

# Cynicism in negotiation: When communication increases buyers' skepticism

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## Abstract

The economic literature on negotiation shows that strategic concerns can be a barrier to agreement, even when the buyer values the good more than the seller. Yet behavioral research demonstrates that human interaction can overcome these strategic concerns through communication. We show that there is also a downside of this human interaction: cynicism. Across two studies we focus on a seller-buyer interaction in which the buyer has uncertain knowledge about the goods for sale, but has a positive expected payoff from saying “yes” to the available transaction. Study 1 shows that most buyers accept offers made by computers, but that acceptance rates drop significantly when offers are made by human sellers who communicate directly with buyers. Study 2 clarifies that this effect results from allowing human sellers to communicate with buyers, and shows that such communication focuses the buyers' attention on the seller's trustworthiness. The mere situation of negotiated interaction increases buyers' attention to the sellers' self-serving motives and, consequently, buyers' cynicism. Unaware of this downside of interaction, sellers actually prefer to have the opportunity to communicate with buyers.

Keywords: trust, information asymmetry, perspective-taking, reactive devaluation.

## 1 Introduction

Economic models of strategic interactions show that completely rational negotiators can fail to reach an agreement despite the existence of a range of possible agreements that would make both parties better off (Myerson & Satterthwaite, 1983). The simple intuition behind this finding is that, if the range of mutually beneficial agreements is small, then the efforts of each party to get a somewhat bigger slice of the pie, which each hopes is bigger than it actually can be, may result in impasse. In contrast, behavioral research shows that communication between players allows negotiators to outperform the expectation of economic models, due to the human tendency to value truth-telling, the potential for lie detection, and the desire to reciprocate what appears to be honest communication from the other side (Bazerman, Gibbons, Thompson & Valley, 1998; Valley, Thompson, Gibbons, & Bazerman, 2002). This previous research focuses on the positive virtues of human social interactions. The current paper explores the potential downside of such interactions: cynicism. That is, we examine whether negotiators fail to reach mutually beneficial agreements as a result of the buyers being cyni-

cal about the sellers simply because they want to sell.

From an economic perspective, in a game where a seller wants to sell a fixed bundle of goods for a price to a buyer, and the parties will have no future interactions, communication is merely “cheap talk” (Farrell & Gibbons, 1989). That is, when the agents' incentives are not aligned, costless, and non-binding, non-verifiable messages should be ignored by the other side, as they are unlikely to be realized (Farrell & Rabin, 1996).<sup>1</sup> Despite this fact, Valley et al. (2002) show that “cheap” communication can be useful in negotiation, even when parties have no opportunity for future interaction; the credibility of information exchanged through discussion allows more deals to go through than an economic model would predict. We explore the question of whether Valley et al.'s (2002) exploration of the virtue of communication was one-sided—that is, whether communicating comes with potential costs and not just benefits.

Specifically, we focus on contexts in which sellers have better information about their products than buyers do. Such contexts are quite common, ranging from markets for second-hand products, such as used cars and houses, to various goods or services being offered on the internet. Importantly, transactions that involve such information asymmetry give sellers the opportunity to sell “lemons” (i.e., bad-quality products; see Akerlof, 1970). Rational buyers, aware of sellers' motives, should be reluctant to trade in such cases.

<sup>1</sup>The more incentives are aligned, the more informative cheap talk becomes (e.g., Crawford & Sobel, 1982; Farrell & Rabin, 1996).

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In reality, buyers are not only willing to trade, but often act too naïvely. They tend to overlook sellers' self-serving motives, fall prey to the "winner's curse" by buying lemon products, and pay far more than a product is worth (Samuelson & Bazerman, 1985; Ball, Bazerman, & Carroll, 1991). According to one explanation for this phenomenon, individuals act naïvely because they fail to take the perspective of the other party (Ball et al., 1991) and because they trust others even when self-serving motives make that trust irrational (e.g., Berg et al., 1995).

Yet this explanation does not account for contexts in which people seem to be responsive to others' motives. One such example is the evidence for "reactive devaluation" of an adversary's pledges, as demonstrated by American reactions to disarmament proposals by the Russian president during the Cold War (e.g., Ross, 1995; Ross & Stillinger, 1991). Similarly, Freistad and Wright (1994) suggest that consumers' awareness of persuasion attempts shape their perceptions of products and of the seller-buyer relationship. For example, consumers' knowledge of advertising tactics could backfire by causing them to resist such persuasion efforts.

