

**SMALL TALK AS A CONTRACTING DEVICE:
TRUST, COOPERATIVE NORMS, AND CHANGING EQUILIBRIA**

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Matthew Cashman, Boris Maciejovsky, and Birger Wernerfelt¹

Abstract

We show experimentally that a very brief face-to-face conversation, or small talk, with a potential trading partner can serve a contracting function by enhancing trust and strengthening cooperative norms. Specifically, participants engaged in three-minute video calls with no agenda before playing Hold Up and Stag Hunt games. Despite having no prior knowledge of the games, the calls positively impacted trust, cooperation, and efficiency: there was more investment and less stealing in the Hold Up games, and participants more frequently reached the efficient equilibrium in a second, surprise Stag Hunt game when they talked after the first game. Our findings suggest that some players who had the opportunity to hold up others changed their preferences, and some who risked being held up changed their beliefs. Beyond alleviating contractual incompleteness, these results help explain why small talk pervades human interaction – from high-stakes business deals to casual professional encounters and beyond.

JEL Codes: D02, D86, D91

Key words: Incomplete contracts, Unanticipated contingencies, Change of equilibrium.

¹cashman@wbs.ac.uk, borism@ucr.edu, bwerner@mit.edu. We are indebted to participants at the MIT Organizational Economics Lunch, the 2023 ISMS, the 2023 WINIR, the 2025 IAREP, and to David Cooper, Guillaume Frechette, Bob Gibbons, Oliver Hart, Holger Hertz, Bengt Holmstrom, and Mike Whinston, for many helpful comments. Two anonymous referees and the Editor, Dan Barron, helped us clarify, support, and streamline the argument. We also thank Aaron Nichols and Andrew Cunningham for research assistance. Please send correspondence to bwerner@mit.edu, E62-539, MIT Sloan School of Management, 100 Main Street, Cambridge, MA 02142

I. Introduction

This paper discusses contracts that are incomplete in the sense that unforeseen, and therefore not-contracted-on, contingencies are likely to significantly affect payoffs. The parties to such contracts typically only have incentives to communicate about foreseen contingencies, as there is nothing relevant to say about anything else. Yet, parties to these contracts often incur costs to engage in “small talk.” We define small talk as a face-to-face meeting between potential future trading partners, in which many or all specifics of possible future trades are unknown, and the parties spend time discussing issues with no obvious payoff relevance. We will rationalize these meetings by demonstrating, in a tightly controlled experimental setting, that small talk nurtures trust and cooperative norms, thus compensating for contractual incompleteness.

This effect can also help explain several other widespread behaviors.² One example is networking, a very common practice seemingly motivated by the belief that, should you ever need to contact someone, they will be more receptive if the two of you have met - even briefly. (A variant of this is the perceived advantage of “knowing” your boss). Another example is corporate “team-building exercises,” where employees engage in activities that, among other things, require communication, generally seen as efforts to shift the organizational equilibrium toward greater efficiency. The prevalence of these and similar examples raises an important question: does small talk really make a difference?

To start thinking about the contracting function of small talk, it is helpful to review some stylized facts about when it is, and is not, considered necessary. First, small talk is typically unnecessary in settings like grocery stores, online retailing, or stock markets, where simple formal contracts cover all relevant contingencies. Second, informal contracts, such as handshakes or verbal promises, are often used when the agreement involves a small number of well-understood risks of defection. Examples include, “I will do the job to a reasonable standard, and you will then pay me \$X,” “Once this foal is weaned, I will sell it to you for \$Y,” and “If you agree to bring me the money tomorrow, I will not sell the car to anyone else in the meantime.”

² It should be acknowledged that we appear to be more willing to break these informal contracts, violate these norms, and doubt this trust, when the economic gains from doing so are greater, although the paper by Frydlinger and Hart (forthcoming) suggests that similar effects exist even when very large sums are involved. In general though, if a formal contract is possible, it is more likely to be used when more is at stake, for example if you are buying real estate. However, small talk is typically cheaper and results in a perceived “agreement” that appears as less incomplete than formal contracts. It arguably shares these advantages with relational contracting but does not depend on repeated play. (Gibbons et al., 2023, look at incomplete relational contracts).

Third, small talk is used when there is not a complete list of potential conflicts you can discuss ex-ante, making a complete contract unattainable. One class of examples includes selecting a partner for a complex trade or service (preferred supplier, kitchen renovator, exclusive retailer, etc.). In such situations, conflicts are likely to arise, but neither party knows what they all may be. Thus, the best approach is to try to establish norms of cooperation and enhance trust. There is a widespread belief that this can be accomplished through small talk. This belief pervades popular management literature: The Wikijob Team (2021) argues that small talk “helps to form social cohesion that [...] builds trust,” Sivasubramanian (2021) contends that it “helps to establish trust,” and Falk (2025) demonstrates “How Small Talk Opens Up Deeper Connections.”³

We report on two experiments that shed light on some novel effects of small talk. In both cases, the subjects did not know each other and had no prospect of meeting again. The first experiment is based on a simultaneous-move “Hold Up” game: One player, the “investor,” decides whether to invest, and if they do, another player, the “operator,” chooses between theft and cooperation. Small talk is implemented by allowing two opposing players to spend three minutes together on a video call, knowing only that they are about to engage in some sort of activity with monetary rewards (thus, they cannot make promises or agreements about specific moves). The results of these pairs are then compared with those obtained from a control group in which the players never meet.

We find that small talk influences the behavior of both types of players, and based on preference measurements, we can distinguish between changes in preferences and changes in beliefs. Specifically, some operators (who have the option to hold up the investor) change their preferences and choose to cooperate, while some investors (who are at risk of being held up) change their beliefs and decide to invest. (It would, of course, be surprising if large preference changes that shift equilibria were not accompanied by corresponding adjustments in beliefs, but

³ In the academic literature, Morris et al. (2002) and Mislin, Campagna, and Bottom (2011) show that trusting behavior and efficiency are enhanced by communication prior to playing a known game, Bickmore and Cassell (1999), even propose developing computerized agents capable of simulating small talk, and Speer et al. (2024) use fMRI scans to show that strangers who engage in small talk exhibit convergent neural patterns and language in very few minutes.

it is reassuring to observe that this does happen and that our experiment can capture them.) Consequently, the three minutes of small talk results in more efficient outcomes.⁴

In the second experiment, we study a once-repeated Stag Hunt game and show that pairs who engage in small talk between rounds, without knowing they will be play a second round, are more than twice as likely to play the efficient but risk-dominated equilibrium (STAG, STAG) in the second game. This finding helps explain the use of small talk in team-building exercises.⁵

We discuss related literature in Section II, derive our hypotheses in Section III, and present the experiments and the results in Section IV. Sections V and VI conclude with discussions of further research and origins of the effect.

II. Related Literature

Our first experiment is inspired by the “guiding principles” described by Frydinger and Hart (forthcoming). They highlight scenarios in which executives, about to enter trading relationships, hold extensive meetings to agree on certain guiding principles. These principles include seeing things from the other party’s perspective, considering each other’s payoffs, and behaving cooperatively even when circumstances allow one party to take advantage. This practice, reportedly adopted successfully by several businesses, aligns with research on the benefits of perspective-taking (Ku, Wang, and Galinsky, 2015) and communication fostering prosocial norms (Bicchieri, 2002; Balliet, 2010).⁶

Contrastingly, our results suggest that specific game-related communication is not necessary; rather, the mere act of face-to-face interaction might account for some of the success their subjects achieve. While Frydinger and Hart’s use of real executives and actual contracts with significant stakes is a strength, our experiments feature three notable differences:

⁴ We acknowledge that, at least anecdotally, there are cases in which small talk leads to a complete breakdown of relations, in stark contrast to our hypothesis. However, these instances are presumably very rare, and our data only allows us to examine mean effects. (In our second experiment, there was not a single occasion in which small talk caused the parties to move from a good equilibrium to a less good one.)

⁵ Buller and Bell (1986) remark that “one of the most popular intervention techniques in organizational development (OD) is teambuilding”.

