness, directness or relevance, and clarity or personalism) all produced significant differences.[2] As might be expected, senders reported higher truthfulness (veridicality) when answering truthfully ($M = 6.36$) than deceptively ($M = 2.96$). However, they also reported giving more complete information when telling the truth ($M = 5.26$) than when deceiving ($M = 3.78$), giving more direct and relevant answers in the truthful condition ($M = 6.14$) than in the deception condition ($M = 5.29$), and being more clear under truth ($M = 5.33$) than deception ($M = 4.58$). Thus senders said that they systematically altered their verbal behavior when creating deceptive, as compared to truthful, presentations.

Behavior management: Nonverbal involvement, dominance, and pleasant-ness. As with information management, senders perceived that they modi-fied their involvement levels. They reported being more expressive when telling the truth ($M = 4.85$) than when deceiving ($M = 3.70$), more attentive to the other when telling the truth ($M = 5.95$) than when deceiving ($M = 5.15$), better able to manage the conversation in a smooth manner when telling the truth ($M = 4.90$) than when deceiving ($M = 3.67$), and less anxious when telling the truth ($M = 2.39$) than when deceiving ($M = 3.92$).[3] Only nonverbal immediacy did not differ between truth and deception. Thus senders per-ceived themselves as somewhat less involved when deceiving. Senders also saw themselves as more dominant when telling the truth ($M = 3.93$) than when being deceptive ($M = 3.02$). However, they did not see their pleasant-ness as differing.

Image management. Senders perceived themselves as making a better impression during their truthful response ($M = 5.41$) than during their deceptive response ($M = 4.28$) and as more believable when being truthful ($M = 6.75$) than when being deceptive ($M = 5.50$).[4]

Discussion

These results demonstrate that senders varied, or believed they varied, their performances between deceiving and telling the truth. In their estimation, their deceptive statements were not only less truthful but also less complete and less direct, relevant, and clear than their truthful statements. These adjustments are consistent with IDT's position and previous empirical evi-dence that when trying to construct an alter reality for receivers, senders will adjust the style and content of their messages to ambiguate and abbreviate them, conceal relevant information, and reduce their concreteness and veri-fiability, as well as put forth a false version of reality. All of these are sensible strategies for simultaneously minimizing their own disclosure of the truth and another's detection of the deceit.

At the same time, IDT posits that senders attempt to construct a de-meanor that approximates normalcy and maintains a desirable image. Send-ers' verbatim reports verified that they attempted to do these things (see Buller, Burgoon, Floyd, Chen et al., 1996) but did not feel altogether success-ful in doing so. They saw their own performances as less believable and thought they had made a poorer impression when they were deceiving than when telling the truth. However, they did not see themselves as becoming less immediate or less pleasant, even though they thought that (a) their

demeanor betrayed their nervousness and distraction when deceiving, and (b) they lost some of their expressivity and ability to maintain a fluent, coordinated conversation.

It may be that immediacy and pleasantness are particularly salient aspects of a normal demeanor that senders attempt to duplicate or simulate when dissembling. People stereotypically think that the eyes are a telltale locus of deception, so it would be reasonable for senders to focus on exacting immediacy-related behaviors such as gaze and facial orientation as a primary means of appearing truthful. Similarly, they might work at smiling and conveying pleasantness so as to cover their arousal, negative emotional states, and difficulty in producing plausible responses. The senders' reports of no differences in nonverbal immediacy and pleasantness between truthful and deceptive responding, then, might have been due to their feeling more successful at managing these aspects of their nonverbal demeanor than aspects related to giving the receiver their undivided attention or speaking in a manner devoid of hesitancies, nonfluencies, and other distracting body movements.

A final ploy that senders reported adopting was reducing dominance when deceiving. Such a strategy would have the benefit of circumventing an aggressive questioning strategy by submitting to the partner and shifting greater conversational control to them. It also could reinforce the disassociative features of the message essentially conveying "Don't hold me responsible for what I'm saying or doing."

It must be remembered that senders' ratings were completed after they reviewed their own videotaped responses. In essence, they became instant coders of their own verbal and nonverbal behavior. These ratings thus reflect what senders saw themselves doing, in juxtaposition with their own goal of perpetrating deceit. What they reported reflected their sense of the reality they had manufactured, relative to the one they held to be true. It is clear that they believed that informationally, they put forward a different version of reality that they, themselves, regarded as real and that through verbal obfuscation, omissions, and indirection created a version affording less accessibility to that reality. However, they also believed that they did not maintain the credibility of their presentation through their nonverbal demeanor.