Another feasible explanation for why buyers act too naïvely relates to an attentional bias. Bazerman and Chugh (2005) suggested that many behavioral biases might reflect individuals' bounded awareness, which results from a misalignment between the information needed to make a good decision and the information included in conscious awareness. Specifically, people tend to overrate focal events and neglect other information that is less directly accessible, such as information that is more readily available to the other side in a negotiation.

Our research explores the role of a related hypothesis: that certain contexts highlight the asymmetry of information in a negotiation and increase dysfunctional cynicism. We move beyond previous examinations of consumer cynicism, which have suggested that individuals react negatively mostly following negative, similar experiences with questionable offers and/or deceptive counterparts (e.g., Darke & Ritchie, 2007; Ert & Erev, 2008; Freistad & Wright, 1994). The current paper examines our hypothesis of "situational-driven cynicism" with two studies that demonstrate how a simple change in a situation could encourage individuals to be irrationally cynical, even when cynicism is costly to them.

## 1.1 The hidden card game

The studies in this paper focus on the "hidden card" game (adapted from Rubinstein, 2012). In this game, a deck of 100 cards is marked consecutively from 1 to 100. The game is played by a seller and a buyer, and it starts when the seller randomly draws two cards from the deck. Then the buyer is told about the value of the lower of the two

cards, and the buyer must decide whether to buy the two cards from the seller at a fixed cost of E100 (E is an "Experimental dollar;" in our experiments, E1 = \$0.05). The cards' value to the buyer is the sum of the two cards. The seller receives E100 (the cards' fixed price) if the buyer accepts the transaction; otherwise the seller receives nothing.

In this setting, the seller's interest is to sell the cards regardless of their value. The buyer's interest is to buy the cards only when they are valuable (when the sum of cards exceeds 100). Normatively, with no additional information, a risk-neutral buyer should buy the cards whenever the value of the lower card exceeds 33, since at 34, all values for the other card between 35 and 100 are equally likely, making the sum of the two cards anywhere between 69 and 134, again, all values being equally likely. Our analysis focuses on what buyers do when they see that the lower card is 40, making all values for the combination of the two cards between 81 and 140 equally likely, which implies an expected value of E110.5 from buying at a price of E100.

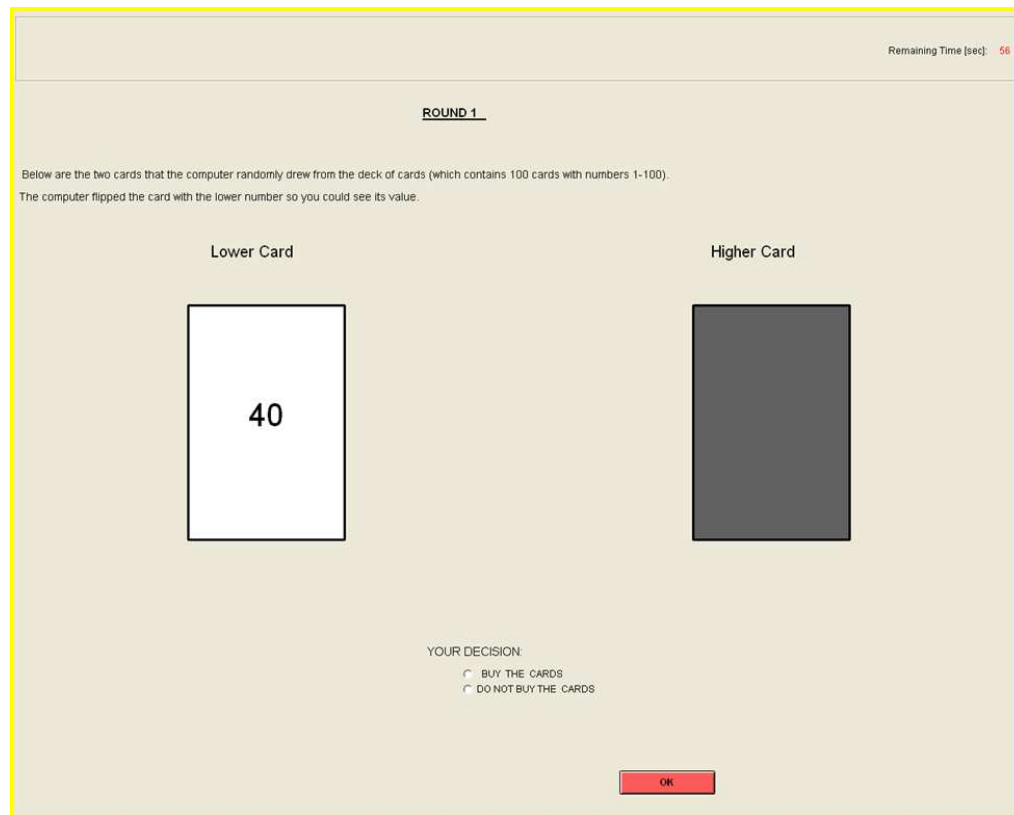
## 2 Study 1: Buying cards from a computer seller or from a human seller