⁶ On the other hand, it contrasts with widely held beliefs that effective communication must include some form of promise: “when discussion lacks explicit promising, it can lose its effectiveness in supporting cooperation” (Bicchieri and Lev-on, 2007, p. 142). For instance, when subjects could not discuss the game they were about to play, cooperation rates dropped from 81% to 17%, comparable to no communication (Bouas and Komerika, 1996).

standardized and controlled experiments with objective measures of success, reduced selection effects, and the elimination of fear of retaliation or reputation effects.

Our study is also closely related to Chen and Chen's (2011) work on organizational team-building. They demonstrated that electronic communication before a game led to more cooperative equilibria, attributing this to induced altruism. As in our experiment, their subjects communicated without knowing about the game they would later play. However, our experiments differ in three ways: our subjects spoke "face-to-face" via video chat, communicated without any agenda (thus "small talk"), and we explicitly measured changes in both beliefs and preferences.

Like Chen and Chen (2011) and Frydinger and Hart (forthcoming), our study fits into the broader research on communication and cooperation. Seminal work by Dawes (1980) suggested that cooperation arises from *identification* (making a human connection), *discussion* (the content of what is said), and *commitment* (making promises, even non-binding ones). While identification promotes cooperation, its effect is significantly weaker than interactive communication. For example, Bohnet and Frey (1999) found cooperation rates of 12% for anonymous interactions versus 78% for free face-to-face communication. Prior work on the effect of communication per se, i.e., restricting communication to topics unrelated to the game under consideration, has not significantly increased cooperation (Bicchieri and Lev-on, 2007).

However, commitment through cheap talk has been shown to increase cooperation in situations where the players know the game when they talk (Farrell and Rabin, 1996). Cheap talk can be both informative (if the sender reveals private information) and influential (if it affects the receiver's actions). The experimental literature indicates that subjects over-communicate, rendering cheap talk more informative and influential than theoretically predicted (e.g., Cai and Wang, 2006; Mazar, Amir, and Ariely, 2008). Two broad categories of behavioral theories have been proposed to explain these findings. First, a theory based on the assumption that senders face a disutility from lying due to adverse factors, such as guilt, social norms, maintaining a positive self-image, and other regarding preferences (e.g., Gneezy, 2005; Mazar, Amir, and Ariely, 2008; Lundquist, Ellingsen, and Johannesson, 2009; Erat and Gneezy, 2012). Second, a theory motivated by the assumption that senders are limited in their ability to think strategically in pursuing their self-interest (e.g., Campbell and Kirmani, 2000; Crawford, 2003; Wang, Spezio, and Camerer, 2010). Both theories require the communication of game-relevant information to

increase cooperation. Our study, however, focuses on Dawes' (1980) discussion cornerstone, restricting experimental subjects to talk before knowing the game they will play.

More generally, the effects of communication on cooperation have been studied across fields like psychology (Deutsch, 1958), business (Ke and Zhu, 2021), and political science (Tingley and Walter, 2011), and social psychology (Sandstrom and Dunn, 2014). While contexts and applications differ across disciplines, the general settings to study communication, whether empirically or analytically, typically involve senders knowing the game they are about to play. Except for the above-mentioned paper by Chen and Chen (2011), prior literature on pre-play communication has invariably assumed that players know which game they are about to play. While these studies show an effect of communication, mostly centered around promises, they do not explore the incomplete contracting angle pursued in the present paper. We know that pre-play communication can be beneficial when the game is known, but here we show that part of the effect may be due to communication *per se*.⁷

Beyond communication, the observation that subjects are nicer to those they know better has been explored in several studies in the behavioral economics literature on fairness (Kahneman, Knetsch, and Thaler, 1986; Camerer and Thaler, 1995; Fehr and Schmidt, 1999). For example, Bohnet and Frey (1999) show that players are more generous in dictator games when they have a chance to see their opponents prior to playing, and Brooks, Dai, and Sweitzer (2013) show that subjects are more trusting of opponents who start an interaction by making an irrelevant apology for the weather. A second related branch of the economics literature is concerned with betrayal, guilt, and aversion to lying (Frank, 1987; Gneezy, 2005; Mazar, Amir, and Ariely, 2008; Lundquist, Ellingsen, and Johannesson, 2009; Belot, Bhasar, and van de Ven, 2010),⁸ and a third branch explores the effects of cheap talk (Tingley and Walter, 2011).

Our second experiment is inspired by the observation that small talk is not limited to one-shot situations, like a first business encounter, but is also frequently used to change the trajectory of encounters and ongoing interactions. For instance, in the context of repeated interactions can small talk be strategically employed to shift players from a less to a more efficient equilibrium? Examples include corporate team-building exercises, mentorship programs, workshops, training, and other attempts to change the culture of a group. Not surprisingly, the literature on the impact

⁷ The editor has suggested that it would be interesting to run an experiment aimed at measuring the fraction of the former effect that can be explained by small talk alone. We will return to this in Section IV.

⁸ This has been taken up in recent theoretical research assuming that lying imposes a private cost on senders (Kartik, 2009; Gneezy, Kajackeite, and Sobel, 2018).

of communication in changing equilibria is even more sparse, as this idea almost runs counter to the definition of an equilibrium. However, as mentioned in the Introduction, there is an extensive management literature on ways to change an organization’s “culture” – which, in many cases, could be interpreted as a shift from one equilibrium to another.⁹

III. Theory and Research Questions

We investigate the size and nature of the small talk effect by comparing play in games with and without small talk. We first examine a Hold Up game similar to the one used in Charness and Dufwenberg (2006). Two players, the investor (he) and the operator (she), make simultaneous moves: the investor decides between IN (“invest”) and OUT (“outside option”), while the operator chooses between KEEP (“hold up”) and ROLL (“implement the proposed venture”). If the investor selects OUT, both parties receive a payoff of I , regardless of the operator’s choice. However, if the investor selects IN, payoffs depend on the operator’s decision: If she picks KEEP, the operator receives κ , and the investor receives θ . If the operator chooses ROLL, she receives σ , while the investor gets θ with probability θ and π with probability $1 - \theta$.¹⁰ Figure 1 shows the game matrix.

Figure 1

Basic Investor-Operator Game

Investor, Operator expected payoffs	KEEP	ROLL
OUT	I, I	I, I
IN	θ, κ	$\theta*\theta + (1 - \theta)\pi, \sigma$

⁹ See Klein, DiazGranados, Sales, and Le (2009) for a meta-analysis of this literature.

¹⁰ A common issue in experiments on cooperation is that subjects are often “too cooperative” in the control condition, which can create a ceiling effect and reduce statistical power. We use this construction (with $0 \leq \theta \leq 1$) because it allows the operator to choose KEEP without the investor knowing for certain that she did so. Although the operators “shouldn’t” be concerned about this when the players have no common acquaintances and will not meet again, the construction did, in fact, result in more operators playing KEEP in our pilot studies. To further strengthen this effect, we explicitly highlighted this aspect to the operators (see instructions in Appendix 4).

We assume that $\kappa > \sigma$ and $(1 - \theta)\pi + \sigma > \text{Max}\{2, \kappa\}$, ensuring that the investor plays OUT in all Nash equilibria, while (IN, ROLL) represents the first-best outcome. Experiments on many similar one-shot games without small talk have shown that many pairs miss the Nash equilibrium, and some even manage to achieve the first-best outcome (Johnson and Mislin, 1999). Our control condition confirms this, but our main hypotheses are that *more* investors will play IN and *more* operators will play ROLL if they engage in pre-play small talk.

There are two potential reasons for this: small talk may change their preferences, or it may change their beliefs. The game is constructed such that we can distinguish between these two under standard assumptions. However, since small talk should have no effect under those assumptions, we will explore various ways in which these assumptions might be violated.

Starting with the operator, since her decision only matters if the investor plays IN, she will typically choose KEEP because $\kappa > \sigma$. Her beliefs about the investor's play are irrelevant in this case. Therefore, *any changes in operator play cannot be attributed to changes in her beliefs*. However, the operator might choose ROLL if she feels sufficiently guilty about violating social norms that discourage taking advantage of someone who trusts you. To illustrate this, we introduce operator guilt as the positive constant γ in Figure 2 below.

Figure 2

Investor-Operator Game If the Operator feels Guilt.

