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## **CURTAILING DECEPTION: THE IMPACT OF DIRECT QUESTIONS ON LIES AND OMISSIONS**

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*This paper investigates the use of deception in two negotiation studies. Study 1 (N = 80) demonstrates that direct questions and solidarity curtail deception. Study 2 (N = 74 dyads) demonstrates that direct questions are particularly effective in curtailing lies of omission, but may actually increase the incidence of lies of commission. These findings highlight the importance of misrepresentation to the negotiation process and suggest approaches for contending with deception.*

Deception in organizations represents a significant managerial challenge (Grover 1993a; Grover & Hui, 1994) across a broad range of functional areas (Jones, 1991). Available examples range from inflated Medicare claims in Florida ("Hospital chain," 1998) to misrepresentation of repair work throughout Sears' automotive unit in California ("Getting your car," 1992; "Sears gets," 1992). One managerial activity particularly prone to deception is negotiations. For example, in recent lawsuits Textron was accused by its union of lying during labor negotiations (Textron v. United Automobile, 1998), Digital Equipment Corporation was accused of lying during pre trial negotiations (Digital v. Desktop Direct Co., 1994), and Woolworths was accused of misrepresenting the amount of asbestos in a building during the negotiation of a lease (Century 21 Inc. v. F. W. Woolworth, 1992).

Negotiators have both incentives and opportunities to mislead others (Lewis & Saarni, 1993). For example, negotiators who use deception often benefit by increasing their power (Lewicki & Robinson, 1998), their perceived power (Shapiro & Bies, 1994) and profits (Chertkoff & Baird, 1971; O'Connor & Carnevale, 1997). Of course, there are costs to using deception. These costs, however, are often uncertain and delayed, and even when deception is detected the costs can be mitigated by providing explanations perceived to be adequate and honest (Shapiro, 1991).

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Opportunities for deception are created by two factors: First, the existence of private and asymmetric information and second, the difficulty people have detecting deception. Since few untrained people can detect lies (DePaulo, 1988; Ekman & O'Sullivan, 1991; Ekman & Friesen, 1974; DePaulo & DePaulo, 1989), negotiators have ample opportunities to mislead others. Further, since people are generally overconfident in their ability to detect deception (Ekman & O'Sullivan, 1991), negotiators are likely to underestimate the magnitude of this problem.

Despite the importance of deception in negotiations, surprisingly few prescriptions for contending with deceptive practices exist. Fisher, Ury, and Patton (1991) suggest that negotiators "learn to spot particular ploys that indicate deception," and then "raise the issue explicitly and question the tactic's legitimacy" (p. 130). Detecting lies, however, is very difficult. To help detect lies, Thompson (1998) recommends three specific strategies: testing the consistency of information by asking many questions, insisting on negotiating in person, and asking for proof such as documentation when possible. In this paper, we investigate a related, but different approach to curtailing deception. We investigate the impact of asking direct questions on lying behavior. We consider the most blatant type of misrepresentation, lies about material facts, and examine the role of direct questions in mitigating deception. The first study measures actors' propensity to deceive friends and strangers when asked or not asked a direct question. The second study extends this investigation by identifying the impact of direct questions on lies of omission and lies of commission.

### **Types of Deceptive Behavior**

Deceptive practices have been classified along several dimensions. In early work, Bok (1978) distinguishes between misleading *statements*, which she defines as lies, and misleading *omissions*, which she defines as deception. In this paper we distinguish between lies of omission and lies of commission but use the terms *deception* and *lying* interchangeably.

DePaulo et al. (1996) develop a taxonomy of lies, and classify lies according to their content, motivation, magnitude, and referent (whether the lie is about the liar, another person, objects or event). Lewicki and Stark (1996) analyze subjects' evaluations of 18 ethically questionable negotiation tactics, and categorize these into five "appropriateness" categories. We draw from this literature, and classify types of deception according to the information misrepresented. These categories include lies about a reservation price, lies about interests, bluffs (making false threats or promises), and lies about material facts. Unlike prior work on deception, we focus our investigation on lies about material facts.

### **Acceptability of Deceptive Practices in Negotiation**

Despite the routine occurrence of deception in negotiations, there is little agreement among experts on the extent to which deception is appropriate. Some scholars recommend that negotiators avoid "bluffing" (Dees & Cramton, 1991;

Fisher, Ury, & Patton, 1991), while others claim that deception is a normal (Lax & Sebenius, 1986; Wokutch & Carson, 1993) and in some cases an integral (Carr, 1968) part of the negotiation process.

More often, however, scholars have made distinctions between types of deception that are and are not acceptable. These distinctions have been based upon the type of information concealed, the type of deceptive practice used, and whether or not the deception involves a statement or an omission. For example, Wokutch and Carson (1993) argue that it is worse to lie about an issue about "which other parties have a right to know than one about which they have no right to know" (p. 502). Others ethicists have argued that lies about one's reservation price are acceptable, while lies about material facts are not (Strudler, 1995).

In related empirical work, negotiators typically consider lies about one's reservation price to be acceptable, but consider fabrications about material facts to be unethical (Anton, 1990), inappropriate (Lewicki & Stark, 1996), and unacceptable (Lewicki, Saunders, & Minton 1997; Lewicki & Robinson, 1998). The practice of bluffing has been more difficult to categorize. Bluffs have been rated as unacceptable in some studies (Lewicki & Stark, 1996; Lewicki & Robinson, 1998), but acceptable in others (Anton, 1990). Kronzon and Darley (1999) find that perceptions of conflict and deception are moderated by identification. For example, subjects who identify with the deceiver rate deception as more acceptable than those who identify with the target.

Advice for negotiators echoes this confusion. Prescriptions regarding the use of deception range from Raiffa's (1982) recommendation that negotiators deal honestly with each other to Wokutch and Carson's (1993) claim that lying in negotiations is justified in most cases. Lax & Sebenius (1986) suggest that negotiators consult a list of questions, such as "What if everyone bargained this way?" to guide their own behavior.