To evaluate the potential role of cynicism in buyer-seller negotiations, we compared two between-subjects conditions of the hidden card game: a computer-seller condition and a human-seller condition. In the former condition, all participants were assigned to be buyers and played the card game with a "computer seller". In the human-seller condition, half the participants were randomly assigned to be sellers. In addition, human sellers were given one minute during which they could send text messages to convince buyers to buy before the buyers made their decisions. As the seller has incentive to sell regardless of the product's value to the buyer, the rational buyer should disregard the seller's messages as "cheap talk". Therefore the rate of buying should be similar between the two conditions. We hypothesized that the mere context of interacting with human sellers who were trying to convince them to buy a "good" would increase buyers' awareness of sellers' motives and consequently decrease the likelihood they would buy cards from the sellers.

### 2.1 Method

One-hundred-and-twenty-four Harvard students (mostly undergraduates) participated in the study. The participants were assigned to either the computer-seller (N = 48) or the human-seller (N = 76) conditions. The compensation was

Figure 1: An example of the experimental screen (buyers) of Study 1.



contingent on participants' choices and ranged between \$15 and \$23.

Each participant was seated in front of a personal computer and received written instructions (see Appendix), which were also read aloud by the experimenter. Next, the participants played two independent games of a computerized "hidden card" game (using "Z-Tree"; see Fischbacher, 2007). Buyers started the game with an initial endowment of E200, and sellers began with E100. To allow us to test responses to the lower card being a specific value, 40, all participants were told that in one of the games, the value of the lower card was predetermined for technical purposes by the computer program to be a certain number,  $x$  (participants were not told that the predetermined number was 40), and that the higher card would be drawn between  $x+1$  and 100. Participants learned that in the other game, both cards would be randomly drawn from between 1 and 100. They did not know which game would include the predetermined card. At the end of the study, one of the two games was randomly selected to determine each participant's payoff. For all participants, the value of the lower card was 40 in their first game; the first game was the focus of our study.<sup>2</sup>

<sup>2</sup>The second trial exists simply to allow us to set the price of the

lower card in the first trial, while avoiding the use of deception (Gino & Bazerman, 2009).

In the computer-seller condition, all participants played the role of buyer, and the seller was played by the computer. In each game, buyers observed the lower of the two cards and then were asked to decide whether to buy the cards. (Figure 1 shows an example of the experimental screen). There were no time limits for making this decision.

Participants in the human-seller condition were randomly assigned to the role of buyer or seller. When the lower card was revealed, the sellers were given one minute for free communication with their buyers via a chat box. Buyers and sellers were told they could write anything they liked in these messages and that "there are no rules" regarding true or false information they might communicate. The only restriction imposed was that both buyers and sellers had to remain anonymous; they were not allowed to mention their computer station, their names, or any other information that might identify them. Notably, the "no rules" manipulation implied that sellers could reveal the higher card if they wished, but they could also provide false information about the card's value. Once the minute of communication was over, buyers were asked to indicate whether they would buy the card. As in the

lower card in the first trial, while avoiding the use of deception (Gino & Bazerman, 2009).

computer-seller condition, no time limits were imposed on buyers' decisions.