Investor, Operator expected payoffs	KEEP	ROLL
OUT	$1, 1$	$1, 1$
IN	$0, \kappa - \gamma$	$(1 - \theta)\pi, \sigma$

In this game, the operator will play ROLL if $\kappa - \sigma < \gamma$. *If small talk makes social norms more salient for operators – causing them to feel more guilty about playing KEEP - more of them will choose to play ROLL.*

To understand the possible forces underlying the effect of small talk on investor play, we assume that small talk triggers altruistic feelings in the sense that investor's payoffs include an

additive term with the weight λ on the operator's payoffs. This modifies the game as shown in Figure 3.

Figure 3

Investor-Operator Game If the Investor is Altruistic

Investor, Operator expected payoffs	KEEP	ROLL
OUT	$I + \lambda, I$	$I + \lambda, I$
IN	$\lambda\kappa, \kappa$	$(1 - \theta)\pi + \lambda\sigma, \sigma$

In this modified game, the investor will play IN if $I + \lambda < \lambda\kappa$, provided he believes the operator will play KEEP for sure. If he believes the operator will play ROLL with probability p , he will play IN if $p(1 - \theta)\pi > I$, even if he is not altruistic. In general, *small talk can lead to more investors playing IN because they become more altruistic, more confident that the operator will play ROLL, or a combination of the two.*

To disentangle these two effects, we will attempt to measure the difference in preferences between subjects who did not engage in small talk and those who did. To assess whether subjects' λ exceeds $(\kappa - I)^{-I}$, we ask them to choose between receiving $\$g$ for themselves or directing $\$g(\kappa - I)^{-I}$ to their opponent. If more investors indicate a higher λ after small talk, it suggests that their preferences have shifted. To evaluate changes in beliefs, we compare the difference between the number of investors who play IN and the number with high λ . These investors must believe their opponents will play ROLL with a positive probability. If there are more such investors after small talk, and preferences remain unchanged, it suggests a change in beliefs.

In sum, we investigate the size and nature of the small talk effect in Hold Up games in the following ways: (i) To explore whether it can serve a contracting function, we ask if more games end in (IN, ROLL) after small talk. (ii) To tease out the underlying mechanisms, we first check whether more operators play ROLL after small talk. If so, we can conclude that it affects preferences. (iii) Next, we examine whether more investors play IN after small talk. To investigate further, we measure altruism by giving subjects a choice between receiving a small dollar amount or anonymously channeling a slightly higher amount to their opponent. If more subjects display altruism after small talk, this suggests a change in preferences. Furthermore, if

preferences remain unchanged but more non-altruistic subjects play IN after small talk, it indicates a change in beliefs.

Many situations where face-to-face contact is desired can be modelled as one-shot games. However, there are also cases where small talk is used to shift a repeated game from one stage game equilibrium to another. Corporate team-building exercises and other attempts to change group culture are prime examples. To explain the role of small talk in such contexts, we conduct a second experiment with a once-repeated Stag Hunt game.

In the (STAG, STAG) outcome, both players share s , while in the (HARE, HARE) outcome, they each receive I . If they fail to coordinate, the STAG hunter gets 0 , while the player pursuing HARE receives $I + c$.¹¹ The game matrix is shown in Figure 4.

Figure 4
Stag Hunt Game

Row, Column Payoffs	STAG	HARE
STAG	$s/2, s/2$	$0, I + c$
HARE	$I + c, 0$	I, I

In this game we cannot observe if small talk changes preferences; all the action is on beliefs. Specifically, if $s/2 > I + c$, there are two pure strategy Nash equilibria: a player will choose HARE (STAG) if they believe their opponent will play HARE with a probability greater (smaller) than $I - (s/2 - c)^{-1}$. It is well known that this equilibrium is played more frequently because players have pessimistic beliefs about their opponents. The hope is that small talk can change these beliefs.

To isolate this effect, we have subjects play the game twice, with some engaging in small talk between the two rounds. The latter group is unaware they will play the game again after the small talk, so they should not benefit from making promises. We did, however, record the conversations and identified pairs that discussed their first-round behavior, what they should have done, or expressed regret about the first round. In many organizational change attempts, the subjects are aware of the principal's intent, so such conversations are not unexpected. However,

¹¹ $c \geq 0$ reflects the fact that it may be easier to catch a hare when nobody else is hunting them.

to conservatively isolate the pure effect of small talk, we present the results both with and without these pairs.

We search for evidence of change by asking the following questions: (iv) Do more games end in (STAG, STAG) after small talk? (v) Conversely, do fewer games end in (HARE, HARE) after small talk? (vi) Do more games shift from the inefficient to the efficient equilibrium after small talk? (vii) Do fewer games change from a non-equilibrium outcome to the inefficient equilibrium after small talk? (viii) Do more games shift from a non-equilibrium outcome to the efficient equilibrium after small talk? And (ix) what happens when we exclude the pairs who discussed their play in the first game?

IV. Experiments and Results

Both experiments are real-time online games. Subjects are grouped and make decisions simultaneously, receiving payoffs based on their specific groupmate's move. In addition to the payoffs from the games played, prediction questions (present only in Experiment 1) were incentivized based on the mean squared error between the actual and predicted value. Both experiments involved U.S. residents aged 26 and older to help ensure that participants shared similar norms and had some firsthand experience with the economy. Participants were recruited from both CloudResearch and CloudConnect. Subjects were not deceived, and they were paid based on their winnings. The experiments were developed using the oTree framework (Chen et al., 2016), and the exact procedures and instructions are provided in Appendix 4.

Experiment 1: Small talk increases trust and cooperation in a one-shot game.

Pairs of subjects engaged in simultaneous move Investor-Operator games with the following payoff matrix:

Figure 5

Investor-Operator Game with Dollar Parameter Values Used in Experiment 1

Investor, Operator expected payoffs	KEEP	ROLL
OUT	3.5, 3.5	3.5, 3.5
IN	0, 9	$(2/3) \times 7.5, 5$

We compare the outcomes of this game across two treatments:

-Treatment 1: Players are informed about the game and play without meeting or seeing each other.

-Treatment 2: Opponents spend 3 minutes together on a video call.¹² After the call, they are informed about the game and then play.

In total, we report results from 545 pairs (47% female, mean age = 42 SD 11.7), 271 pairs in the No Contact condition, and 274 pairs in the Small Talk condition. Initially, we recruited approximately 2 x 100 pairs from CloudResearch's filtered Amazon Mechanical Turk panel but encountered issues with dropped video calls. We then switched to CloudConnect's panel and recruited 2 x 175 additional pairs, experiencing fewer problems with real-time video interaction with this subject pool. Since both panels yielded very similar results, we report the pooled data. (Analyses of the two subsamples are presented in Appendix 1). Along with switching the data source, we made two other changes: we recorded the small talk in the CloudConnect sample, and we asked subjects a set of questions to estimate their level of altruism (but only after the game is played) as well as an incentivized prediction of their partner's move.

¹² We ran a pilot study to explore whether the topic of conversation made a difference. Some pairs were encouraged to identify the two most interesting things they had in common. If they independently reported the same two things afterward, they received a reward. Other pairs answered ten binary lifestyle questions (e.g., rural/urban, tacos/sushi, beach/mountain, etc.). Each pair was then told, prior to engaging in the 3-minute video conversation, which of the ten questions they agreed on. The final group received no specific instructions. All three groups performed identically. Specifically, the number of agreed-upon-questions did not correlate with their actions in the game. It seems that the mere act of talking is what matters. Consequently, the final experimental design included no instructions for the conversations.

Table 1*A. Treatment 1: No Contact*

Number (%) of Pairs	KEEP	ROLL	Totals
OUT	65 (24)	71 (26)	136 (50)
IN	62 (23)	73 (27)	135 (50)
Totals	127 (47)	144 (53)	271

Since the players in this treatment had no contact with each other, we paired each with an average opponent and rounded to whole numbers.

B. Treatment 2: Small Talk

Number (%) of Pairs	KEEP	ROLL	Totals
OUT	48 (17)	62 (23)	110 (40)
IN	60 (22)	104*** (38)	164** (60)
Totals	108 (39)	166* (61)	274

Significantly different from the proportion in Treatment 1, * $p < .1$, ** $p < .05$, *** $p < .01$, χ^2 tests.