### **Experimental Studies of Deception in Negotiation**

A number of studies have examined self-reports of deceptive practices and identified important determinants of deception. These studies find that individual characteristics such as nationality (Lewicki & Robinson, 1998), education, religion (Maier & Lavrakas, 1976), gender, and work experience (Robinson, Lewicki, & Donahue, 1997), as well as contextual factors such as relationship considerations (Maier & Lavrakas, 1976; Haidt & Baron, 1996) affect a negotiator's propensity to lie. These results are consistent with behavioral models of deception (Lewicki, 1983) and unethical behavior (Hegarty & Sims, 1978; Trevino, 1986; Grover, 1993a; Grover, 1993b; Grover & Hui, 1994).

A few experimental studies have also examined deception in negotiations. Tenbrunsel (1998) investigates the role of incentives in misrepresentation of a forecast, and finds that larger incentives increase the likelihood of misrepresentation. O'Connor and Carnevale (1997) examine misrepresentation of a common value issue in a negotiation task, and find that negotiators in 28% of the dyads mis-

represent their interests. In other experimental work, Shapiro (1991) investigates negotiators' reactions to deception. Her findings reveal that negotiators who use deception can mitigate negative reactions by providing explanations which are perceived to be adequate and honest. Taken together these studies illuminate important antecedents and consequences of lying, but offer little advice for contending with deception.

### Study I

The first study investigates self-reported lying behavior of subjects asked to assume the role of a prospective seller of a used car. The questionnaire scenario describes a car with a transmission problem that will need work but does not require immediate attention. A prospective buyer takes the car for a test drive but does not detect the problem. Consequently, the buyer would reasonably assume that the car is mechanically sound. In this questionnaire subjects are asked how likely they would be to reveal this problem to a friend and to a stranger who asks or does not ask about the mechanical condition of the car.

### Hypotheses

Our first hypothesis explores the relationship between asking questions and deception. We expect subjects who are asked a direct question to be less likely to use deception than subjects who are not asked a direct question. We develop this expectation based upon three assumptions. First, we assume that people can choose to lie by omission, lie by commission, or reveal the truth. Second, we assume that most people would prefer to lie by omission than to lie by commission. Third, we assume that direct questions force people to articulate a response, and choose between telling a lie by commission and revealing the truth.

The key assumption underlying this hypothesis is that people will be more reticent to mislead someone by commission than omission. Prior work has demonstrated that people judge commissions more seriously than omissions (Spranca, Minsk, & Baron, 1991) and that emotional reactions to adverse outcomes are stronger when these outcomes result from action than when they result from inaction (Kahneman & Tversky, 1982). In addition, intentionality is easier to judge for acts than for equivalent omissions, and both individual decision makers and the law attach greater responsibility to actions (Baron, 1992; Shell, 1991). Consequently, if direct questions foreclose the option of lying by omission we expect direct questions to curtail the overall use of deception.

*Hypothesis 1a:* When asked a direct question, subjects will be less likely to use deception than when they are not asked a direct question.

We also propose the alternative hypothesis that asking a direct question will actually increase the use of deception. In this case, we consider the possibility that direct questions increase anxiety, and that respondents will choose to tell lies to resolve this anxiety. We assume that asking questions creates tension and conflict, and that one approach for resolving this tension is the use of deception. In support

of this mechanism, Hample (1980) found that most lies were responsive and unplanned. Liars were "suddenly faced with a lie-provoking problem" (p. 41) that triggered the use of deception. This process explanation is echoed in Grover's (1993a) model of lying in organizations involving "individual distress that can be relieved by lying" (p. 481). A separate literature has also demonstrated that leading questions can evoke misinformation. In an extreme example of this process, leading questions can be used to elicit false memories (see Loftus, 1997; Garven, Wood, Malpass, & Shaw, 1998). Consequently, we consider the alternative hypothesis.

*Hypothesis 1b:* When asked a direct question, subjects will be more likely to use deception than when they are not asked a direct question.

Our second hypothesis investigates the relationship between deception and solidarity. Brown (1965) describes dimensions of relationships, and defines a solidarity dimension to represent the intimacy of a relationship. Hamilton and Sanders (1981) extend this concept and define solidarity across a range of relationships. Close or "status" relationships involve intimate associations such as familial ties. At the opposite extreme, remote or "contract" relationships involve limited and temporary relationships such as a one-time interaction with an anonymous clerk.

Although friends may be more likely to tell altruistic lies, we expect friends to be less likely to lie about a material fact in a transactional negotiation. An exposed lie in this context will have greater consequences for friends, such as harming a future relationship and disrupting a social network. Even if a lie escapes detection, friends are likely to suffer stronger feelings of regret and guilt. In previous work, Haidt and Baron (1996) found that friends are held more responsible than strangers.

It is also easier to lie to strangers. Strangers are less sensitive to nonverbal and verbal cues (Anderson, Ansfield, & DePaulo, in press) and are consequently less likely to detect deception. Strangers are also less likely to detect deception in the future since a liar is less likely to reveal information to a stranger at a future point in time.

*Hypothesis 2:* Subjects will be more likely to deceive strangers than friends.

We also consider the role of ethics education in curtailing lying behavior. Ethics education may impact actual professional behavior (Duska, 1991), and in experimental work, ethics education has been linked to advances in moral development (Jones, 1989). Ethics education has become more prevalent in business schools (Schoenfeldt, McDonald, & Youngblood, 1991), and we examine its impact on the use of deception in this setting.

*Hypothesis 3:* Subjects who have taken a course in ethics will be less likely to use deception than those who have not taken a course in ethics.

## Method

We recruited 80 graduate students from a Southern university in the U.S. to complete one of four versions of a questionnaire for course credit. A total of 20 subjects completed each of the four versions, which were identical except for the order of the treatment conditions. The questionnaire began with the following introduction:

Suppose you are planning to move, and must sell your current car—a 1990 Honda Civic (4 door, automatic transmission, and sun roof). You have taken good care of the car and believe it to be in decent condition. Recently, though, you have had some transmission trouble. Your mechanic told you that the car will eventually need some work, but that the problem does not require immediate attention—the car seems to run perfectly fine most of the time.