## 2.2 Results

We focus our analysis on the first game, in which all buyers knew the lower card was 40. This allows us to control for conditional effects of the value of the lower card. There were 48 such games in the computer-seller condition and 38 games in the human-seller condition. As identified above, lacking any additional information from the seller, the expected value-maximizing decision is to buy the card. Most buyers in the computer-seller condition behaved consistently with this rule and 79% (38 of the 48 buyers) purchased the cards. The idea that buyers dismiss the seller's information as cheap talk, when their incentives are not aligned, implies that the buying rate in the human-seller condition should be similar to that in the computer-seller condition. Yet consistent with our concern for cynicism in buyer-seller interactions, the results revealed a significantly lower buying rate in the human-seller condition,  $\chi^2 = 11.00$ ,  $p < .001$ , in which only 45% (17 of the 38 buyers) purchased the cards.<sup>3</sup>

The difference in buying rate between the two conditions implies that buyers did not ignore the sellers' persuasion attempts. Additional analyses were conducted to better understand what information did sellers provide and how buyers reacted to it. The results reveal that slightly more than half the sellers (21 out of 38 sellers; 55%) reported a specific value for the higher card. It seems natural to assume that a seller who promises that the higher card is worthwhile but does not report its explicit value might not be trustworthy. However, there is no indication that sellers behaved this way: reporting the value of the higher card was not related to whether the cards were valuable or not,  $r(38) = .09$ , NS. The results also suggest that buyers have not followed this reasoning as well. In the 17 cases in which the value of the higher card was not mentioned only eight buyers (47%) purchased the cards. Yet the buying rate was not much larger (54%) even in the 13 of the 21 cases where the *true value of the higher card was revealed and was valuable*.<sup>4</sup> Notably, this buying rate was still significantly lower from the computer-seller condition,  $\chi^2 = 5.05$ ,  $p = .025$ , suggesting that even providing buyers with

attractive and credible information did not help sellers sell in the current context.

Buyers' low rate of buying (54%) even when sellers revealed the true value of their cards and they were indeed valuable suggests that many buyers simply did not believe the sellers' claims. To evaluate the potential cost of this disbelief, we compared buyers' actual earnings to their earnings under two hypothetical strategies that consider sellers' messages as trustworthy information. The first strategy, the one just mentioned, assumes that the seller is trustworthy if she mentions the specific cards' value; otherwise she might have something to hide. This rule implies a decision to buy if and only if the seller states that the sum of the two cards exceeds 100. Had buyers followed this strategy, they would have earned E7.95 more, on average, than they actually did;  $t(20) = 2.45$ ,  $p = .024$ .

Since the results showed that the buying rate was not affected by the sellers' decision to report an explicit value of the high card, we also considered a second strategy that suggests "buying at 40 unless the seller advises not to". Had buyers followed this strategy, they would have earned E4.18 more, on average, than they actually did;  $t(37) = 1.90$ ,  $p = .065$ . Both analyses suggest that buyers' disbelief was costly. Indeed, the data show that sellers sent reliable information regarding the higher card's value in 90% of cases in which its value was mentioned; thus, retrospectively, it made sense for buyers to believe their claims.

## 2.3 Discussion

Buyer interactions with a human seller, rather than a computer seller, had a detrimental effect on the likelihood of transaction. Illustrating the robustness of this effect, the results show that people are less likely to buy from human sellers than they are to buy from computer sellers not only when sellers do not add information about the card in question, but also when information about the card is revealed that suggests the card is valuable.

A persuasion context seems to draw more attention to the persuader's motives and makes buyers act more conservatively. From an economic perspective, since anything the seller would communicate to the buyer in this setting is "cheap talk", the buyer may simply ignore the communication, and in the current setting purchase the product. The results suggest that buyers haven't just dismissed the sellers' communication. Such behavior would have resulted with similar purchase rate to the computer-seller condition where card information was not provided. The lower buying rate in the human-seller condition suggests that buyers were actually attentive to the sellers' claims but did not really believe them. Indeed, in some cases, buyers explicitly expressed their disbelief while communicating with the seller (e.g., "I think you're lying"; "yea right, why should I believe you?").

<sup>3</sup>The results of the other game, in which the lower card was not fixed but random, showed that when cards' EV was positive (i.e., lower card was above 33), all buyers purchased them (17/17) in the computer-seller condition, while only 68% (15/22) buyers purchased them in the human-seller condition. When their EV was negative the purchase proportions were 6% (1/31) and 0% (0/16) in the computer and human seller conditions respectively.