We will now address questions (i) –(iii) from Section III. (i) Since the subjects did not interact in Treatment 1, we can reduce noise by pairing each with average opponents. However, the expected fraction of games ending in (IN, ROLL) was 0.27, while in Treatment 2, it was 0.38 ($p = .006$, Chi-square test). The difference between Treatments 1 and 2 is consistent with our main hypothesis that more games end in (IN, ROLL) after small talk. *This demonstrates that small talk can serve a contracting function in situations with unforeseen contingencies.*

(ii) Similarly, the fraction of operators who played ROLL was 0.53 in Treatment 1 and 0.61 in Treatment 2 ($p = .079$, Chi-square test). *This suggests that small talk changes the preferences of operators.*

(iii) The fractions of investors playing IN were 0.50 in Treatment 1 and 0.60 in Treatment 2 ($p = .019$, Chi-square test). This change could be due to differences in either preferences or

beliefs. To investigate the underlying mechanisms, we asked all investors in round 2 - after the game was played but before they knew the results – a question designed to measure their level of altruism, λ . Specifically, since the critical value for $\lambda^* = 7/11$ in our payoff matrix, we asked investors to choose between \$1.75 for themselves and \$2.75 for their opponent. We found no significant difference in the fractions of investors indicating a high λ across the two treatments.¹³ In fact, the fractions were 58/173 and 57/175, with the estimate being slightly *lower* for the group that participated in small talk. *This suggests that small talk did not change the preferences of the investors.*

Across both treatments, 33% of all investors indicated that their $\lambda > 7/11$ by choosing to give away the \$2.75. As expected, those investors were much more likely to play IN than those who with $\lambda < 7/11$ ($p < .0001$, Chi-square test). However, the total number of investors who played IN was much larger than those with high measured λ (60% vs. 33%, $p < .0001$, Chi-square test). This indicates that many investors believed their opponent would play ROLL with positive probability. Furthermore, significantly more investors with $\lambda < 7/11$ played IN after small talk (55/175) compared to those who did not engage in small talk (37/173) ($p = .034$, Chi-square test). Since preferences appear unchanged, *this suggests that small talk makes investors more optimistic about their opponents' choices*, which aligns with the change in preferences observed among operators. As an additional check on this we asked subjects, after the end of the game, to assess the probability that their opponent had played cooperatively. These results, which are presented in Table 2, give additional confirmation that both investors and operators believe that small talk makes their opponents more likely to cooperate. The exact p values are .007 for Investors, .036 for Operators, and .001 for both groups combined, so these are robust effects.¹⁴

¹³As an additional check, we measured preferences more broadly by asking subjects to complete the Social Value Orientation (SVO) instrument from Murphy, Ackermann, and Handgraaf (2011). The results from this survey differ slightly from our own in that they suggest a modest increase in pro-social behavior. Specifically, the mean (sd) SVO angles, 26.91 (14.26) and 28.65 (13.35), are just significantly different ($p = .097$, two-sided t-test), as is the increase in the number of subjects classified as prosocial rather than individualistic ($p = .072$, Chi-square test).

¹⁴It is worth noting that, in the small talk condition, investors who played IN were no more likely to have an operator who chose ROLL than investors who played OUT ($p = .23$, Chi-square test). Therefore, we cannot conclude that the investors learned anything specific about their opponents. Instead, it seems they relied on their past experiences regarding the mean population level effects of small talk.

Table 2
Mean probabilities

Players	Beliefs	No Contact (N)	Small Talk (N)
Investor	Opponent played ROLL	47.3% (176)	56.3% (181)***
Operator	Opponent played IN	53.3% (169)	61.3% (182) **
All	Opponent played cooperatively	50.7% (345)	58.8% (363)****

Significantly different from the proportion in Treatment 1 (No Contact), ** $p < .05$, *** $p < .01$, **** $p < .001$, two-sided t-tests.

Thus summarizing (i) – (iii):

Observation 1: *Small talk can serve a contracting function by increasing the fraction of games that achieve the efficient outcome. In the Hold Up game, changes in operator play (from KEEP to ROLL) are due to changes in their preferences, and many changes in investor play (from OUT to IN) are driven by changes in their beliefs.*

The 175 recorded conversations did not reveal anything remarkable. Specifically, we extracted the audio from the video files, diarized it, converted the speech to text, and used the diarization to generate transcripts with labeled speakers¹⁵. We then developed a battery of yes/no questions and asked GPT-4o-mini¹⁶ to answer them. The questions and answers are reproduced in Appendix 2, and transcripts of three typical conversations are in Appendix 3. The discussions covered little of substance, and we did not find any promises or agreements. In particular, there was no talk like, “I bet we have to play a game. We should cooperate.” Given that they talked before knowing they would play a game, this lack of strategic conversation is unsurprising.

¹⁵ Diarization and transcription of audio using speechlib (Peiris 2024), pyannote (Plaquet and Bredin 2023, Bredin 2023), SpeechBrain (Ravanelli et al. 2021), and faster-whisper Large-v3 (SYSTRAN 2023)

¹⁶gpt-4o-mini-2024-07-18 (OpenAI 2024)

Experiment 2: Small talk can allow players in a repeated game to move from one stage game equilibrium to another.

In total, we report results from 145 pairs (49% female, mean age = 42 SD 11.9), 76 pairs in the No Contact condition, and 69 pairs in the Small Talk condition. Pairs of subjects, all of whom were from the CloudConnect pool, engaged in two Stag Hunt games in which the (STAG, STAG) equilibrium risk-dominates the (HARE, HARE) equilibrium. Specifically, both games share the following payoff matrix:¹⁷

Figure 6

Stag Hunt Game with Dollar Payoff Values Used in Experiment 2

Row, Column payoffs	STAG	HARE
STAG	4, 4	1, 3
HARE	3, 1	3, 3

None of the players knew their opponents prior to the first round. Approximately half the pairs played the second game immediately after the first, while the other half had a three-minute video chat between the two games (thus meeting each other for the first time). Both groups knew they would engage in a second “task” after the first game but were unaware that it would be the same game. Nevertheless, this experiment differs from the first because the pairs may have discussed the game they just played, potentially using this to inform their strategy in the second game. To investigate this, we recorded the conversations, applied the same techniques as in Experiment 1, and added three more questions:

“Did they discuss what they actually did in the game they just played at any point”?

“Did they discuss what they should have done in the game they just played at any point”?

“Did either person express regret about what happened in the game they just played”?

The data in Table 3 summarizes the results.

¹⁷ Dal Bo, Frechette, and Kim (2021) look at the relationship between payoff matrices and equilibrium selection in stag hunt games. Our findings are consistent with theirs.

Table 3**A. Treatment 1: No Contact**

To <i>Number (%) of Pairs</i> From	Inefficient equilibrium	Non- equilibrium	Efficient equilibrium	Total
Inefficient Equilibrium	27 (36)	1 (1)	0 (0)	28 (37)
Non- Equilibrium	10 (13)	24 (32)	2 (3)	36 (47)
Efficient Equilibrium	0 (0)	0 (0)	12 (16)	12 (16)
Total	37(49)	25 (33)	14 (18)	76

B. Treatment 2: Small Talk – Full Sample

To <i>Number (%) of Pairs</i> From	Inefficient equilibrium	Non- equilibrium	Efficient equilibrium	Total
Inefficient Equilibrium	24 (35)	5 (7)	2 (3)	31 (45)
Non- Equilibrium	4 (6)	8 (12)	17****(25)	29 (42)

Efficient Equilibrium	0 (0)	0 (0)	9 (13)	9 (13)
Total	28 (41)	13 (19)	28*** (41)	69

Significantly different from the results in treatment 1, *** $p < .01$, **** $p < .001$, χ^2 tests.

C. Treatment 2: Small Talk – Without Pairs Who Talked About First Game

To Number (%) of Pairs From	Inefficient equilibrium	Non- equilibrium	Efficient equilibrium	Total
Inefficient Equilibrium	15 (39)	4 (11)	1 (3)	20 (53)
Non- Equilibrium	2 (5)	4 (11)	6**** (16)	12 (32)
Efficient Equilibrium	0 (0)	0 (0)	6 (16)	6 (16)
Total	17 (45)	8 (21)	13* (34)	38

Significantly different from the results in treatment 1, * $p < .1$, **** $p < .001$, χ^2 tests.

