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

6/21/2023

Matthew Cashman, Boris Maciejovsky, and Birger Wernerfelt[1]

Abstract

We show experimentally that a very brief face-to-face talk with a potential trading partner may have a contracting function by enhancing trust and strengthening cooperative norms. Specifically, subjects engage in three-minute video calls with no agenda prior to playing Hold Up and Stag Hunt games. In spite of the fact that the players had no advance knowledge of the games, the call had large effects on trust, cooperation, and efficiency: There was more investment and less stealing in Hold Up games and twice-repeated Stag Hunt games much more frequently ended up in the efficient equilibrium. Beyond suggesting that small talk can alleviate contractual incompleteness, the results also explain several other phenomena.

JEL Codes: D02, D86, D91

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

[1] cashman@mit.edu, borism@ucr.edu, bwerner@mit.edu. We are indebted to participants at the MIT Organizational Economics Lunch, the 2023 ISMS, and to David Cooper, Guillaume Frechette, Bob Gibbons, Oliver Hart, Holger Hertz, Bengt Holmstrom, and Mike Whinston, for many helpful comments. We also thank Aaron Nichols and Andrew Cunningham for research assistance. Please send correspondence to bwerner@mit.edu, 617 291 1072, E62-532 MIT Sloan School of Management, 100 Main Street, Cambridge, MA 02142

I. Introduction

This is a paper about contracts that are incomplete in the sense that unforeseen, and therefore not-contracted-on, contingencies are likely to have a significant effect on the payoff implications of different actions. The parties to such a contract should only have incentives to communicate about the foreseen contingencies, since nothing relevant can be said about anything else. And yet, parties to such contracts often incur costs to engage in "small talk" (here defined as a face-to-face meeting in which no issues with payoff relevance are discussed) with potential future trading partners. We will rationalize these meetings by showing, in a tightly controlled experimental setting, that they nurture trust and cooperative norms, thus compensating for contractual incompleteness. However, the same effect can also help explain a number of other widespread behaviors.[2] One example is networking: This very common practice seems to be motivated by the belief that the other party, should you ever want to contact them, will be more receptive if the two of you have met - even if very briefly. (A variant of this is the perceived advantages of "knowing" your boss). A final and quite different example are corporate team-building exercises: These are generally seen as attempts to change the organizational equilibrium to a more efficient one. The prevalence of these and many other examples raise the question: does small talk make any 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 demanded. First, it is not deemed necessary in settings such as grocery stores, online retailing, or stock markets, where simple formal contracts cover all relevant contingencies. Second, other informal contracts, such as handshakes or verbal promises, are used when the agreement involves a small number of well-understood ways to defect. 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

[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 an "agreement" that is less incomplete than formal contracts. It arguably shares these advantages with relational contracting but does not depend on repeated play. (Gibbons et al., 2021, look at incomplete relational contracts).

tomorrow, I will not sell the car to anyone else in the meantime". Third, small talk is used when there is not a complete list of potential conflicts you can talk about ex-ante such that a complete contract is unattainable. One class of examples are cases in which you select a partner for a complex trade or service (preferred supplier, kitchen renovator, exclusive retailer,..). In such situations it is very likely that conflicts will present themselves but neither party knows what they all may be. So the best one can do is to try to establish norms of cooperation and hope to enhance trust. There is a widespread belief that this can be accomplished through small talk. In particular, the popular management literature is full of assertions to that effect. For example, the Wikijob Team (2021) claims that "Small talk […] helps to form social cohesion that […] builds trust", and Jeevan Sivasubramanian (2021) writes that "Small talk helps to establish trust".[3]

We report on two experiments that throw light on some novel effects of small talk. In both cases the subjects did not know each other and had no prospect of even 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. So the operator's choice reflects the power of cooperative norms, whereas the investor's decision is an indicator of their trust that the operator will adhere to these norms. While the efficient outcome is not an equilibrium in the standard sense, our main hypothesis is that investor-operator pairs are more likely to reach it if they have a chance to engage in small talk before the game. We represent small talk by letting two opposing players spend three minutes together (on a video call), knowing only that they are about to play some sort of a game for money (such that they cannot make promises or agreements about any specific moves). The results of these pairs are then contrasted with those obtained by a control group in which the players never meet, and we find that the three minutes of small talk almost doubles the fraction of games that achieve the efficient outcome.[4]

[3] In the academic literature, Morris et al. (2002) and Mislin, Campagna, and Bottom (1999) show that trusting behavior and efficiency are enhanced by communication prior to playing a known game, and Bickmore and Cassell (1999), even propose developing computerized agents capable of simulating small talk.