<sup>4</sup>In three of the 21 cases where the cards value was mentioned it was lower than E100, and in another three cases the cards equaled exactly to E100. Two sellers reported a high value while the cards true value was lower than E100.



Buyers' tendency to try to assess the seller's trustworthiness seems understandable. If buyers can correctly distinguish between trustworthy and untrustworthy sellers, then information from sellers becomes valuable. However, the results suggest that, while buyers did try to assess the seller's trustworthiness, the mere context of persuasion caused them to be cynical and forego profitable transactions.

Recall that in the current study human sellers could communicate with buyers, but computers could not. Thus, it is possible that the persuasion context is mainly driven by facing human sellers, rather than machines. This hypothesis seems consistent with the observation that trusting strangers entails an additional risk premium compared to taking an "equivalent" risky bet to balance the cost of trust betrayal (Bohnet & Zeckhauser, 2004). Yet an alternative possibility is that the reduced level of purchase was driven by the added communication in the human-seller condition, rather than by the seller type. These assertions are compared in Study 2.

### 3 Study 2: Is skepticism induced by sellers' type or by communication?

Study 1 showed that buyers in the human-seller condition were less likely to buy than were buyers in the computer-seller condition. Study 2 is designed to better understand the factors that drew buyers' attention to sellers' motives. One possibility is that interactions with humans draw more attention to sellers' motives than do interactions with computers. Another possibility is that the mere context of persuasion draws more attention to sellers' motives than when no persuasion occurs. The current study is designed to assess those two possibilities. It compares behavior in the hidden-card game in two conditions. In the "talk" condition, which replicates the human-seller condition from Study 1, buyers and sellers communicate before the transaction. In the "no-talk" condition buyers and sellers cannot communicate. To evaluate what contextual factors from the interaction with a seller might affect the buyer's purchase decision, buyers were asked right after they made their decisions about their perception of the seller's trustworthiness, and their confidence in their decision. Sellers were asked about their estimation of the buyers' likelihood to buy in each of the experimental conditions.

#### 3.1 Method

One hundred seventy two Harvard students participated in the study. Eighty eight participants were assigned to the no-talk condition and 84 participants were assigned to the

talk condition. Participants in each condition were randomly assigned to be buyers or sellers. The compensation was contingent on participants' choices and ranged between \$15 and \$23.

The procedure was the same of the human-seller condition from Study 1, and the no-talk condition followed the same procedure except that there was no communication between buyers and sellers. Again, we used the two games structure from Study 1 to avoid the use of deception.

Another difference from the previous study was that after making their first choice buyers in the talk condition were asked to respond to the following questions:

1. Was the seller trustworthy to your opinion? (Yes/No)
2. How confident are you in your decision? (Answers ranging from 1, not at all to 7, highly confident)

Buyers' decision-time was also recorded as an additional measure for confidence under the assumption that buyers who are more confident make faster decisions.

Sellers in the talk condition were asked: "How likely, in your opinion, is the buyer to buy from you right now?" (answers ranging from 1, Unlikely to 7, Very Likely). In the no-talk condition, they were asked the following questions:

1. Suppose you could have 1 minute of free communication with the buyer, during which you could send the buyer messages of any content, no restrictions (as long as you would not reveal your name or anything that might identify you). Would you prefer to have it instead of the current situation with no communication? (Yes/No)
2. How likely, in your opinion, is the buyer to buy from you right now? (Answers ranging from 1, Unlikely to 7, Very Likely).
3. Suppose you would have one minute of free communication with the buyer (as described earlier). How likely, to your opinion, the buyer would be to buy the cards from you? (Answers ranging from 1, Unlikely to 7, Very Likely).

#### 3.2 Results

As in the previous study, we focus our analysis on the first trial, in which the value of the lower card was fixed at 40. Those results suggest that the skepticism observed among buyers in the two studies was facilitated by communication rather than by the type of seller.<sup>5</sup> In the talk condition, only 23 of the 42 buyers (55%) purchased the cards. This rate was similar to the buying rate from the human sellers

<sup>5</sup>In the second game, when EV was positive (lower card > 33), 80% (16/20) and 88% (14/16) purchased the cards, in the talk and the no-talk conditions respectively.

in Study 1, and was lower than the buying rate in the no-talk condition where 33 of the 44 buyers (75%) purchased the cards,  $\chi^2 = 3.87$ ,  $p = .035$  one-tailed (by Monte Carlo simulation).