Whether sender self-ratings can be regarded as an "objective" assessment of their own performance becomes a trenchant question. To the extent that they are congruent with participant receivers' and observers' assessments, we might conclude that the three separate perspectives all are converging on a shared reality. However, we should expect some discordance among percep-

tions because deceivers' judgments are filtered through the lens of their own goals and colored by their internal cognitive and affective experiences during the interaction itself, expectations and experiences to which receivers and observers are not privy and that may bias their own subsequent perceptions of their manifest behaviors. It could be argued that senders' private thoughts and emotions transform sender judgments into subjective rather than objective judgments. But it could just as easily be argued that such thoughts and emotions serve as additional contextual information that makes their judgments the most "informed" ones. Add to this the fact that senders, especially socially skilled ones and those who are high self-monitors, may be more attuned to subtle variances in their own communication style, variances to which others, especially strangers, may be oblivious, and it becomes clear that we cannot automatically dismiss sender self-assessments as inherently biased and invalid. It is far better to simply label their report as their realities—both in terms of their privately held understandings of the representational world and the interactional version they have put forth for public consumption—and examine the extent to which the latter triangulates with those of receivers and observers, perspectives to which we turn next.

The Receiver's Reality

Unique Properties of the Receiver's Perspective

In many respects, participant receivers share many of the same properties as senders. When they are truly full-fledged participants in the conversation, receivers, like senders, face a multiplicity of cognitive and behavioral demands that collectively may influence the reality they extract from interactions. Such demands are associated with conversational participation itself or stem from the relationship between receiver and sender. However, senders and receivers do diverge in one very substantial way: The goals they have for the interaction are not identical. Senders' additional goal to deceive may or may not be matched among receivers by a complementary goal to detect deception. Hence whether receivers are suspicious can have substantial ramifications for how they approach an interaction.

Under some circumstances, receiver doubts may be piqued by prior knowledge, by the situation, or by the sender's own demeanor. But in most circumstances, receivers' conversational demands and the relationship they have with the sender should mitigate against being aware of the prospect of deception. Receivers' conversational tasks include encoding and decoding

messages, providing appropriate verbal and nonverbal feedback, and managing the continuity and duration of the conversation through turn taking (Buller & Hunsaker, 1995; Buller, Strzyzewski, & Hunsaker, 1991; Ekman & Friesen, 1969). These requirements of conversational involvement appear to influence the ways in which receivers process and make attributions about the interaction. For one, the sheer amount of cognitive effort a conversation requires may hamper receivers' abilities to accurately process the interaction. In addition, the mere presence of the other participant heightens arousal in the form of attentiveness, alertness, and responsiveness. This arousal adds further cognitive distraction, although it can provoke an automatic orienting reflex that might help receivers take note of the behavior of their conversational partner (Burgoon & Newton, 1991).

In addition, the demands of the interaction may lead receivers to make what Langer (1989) referred to as "premature cognitive commitments." That is, receivers' initial judgments about senders should remain relatively unaltered over the course of the interaction. Gilbert's (1989; Gilbert & Osborne, 1989; Gilbert et al., 1988) research on cognitive busyness suggests that as cognitive demands increase, interactants are less likely to modify their initial impressions or judgments about each other in light of subsequent information made available during the interaction. Rather, the cognitive demands of the situation encourage heuristic processing on the part of receivers, leading them to process information selectively in such a way as to confirm their initial judgments and impressions. According to IDT, most receivers should initially characterize senders as honest, a characterization that may be unlikely to change due to the cognitive demands of conversational participation. These demands also may lead receivers to be less aware of the specifics of senders' behaviors than uninvolved observers, or senders themselves, might be.

In addition, receivers, like senders, may be overly influenced by contextual or situational cues when interpreting conversational messages. Being embedded in the ongoing conversational circumstance, receivers may attribute behavior with ambiguous meaning (which may arise when deceptive senders strategically equivocate or nonstrategically display channel discrepancies [Buller & Burgoon, 1994, 1996]) to situational contingencies rather than to senders' intent to deceive (Buller & Hunsaker, 1995; Buller, Strzyzewski, & Hunsaker, 1991; Burgoon & Newton, 1991; Storms & Nisbett, 1970).