[4] We admit that there, at least anecdotally, are cases in which small talk leads to a complete break-down of relations, in stark contrast with our hypothesis. However, these are presumably very rare cases, and our data only allows us to look at mean effects. (In our second experiment, there is not a single occasion in which small talk caused the parties to move from a good equilibrium to a less good one.)

We thus find that small talk increases the investors' willingness to trust their operators, and in turn makes the latter more trustworthy (more likely to follow cooperative norms). The precise underlying mechanism is hard to pin down, but the result is consistent with the idea that small talk develops trust and strengthens cooperative norms.

In the second experiment we look at a twice-repeated Stag Hunt game and show that pairs who engage in small talk between rounds are much more likely to play the efficient, but risk dominated equilibrium in the second game.[5] In fact, these pairs are 150% more likely to play the efficient equilibrium than those in the control group. Beyond supporting the findings from the first experiment, this may explain how small talk not only establishes rapport and develops trust, but also leads to downstream consequences for future social interactions. In the business context, the widespread use of "team-building exercises" in which groups of employees from the same company are put through a number of activities that, among other things, require them to communicate might be an example of such social interactions.[6]

We discuss related literature in Section II, derive our hypotheses in Section III, and present the experiments and the results in Section IV. Section V concludes with a brief discussion.

II. Related Literature

Our first experiment is motivated by the "guiding principles" described by Frydlinger and Hart (forthcoming). They describe a range of situations in which executives from firms about to enter into trading relationships have extended meetings in which they agree to follow certain "guiding principles". These principles suggest, among other things, that each of them will try to see things from the perspective of the other, take the other's payoffs into account, and behave cooperatively whenever foreseen and unforeseen circumstances afford one of them the ability to hold up the other. The authors report that the practice has been adopted by several businesses and that it seems to be successful. The process described by them can be interpreted as taking

[5] In our study, subjects do not know that they are to play the same game again after the small talk is over and are thus very unlikely to spend the time making promises about it.
[6] Buller and Bell (1986) remark that "one of the most popular intervention techniques in organizational development (OD) is teambuilding".

advantage of the mechanisms studied here. The fact that their subjects are real executives engaged in actual contracts with large sums at stake is a major strength of their paper. However, three key differences are that we run subjects through identical controlled experiments with objective measures of success, that our sample arguably is subject to fewer selection effects, and that our setting eliminates any fear of retaliation or reputation effects.

Another closely related paper is by Chen and Chen (2011). They ask some pairs of subjects to engage in electronic communication prior to playing a minimum effort game and show that those who communicated selected more cooperative equilibria. As in our experiment, the subjects communicated without knowing about the game they would play afterwards. Our experiments differ in three ways: We measure both trust and the strength of cooperative norms, our subjects communicate face-to-face, and we measure (in our second experiment) changes in the equilibria played.

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, Knetch, 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, et al., 2009; Belot, Bhasar, and van de Ven, 2010)[7] and a third branch is looking at the effects of cheap talk Tingley and Walter, 2011). However, except for the above-mentioned paper by Chen and Chen (2011), the economics literature on pregame communication has invariably assumed that players know which game they are about to play. So, while these studies show an effect of communication, they do not throw light on the incomplete contracting angle pursued in the present paper.

There is finally a large literature in social psychology on the beneficial effects of pre-game communication, going back to at least Deutsch (1958) and including Bouas and Komorita

[7] 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).

(1996), Bicchieri and Lev-on (2007), and Baillet (2010). As far as we know, all experiments described in this literature also involve situations in which subjects are informed about the game prior to communicating.

There is less literature that explicitly addresses the change of equilibrium observed in our second experiment. Not surprisingly, it is very hard to find any economic literature on changing equilibria – such an observation almost runs counter to the definition. However, as mentioned in the Introduction, there is a lot of management literature on the ability of team-building exercises to change an organization's "culture" - which again could be interpreted as changing its equilibrium.[8]

III. Theory and Research Questions

We first look at a Hold Up game that is very similar to that 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"), and the operator between KEEP ("hold up") and ROLL ("implement the proposed venture"). If the investor selects OUT, both parties get *1* no matter what the operator chooses. However, if the investor selects IN, payoffs do depend on the operator*'s* choice: When they pick KEEP, the operator gets κ and the investor gets *0*. When the operator picks ROLL, she gets σ while the investor gets *0* with probability q and π with probability $1 - q$.[9] Figure 1 gives the game matrix.