Additional support for the effect of communication comes from the analysis of the buyer's perception of the seller following the communication and its effect on the buyer's decision. Following communication, only 22 of the 42 buyers (52%) perceived the seller as trustworthy, and the buyers who believed that the seller was trustworthy were more likely to buy the cards,  $r(42) = .38$ ,  $p = .013$ . Moreover, buyers who perceived the seller as trustworthy tended to be also more confident with their decisions ( $r(42) = .28$ ,  $p = .077$ , two tailed), and decided faster than buyers who did not perceive the seller as trustworthy,  $r(42) = -.26$ ,  $p = .093$  (two tailed).

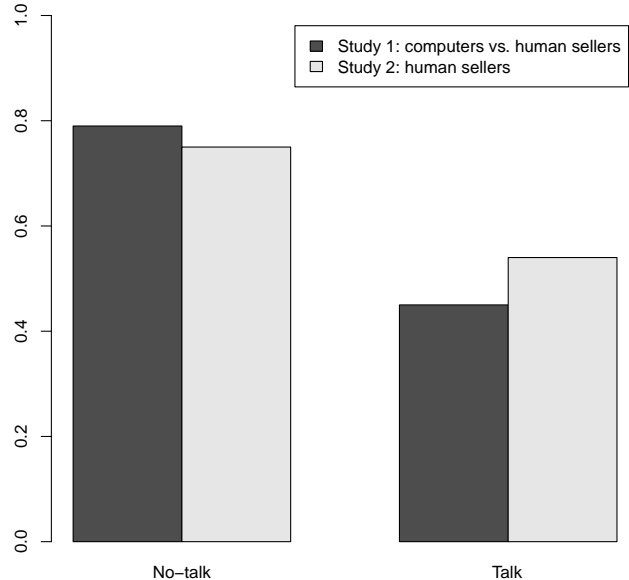
In order to evaluate the relative effect of trustworthiness and other relevant variables we regressed the decision to buy on perceived seller's trustworthiness, ambiguous promises (a dummy variable that equals 1 if the seller promises valuable cards but does not mention a specific value), and specific promises (a dummy variable that equals 1 if the seller promises a specific value of the high card). Consistent with the results of Study 1 neither the ambiguous nor the exact promises had an effect on buying. The only significant variable was the perceived trustworthiness of the seller, Wald  $\chi^2(1) = 6.37$ ,  $p = .012$ . Together the results suggest that the communication might have affected buyers' decisions by focusing their attention on the seller's (rather than the product's) characteristics.

Interestingly the sellers were not aware of this detrimental effect of communication on buying. The majority of the sellers in the no-talk condition (34 of 44 sellers; 77%) indicated that they would like having the opportunity to persuade buyers, and believed that their likelihood of selling would be higher if they could persuade buyers (4.57) than if communication with buyers was not possible (3.45;  $t(43) = 3.85$ ,  $p < .001$ ). Additionally, sellers who persuaded buyers believed that their likelihood to sell (4.36) is significantly higher than sellers who did not (3.45;  $t(84) = 2.46$ ,  $p = .016$ ).

### 3.3 Discussion

The current results show that the negative effect of communication on purchases in the current studies could not be attributed to the seller's type (computer vs. human) but seems to be facilitated by the buyer-seller communication (see Figure 2). The results further show that a large fraction of the buyers indicated that they do not trust the sellers following their communication, and that the level of the buyer's trust in the seller seems to affect the buyer's decision. It is possible that the detrimental effect of communication on trust in our studies were somewhat facilitated

Figure 2: A summary of the buying rate in the two studies under the talk and no-talk conditions.



by the instructions, which emphasized that “there are no rules regarding true or false information” that sellers report to buyers and that “anything is allowed”.<sup>6</sup> However, recall that the seller's trustworthiness (or any other seller characteristic for that matter) is being outweighed in the buyer's decision since the seller cannot really affect the products value or its price. Nevertheless, in the context of communication, impressions of the other party might be too hard to ignore.