After reading this introduction, subjects were asked to rate the likelihood that they would tell a prospective buyer about the transmission problem on an 11-point scale (1 = *Certainly Would Not Tell* to 11 = *Certainly Would Tell*) under each of four conditions. The order in which these questions were asked created a 2 x 2 design for the treatment conditions of a buyer who is either a friend or a stranger and a buyer who either asks or does not ask about the mechanical condition of the car. All four treatment conditions are presented here in brackets:

A potential buyer, Jon, has just come to look at the car. [Jon is a friend of yours, and you expect to keep in touch with him after you move. Jon is a stranger you just met and you do not expect to ever see him again.] Jon took the car out for a test drive, and the car performed without a problem.

a. Suppose Jon [asks you/does not ask you] about the mechanical condition of the car. How likely would you be to tell him about the transmission problem?

The questionnaire concluded by asking subjects their age, gender, whether or not they had ever taken a course in ethics, and the number of times they had been involved in selling and buying a used car.

## Results

Since each subject rated the likelihood that they would reveal the transmission problem under four treatment conditions, we conducted a repeated measures analysis of variance to analyze responses. Presentation order did not significantly influence responses, and consequently we combine results across versions for the remainder of the analysis.

The average respondent's age was 26.6, and 52 (65%) of the respondents were male. A second repeated measures analysis of variance revealed no significant gender differences [ $F(1, 78) = 1.63, ns$ ], and we combined results across gender as well.

Almost all of the subjects admitted that they might mislead a prospective buyer under some conditions. Only 6 respondents (7.5%) claimed that they would certainly tell a prospective buyer about the car trouble in each of the four cases.

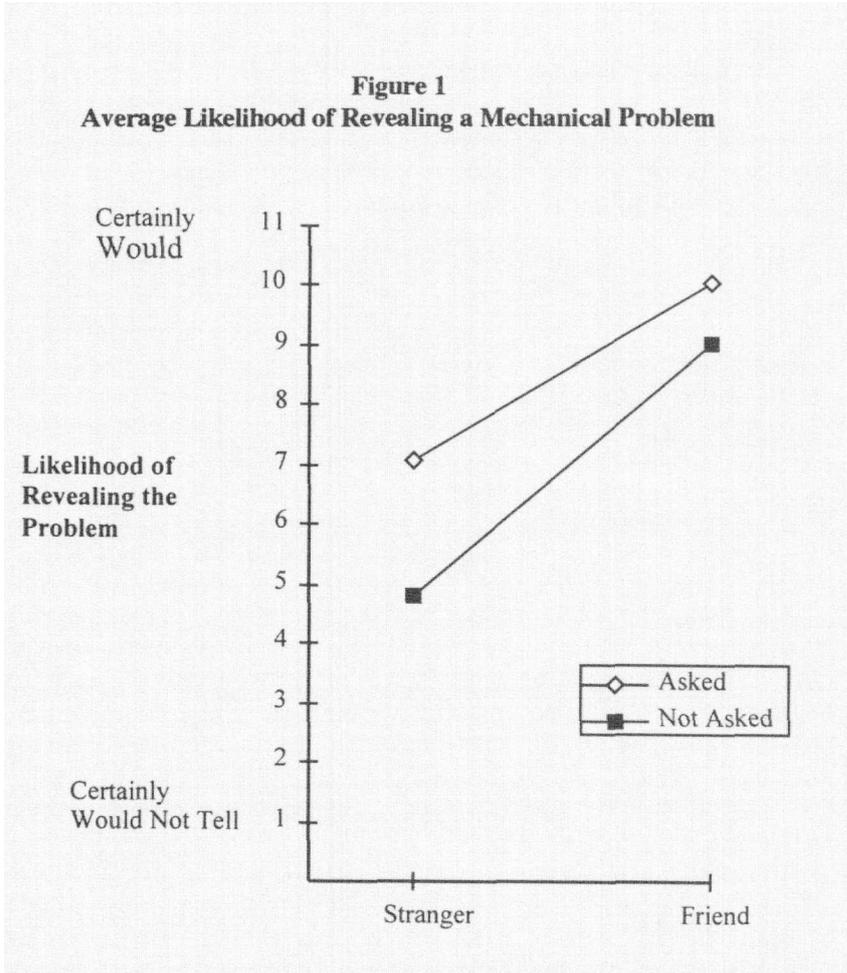
We next computed the total number of times a subject had bought or sold a used car. On average, each respondent had been involved in a total of 2.94 used car transactions. A third repeated measures analysis of variance revealed no significant differences across levels of experience with buying or selling a used car [ $F(12, 67) = .88, ns$ ]. This suggests that the experience of buying or selling a used car did not moderate lying behavior in this case.

In the condition involving a stranger who neglects to ask about the mechanical condition of the car, 20 subjects (25%) claimed that they would certainly *not* tell a stranger about the transmission problem, and only 6 subjects (7.5%) claimed that they certainly would tell. However, when the situation involves a friend who inquires about the mechanical condition of the car, a total of 49 subjects (61.25%) claimed that they certainly would reveal the transmission problem, and no subjects admitted that they certainly would not reveal the problem.

Figure 1 reports average responses for each of the four cases. Subjects were most likely to reveal the mechanical problem to friends who asked, next most likely to tell friends who did not ask, third most likely to tell strangers who asked, and least likely to tell strangers who did not ask. These differences were statistically significant; the Wilks' Lambda from a repeated measures analysis of variance produced an  $F(3, 74) = 51.53, p < .001$ . Separate multivariate analyses of variance determined that friendship mattered [Wilks'  $\lambda F(2, 75) = 505.67, p < .001$ ], asking mattered [Wilks'  $\lambda F(2, 75) = 283.47, p < .001$ ], and that there was an interaction between the two [Wilks'  $\lambda F(2, 75) = 16.93, p < .001$ ] suggesting that asking benefits strangers more than it does friends. The results support Hypothesis 1a, subjects were less likely to lie when asked a direct question, and Hypothesis 2, subjects were less likely to lie to friends.