Figure 1

Basic Investor-Operator Game

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

[9] A common problem in experiments on cooperation is that subjects are "too cooperative" in the control condition such that a ceiling effect reduces statistical power. We use this construction (with $q > 0$) because it enables the operator to play KEEP without the investor knowing for sure that she did so. While the operators "shouldn't" worry about this when the players have no common acquaintances and will not meet again, the construction did in fact result in more of the operators playing KEEP in our pilot studies. To further strengthen the effect, we explicitly pointed this out to them.

Investor, Operator expected payoffs	KEEP	ROLL
OUT	*1, 1*	*1, 1*
IN	*0, κ*	*q0 + (1 – q)π, σ*

If $\kappa > \sigma$ the investor plays OUT in all Nash equilibria and if $(1 - q)\pi + \sigma > Max\{2, \kappa\}$, (IN, ROLL) is first best.

Contrary to the above analysis, experiments on many similar one-shot games have shown that some pairs manage to end up in the first best outcome (Johnson and Mislin, 2011). This is often thought of as the result of players anticipating feeling guilty if they violate cooperative norms and play the Nash moves (Attanasi, Battigalli, and Manzoni, 2016). Equivalently, we can imagine that operators feel bad if they betray trust or that they to some extent are altruistic. We could model cooperative norms in all three ways but will illustrate the point by using the latter. If both weigh the opponent's payoffs by *w* the game changes to that in Figure 2.

Figure 2

Investor-Operator Game with Cooperative Norms (as Altruism)

Investor, Operator expected payoffs	KEEP	ROLL
OUT	*1 + w, 1 + w*	*1 + w, 1 + w*
IN	*wκ, κ*	$(1 - q)\pi + w\sigma$, $\sigma + w(1 - q)\pi$

As can be seen, if $\sigma > 1$ the efficient (IN, ROLL) is a Nash equilibrium for sufficiently large *w.* So we can think of operators playing ROLL when they place a high value on cooperative norms and investors playing IN when they know this and therefore have a high level of trust in their operators. Our main hypothesis is that the players, if they spend time together prior to playing the game, could develop an element of trust and cooperative norms, thereby growing the values of *w.*

We can investigate the size and nature of the small talk effect by comparing games with and without small talk in the following ways: (i) Do more games end in (IN, ROLL) after small talk? (ii) Do more investors trust their operators after small talk and therefore play IN? (iii) Do more operators play ROLL after small talk, thereby rewarding the trust placed in them by the investors? And (iv) Does small talk allow investors to identify more trustworthy operators? If so,

in the treatment with small talk, investors who play IN have a better chance of their opponent playing ROLL than investors who play OUT.

In the second experiment we look at a twice repeated Stag Hunt game (though the players do not know that their second activity will be the same game). In the STAG, STAG outcome, the players share *s*, and in the HARE, HARE outcome, they both get *1*. If they fail to coordinate, the STAG hunter gets *0* while the player going for a HARE gets $1 + c$.[10] The game matrix is given in Figure 3.

Figure 3

Stag Hunt Game

Row, Column Hunter payoffs	STAG	HARE
STAG	$s/2, s/2$	$0, 1 + c$
HARE	$1 + c, 0$	$1, 1$

If we assume that $s > 2 > s/2 - c > 1 > 1 - c$, there are two equilibria and the risk-dominant, but inefficient (HARE, HARE) equilibrium is often played because players are uncertain about each other. Since we represented cooperative norms as altruism in Figure 3, we now use guilt to change the stage game to that depicted in Figure 4.

Figure 4

Stag Hunt Game with Cooperative Norms (as Guilt)

Row, Column Hunter payoffs	STAG	HARE
STAG	$s/2, s/2$	$0, 1 + c – g$
HARE	$1 + c - g, 0$	$1 - g, 1 – g$

[10] $c \geq 0$ reflects the fact that it is easier to catch a hare when nobody else is hunting them.,

So (STAG, STAG) is the only Nash equilibrium if $g > 1$.

We can test this by asking the following questions: (v) Do more games end in (STAG, STAG) after small talk? (vi) Conversely, do fewer games end in (HARE, HARE) after small talk? (vii) Do more games change from the inefficient to the efficient equilibrium after small talk? (viii) Do fewer games change from a non-equilibrium outcome to the inefficient equilibrium after small talk? (ix) Do more games change from a non-equilibrium to the efficient equilibrium after small talk?