Receivers' abilities to attend cognitively to the interaction may be further impeded by the demands associated with the relationship between receiver and sender. Even if the receiver and sender are unacquainted prior to their

conversation, an implied relationship is created by their interaction (Burgoon, 1994). Such a relationship carries with it expectations for normative relational interaction, including the maintenance of reciprocity, assumptions of trust and honesty, management of image, and maintenance of self and others' face needs. (In fact, these expectations may be even more pronounced in an ad hoc relationship because people in established relationships may have replaced such expectations with mutually negotiated idiosyncratic norms.) The relationship may discourage or prevent the receiver from making negative attributions about the sender in the interests of relational maintenance (Burgoon & Newton, 1991). Studies have shown that when compared to observers or interactants in mediated contexts, face-to-face interlocutors evaluate each other with greater leniency and more positivity (DePaulo, Stone, & Lassiter, 1985; Kellermann, 1984; Street, 1985; Street, Mulac, & Wiemann, 1988).

The bulk of empirical evidence to date, then, is consistent with IDT's position that receivers typically should be oblivious to, or accepting of, sender deceit and may even assist, wittingly or unwittingly, in its creation.

Evidence From the Pilot Investigation of Deception Strategies

Analyses paralleling those for senders' assessments of their own performance were conducted on receiver ratings of the same information, behavior, and image management measures.

Information management. Receivers failed to detect any differences between truthful and deceptive responding. They only perceived some general increases over time in completeness and directness or relevance, regardless of truthfulness.

Behavior management: Nonverbal involvement, dominance, and pleasantness. Likewise, receivers did not see any differences in sender involvement or pleasantness between truthful and deceptive responding, although they did perceive that senders who followed the truth-first order were more expressive, altercentered, and nonanxious than those who followed the deception-first order. They also saw some over-time changes in altercentrism, anxiety, and pleasantness. The one measure that showed a significant difference between truth and deception was dominance.[5] Receivers saw senders as more dominant when telling the truth ($M = 3.41$) than when deceiving ($M = 2.58$).

Image management. No significant differences were found for receivers' perceptions of senders on believability or on making a good impression.

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Discussion

The absence of many significant findings could be attributed to low power. However, the emergence of statistically significant temporal trends and order effects tends to dispute low power as the sole explanation. IDT and prior research favor an alternative conclusion that receivers inhabited a reality much different from that experienced by senders. Although receivers did perceive changes in sender performances over time, they saw few differences between deceptive and truthful responses. Receivers viewed senders' deceptive messages as honest, complete, direct, relevant, and clear, even though senders said that those messages were less so than their truthful ones. In the receivers' reality, senders were competent conversational partners, even when deceiving. Receivers did not share senders' views that senders were less expressive and other oriented, managed the conversation less smoothly, and were more anxious when deceiving than when telling the truth. Receivers also did not see deception-induced decrements in believability or the quality of the senders' impression management. The one exception was that, like senders themselves, receivers considered senders to be less dominant when deceiving than when telling the truth. This correspondence between receiver and sender reports in itself implies that adopting an unassertive demeanor when deceiving may have been one of the more noticeable changes in sender performance.

All in all, the receiver reality did not match either the reality that senders publicly manufactured during the conversation or the reality they held privately. That is, receivers did not recognize changes in senders' completeness, veridicality, directness or relevance, or clarity when shifting from truth to deception or vice versa, which would have clued them into a different "truth" than that being presented by senders. Further, they did not see changes in senders' nonverbal behavior or general image that formed the basis for senders' public persona and could have served as further tip-offs to the presence of a private alter reality.

Regarding the latter, we might surmise that senders were overly critical about their performance, but the observer data to be presented momentarily suggest otherwise. Alternatively, receivers may have been more lenient toward, or too distracted to recognize, senders' strategic and nonstrategic behavior. Receivers may have been more lenient because of the relational involvement created by conversational participation. They may have failed to recognize conversational miscues because they were too busy coordinating their own conversational actions. Another possibility is that receivers entered the conversations with a very strong expectation for honesty. This initial expectation may have colored

subsequent conversational evaluations such that they did not even consider deceptive intent as a possible interpretation for sender messages.