The interaction between friendship and asking probing questions may be explained by a ceiling effect. For example, several subjects selected an "11" on the 11-point scale when asked if they would reveal the transmission problem to a friend who did not ask about the mechanical condition of the car. These subjects were unable to rate themselves as even more likely to reveal the problem to a friend who did ask. To investigate this explanation we conducted a second set of repeated measures analyses of variance that excluded subjects who selected any extreme-scale values. This reduced the sample to 22 subjects, and results from this analysis revealed that friendship mattered [Wilks'  $\lambda F(2, 17) = 218.53, p < .001$ ] and asking mattered [Wilks'  $\lambda F(2, 17) = 90.25, p < .001$ ], but we did not find an interaction between the two [Wilks'  $\lambda F(2, 17) = .42, ns$ ].

Surprisingly, we found no support for Hypothesis 3. There were no differences between the responses of the 42 (52.5%) subjects who had taken an ethics course and those of the 38 (47.5%) subjects who had not taken an ethics course. As Figure 2 depicts, respondents who had taken an ethics course were slightly less likely to lie, but this difference did not approach significance; results from a repeated measures analysis of variance comparing those who had to those who had not taken an ethics course yielded an  $F(1, 78) = .04, ns$ .

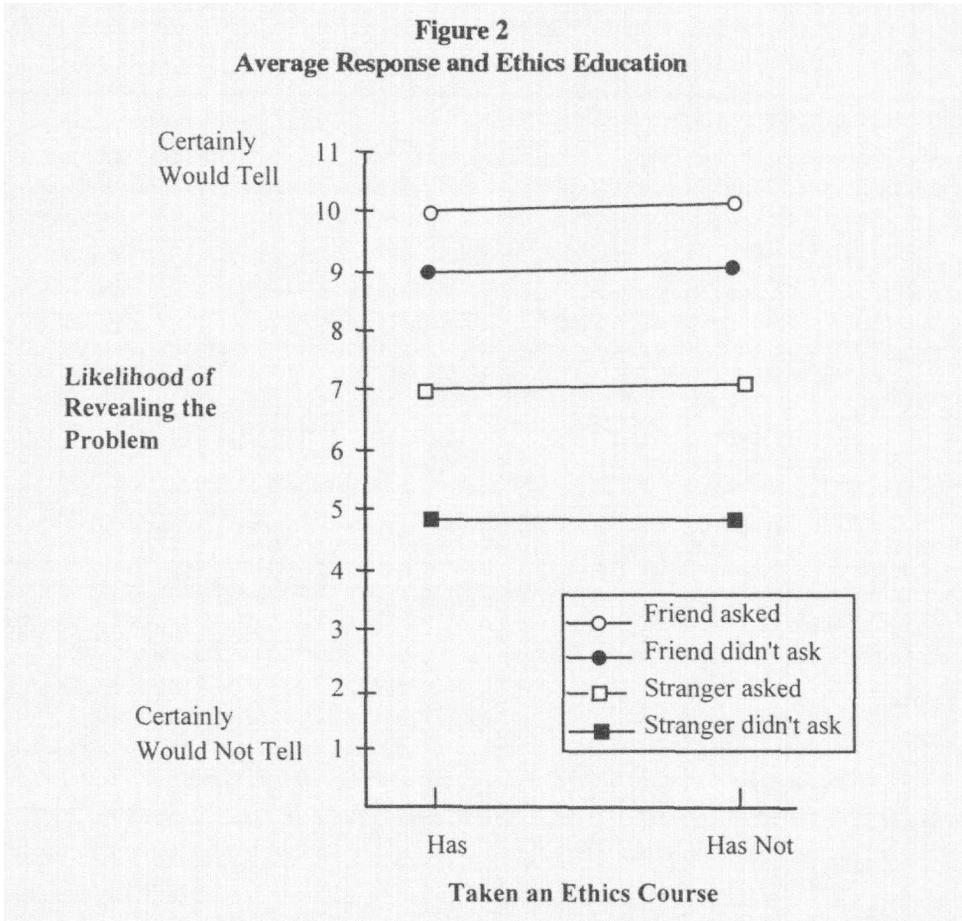


### Discussion of Study 1

These results describe the self-reported propensity of subjects to lie in a negotiation context. A vast majority of subjects admitted that they might or would certainly mislead a prospective buyer about a mechanical problem with a car.

By design, negotiator's private information in this scenario constitutes a material fact, and the prevalence of deception in this study is surprising in light of prior work which has demonstrated that negotiators consider lies about material facts to be unacceptable (Anton, 1990; Lewicki & Stark, 1996; Lewicki et al., 1997). The difference between prior findings and our results may be explained by a difference in context, a difference in subject population, or a difference in elicitation method. Context influences the acceptability of deception (Lewicki, 1983; Lewicki, Litterer, Minton, & Saunders, 1994), and task frame has been demonstrated to influence behavior (Neale, Huber, & Northcraft, 1987). Subjects in this study may have

been more likely to lie because the benefits from lying were more explicit or because the context of a used car cued a greater propensity to lie. In addition, demographic characteristics may have influenced evaluations. Even though both prior work and this study involved graduate students, the two populations were drawn from different universities with different demographic compositions.



Subjects reported that they were more likely to disclose the problem when they were asked a direct question. This finding supports the premise that subjects are less comfortable misleading others by commission than omission, rather than the hypothesis that asking questions creates conflict that ultimately increases the use of deception. Subjects also reported a higher propensity to disclose the problem when the prospective buyer was a friend than when the prospective buyer was a stranger. Friends in this case may be held more responsible for lies that cause harm. This result may be domain specific, and in other contexts where social

norms dictate misrepresentation, friends may be held less responsible for deception, or may even be expected to use deception. Although we found an interaction between omission and friendship in our initial analysis, this result can be explained by a ceiling effect.

Surprisingly, subjects who had taken a course in ethics were just as likely to lie as subjects who had not. This result does not suggest that ethics education cannot improve moral thinking, but rather indicates that the ethics training this population received did not influence behavior in this context.

Our second study extends our investigation by addressing three limitations of Study 1. First, the design involved self-reported measures. Subjects may act differently when actually faced with a direct question. The tension created when someone asks a direct question in a face-to-face negotiation, as in our second study, may evoke a different set of responses than those reported in this one. Second, the first study is limited by its application to a used car context. The context of a used car sale may cue specific behaviors that are not representative of behavior in other contexts. Our second study uses a different, transactional context. Third, the first study does not distinguish between lies of omission and lies of commission. This limitation is also addressed in our second study.