IV. Experiments and Results

All studies used US residents aged 26 and up (to help ensure that they share similar norms and had some first-hand experience with the economy) and were run on Amazon Mechanical Turk. Subjects were paid their winnings. The exact procedures and instructions are reproduced in the Appendix.

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

Pairs of subjects engage 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) x 7.5, 5*

We compare the outcomes of this game in two different treatments:

-Treatment 1: Players are informed about, and play, the game. They do not meet or see each other.

-Treatment 2: Opponents spend 3 minutes together on a video call.[11] After the video call, they are informed about, and play, the game.

The number of agents choosing each action are shown in Table 1 below.

Table 1

A. Treatment 1: No Contact

Investors	OUT	IN	Totals
	58	40	98
Operators	KEEP	ROLL	
	58	40	98

B. Treatment 2: Small Talk

Pairs	KEEP	ROLL	Totals
OUT	22	25	47
IN	22	31**	53*
Totals	44	56**	100

Significantly different from the proportion in Treatment 1,* $p < .1$, ** $p < .05$, Chi Square-test

We will now turn to answer questions (i) – (iv) from Section III.

(i) Since the subjects did not interact in Treatment 1, they did not play against specific opponents. However, the expected fraction of games ending in (IN, ROLL) was 0.17, while it

[11] In an extensive pilot study, we seeded the conversations in three different ways. Some pairs are encouraged to use the time to identify the two most interesting things they have in common. If they independently report the same two things afterwards, they get a reward. Other pairs answer ten binary lifestyle questions (rural/urban, tacos/sushi, beach/mountain, etc.). Each pair is then told, prior to engaging in the 3-minute video conversation, on which of the ten questions they agree. Finally, the last group were not given any instructions. All three groups performed identically. In particular, the number of questions on which the players agree does not correlate with their actions.

was 0.31 ($p = .02$) in Treatment 2. The difference between Treatments 1 and 2 is consistent with our main hypothesis, that more games end in (IN, ROLL) after small talk.

(ii) The fractions of investors playing IN was 0.41 in Treatment 1 and 0.53 ($p = .09$) in Treatment 2. So investors appear to be more willing to trust operators after small talk.

(iii) Similarly, the fraction of operators who played ROLL was 0.41 in Treatment 1 and 0.56 *($p = .03$)* in Treatment 2. The result is consistent with the operators anticipating feeling guilty after playing KEEP and violating cooperative norms.

(iv) If an investor plays IN (OUT), the chance that his opponent plays ROLL is 0.58 (0.53) in Treatment 2. Since these are not significantly different, we cannot conclude that agents after small talk can tell whether their opponent is more trustworthy.

While experiment 1 was concerned with the effect of small talk on trust and cooperation, experiment 2 is focused on cooperative norms. However, it also tackles the question of whether small talk might help move players from inefficient outcomes and equilibria to more efficient ones.

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

Pairs of subjects engage in two Stag Hunt games with the following payoff matrix:[12]

Figure 6

Stag Hunt Game with Dollar Payoff Values Used in Experiment 2

Hunter payoffs	STAG	HARE
STAG	4, 4	1, 3
HARE	3, 1	3, 3

[12] 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.

None of the players know their opponents prior to the first round. Half the pairs play the second game immediately after the first, but the other half have a three-minute face-to-face meeting between the two games (and thus meet).[13] Both groups knew that they were to engage in a second "task" after the first game but did not know that it turned out to be the same game.

We ran the experiment with 55 pairs that did not engage in small talk between games and 60 pairs that did. Looking first at the condition with no small talk between games, (HARE, HARE) was played by 18 pairs and (STAG, STAG) was played by 10. All of these played the same equilibrium on the second game. Of the 27 pairs who did not play an equilibrium in the first game, 18 went to (HARE, HARE), only one went to (STAG, STAG), and eight again failed to find an equilibrium. So in the second game, a total of 36/55 = 0.65 of the pairs played (HARE, HARE) while only 11/55 = 0.2 played (STAG, STAG).

In the condition with small talk between games, we ran 60 pairs and 28 played (HARE, HARE) in the first game. Four of these switched to (STAG, STAG) in the second, while 23 continued to play (HARE, HARE). In the same condition, six pairs started with (STAG, STAG) and all of these played the same equilibrium in the second game. Of the 26 pairs who did not find an equilibrium in the first game, 20 went to (STAG, STAG) and four ended up playing (HARE, HARE). So in the second game, 27/60 = 0.45 of the pairs played (HARE, HARE) while 30/60 = 0.50 played (STAG, STAG), many more than without small talk. The data in Table 3 summarizes the higher efficiency in the condition with small talk.