There was no significant difference between the pairs who and did not talk about the game, χ^2 tests.

We will now address questions (iv) – (viii) from Section III. (iv) Small talk led to significantly more pairs, 41% vs. 18%, playing (STAG, STAG) in the second game ($p = .003$, Chi-square test). (viii) This difference was largely due to more pairs, 59% vs. 6%, switching from non-equilibrium to the efficient equilibrium after small talk ($p < .0001$, Chi-square test).

We did not find significant results for (v), (vi), and (vii); while the differences aligned with our hypothesized signs, we cannot conclude that small talk led to (v) fewer pairs playing the inefficient equilibrium in the second game, (vi) more pairs switching from the inefficient equilibrium to the efficient one, or (vii) fewer pairs switching from non-equilibrium to the inefficient equilibrium. Although subjects only played two games, it is interesting to note that, if we use the matrices in Table 3 to define Markov chains and hypothetically predict play in further games, both treatments ultimately converge to an outcome where all pairs reach the efficient equilibrium.

Summarizing (iv) – (viii):

Observation 2; *Taken together, the results suggest that our simple intervention can help change beliefs and promote more efficient play in a finitely repeated coordination game.*

Regarding question (ix), the comparison between Tables 3B and 3C allows us to conservatively assess the difference between communication in coordination games when players do and do not know the game they are about to play. The 31 pairs who discussed at least one of the three questions performed slightly better than those who did not, though not significantly (the sample sizes are small). Thus, pre-play communication about a presumed coordination game may have an effect, but the significant results in Table 3C show that pure small talk still has an impact when we exclude pairs who discussed their first game.

V. Further Questions Suggested by Our Results

We demonstrate that even a limited amount of small talk can lead people to trust and cooperate with strangers. Small talk helps overcome contractual incompleteness by covering a broad range of contingencies, including some that are truly unforeseen (e.g., our subjects socialized before knowing they would play a game, much less which game). We also show that small talk can be effectively used to change play in a finitely repeated game toward a more efficient equilibrium.

The results provide one explanation for why people seem eager to “get to know” potential trading partners and why networking is so popular. They also relate to “acquaintanceship

corruption” (e.g., cronyism, nepotism, patronage, or clientelism), where employees make discretionary decisions on behalf of firms or governments without any immediate quid pro quo, which distinguished it from regular corruption. Since the employee must trust that some form of payback will eventually materialize, we conjecture that this behavior more prevalent in societies where the rule of law is weaker and trust is higher.¹⁸ A similar but distinct phenomenon is the common belief that “knowing your boss” offers advantages in situations where discretionary decisions are made. We propose that this is more significant in societies and industries with less efficient labor markets. These conjectures appear to be highly empirically testable.

From a more theoretical perspective, it would be important to modify individual aspects of our experimental design to assess the contribution of each to the results. For example, as suggested by the editor, it would be interesting see how outcomes differ if the players know the game they are about to play. The results of Experiment 2 suggest that the difference, at least for coordination games, may not be that substantial. It would also be interesting to examine what happens if the players can exchange text messages but do not see or hear each other.

More generally, it would be interesting to examine small talk between more than two people. At what point does it lose its effectiveness? Similarly, what would happen if people were subjected to a large number of brief encounters? Is there a scale at which small talk no longer works? Furthermore, could repeated exposure eventually diminish or even neutralize its effects?

VI. General Discussion: Unpacking What Might Be Going On

Since small talk influences both beliefs and preferences, it could activate a psychological mechanism evolved to stabilize cooperation among group members. Research on small-scale societies indicates several mechanisms that have allowed them to achieve cooperation, including the development and reliance on social norms, reputation, and reciprocity relationships (Glowacki and Lew-Levy, 2022). Interestingly, field studies suggest that initial high levels of cooperation can be achieved even in the absence of communication due to strong shared norms, although communication helps to homogenize group behavior (Ghate, Ghate, and Ostrom, 2013). In addition to strong social norms, people also tend to favor members of their own group, as extensively documented in the literature on tribalism.¹⁹ Evidence stems from both experimental

¹⁸ Kosse et al (2020) show that prosocial norms are shaped by social environments.

¹⁹ For a representative early statement see Taylor and Doria (1981).

(Goette, Huffman, and Meier, 2006) and field studies (Ert, Fleischer, and Magen, 2016; Karlsson, Kemperman, and Dolnicar, 2017; Edelman, Luca, and Svirsky, 2017), some of which suggest that group membership can change relatively rapidly (Efferson, Lalive, and Fehr, 2008; Rand et al., 2009), as observed in our experiments.²⁰ Finally, Speer et al. (2024) show that small talk deepens relationships between strangers (but not friends), observing that neural patterns and language become more similar over the course of a structured conversation.

Our results are consistent with the possibility that feelings of in-group membership are triggered by face-to-face communication itself. The tendency could have developed because humans originally communicated face-to-face only with members of their own tribe, causing subjects to unconsciously impute in-group membership to their interlocutors during small talk. This mechanism and its effect on unrelated games can presumably be traced back to community enforcement mechanisms (Coleman, 1955; Kandori, 1992).²¹ Consistent with this idea, Roth (1995, p. 295) summarizes part of the experimental literature on bargaining by saying that “Face-to-face interactions call into play all the social training we are endowed with.” Similarly, the variability in human behavior (people in different societies eat different foods, use different technologies, follow different customs, etc.) is unmatched in the animal world and likely is not the result of vastly different environments but rather due to population-level dynamics of cultural transmission, specifically the ability to engage in social learning (Mathew and Perreault, 2015). Language, a stand-out ability for such cultural transmission, facilitates complex coordination, establishes and enforces norms, signals cooperation, motivates contributions, and identifies “free riders” (Smith, 2010).

It could also be that people trust and cooperate based on information conveyed through face-to-face communication, such as appearance. Indeed, cooperation in prisoner’s dilemma games shows that subjects were more likely to cooperate with those they found attractive, and they expected attractive people to cooperate more (Mulford, Orbell, Shatto, and Stockard, 1998). However, even in the absence of attractiveness, similarity might be enough to drive cooperation. For instance, people might simply cooperate because they find their opponent “reasonable” based on past experiences with similar-looking people (e.g., a former neighbor, someone

²⁰ Interestingly, though perhaps coincidentally, (a) you often see a person’s “ingroup” defined as the set of people whose welfare matters in their utility function (Dawes, Van De Kragt, and Orbell, 1988), and (b) one of the promises participants in the Frydinger-Hart process make is to take each other’s payoffs into account.

²¹ This aligns with the common practice where strangers, upon first meeting, attempt to find a social connection (“So you’re a doctor from Cleveland. Do you know Lisa Smith?”).

physically attractive, or someone sharing their race or gender).²² A more rational interpretation, consistent with our results, is that past experience has taught investors that small talk, on average, makes operators more cooperative (altruistic). If, as Wojtowicz (2024) suggests, we think of people as building complex models of others, small talk serves as a commonly used input in those models. Another possibility is that the inference is driven by social norms rather than experience, in the sense that the social situation itself evokes identity-appropriate behavior, as described by Akerlof and Kranton (2000).

²² See Vogt, Efferson, and Fehr (2013)

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APPENDIX 1

Separate analyses of the Investor - Operator game in the two subsamples

Table 1A – Cloud Research Subjects

A. Treatment 1: No Contact

Number (%) of Pairs	KEEP	ROLL	Totals
OUT	32 (33)	26 (27)	58 (59)
IN	26 (27)	14 (14)	40 (41)
Totals	58 (59)	40 (41)	98 (100)

Since the players in this treatment had no contact with each other, we paired each with an average opponent and rounded to whole numbers.

B. Treatment 2: Small Talk

Number (%) of Pairs	KEEP	ROLL	Totals
OUT	22 (22)	25 (25)	47* (47)
IN	22 (22)	31*** (31)	53* (53)
Totals	44 (44)	56** (56)	100

Significantly different from the proportion in Treatment 1, * $p < .1$, ** $p < .05$, *** $p < .01$, χ^2 tests.