### Study 2

The focus of Study 2 is the impact of direct questions on deceptive behavior, and this experiment extends our investigation in several ways. First, the experiment involves a negotiation task designed to measure behaviors rather than intentions. Second, the experiment involves a domain different from a used car context. Third, this study distinguishes between types of deceptive practices. Specifically, we are able to observe both lies of omission and lies of commission in this experiment.

The second study describes a negotiation experiment involving the sale of a used computer with a faulty hard drive. The seller knows about the problem with the drive and also knows that the buyer is unaware of the problem. Through the course of negotiation sellers can either lie about this information, conceal this information by omission, or reveal this information to the buyer. Deception in this study is measured by coders who analyzed audio-taped recordings of the negotiation process.

### Hypotheses

In this section we identify manipulation checks about the interventions and hypotheses about the relationship between asking questions and deception. The structure of Study 2 lacks the control of Study 1, and we were concerned that buyers in this negotiation would fail to ask enough questions. Since the focus of the experiment is the relationship between questions and deception, we designed interventions to prompt buyers to ask questions.

We designed three treatment conditions to influence the number of questions buyers asked. In the strong and moderate treatments, buyers were prompted to con-

sider information they did not know, and to list questions they should ask prior to negotiating. We expect this intervention to increase the salience of missing information (Slovic, Fischhoff, & Lichtenstein, 1987) and prompt buyers to ask additional questions. That is, we expect buyers who are prompted to list questions prior to negotiating to ask more questions than buyers who are not prompted to list questions.

The strong treatment condition also included a list of potential problems with purchasing a used computer. We expect this information to highlight the amount of missing information and influence the nature and number of questions buyers ask. Specifically, we expect buyers in the strong treatment condition to ask more questions than buyers in the moderate treatment condition.

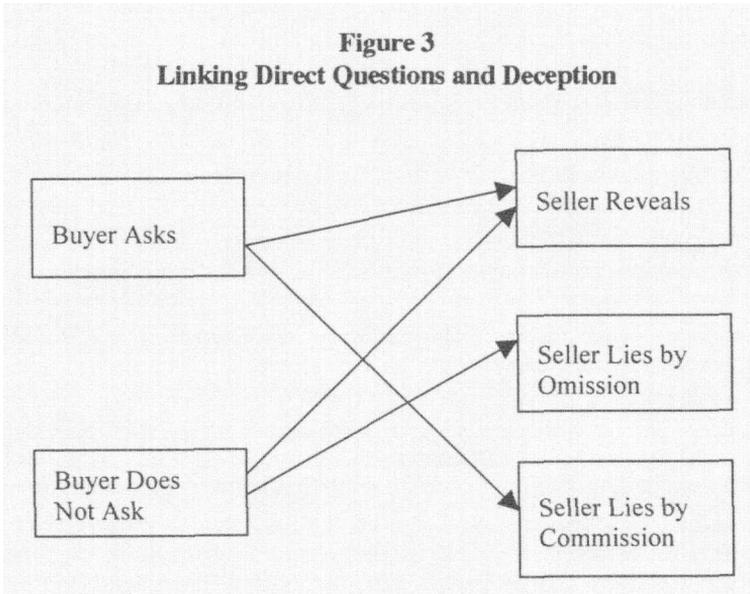
We next consider the relationship between asking questions and deception. In some negotiation contexts negotiators have a positive obligation to disclose information. In these cases omissions may constitute fraud. For example, if a negotiator sells an item with a hidden defect that a prudent buyer would not be able to identify through the course of a normal or routine inspection, the seller has an obligation to disclose the problem. We propose the following model of hypotheses for subject behavior for revealing or concealing this type of information. Subjects may choose to truthfully reveal the information, actively lie about the information by commission, or avoid the topic and lie by omission. Note that avoiding the topic in this case constitutes a lie of omission.

We expect subject behavior to be influenced by direct questions as depicted by Figure 3. When buyers ask a direct question, sellers choose between revealing information and misstating a fact (lying by commission). In this case, we assume that sellers are not able to deflect the question or avoid the topic. Effectively, we assume that when buyers ask a direct question they foreclose the seller's option to lie by omission. When buyers do not ask a direct question, sellers choose between revealing the information and lying by omission. Of course, sellers could lie by commission even when they are not asked a direct question, but we expect sellers to favor lies of omission for both rational (Shell, 1991) and irrational (Spranca, Minsk, & Baron, 1991) reasons. Consequently, when sellers are not asked a direct question we do not expect to observe lies of commission. For these same reasons, we expect deception to be more prevalent when buyers do not ask a direct question, and we propose our first Hypothesis.

*Hypothesis 1:* Subjects will be more likely to reveal a material problem when asked a direct question than when not asked.

This framework also suggests that subjects will not tell lies of omission when they are asked a direct question. We assume that deflecting a direct question is either too difficult or itself tantamount to answering the question, and propose our second hypothesis.

*Hypothesis 2:* Subjects will be less likely to lie by omission when asked a direct question than when not asked.



Since we expect subjects to favor omissions to commissions when they are not asked questions and to be unable to lie by omission when asked a direct question, we propose our third hypothesis.

*Hypothesis 3:* Subjects will be more likely to lie by commission when asked a direct question than when not asked.

### Method

**Participants and Design.** A total of 148 participants were recruited from negotiation courses to role-play a case involving the sale of a used computer. There was no overlap in subjects between the first and second study. Participants were randomly paired and assigned to the role of either buyer or seller. The case was conducted during the first week of the semester before significant relationships or reputations could develop. We recruited 148 subjects from two different schools of business. One hundred subjects were recruited from a large Eastern university and 48 subjects were recruited from a large Southern university.

All sellers received the same information. In particular, sellers knew that the computer had a "sticky" hard drive, which was prone to crashing. Sellers also knew that buyers were unaware of this problem.