[13] We did not seed these conversations, but it is possible that they discussed the game.

Table 3

Increased Efficiency Following Small Talk

Fraction of pairs	No small talk	Small talk between games
Playing efficient equilibrium in second game	11/55	30/60****
Playing inefficient equilibrium in second game	36/55	27/60**
Switching from inefficient to efficient equilibrium	0/18	4/28
Switching from non-equilibrium to inefficient equilibrium	18/27	4/26****
Switching from non-equilibrium to efficient equilibrium	1/27	20/26****

Significantly different from the results in column 1, **** $p < .001$,** $p < .05$.

(v) As hypothesized, the fraction of pairs who play (STAG, STAG) in the second game is significantly higher after small talk (*p = 0.0008,* Chi square test).

(vi) The fraction of pairs who play (HARE, HARE) in the second game is significantly smaller *(p = 0.028,* Chi square test*).*

(vii) Four games do change from the inefficient equilibrium all the way to the efficient equilibrium after small talk, but the effect is not significant (*p = .14,* Fisher test).

(viii) Fewer games change from a non-equilibrium outcome to the inefficient equilibrium after small talk *(p = .0002,* Fisher test*).*

(ix) More games change from a non-equilibrium outcome to the efficient equilibrium after small talk *(p = .0000,* Fisher test*).*

Taken together, the results strongly suggest that the players follow cooperative norms more closely after small talk. In addition, they show that our simple intervention can help migrate a finitely repeated game to a more efficient equilibrium.

V. Further questions suggested by our results.

We show that a very limited amount of small talk can cause people to trust and cooperate with strangers. Small talk overcomes contractual incompleteness by covering a broad range of contingencies, including some that are truly unforeseen (e.g., our subjects socialize before they know that they are to play a game, much less which game). We also show that small talk can be used effectively to change a finitely repeated game from a less efficient equilibrium to a more efficient one.

The results provide one explanation why people appear eager to "get to know" potential trading partners, as well as the popularity of networking. Our results also apply to "acquaintanceship corruption" (cronyism, nepotism, patronage, or clientelism) in which employees make discretionary decisions on behalf of firms or governments with no immediate quid pro quo (so it is different from regular corruption). Since the employee has to trust that some sort of payback eventually will materialize, we conjecture that this behavior more important and more common in societies where the rule of law is weaker, and trust is higher.[14] A similar but different phenomenon is the widely held belief that "knowing your boss" confers advantages in situations where discretionary decisions are made. We conjecture that this is more important in societies and industries with less efficient labor markets. Also these conjectures seem eminently testable.

More generally, it would be interesting to look at small talk between more than two people. At what point does it cease to be effective? Along similar lines, what happens if people are put through a large number of brief encounters? Is there a scale at which small talk no longer works? And could intensive exposure eventually inoculate participants against its effects?

VI. What is going on?

There could be a mechanical explanation for our findings. We do not record what the subjects are talking about. It is possible that they guess what is about to happen and agree to "cooperate" (whatever that means).

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

A different class of possibilities, which in our view are more likely, is that a face-to-face meeting makes use of psychological traits that evolved to stabilize cooperation among group members. There are many versions of this: It could be that subjects cooperate simply because they instantly find the opponent "reasonable" based on their experiences with similar looking people (They may look like a former neighbor, be physically attractive, or share race or gender with the subject)[15]. This could then reduce strategic uncertainty and make reliance on the opponent's behavior feel less risky. Consistent with the idea that the effect has a social origin, 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".

These traits could have originated because we originally only communicated face-to-face with members of our own tribe and that small talk causes subjects to, unconsciously, impute in-group membership to their opponents. The existence of these norms and the fact that they affect play in unrelated games can presumably be traced very far back, and one could conjecture that they at some point were supported by community enforcement (Coleman, 1955; Kandori, 1992).[16]

The idea that people have a tendency to favor other members of groups to which they belong, has a long history in the literature on tribalism.[17] It has been studied in a large number of experiments (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 within relatively short periods (Efferson, Lalive, and Fehr, 2008; Rand et al., 2009).[18]

It is an important goal of future research to try to disentangle some of these mechanisms.

---

[15] See Vogt, Efferson, and Fehr (2013)

[16] This would be consistent with the widespread practice in which strangers, when they first meet, try to find a social connection ("So you are a doctor from Cleveland. Do you know Lisa Smith?").