Table 1B
Cloud Connect Subjects

A. Treatment 1: No Contact

Number (%) of Pairs	KEEP	ROLL	Totals
OUT	33 (19)	45 (26)	78 (45)
IN	36 (21)	59 (34)	95 (55)
Totals	69 (40)	104 (60)	173

Since the players in this treatment had no contact with each other, we paired each with an average opponent and rounded to whole numbers.

B. Treatment 2: Small Talk

Number (%) of Pairs	KEEP	ROLL	Totals
OUT	26 (15)	37 (21)	63* (36)
IN	38 (22)	73(42)	111* (64)
Totals	64 (37)	110 (63)	174

Significantly different from the proportion in Treatment 1, * $p < .1$, ** $p < .05$, *** $p < .01$, χ^2 tests.

APPENDIX 2

Questions asked about conversations.

Experiment 1: Investor-Operator game

Q #	Question	Count (%) N=171 pairs
1	Did they discuss the task they were both doing at any point, other than the code words required to move on?	49 (29)
2	Did they make any agreements about what to do in the task later on at any point, other than about the code words required to move on?	0 (0)
3	Did they make promises to each other about what they will do in the task in the future at any point, other than about the code words required to move on?	0 (0)
4	Did they make promises to cooperate with each other at any point, other than about the code words required to move on?	1 (1)
5	Did they come up with a strategy for what to do in the rest of the task at any point after they enter the code words and move on?	1 (1)
6	Did either party mention technical difficulties, specifically having problems with video or a camera, at any point?	32 (19)
7	Did either party mention technical difficulties, specifically having problems with sound or a microphone, at any point?	23 (13)
8	Did either party greet the other party with a common greeting such as "Hello", "Hi", etc.?	155 (91)
9	Did either party say goodbye to the other party somehow, such as "Bye" or "See ya"?	107 (63)
10	Did either party ask how the other party is doing at the beginning of the discussion?	148 (87)
11	Was luck mentioned at any point, even just saying "Good luck"?	17 (10)
12	Did where either person currently lives come up in the discussion at any point?	117 (68)
13	Did either person discuss where they currently were, geographically, at any point if traveling?	121 (71)
14	Did where either person grew up or is "from" come up in the discussion at any point?	108 (63)

Q #	Question	Count (%) N=171 pairs
15	Did either person discuss where they went to school at any point?	10 (6)
16	Did either person mention what they do for work at any point?	70 (41)
17	Did they discuss online work, such as Mechanical Turk, Prolific, or Cloud Connect, at any point?	41 (24)
18	Did they discuss personal money management, investing, or budgeting at any point?	15 (9)
19	Did either person mention his or her spouse at any point?	23 (13)
20	Did either person mention his or her kids at any point?	35 (20)
21	Did either person mention his or her pets at any point?	24 (14)
22	Did the weather come up in the discussion at any point?	83 (49)
23	Did either person mention their health condition, a sickness, or a disability at any point?	12 (7)
24	Did either person mention any of their hobbies or interests at any point?	62 (36)
25	Did either person discuss what they will do with the rest of today or this weekend at any point?	16 (9)
26	Did they discuss sports or sports teams at any point?	10 (6)
27	Did either person reveal which sports team or teams they support at any point?	6 (4)
28	Did they discuss current events or what's on the news at any point?	23 (13)
29	Did either person tell a story at any point?	61 (36)
30	Did politics or the election come up in the discussion at any point?	7 (4)
31	Did either person mention the Democrats or Joe Biden at any point?	1 (1)
32	Did either person mention the Republicans or Donald Trump at any point?	1 (1)

Experiment 2: Once-repeated Stag Hunt

Q #	Question	Count (%) N=69 pairs
1	Did they discuss the task they were both doing at any point, other than the code words required to move on?	38 (55)
2	Did they make any agreements about what to do in the task later on at any point, other than about the code words required to move on?	0 (0)
3	Did they make promises to each other about what they will do in the task in the future at any point, other than about the code words required to move on?	0 (0)
4	Did they make promises to cooperate with each other at any point, other than about the code words required to move on?	1 (1)
5	Did they come up with a strategy for what to do in the rest of the task at any point after they enter the code words and move on?	0 (0)
6	Did either party mention technical difficulties, specifically having problems with video or a camera, at any point?	12 (17)
7	Did either party mention technical difficulties, specifically having problems with sound or a microphone, at any point?	8 (12)
8	Did either party greet the other party with a common greeting such as "Hello", "Hi", etc.?	55 (80)
9	Did either party say goodbye to the other party somehow, such as "Bye" or "See ya"?	51 (74)
10	Did either party ask how the other party is doing at the beginning of the discussion?	48 (70)
11	Was luck mentioned at any point, even just saying "Good luck"?	8 (12)
12	Did where either person currently lives come up in the discussion at any point?	40 (58)
13	Did either person discuss where they currently were, geographically, at any point if traveling?	38 (55)
14	Did where either person grew up or is "from" come up in the discussion at any point?	37 (54)
15	Did either person discuss where they went to school at any point?	7 (10)
16	Did either person mention what they do for work at any point?	21 (30)

Q #	Question	Count (%) N=69 pairs
17	Did they discuss online work, such as Mechanical Turk, Prolific, or Cloud Connect, at any point?	19 (28)
18	Did they discuss personal money management, investing, or budgeting at any point?	8 (12)
19	Did either person mention his or her spouse at any point?	5 (7)
20	Did either person mention his or her kids at any point?	7 (10)
21	Did either person mention his or her pets at any point?	6 (9)
22	Did the weather come up in the discussion at any point?	22 (32)
23	Did either person mention their health condition, a sickness, or a disability at any point?	5 (7)
24	Did either person mention any of their hobbies or interests at any point?	11 (16)
25	Did either person discuss what they will do with the rest of today or this weekend at any point?	6 (9)
26	Did they discuss sports or sports teams at any point?	5 (7)
27	Did either person reveal which sports team or teams they support at any point?	5 (7)
28	Did they discuss current events or what's on the news at any point?	8 (12)
29	Did either person tell a story at any point?	13 (19)
30	Did politics or the election come up in the discussion at any point?	2 (3)
31	Did either person mention the Democrats or Joe Biden at any point?	1 (1)
32	Did either person mention the Republicans or Donald Trump at any point?	1 (1)
33	Did they discuss what they ACTUALLY DID in the game they just played at any point?	25 (36)
34	Did they discuss what they SHOULD HAVE DONE in the game they just played at any point?	16 (23)
35	Did either person express regret about what happened in the game they just played?	11 (16)

Q #	Question	Count (%) N=69 pairs

APPENDIX 3

Excerpts from selected conversations.

Conversations were selected by calculating the cosine similarity between the vector of answers for a given conversation and the vector of average answers. These are the top three conversations in terms of typicality for each experiment.

Selected subject conversations in experiment 1.

Top Typical Conversation #1 (Group Code: 9fm1cb8):

SPEAKER_01: Hi, how's it going?

SPEAKER_00: Good.

SPEAKER_01: Good, how's your day been so far?

SPEAKER_00: Uh, it's been good. It's been long and full of lots of work on my computer, but I got outside, walked for a couple hours. Actually, I biked, but I'm back in here, so...

SPEAKER_01: Nice. Are you in the US?

SPEAKER_01: I am. What time zone are you in?

SPEAKER_00: The Atlantic Coast?

SPEAKER_01: Atlantic? Okay. I'm only a couple hours off of you. I'm in the middle of the desert. That's why I asked. Outside is a little...

SPEAKER_01: difficult at the moment. It's over 100 degrees. I think it's 107 right now.

SPEAKER_00: We must be Arizona or Southern Cal then is my guess.

SPEAKER_01: Yep, Arizona.

SPEAKER_00: I lived out west for most of my life, so I know what the heat is like there. And now I'm on the west coast where it gets warm, but today was probably only 80 degrees. It wasn't bad at all, actually. And I was in the shade my whole bike ride, so...

SPEAKER_01: So you were very-

SPEAKER_01: And I was in the

SPEAKER_01: Oh, that's good. Yeah, I grew up on the East Coast, so I'm actually very familiar with that. Yeah, although I just moved to this area from, I moved to the desert from Alaska from a rainforest. So it is now literally dunked. In Alaska? Mm-hmm. Yeah. So when you look at Alaska-

SPEAKER_00: Wow.