## 4 General discussion and conclusions

Past negotiation research suggested that social interaction provided a unique set of positive effects that improved the ability of negotiators to reach an agreement when potential agreements existed that would make both parties better off (Valley et al., 2002; Valley, Moag, & Bazerman, 1998). The current research does not contradict the positive effects documented in this earlier line of research. Rather, our research suggests the necessity of also accounting for a negative aspect of human interaction on negotiation behavior: cynicism.

The current studies focused on the case of buyer-seller interaction over a product that only the seller knows its true value and has a clear incentive to sell regardless of its value. Yet the seller cannot affect the product value

<sup>6</sup>The motivation for choosing this type of wording was to ensure that sellers are aware that they are not restricted to reporting only the true value of the hidden card.

or the cost, and the properties of the product indicate that its expected value to the buyer is higher than its costs. In such a case rational buyers buy the products and ignore the seller's promises since they are merely "cheap talk". Yet the results of our two studies show that buyers who communicate with sellers have a hard time ignoring such communications, that many buyers end up not trusting the seller after such communication, and that consequently they miss valuable transactions. These results suggest that the situation of being persuaded highlighted conflict and decreased trust.

Future research should further explore the conditions of human interaction in negotiation that foster the positive virtues of communication identified earlier rather than the cynicism highlighted in the current work. There seem to be several plausible mediators to the effects of communication on trust. One relevant condition can be the information disparity between parties. It could be that communication facilitated buyers' distrust because in the current context communication highlights the seller's informational advantage. Indeed, most studies who have found positive communication effects focused on situations where the parties held equivalent information (e.g., Cohen, Wildschut, & Insko, 2010).

Another relevant condition seems to be the communication channel. In the current studies we evaluated computer-based communication. While this medium is increasingly popular given the advances with today's technology, alternative channels exist as well. Such channels include face-to-face communication or talking over the phone. Studies have found that interpersonal trust is typically lower with online negotiations than face to face interactions (Naquin & Paulson, 2003; Valley et al., 1998). Another interesting variable is the communication content. For example, Dawes et al. (1977) found that communication that is relevant to the problem at hand facilitates more trust and cooperation than irrelevant communication. In the current context these findings imply that if sellers would focus communication on things other than the cards value they could have triggered even higher degree of skepticism.

In addition to showing the potential downsides of communication, the current research extends our knowledge of perspective-taking in several meaningful ways. First, the current studies emphasize that even considering the motives of another side does not necessarily imply that the other side's perspective is judged accurately. Buyers who tried to take the seller's perspective misjudged the sellers to be less trustworthy than they actually were, and sellers who tried to take the buyers' perspective misjudged them to be more positive towards persuasion attempts than they were. Thus, although perspective-taking is typically beneficial in conflict situations (see, e.g., Neale & Bazerman, 1983; and Galinsky & Mussweiler, 2001), the current re-

sults highlight conditions in which perspective-taking can backfire (see also Caruso, Epley, & Bazerman, 2006; Epley, Caruso, & Bazerman, 2006). Specifically, we find that negative effects of perspective-taking are expected in situations where exploitation is possible (in our studies, from the seller). Second, perspective-taking is generally viewed as an "ability" that may reflect stable personality traits (e.g., Davis, 1983; Galinsky, Maddux, Gilin, & White 2008; Neale & Bazerman, 1983). While there are clearly important individual differences in perspective-taking, the current research suggests that perspective-taking can be facilitated by properties of the negotiation context, at least to some degree.

The current studies also promote our understanding of the potential errors that might be associated with perspective taking. There are numerous situations in which people fail to consider the other party's motives and act too naively. Examples include the trust game (Berg et al., 1995), the Monty Hall Problem (e.g., Tor & Bazerman, 2003) and the Acquiring a Company Problem (Bazerman & Samuelson, 1985). For instance, in the Acquiring a Company problem a buyer decides to buy a target company that its value  $v$  is known only to the seller. The buyer merely knows that  $v$  is uniformly distributed between 0 and 100, and that the seller sells the company provided it is at a profitable price. If the buyer purchases the company its value increases by 50%. In these conditions a rational buyer should avoid acquiring the company since the selective acceptance implies negative expected returns. Yet the typical bid is about \$50, and it is surprisingly difficult to educate people to bid lower (Grosskopf, Bereby-Meyer & Bazerman, 2007; Bereby-Meyer & Grosskopf, 2008).