In any event, their construal of senders' performance was markedly discrepant from senders' own reports. Although it tended toward a more homogeneous view of sender performance across truth and deception than that reported by senders, it also included perceptions of temporal trends and order differences that senders themselves did not see (e.g., that when senders began with the truth, they were more expressive, altercentered, and pleasant than when they began with deception). These differences make plain that we would be ill-advised to rely on sender or receiver reports alone to obtain a "true" picture of what took place, inasmuch as there was little correspondence between their separate depictions.

The Observer's Reality

Unique Properties of the Observer's Perspective

Observers or uninvolved third parties to conversations may experience much different communicative realities than senders and receivers. Observers are relatively free from the cognitive and behavioral demands of conversational participation. They are not required to encode messages, provide feedback, manage their images, or maintain conversational involvement. In this unfettered role, observers may not be distracted from processing messages and should process interaction less heuristically than receivers and senders. Thus they may not fall prey to some cognitive biases. Furthermore, in situations where they do not know the conversational participants, observers are not likely to form relational attachments with senders because they do not interact with them.

One feature of observers' reality appears to be that they have lesser expectations for veridicality than do conversational participants. The conversational presumption of truth (i.e., the conversational maxim of quality; Grice, 1975) can persist despite cues to the contrary (Kraut & Higgins, 1984). This presumption aids message processing in conversations, but observers do not appear to enter the communicative environment with this assumption. In addition, the lack of relational attachments to senders of deceptive messages further reduces observers' truth bias (Buller, Strzyzewski, & Hunsaker, 1991) and may cause them to orient to senders and receivers as objects rather than as people (Burgoon, 1974).

Because their expectation for honesty is weaker, observers may assign more negative interpretations to messages than do interactants (DePaulo

et al., 1985; Kellermann, 1984; Street, 1985; Street et al., 1988). Empirical evidence supports this assertion, with observers evaluating interaction participants less favorably than participants themselves (Burgoon & Newton, 1991; Street et al., 1988; Nisbett, Caputo, Legant, & Marecek, 1973; Storms, 1973).

Beyond being less positive in their interpretations, observers also may be quicker to attribute communicative actions to the sender's motives, goals, and intentions (including deceptive intent) than conversational receivers (Buller & Hunsaker, 1995; Buller, Strzyzewski, & Hunsaker, 1991). Observers have limited access to information about the event, its context, and expectancies associated with it, so they may rely less on contextual cues and more on dispositional inferences when interpreting messages (Enzle et al., 1980; Harvey, Ickes, & Kidd, 1978; Jones & Nisbett, 1971; Storms & Nisbett, 1970).

Observers also may have an advantage over conversational receivers when it comes to judging deception because they can devote more attention to judging sender performance than receivers, who are juggling conversational tasks. In one of the first interactive investigations, Buller, Strzyzewski, and Hunsaker (1991) found that observers were more accurate at detecting deception than receivers. Observers may focus on more telltale cues when evaluating message credibility than participants, whereas participants may fall prey to visual primacy biases and reliance on stereotypical cues. In that same investigation, observers relied less on face and head cues (a nonverbal channel that is better controlled by senders during deception) and more on vocal cues (a channel with more nonstrategic leakage) than participant receivers (see also Buller & Hunsaker, 1995, who reported similar results). In addition, observers attributed different meanings to certain cues than did receivers. For example, observers considered sources who displayed more interruptions, more talkovers, and longer response latencies to be less truthful, but conversational receivers believed that sources who displayed these cues were more honest. These different realities may act as filters that produce disparate interpretations of the same messages.

Evidence From the Pilot Investigation of Deception Strategies

Observers each rated sender responses to one topic. Half rated a deceptive presentation, and the other half rated a truthful one. Analyses thus consisted of a series of one-way analyses of variance comparing truth and deception for each dependent variable. Due to the small sample size, we anticipated that very few significant differences would emerge and that these data would at best be suggestive. Surprisingly, differences obtained for several measures—

necessarily ones with large effect sizes—indicating that observers were homogeneous in recognizing systematic differences between truthful and deceptive performances.

Information management. The only information management dimension to produce a near-significant effect was completeness.[6] Observers rated senders in the truth condition as significantly more complete (M = 4.83) than senders in the deception condition (M = 3.13).