SPEAKER_00: In Alaska?

SPEAKER_00: I was thinking the only state, I was thinking that there weren't any rainforests actually in the contiguous. Oh, maybe it's not contiguous. That's right. Because Puerto Rico is one of our territories and it has a rainforest and it claims is the only one. So even though it's not a territory. So Alaska has it.

SPEAKER_01: It is not.

SPEAKER_01: Yeah, and it's a lie. There actually is fringes of rainforest in the contiguous U.S.. Okay. The Tongass Rainforest is one of the only rain. It's a temperate rainforest and it's one of the only rain forces in the world that spans multiple countries.

SPEAKER_00: Oh, okay.

SPEAKER_01: And it starts in Washington. I want to say originally an extended down to Oregon, but it starts in Washington, like the upper edges of Washington goes through Canada and then southeast Alaska all the way across.

SPEAKER_01: Okay. And your key code is paint.

SPEAKER_00: Oh, okay.

SPEAKER_00: paint.

SPEAKER_01: All right.

SPEAKER_00: All right, cool. Thanks.

SPEAKER_01: All right.

SPEAKER_00: There we go. Mine says boat. Boat? Boat, B-O-A-T.

SPEAKER_01: Perfect. All right. Well, nice chatting with you. Have a good day.

SPEAKER_00: You too.

SPEAKER_01: Bye.

SPEAKER_00: Oh shoot, I forgot what she said.

SPEAKER_00: Oh crap.

SPEAKER_00: Paint, P-A-N-T, paint.

SPEAKER_00: Yeah.

=====

Top Typical Conversation #2 (Group Code: bd7k00e):

SPEAKER_00: Hi, how's it going?

SPEAKER_01: Good, how are you?

SPEAKER_00: I'm doing well.

SPEAKER_00: Talk about whatever we want.

SPEAKER_00: So I guess we can talk about whatever we want.

SPEAKER_01: Okay.

SPEAKER_00: Yeah, I guess so.

SPEAKER_01: Where are you located? I am in Connecticut. How about you?

SPEAKER_00: Gallup, New Mexico.

SPEAKER_01: Nice, nice.

SPEAKER_00: About 99 degrees here. That is quite toasty.

SPEAKER_01: Yeah, I guess so.

SPEAKER_00: How's the weather there?

SPEAKER_01: It's like 75 out, kind of cool day.

SPEAKER_00: Sunny and 75, can't get better than that.

SPEAKER_01: No, exactly, it does not.

SPEAKER_01: No.

SPEAKER_00: Very fun.

SPEAKER_01: very hard

SPEAKER_00: So what kind of business are you in?

SPEAKER_00: Um, I'm formerly a teacher and I'm going into audio engineering. How about you?

SPEAKER_01: I take x-rays at the Indian hospital here.

SPEAKER_00: Nice.

SPEAKER_01: Thanks.

SPEAKER_00: Yeah, pretty fun stuff. Working nights. Do you like working nights?

SPEAKER_01: Oh, yeah. Night shift is the best. See all sorts of interesting stuff and stuff.

SPEAKER_01: and generally it's pretty laid back

SPEAKER_00: yeah that's awesome

SPEAKER_00: I am looking forward to working nights I am not a morning person so getting up to teach was difficult oh yeah yeah definitely

SPEAKER_01: Yeah.

SPEAKER_00: So what, uh, what do you like to do for fun?

SPEAKER_01: Uh, I actually DJ. Um, yes. How about you?

SPEAKER_00: Oh, I, I hike and camp. Ride bikes.

SPEAKER_01: Nice. A couple of weeks where we're heading up to the Canadian Rockies to, to do some cabin camping.

SPEAKER_00: That is super cool. Um, is it like a backpacking trip or car camping?

SPEAKER_01: Uh, just, just we're going by car. We're going to go to, to Banff and, um, do some hiking and maybe some kayaking stuff like that.

SPEAKER_00: Banff is gorgeous. I went there once before to go to a music festival up in that area. And, uh, yeah, it's absolutely gorgeous. Very worth it.

This will be my first time out of the country. Very exciting.

SPEAKER_01: Nice.

SPEAKER_01: that answer.

SPEAKER_00: all right let's see it says exchange your key code with your partner now the key code to give okay so i need to give you the code window okay and i need to give you FENCE

SPEAKER_01: that's okay cool WINDOW

SPEAKER_00: all right nice chatting with you

SPEAKER_01: nice chatting with you as well

=====

Top Typical Conversation #3 (Group Code: n8408ip):

SPEAKER_01: what's up

SPEAKER_01: Oh, hello.

SPEAKER_01: Hey, how's it going?

SPEAKER_00: I'm going fine. How are you doing?

SPEAKER_01: Doing good.

SPEAKER_00: All right.

SPEAKER_00: Just curious, do you do any certain type of work like construction or anything like that?

SPEAKER_01: No, I don't do any construction. I pretty much just...

SPEAKER_01: New odds and then things online.

SPEAKER_00: And how many years you been in that business?

SPEAKER_01: A few years, two, three years.

SPEAKER_00: Three.

SPEAKER_01: Yeah, two or three.

SPEAKER_00: Do you like it?

SPEAKER_01: Yeah, it's okay. I like working from home.

SPEAKER_00: I like

SPEAKER_00: What's what state are you in state?

SPEAKER_01: Tennessee.

SPEAKER_00: Oh, Tennessee, my grandparents were from Tennessee.

SPEAKER_01: Where are you?

SPEAKER_00: Well, right now I'm retired, but I did live in Washington State for 64 years.

SPEAKER_00: that i went to um five years ago i moved here in Arizona

SPEAKER_00: to retire.

SPEAKER_01: To retire.

SPEAKER_01: You like it there?

SPEAKER_00: And I do have family here, so that made the decision easier.

SPEAKER_01: Right.

SPEAKER_01: You like it in Arizona?

SPEAKER_00: But it's in Tucson.

SPEAKER_01: It's on.

SPEAKER_00: Yeah, and it's really, really hot here in the summer. Yeah, I bet so. It's in the hundreds.

SPEAKER_01: Yeah, I bet so.

SPEAKER_01: Oh, wow. Yeah, sounds like it.

SPEAKER_00: Yeah, sounds like it. Yeah.

SPEAKER_01: It gets pretty warm here, too. Humidity is.

SPEAKER_00: We have.

SPEAKER_00: If you want to go anywhere, you should go early morning or as you go late in the evening, like for your shopping, like late at night, because it does cool down at night.

SPEAKER_01: I understand that. You don't have

SPEAKER_00: You don't have the sun beating down on you when the sun goes down.

SPEAKER_01: Okay, exactly.

SPEAKER_00: Okay, it says I'm supposed to give you a code.

SPEAKER_00: And the word is running, R-U-N-N-I-N-G.

SPEAKER_01: Okay, the word for you is tinsel, T-I-N-S-E-L.

SPEAKER_00: You have to say that again, can you talk a little louder?

SPEAKER_01: Yeah, Tinsel, T-I-N-S-E-L.

SPEAKER_00: Okay, got it. Thank you.

SPEAKER_01: Thank you.

SPEAKER_00: Appreciate that. Thank you.

SPEAKER_01: have a good one

SPEAKER_00: Let's see.

SPEAKER_00: All right.

SPEAKER_00: Okay, so I don't know how long we're supposed to hear her.

SPEAKER_00: Tinsel, T-I-N-S-E-L.

SPEAKER_00: Next.

=====

Selected subject conversations in experiment 2.

Top Typical Conversation #1 (Group Code: b6mebc5):

SPEAKER_00: Hello.

SPEAKER_01: I love it.

SPEAKER_00: How are you?

SPEAKER_01: How are you?

SPEAKER_00: Very good.

SPEAKER_00: That was an interesting task.

SPEAKER_01: Well, at least you caught on and I caught on and we tried to benefit each other.

SPEAKER_00: Oh, I know. It worked out perfectly. Thank you.

SPEAKER_01: Yeah.

SPEAKER_01: I'm not sure how long we're supposed to chat or if we're just supposed to chat.