Buyers were randomly assigned to one of three between-subject treatment conditions labeled strong, moderate, or weak. The strong treatment condition informed buyers that previous research has found that most buyers fail to ask enough questions. Buyers were then prompted to think carefully about information that they did not know about the computer, and list questions they should plan to ask before making an offer. This treatment condition then listed advantages and

disadvantages of purchasing a used computer such as one would find in a consumer guide. This list included leading information for the buyer noting that one drawback to purchasing a used computer is "a lack of information about infrequent crashes or other mechanical problems."

The moderate treatment condition was similar to the strong treatment condition, and also prompted buyers to list questions they should ask during their negotiation. This moderate treatment condition, however, did not include the list of advantages and disadvantages contained in the strong treatment condition. The weak treatment condition was a filler task that asked buyers to list questions they would ask their favorite celebrity. While all three treatment conditions prompted buyers to generate a list of questions, only the strong and moderate conditions prompted buyers to generate negotiation-related questions.

**Negotiation Task.** The negotiation task involved a buyer and a seller for a used computer with a "sticky" hard drive. As part of their private information, sellers were told:

When you first purchased the machine (for \$2,700), it worked beautifully. In the past couple of months, however, you have had to take it in for service 3 times! Apparently, the 1.2 gig hard drive (which is a large hard drive) has a problem and is prone to crashing. When this happens, you have had to reload EVERYTHING onto the machine. Fortunately, you have kept copies of ALL your important documents, and while this problem has been merely annoying to you, it would pose a serious problem to an unsophisticated user. Since the machine came with a 1 year warranty (which expired 2 weeks ago), all previous repairs to the machine have been free, but you know that the repair shop has not been able to correct this "sticky" hard drive.

Thus sellers knew that the hard drive periodically crashes, and that the repair shop has been unable to correct this problem. Sellers also knew that the buyer did not detect this problem during a quick test run of the computer:

So far, you have not had much luck selling the machine. One buyer, however, did come by yesterday to check it out and the computer ran without a problem. At that time, they did not ask any questions, only turned the machine on, ran Word and Excel for a couple of minutes and left.

In contrast, buyers were told nothing about the machine's specific problems. Instead, all buyers were told:

Your friend (an undergraduate computer science major) recommended that you buy a used computer. He said that most computers, if they have problems, break down during the first year, and that if you can find a computer which has been previously owned for at least a year with no problems, it is likely to be a reliable machine.

And later. . .

You decided to check this machine out since its features would suit your needs. Yesterday, when you went to check out the machine, you turned it on,

ran Word and Excel for a couple of minutes, and everything seemed to be in working order.

Thus buyers knew general information about the computer and that a quick test run of the computer revealed no problems.

**Procedures and Measures.** Participants were given approximately 20 minutes to read and prepare the case material. Buyers and sellers were then paired and negotiated the case without a time limit. Each negotiation was recorded with an audio tape, and at the conclusion of each negotiation, subjects completed an agreement sheet and a post-negotiation questionnaire.

We collected both outcome and process measures from each negotiation. The outcome measures include agreements if any, and the final prices as reported in the final agreement sheets. Process measures were collected from the audio recordings of each negotiation. Two raters, blind to the purpose of the study and blind to the Hypotheses, independently coded each recording. Raters measured the number of non-price related questions buyers asked, whether or not buyers asked about the mechanical condition or reliability of the computer, the number of reliability related questions buyers asked, what information sellers revealed about the computer problem, and the length of the negotiation.

Raters' evaluations were consistent. Reliability measures computed from the Spearman-Brown prophecy formula (Nunnally & Bernstein, 1994) produced values of .96 for the number of questions buyers asked, .95 for whether or not buyers asked about the mechanical condition, .95 for the number of reliability related questions buyers asked, .75 for the information sellers revealed, and .97 for the length of the negotiation. A third rater, also blind to the purpose of the study and treatment conditions, independently coded cases involving rater disagreement. This process produced a single set of codes for each negotiation.

We also collected data from the post-negotiation questionnaire of each participant. These questionnaires asked participants questions including general demographic information and their perceptions of the negotiation process.

## Result

All of the 148 participants completed the exercise. The average participant's age was 25.3 ( $SD = 4$ ), with 2.9 ( $SD = 3.1$ , median = 3) years of full-time work experience. Most of the participants (66.9%) were male, and most dyads reached an agreement. The average final price was \$1,350 ( $SD = 89$ ), with 8 dyads failing to reach agreement.

**Subject Pool Effects and Manipulation Checks.** Our first set of analysis investigates potential differences between the two university populations in our subject pool. We conduct OLSQ regression and logistic regression analyses using process measures and outcomes as dependent measures, and treatment condition and university (a dummy variable) parameters as independent variables. We find no differences between the two university populations across process measures and outcomes; across all models, parameter estimates for the university variable are

small and insignificant. Consequently, we combine data from both populations for the remainder of the analysis.

Analysis of variance reveal that treatment condition significantly influenced the number of questions buyers asked [ $F(2, 72) = 7.10, p < .01$ ]. Bonferroni corrected pairwise comparisons (for a group  $\alpha = .05$ ) reveals that buyers asked significantly fewer questions in the weak treatment than in the moderate and strong treatments. We did not find a significant difference between the number of questions asked in the strong treatment and in the moderate treatment.

The percentage of buyers who asked about the reliability of the computer in particular demonstrated a similar pattern. Tests for equality of proportions reveal that buyers in the moderate treatment were more likely to ask about the reliability of the computer than were buyers in the weak treatment. This result approached statistical significance ( $p = .053$ ), but other differences were not significant.

As described by Table 1, buyers in both the moderate and strong treatments asked more questions and were more likely to ask about the reliability of the computer, but we found no significant differences between the negotiation processes of buyers in the moderate and strong treatments. We suggest some possible explanations for these results in the discussion section.

**Sellers' Claims.** The main variable of interest in this study is the seller's claim regarding the working condition of the computer. We group sellers' claims into three categories: sellers either revealed the problem (revealed), lied to conceal the problem (commission), or made no mention of the problem (omission). The revealed problem category includes statements such as "the computer has a problem" and "the computer has a problem that may persist." The commission category includes statements such as "the computer has no problem" and "the computer had a problem, which is now fixed." The omission category includes cases where the seller made no mention of the reliability or working condition of the computer. In Table 2, we list actual examples of the types of questions buyers asked and the responses sellers gave.