Behavior management: Nonverbal involvement, pleasantness, and dominance. Observers detected differences in sender behavior on all five involvement dimensions.[7] Observers rated truthful senders as significantly more immediate (M = 5.70) than deceptive senders (M = 4.10). They also rated truthful senders as more expressive (M = 5.00) and more altercentered (M = 5.80) than deceivers (expressiveness M = 3.00; altercentrism M = 3.07). In addition, they judged deceivers worse at managing conversations (M = 5.20) and more anxious (M = 5.00) than truth tellers (conversation management M = 3.76, anxiety M = 3.27). There were no significant differences found for observers' ratings of senders' pleasantness, but a difference emerged on dominance. Senders were seen as much more dominant when being truthful (M = 4.25) than when being deceptive (M = 2.10).

Impression management. As with receivers, there were no significant differences found in observers' ratings of senders' good impressions or believability.

Discussion

Observers' communication reality matched senders' reality in many ways, but observer and receiver realities overlapped very little. Like senders, observers felt that senders were less complete and expressive, more altercentered, less adept at conversational management, and more anxious when deceiving than when telling the truth. All three parties—senders, receivers, and observers—agreed that senders were less dominant when lying than when telling the truth. However, observers, like receivers, apparently did not ascribe these verbal and nonverbal changes to senders building a deceptive alter reality. They did not consider senders' deceptive messages to be less believable. Nor did they feel that senders' incompleteness, reduced involvement, and nonassertiveness created a poorer impression when deceiving. Thus their awareness of sender information and behavior management did not translate into perceptions that senders were deceiving.

These results imply that observers do benefit from their disengaged role. They seem to be better able than participant receivers to recognize changes in senders' information management, involvement, and dominance. Without the distraction of conversational management needs, observers appear to focus more on participant behavior and catch subtle changes.

However, observers may fall victim to the conversational expectation for truth just as participant receivers do. Unlike in previous studies (Buller, Strzywski, & Hunsaker, 1991; Burgoon & Newton, 1991; DePaulo et al., 1985; Kellermann, 1984; Nisbett et al., 1973; Storms, 1973; Street, 1985; Street et al., 1988), observers did not assign negative interpretations to, or make dispositional attributions about, changes in sender performance. The expectation for truthfulness may be particularly powerful in most communication situations where people must make interpretations of another's communicative behavior. Even third-party observers may need good reason to be suspicious of the other and to entertain deception as a possible interpretation for sender actions (Buller & Hunsaker, 1995; Buller, Strzywski, & Hunsaker, 1991).

In sum, third-party observers exist in a communication reality that is different from receivers' realities because of their enhanced abilities to process conversational behavior. Yet observers share the part of receivers' reality that pertains to the presumption of truthful communication. In that respect, they become unwitting accomplices in facilitating the construction of deceptive realities. However, observers' better ability to see behavioral changes at least brings part of their reality in line with that of senders.

Concordant or Discordant Realities?

Congruence Among Different Perspectives

We have said that the goal to deceive typically puts senders at odds with receivers and observers, unless senders fail miserably at their task and their deceptions are fully transparent to receivers and observers. From this, it might seem intuitively obvious that the three realities should be substantially divergent. (A social constructionist perspective would likewise argue that divergent realities are inevitable.)

However, it is possible that the degree of congruence among perspectives exceeds intuitive expectations. Burgoon and Newton's (1991) social meaning model suggests that certain communicative cues (often nonverbal behaviors) have shared social meaning, such that all members of the same speech or language community will assign similar meanings to them, regardless of the

role of the decoder. According to this perspective, some aspects of deceptive interactions may be perceived similarly by senders, receivers, and nonparticipative observers. This should be more likely for the identification of what verbal and nonverbal behaviors are actually manifested and for their global and denotative meanings than for more subtle, surplus connotations. Similarities are less likely to carry over to attributions of intent and "deep" meaning. So, for example, senders, receivers, and observers alike may agree that a sender used a great deal or very little eye gaze, may similarly agree that the amount of gaze conveyed some level of conversational involvement, but may disagree on whether that involvement was intended to express sincere interest in the conversation or was a clever ploy to prevent message recipients from suspecting prevarication.