SPEAKER_00: yeah i think it's um just uh uh i don't know if it's for a few minutes and they say just just talk okay

SPEAKER_01: Okay, so where are you from?

SPEAKER_00: I'm from the United States, from Massachusetts. How about you?

SPEAKER_01: I'm in Wisconsin.

SPEAKER_00: Oh, nice.

SPEAKER_00: Bye, bye, bye.

SPEAKER_01: And it's very sunny out right now, but it's supposed to rain later.

SPEAKER_00: Oh, yes, the weather's really nice here. I didn't see anything by any rain today, but you never know because of the time of year.

SPEAKER_01: Yeah.

SPEAKER_01: Yeah, and I think you get kind of.

SPEAKER_01: What we have.

SPEAKER_01: a little bit later.

SPEAKER_00: Yeah, yep, the weather is similar. I've never done one of these tasks on this website before. This is interesting.

SPEAKER_01: Yeah, I haven't, I can't think of one that I've done on this.

SPEAKER_01: this platform either

SPEAKER_01: They usually don't do these, do they?

SPEAKER_00: No, I didn't think so. I thought I was seeing things for a second.

SPEAKER_00: And then I was surprised that it didn't have a specific device you had to use either.

SPEAKER_01: Yeah, it did and did it.

SPEAKER_00: Now, when you started, did you speak to, I think it was like a person? Yeah, the reason.

SPEAKER_01: Yeah, the researcher.

SPEAKER_00: Yeah, I thought he was the person at first, like real quick, and then I read what it said.
SPEAKER_01: And you have to give them a code word.
SPEAKER_00: Yeah, yeah, I don't even think it said that in the description. That kind of surprised me. Oh, the code I'm supposed to give you is LAMP, L-A-M-P.
SPEAKER_01: Okay, and I'm supposed to tell you tinsel, T-I-N-S-E-L.
SPEAKER_00: No.
SPEAKER_00: Oh, okay. Perfect.
SPEAKER_01: Nice chatting. Take care.
SPEAKER_00: Have a good day.
SPEAKER_01: You too. Bye-bye.
SPEAKER_00: Bye.
SPEAKER_01: Thank you.

=====

Top Typical Conversation #2 (Group Code: lpa6cpc):

SPEAKER_01: Hello.
SPEAKER_00: Hello, how are you?
SPEAKER_01: Good, thank you.
SPEAKER_01: Thank you.
SPEAKER_00: Good.
SPEAKER_00: Did you get the same instructions?
SPEAKER_00: Um.
SPEAKER_01: Ah!
SPEAKER_00: playing a game about a buffalo and a rabbit.
SPEAKER_01: Yes. Yes, I did.
SPEAKER_00: I wasn't sure if they gave us all different instructions or what.
SPEAKER_01: Yeah, that's what I'm trying to figure out.
SPEAKER_01: yeah this I'm sorry i didn't know if you were the researcher or a participant but it says participant right there yeah
SPEAKER_00: Yeah, yeah.
SPEAKER_00: Where are you located?
SPEAKER_01: I'm in Atlanta, Georgia. I'm visiting Maryland.
SPEAKER_00: Bye.
SPEAKER_01: Yeah, what about you?
SPEAKER_00: Yeah.
SPEAKER_00: I'm in San Jose, California.
SPEAKER_01: Oh, okay, nice. Yeah. How's the weather?
SPEAKER_00: Right now it's a little, it's a little overcast. It's eight, you know, 830 in the morning, 840, but it's been pretty hot in the nineties the last week.
SPEAKER_01: pretty hot here.
SPEAKER_01: Nice. Same here.
SPEAKER_00: How about up here? Yeah.
SPEAKER_01: Oh, yeah. Normally it's in the 70s during the day.
SPEAKER_00: Gotcha, that's not bad.

SPEAKER_01: That's a bit down here, it looks like.
 SPEAKER_01: What's up? Do you see that the other participant?
 SPEAKER_00: What's up?
 SPEAKER_00: I think it's just you and I, isn't it?
 SPEAKER_01: No, there's one other person.
 SPEAKER_01: Exchange key code.
 SPEAKER_01: It's a.
 SPEAKER_00: So...
 SPEAKER_01: Yeah, there's a person. That's weird that you can't see them.
 SPEAKER_01: So it says, go ahead.
 SPEAKER_00: It says, go ahead, it's fine.
 SPEAKER_01: My code is running.
 SPEAKER_00: running like r-u-n-n-i-e yes okay yours is cooking
 SPEAKER_01: Thank you.
 SPEAKER_01: Yes.
 SPEAKER_01: Okay.
 SPEAKER_01: All right. Yes. Perfect cooking. Okay. Thank you so much.
 SPEAKER_00: All right, yes.
 SPEAKER_00: All right. You're welcome. Have a good day.
 SPEAKER_01: Take care. You too. Thank you.
 SPEAKER_00: Bye.
 SPEAKER_01: Okay, bye.
 SPEAKER_01: Okay.

=====

Top Typical Conversation #3 (Group Code: pcoiadn):

SPEAKER_01: How are you?
 SPEAKER_00: I'm okay. What's going on?
 SPEAKER_01: I wasn't really expecting video chats as part of this survey.
 SPEAKER_00: Yeah, I know it is a bit unusual.
 SPEAKER_01: Yeah, it is. And the amount of times they made us read the instructions too, but whatever.
 SPEAKER_00: Yeah, yeah, they kept going over the, honestly, it felt repetitive.
 SPEAKER_01: It really was.
 SPEAKER_00: I mean, we already read the whole thing the first time, but I thought maybe it was the error with the survey that maybe he got stuck in a loop or something.
 SPEAKER_01: That's all, man.
 SPEAKER_01: Oh, you know what? You might be right. Yeah.
 SPEAKER_01: So.
 SPEAKER_00: Well, that wasn't the case, but that's happened to me before in the past. Yeah.
 SPEAKER_01: Yeah. So I guess we have to chat for three minutes. Where do you live?
 SPEAKER_00: I live in Miami. How about you?
 SPEAKER_01: Oh, I'm in South Florida too. I'm up in Lake Worth Beach.
 SPEAKER_00: Oh, wow. Nice. I've never been out there.

SPEAKER_01: Oh, yeah. It's a tiny town, like I think 30,000 people or something. I'm not actually from here, but I live here now.

SPEAKER_00: Oh, where are you originally from?

SPEAKER_01: Pennsylvania, but I spent most of my adult life in Toronto, Canada.

SPEAKER_00: most of my

SPEAKER_00: Oh, wow. Have you always lived in Miami?

SPEAKER_01: Have you always lived in Miami?

SPEAKER_00: I haven't lived in Miami all my life. I've spent some time in Naples, Fort Myers, and the state of Arkansas.

SPEAKER_01: Oh, yeah.

SPEAKER_01: So I'm actually supposed to be working because I work from home. So I usually just do these surveys when they come up or whatever.

SPEAKER_01: I'm glad you chose Rabbit. I said I work from home and I should be working right now, but I'm doing this instead.

SPEAKER_00: I'm sorry, what?

SPEAKER_00: Oh, what's causing you to not do?

SPEAKER_01: I just don't feel like it like Friday afternoon blues. Yeah.

SPEAKER_00: What kind of work do you do from home?

SPEAKER_01: I'm a health and medical writer, so I write content for doctors, researchers, stuff like that.

SPEAKER_00: Oh, cool.

SPEAKER_00: So you're basically a health coder, medical coder? Sort of.

SPEAKER_01: I mean, yeah. So if you if you Google a health issue, oh, it says, OK, here's your code plank.

SPEAKER_00: Yeah, the code I need to give you is wallpaper.

SPEAKER_01: wallpaper. Okay. Thank you. Nice chatting with you.

SPEAKER_00: What's the code from me?

SPEAKER_01: Plank, P-L-A-N-K.

SPEAKER_00: Okay. All right. Thank you for your time.

SPEAKER_01: All right.

SPEAKER_01: Thank you. Have a good day.

SPEAKER_00: You too. Goodbye.

SPEAKER_01: Bye.

=====

APPENDIX 4

Procedures and instructions for the two experiments.

Experiment 1: Investor-Operator game

Screenshots in separate file

Experiment 2: Once-repeated Stag Hunt game

Screenshots in separate file