**Table 1**  
**Questions Asked by Treatment Condition**

Process Measures	Treatment Condition		
	Weak	Moderate	Strong
Questions Asked (Average)	5.56	9.56	8.35
Asked about Reliability (%)	76.0%	92.0%	83.3%
Number of Dyads	25	25	24

**Table 2**  
**Excerpts from the Negotiation Process:**  
**Example Questions and Answers**

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When Sellers Revealed the Problem

Example 1

Buyer: Has anything gone wrong with the computer while you've had it?

Seller: Well the problem that I've been working on is the hard drive. And it crashes every now and then.

Buyer: So if it crashed I could lose some of my data?

Seller: It is possible to lose data, but what I do is I back up all my data. Everybody who runs a computer backs up the data.

Example 2

Buyer: Have you had to use your warranty to fix anything?

Seller: Once in a while it used to crash. And that was kind of a problem, which is why I've been very good at making sure I have all the software. In case it ever crashes you've got all the software.

Buyer: When you say crash, what does that mean?

Seller: Ah, I'm not sure why it crashed. That's why, you know, I took it in.

Buyer: When it crashes what did you lose? I'm concerned. What did you have to do?

When Sellers Lied by Commission

Example 3

Buyer: Have you had any problems with the computer in the past? Is there anything I need to be concerned about?

Seller: Well, I've been happy with it. It works relatively well for me. It's no longer under warranty so you should realize that if you have any problems it's no longer under warranty. But, it's been a great computer for me.

Buyer: Now is there anything, any part of the computer that you would need to take with you? Or is the whole thing for sale.

Seller: No, basically everything is for sale. The way you saw it you can take it. All the programs are loaded. It has a hard drive. You know the monitor—it's a great monitor.

Example 4

Buyer: Have you had any problems with the computer? I mean, anything out of the ordinary?

Seller: No nothing, nothing major actually. You know from time to time you clean-up things, but nothing major. It was just like ah, like ah regular maintenance.

Buyer: Regular maintenance?

Seller: Yes.

Buyer: Have you added any new hardware where you had to open up the computer? Like to install like a modem or install a CD-ROM? Or did it come with all that?

Seller: It came with all that. It was fully packaged. It was all set.

Buyer: So you haven't opened it up?

Seller: No. No need to do that.

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Table 3 describes the negotiation process in terms of whether or not buyers asked about the reliability (or mechanical condition) of the computer and sellers' claims. Our main result is that sellers' claims were significantly influenced by whether or not buyers asked about the reliability of the computer [ $\chi^2(2) = 54.37, p < .001$ ].

When buyers did ask about the reliability of the computer, sellers either revealed the problem or concealed the problem with a lie of commission. When buyers did not ask about the reliability of the computer, sellers either lied by omission or lied by commission stating that the computer had no problem. In no case did a seller reveal the computer problem when the buyer failed to ask about the reliability of the computer.

Confirming our first hypothesis, sellers were significantly more likely to reveal the problem when buyers asked them about the reliability of the computer than when buyers did not ask about them about the reliability of the computer. When buyers asked a direct question about the reliability of the computer, they were informed of the problem 61% of the time. When buyers did not ask about the reliability of the computer, they were informed of the problem 0% of the time ( $p < .001$  in a test for equality of proportions).

**Table 3**  
**Asking Questions and Information Exchange**

Seller's Action	Buyer Asked	
	Yes	No
Revealed	38 (61%)	0 (0%)
Omission	0 (0%)	9 (75%)
Commission	24 (39%)	3 (25%)
Total	62	12

*Note:* Percentages for each column are provided in parentheses

Confirming our second hypothesis, sellers were more likely to lie by omission when they were not asked a direct question than when they were asked a direct question. When buyers asked a direct question about the reliability of the computer, none of the sellers avoided the topic and said nothing about the condition of the computer. When buyers did not ask a direct question, 75% of the sellers avoided the topic and said nothing about the condition of the computer ( $p < .001$  in a test for equality of proportions).

Consistent with our third hypothesis, sellers were more likely to lie by commission when they were asked a direct question than when they were not asked a direct question. When buyers asked about the reliability of the computer, 39% of the sellers lied by commission. When buyers did not ask about the reliability of the

computer, 25% of the sellers lied by commission. This difference, however, was not statistically significant.

These results are consistent with our main hypotheses and generally consistent with the framework depicted in Figure 3. We were surprised, however, by the behavior of sellers who were not asked direct questions. None of these sellers revealed the problem and some of these sellers volunteered lies of commission.

**Negotiated Outcomes.** We next examine the relationship between negotiated outcomes and the claims sellers made. Although in most negotiations buyers and sellers reached an agreement based solely upon price, five negotiated agreements included warranties (e.g., "a 30 day return policy") and eight negotiated outcomes resulted in no agreement. As expected, negotiated agreements were most likely to include warranties when sellers revealed the problem, but even then only 4 agreements included warranties. When sellers lied by commission, 1 agreement included a warranty, and when sellers lied by omission, none of the agreements included a warranty. When sellers revealed the problem, lied by commission, and lied by omission 4, 2, and 2 of the negotiations resulted in no agreement, respectively. In our analysis of the relationship between sellers' claims and final prices we excluded negotiated outcomes that included warranties or resulted in no agreement.

To examine the relationship between sellers' claims and final prices we conducted an analysis of variance. We modeled final price as a function of the information condition, and identified a significant information effect [ $F(2, 57) = 4.77$ ,  $p = .01$ ]. When sellers revealed the problem, the average final price was \$1,338 ( $SD = \$65$ ), when sellers lied by commission the average final price was \$1,349 ( $SD = \$57$ ), and when sellers lied by omission the average final price was \$1,419 ( $SD = \$70$ ). A Bonferroni corrected paired comparisons (with a group  $\alpha = 0.05$ ) revealed that final prices were significantly lower when sellers revealed the problem than when they lied by omission, and significantly lower when sellers lied by commission than when they lied by omission. Although final prices were higher in the commission condition than the revealed condition, they were not significantly higher.