In their comparison of observers' and coparticipants' interpretations of an interactant's relational communication, Burgoon and Newton (1991) did find predicted mean differences between participants and observers in assessments of participants' relational messages, but, as predicted, they also found that observer and participant ratings were highly correlated—evidence of strong social consensus in spite of differences in the intensity or extremity of views and encouraging support for a social meaning model of nonverbal behavior. Le Poire and Burgoon (1996) obtained similar results in another relational communication study. Among their conclusions was that

> it becomes strikingly apparent that the relationships between nonverbal cues and relational perceptions are nearly identical for participants and observers. In those cases where they differed in magnitude, they were always in the same direction. Thus, it appears that there is consensus among observers and participants in the ways in which nonverbal behaviors contribute to relational perceptions. (pp. 29-30)

Other research on social perception (e.g., Kenny, 1994) has similarly documented strong consensus among observers in judging a wide variety of social phenomena. From this we might expect that when the sender, receiver, and observer are all cast in the role of "objectively" reporting on what a given sender did (as opposed to what the behaviors "meant") during a bracketed period of interaction, those reports would show some correspondence.

Unfortunately, except for the aforementioned investigations by Buller and colleagues (Buller & Hunsaker, 1995; Buller, Strzyzewski, & Hunsaker, 1991), which focused on mean differences rather than similarities between perspectives and only compared receivers to observers, previous deception research has not addressed the extent to which senders', receivers', and

observers' realities are congruent. Thus we turn to our pilot investigation for hints of similarities in perceptions among senders, receivers, and observers.

Evidence From the Pilot Investigation of Deception Strategies

The previously discussed comparisons focused on mean differences found between truth and deception within each subsample of respondents. Here, attention turns to correlations among perceptions. This analysis was made possible by limiting it to the second discussion topic, which was the first target topic rated by everyone. Within each subsample, half were rating a truthful response and half were rating a deceptive response. Several different topics were rotated across interactions, so the results are not specific to a particular topic.

Despite the fact that senders and receivers appeared to have very different perceptions of senders' information management, the correlational analysis revealed that senders' and receivers' ratings of sender veridicality (truthfulness) were substantially correlated, $r = .43$ ($p = .074$), as were ratings of information completeness, $r = .56$ ($p = .015$). Senders' and observers' assessments of completeness were similarly highly correlated, $r = .58$ ($p = .076$).

None of the behavior management correlations related to involvement and dominance showed significant correspondence among perceptions. However, senders' and receivers' assessment of sender pleasantness were virtually the same, $r = .85$ ($p < .001$).

Finally, the image management analyses produced some matched perceptions. Observers' and senders' ratings on whether the sender made a good impression during the interaction were highly correlated, $r = .63$ ($p = .038$). In addition, senders' and receivers' ratings of sender believability were strongly related, $r = .63$ ($p = .005$).

Discussion

The current results, although admittedly tentative due to the unbalanced samples and low sample sizes, offer further insight into the nature of the relationship among perspectives. They demonstrate high correspondence among sender, receiver, and observer perspectives in regard to gestalt impressions and some, albeit fewer, behavioral particulars when both truthful and deceptive performances are considered together. The magnitudes of the effect sizes represented by the significant correlations are striking in light of the very low power present in these analyses and argue against these being chance findings. Thus it seems fair to conclude that although receivers and observers may diverge in

their ability to discriminate particular features of truthful versus deceptive utterances, at some levels they converge with senders on their perceptions of the overall veridicality, completeness, pleasantness, and credibility of interactive discourse.

General Conclusions

Our aim in this article has been to shed light on the role of communication in perceptions of reality by viewing it through the lens of interpersonal deception theory. The result, we hope, has prompted new insights specifically into the nature of deceptive interchanges and more generally into the varying perspectives held by various parties to interpersonal communication episodes.

Regarding deception, research on detection accuracy has regularly concluded that receivers and observers are poor detectors, often doing only slightly better than chance in their ability to recognize actual deceit (see, e.g., Burgoon, Buller, & Woodall, 1996). The analysis and supporting data we have presented here lend further insight into this process. The divergent goals that senders, receivers, and observers bring to interpersonal interactions; the differential access they have to contextual information; the communication expectation for truth; the positivity biases that the relationship between senders and receiver introduce; and the conversational tasks that draw cognitive resources away from careful scrutiny of sender messages all contribute to receivers and observers embracing uncritically the alter reality senders construct (even in the face of recognizable changes in sender behavior) rather than apprehending the "true" reality to which senders are privy.