The current studies suggest that such naïve behavior is only part of the picture in situations that involve potential lemon products. This observation raises a natural call for exploring the boundaries of these two behavioral regularities to try clarifying when people are expected to be naïve and when are they might be too cautious. Interestingly it seems that in the studies that documented naïve responses people made the first move (by bidding a price). In the current settings, however, they had to decide whether to accept an offer. Possibly the act of responding to a proposer may increase the focus on the proposer's characteristics. This idea is somewhat supported from recent studies which showed that when people are asked to accept offers, rather than choose actively, they tend to be more risk/loss averse (Ert & Erev, 2008), and exhibit more fairness concerns (Choshen-Hillel & Yaniv, 2011).

We believe that the study of naïveté, as well as other potentially relevant mediators (e.g., feeling of control, optimism), will shed more light on the potential relationships between these two, seemingly opposed, phenomena: naïveté and skepticism. The current paper provided the first step in this direction by showing that people might

indeed become too skeptical in situations that they can actually benefit from, just because the situation highlights some potential conflicts between the parties.

Finally, this paper extends the dialogue over whether humans are too trusting or too cynical of other people. We offer a clear contrast to the problem of too little cynicism in the Acquiring a Company game. Similarly, Cain, Loewenstein, and Moore (2005) show that people are too trusting of agents. Cain et al. (2005) go on to demonstrate that disclosure makes this inappropriate trust a more severe error. Our results are a clear contrast to these research paradigms. We do not see a disagreement. Rather, we see this as a call for more research on when people are too trusting and when they are too cynical. The answer to this research can potentially improve trust and performance across a variety of competitive domains.

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## Appendix: Instructions

In the card game there are two players: a buyer and a seller. Please take a look at your screen to see which role are you. Before each game starts, you will be matched with a player of the other type.

**Buyers:** when game starts you have cash of E200 (E1 = \$0.05).

**Sellers:** when game starts you have cash of E100 (E1 = \$0.05).<sup>7</sup>

In the card game there is a deck of 100 cards. Each card is marked with a different number from 1 to 100. So the cards are numbered as follows: 1, 2, . . . ., 98, 99, 100.

The cards in the deck are shuffled and then two cards are drawn from the deck. Any card in the deck is equally

likely to be drawn. The seller holds and sees the two cards. Then the seller's goal is to sell the buyer both cards at E100.

If the buyer decides to buy the cards then he pays the seller E100. The buyer receives the sum of the two cards minus their cost, in addition to his/her remaining cash. For example, if the cards are 1 and 2 the buyer gets  $3(\text{sum}) - 100(\text{cost}) + 200(\text{cash}) = E103$ , and if the cards are 99 and 100 the buyer gets  $199(\text{sum}) - 100(\text{cost}) + 200(\text{cash}) = E299$ .

Alternatively, if the buyer does not buy the cards then the buyer keeps his/her cash. Sellers have to return the cards to the stock (the pile of cards) and do not get their sum.

Before making a decision to accept or reject the seller's offer, the seller will show the buyer only the LOWER of the two cards he/she has on hand. *The seller will then try to convince the buyer to buy the cards by sending the buyer text messages. Sellers have 1 minute to convince buyers to buy.*

*Sellers: as you will see, there are various cases in which the cards are not valuable to buyers. You are allowed to sell such cards if you can convince the buyer to buy. Also, if you do not wish to, you do not have to send the buyer any message.*

*Buyers: you can reply to the seller, but you are also allowed not to respond if you do not wish to.*

***There are no rules regarding true or false information you choose to send in your messages, anything is allowed! The only restriction is that the buyer and seller are not allowed to reveal any information that might identify them (e.g., name, station, etc.).***

You will now play two different independent games of this card game. Each time you play you will be matched with a different player from the other type. In one of the games the LOWER card will be prefixed by the experimenter for technical purposes. At the end of the study one game will be randomly selected (each game is equally likely to be selected) and your payment will be determined by your earning in that game.

<sup>7</sup>The paragraphs in italics were added to the instructions in the human-seller condition.