We conducted additional analysis of the negotiations involving lies of commission. In these cases, sellers' lies may or may not have convinced buyers about the reliability of the computer. To gauge the degree to which buyers remained suspicious about the condition of the computer we measured the number of reliability related follow-up questions buyers asked after sellers told lies of commission (e.g., "So, what you're saying is you've never had a problem?"). The number of reliability related, follow-up questions buyers asked ranged from 0 to 7 with a median of 1. We conducted a median split of the final price data according to the number of follow-up questions buyers asked. We found that average final prices were significantly lower when buyers asked more than one follow-up question, \$1,326 ( $SD = 43.4$ ), than when they asked only one or no follow-up questions, \$1,371.5 ( $SD = 57.1$ ),  $t(21) = 2.12$ ,  $p < .05$ .

## Discussion of Study 2

We extended Study 1 by separately examining lies of omission and lies of commission in a transactional negotiation context. We found a direct relationship between buyers' questions and sellers' use of deception. When sellers were not asked a direct question, none of them revealed the problem. Most sellers told lies of omission, while others told lies of commission. When sellers were asked a direct question, none of them deflected the question. Instead, most sellers who were asked a direct question revealed the problem. Sellers told lies of commission (e.g., "The computer is in perfect condition.") in both cases, but were more likely to tell lies of commission when asked a direct question.

We were surprised to observe lies of commission when sellers were not asked a direct question. While most sellers in this context chose to tell lies of omission rather than lies of commission, a result consistent with the omission bias literature (Spranca, Minsk, & Baron, 1991), there were several exceptions. We suspect that the face-to-face nature of this experiment created anxiety for some subjects and prompted them to tell lies of commission. This finding is consistent with prior work which has found that face-to-face communication may harm the negotiation process by enabling disputants to employ aggressive tactics such as facial gazing (Carnevale, Pruitt, & Seilheimer, 1981; Carnevale & Isen, 1986).

We also found that final prices were higher when sellers lied by omission than when they lied by commission. We suspect that in many cases sellers' lies of commission were not effective in assuaging buyers' suspicions. In general, the relationship between deception and negotiated outcomes may be complicated. For example, less effective negotiators may be more likely to use deception than skilled negotiators who do not need to use deception to achieve successful outcomes. In addition, poor negotiation performance itself may increase the likelihood that negotiators will resort to deception.

Prescriptively, results from this study suggest that disputants should prepare for negotiations by thinking about relevant information they do not know and listing questions they should ask before making an offer. In this study these steps increased the number of questions buyers asked. Ultimately, this preparation may increase a negotiator's likelihood of asking relevant questions, learning important information, and attaining better outcomes.

## General Discussion

This paper describes the effect of asking direct questions on the incidence and nature of deception. Almost every subject in our first study admitted that they might use deception in a negotiation, and almost half of the sellers in our second study actually used deception in a negotiation task. Across both studies subjects were less likely to use deception if they were asked a direct question.

These results highlight the importance of deception to the negotiation process, and have direct application to negotiation practice and deception theory. Prescriptively, these results suggest that negotiators should anticipate both lies of

omission and lies of commission. To curtail their risk of being deceived by omission negotiators should increase the number of direct questions they ask. To do this, negotiators can take several steps prior to a negotiation to increase the number of pertinent questions they ask. Specifically, negotiators should think about missing information and generate a list of relevant questions. Although we found lies of commission to be less effective than lies of omission, negotiators should also take steps to protect themselves against lies of commission. For example, negotiators should routinely verify relevant claims and obtain written guarantees.

The focus of these recommendations is different than most of the advice previously given to help people contend with deception. Most recommendations focus on methods for *detecting* deception. For example, prior work has recommended showing interest in lies to provoke liars to embellish their fabrications (Stiff & Miller, 1986) or staring at a liar to increase anxiety, which might lead to greater leakage of information (Ford, 1996). While these measures may work in some cases, a substantial body of research has demonstrated that it is extremely difficult to detect lies (DePaulo, 1988; DePaulo, Stone, & Lassiter, 1985; Ekman & O'Sullivan, 1991; Ekman & Friesen, 1974; DePaulo & DePaulo, 1989).

While prior work has found that asking questions facilitates information sharing in integrative tasks (Thompson, 1991), this study demonstrates that asking direct questions facilitates information sharing in distributive tasks by curtailing overall deception. The influence of asking questions on deception, however, is complicated. While asking direct questions significantly reduces the likelihood of being told a lie of omission, asking questions may increase the likelihood of being told a lie of commission. Results from this work suggest that negotiators prefer to lie by omission than commission, and that asking direct questions restricts a negotiator's ability to tell lies by omission. Future work should extend this investigation to explore negotiator preferences and perceptions about types of deception. Future work should also explore the relationship between different types of questions and the information exchange process. For example, future work could build on Lewicki, Litterer, Minton, and Saunders' (1994) categorization of negotiation questions and link types of questions to types of deception. Other distinctions among questions may also matter. For example, specific questions (e.g., "How are the brakes?") may be more effective than general questions (e.g., "How reliable is the car?"), and open questions (e.g., "Have you had a problem?") may be more effective than confirming questions (e.g., "You haven't had a problem, have you?"). In some cases, however, asking questions may have unintended consequences, such as revealing information about one's own beliefs, preferences, and interests.

Results from this work also suggest that negotiators should be particularly wary when negotiating with strangers. In this study negotiators were more likely to lie to strangers than to friends. Strangers in this case were defined as people with whom the seller had not had a past relationship and with whom they had no expectation of a future relationship. In some cases expectations of past and future

interaction may be disentangled, and future work should explore this and other aspects of social relationships on the deception decision process.

Deception in organizations represents a fundamental, but relatively understudied problem. Although negotiators encounter deception on a routine basis, existing research offers little advice for contending with deceptive practices. Results from this work demonstrate that negotiators can use the communication process to moderate lying behavior. Further work remains in developing our understanding of the deception communication process and in developing additional methods for managing deception.

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