But that is only part of the story. Senders also actively, deliberately, and inventively massage the verbal content and linguistic style of their messages to mislead recipients. They mold their nonverbal and verbal behaviors to suppress inadvertent clues to deceit and project a gestalt impression of credibility. These strategic maneuvers on senders' parts can be counteracted by receivers and observers only if receivers and observers have cause to become dubious. But, as we have seen, the deck is stacked against such glimmers of doubt routinely arising. Consequently, senders more often than not are successful in duping message recipients into buying the version of reality they have proffered. And even when receiver suspicions do bubble up, receivers are likely to betray those suspicions to senders through their own verbal and nonverbal actions. Senders then use such feedback to improve their presentations. Thus, as presented in IDT, deceptive realities are not merely the product of a single communicator but are jointly constructed and maintained by all parties to the communication episode.

This conclusion is not unique to deceptive encounters. The same disparities in goals, expectations, motivations, skills, and tasks that give rise to alternative realities in deceptive interchanges will undoubtedly do so in nondeceptive communication venues. Thus some degree of mismatch among sender, receiver, and observer realities is inescapable due to fundamental differences in their motives, knowledge, perceptual filters, encoding and decoding skills, information-processing and task demands, and the like. Even so, the capacity for those viewing the same event from differing perspectives to surmount those obstacles and converge on similar impressions of what actually transpired gives heart to the belief that communication is founded on some degree of common understandings of a shared world. Communicators are capable of seeing aspects of the same event in the same way and of using the same data to arrive at highly similar impressions of a particular communicative performance. The degree of convergence or divergence among sender, receiver, and observer realities will vary directly with senders' commitment to truthfulness. To the extent that they choose to uphold the implied social contract, the prospects for a shared reality will increase. To the extent that their goal is to deceive, they will draw on verbal and nonverbal communication strategies to foster a false reality that receivers, more so than observers, may be inclined to embrace.

Notes

1. Send requests for reprints to Professor Judee Burgoon, Department of Communication, University of Arizona, Tucson, AZ 85721. This project was supported by the U.S. Army Research Office (30235-RT-AAS). The views, opinions, and findings in this report are the authors' and should not be construed as an official Department of the Army position, policy, or decision.

2. Each dependent measure was analyzed in a 2 deceptiveness (truth/deception) × 2 order (deception-truth or truth-deception) analysis of variance or multivariate analysis of variance, with order as a between-subjects factor and truth/deception as a within-subjects factor. Because of the low sample size, the alpha level for significance tests in this study was set at .10 instead of .05. Because half the time deception preceded truth and half the time followed it for the target questions analyzed, the appropriate term representing deception effects is *truth/deception by order interaction*. The analyses for the information management dimensions yielded significant truth/deception by order interactions for all four measures: veridicality $F(1, 15) = 51.42$, $p < .001$, $\eta^2 = .77$; completeness $F(1, 15) = 14.75$, $p = .002$, $\eta^2 = .50$; directness/relevance $F(1, 15) = 3.84$, $p = .069$, $\eta^2 = .20$; clarity $F(1, 15) = 3.50$, $p = .081$, $\eta^2 = .19$.

3. For the involvement measures, the analyses yielded significant truth/deception by order interactions for expressivity, $F(1, 15) = 5.99$, $p = .028$, $\eta^2 = .30$; altercentrism, $F(1, 15) = 11.79$, $p = .004$, $\eta^2 = .44$; conversation management $F(1, 15) = 13.10$, $p = .003$, $\eta^2 = .47$; and social anxiety $F(1, 15) = 18.60$, $p = .001$, $\eta^2 = .55$.

The analysis for dominance also produced a significant order by truth/deception interaction, $F(1, 15) = 5.50, p = .033, \eta^2 = .27$.

4. There were order by truth/deception interactions for senders' perception of the kind of impression they made, $F(1, 15) = 5.54, p = .033, \eta^2 = .27$, and for how believable they thought they appeared, $F(1, 14) = 12.17, p = .004, \eta^2 = .46$.

5. There was a significant order by question interaction for the receiver's perceptions of a sender's dominance, $F(1, 15) = 4.92, p = .042, \eta^2 = .25$.

6. There was a near-significant main effect for order, $F(1, 8) = 3.42, p = .102$.

7. Significant involvement effects were as follows: immediacy $F(1, 8) = 4.45, p = .068$; expressivity $F(1, 8) = 3.48, p = .099$; altercentrism $F(1, 8) = 10.19, p = .013$; conversation management $F(1, 8) = 11.42, p = .010$; and social anxiety $F(1, 8) = 5.70, p = .044$. There was also a main effect on dominance, $F(1, 8) = 9.06, p = .017$.

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