[17] A representative early statement is due to Taylor and Doria (1981).

[18] It is interesting, though perhaps a coincidence, (a) that 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)[18], and (b) that one of the things participants in the Frydlinger-Hart process promise is to take each others' payoffs into account.

References

Attanasi, Giuseppe, Pierpaolo Battigalli, and Elena Manzoni, "Incomplete-Information Models of Guilt Aversion in the Trust Game," *Management Science*, 62, pp. 648-667, 2016.

Balliet, Daniel, "Communication and Cooperation in Social Dilemmas: A Meta-Analytic Review", *Journal of Conflict Resolution,* 52(1), pp. 39-57, 2010.

Belot, Michele, V. Bhasar, and Jeroen van de Ven, "Promises and Cooperation: Evidence from a TV Game Show", *Journal of Economic Behavior and Organization,* 73, pp.396-405, 2010.

Bicchieri, Christina, and Azi Lev-On, "Computer Mediated Communication and Cooperation in Social Dilemmas: An Experimental Analysis," *Politics, Philosophy, and Economics,* 6, pp. 139-168, 2007.

Bickmore, Timothy, and Justine Cassell, "Small Talk and Conversational Storytelling in Embodied Conversational Interface Agents", pp. 23 – 54, *The Association for the Advancement of Artificial Intelligence* (*AAAI) Fall Symposium on Narrative Intelligence,* 1999.

Bohnet, Iris, and Bruno Frey, "Social Distance and Other-Regarding Behavior in the Dictator Games: Comment", *American Economic Review,* 89, pp. 335-39, 1999.

Bouas, Kelly S., and Samuel S. Komorita, "Group Discussion and Cooperation in Social Dilemmas", *Personality and Social Psychology Bulletin,* 22, pp. 1144-50, 1996.

Brooks, Allison Wood, Hengchen Dai, and Maurice E Schweitzer, "I am sorry about the rain! Superfluous Apologies Demonstrate Empathic Concern and Increase Trust", *Social Psychological and Personality Science*,5, pp. 467-74, 2013.

Buller, Paul, and Cecil Bell, "Effects of Team Building and Goal Setting on Productivity: A Field Experiment", *Academy of Management Journal,* 29, pp. 305-28, 1986.

Camerer, Colin, and Richard Thaler, "Anomalies: Ultimatums, Dictators, and Manners", *Journal of Economic perspectives,* 9, pp.209-19, 1995.

Charness, Gary, and Martin Dufwenberg, "Promises and Partnership", *Econometrica,* 74, pp. 1579-1601, 2006.

Chen, Roy, and Yan Chen, "The Potential of Social Identity for Equilibrium Selection." *American Economic Review*, 101, pp. 2562-89, 2011

Coleman, James, "Social Capital in the Creation of Human Capital", *American Journal of Sociology*, 94, pp. S95-S120, 1988.

Dal Bo, Pedro, Guillaume R. Frechette, and Jeongbin Kim "The Determinants of Efficient Behavior in Coordination Games", *Games and Economic Behavior,* 130, pp. 352-68, 2021.

Dawes, Robin, Alphons Van De Kragt, and John M. Orbell, "Not Me or Thee, but We: The Importance of Group Identity in Eliciting Cooperation in Dilemma Situations: Experimental Manipulations", *Acta Psychologica,* 68, pp. 83-97, 1988.

Deutsch, Morton, "Trust and Suspicion", *Journal of Conflict Resolution,* 2, pp. 256-79, 1958.

Edelman, Benjamin, Michael Luca, and Dan Svirsky," Racial Discrimination in The Sharing Economy: Evidence from a Field Experiment", *American Economic Journal: Applied Economics,* 9, no. 2, pp. 1 – 22, 2017.

Efferson, Charles, Raphael Lalive, and Ernst Fehr, "The Coevolution of Social Groups and Ingroup Favoritism", *Science,* 321 (5897), pp. 1844-49, 2008.

Ert, Eyal, Aliza Fleischer, and Nathan Magen, "Trust and Reputation in the Sharing Economy: The Role of Personal Photos in Airbnb", *Tourism Management* 55, pp. 62-73, 2016.

Fehr, Ernst, and Klaus Schmidt, "A Theory of Fairness, Competition, and Cooperation", *Quarterly Journal of Economics,* 114, pp. 817-68.

Fehr,Ernst, Helen Bernhard, and Bettina Rockenbach, "Egalitarianism in Young Children", *Nature,* 454, pp. 1079-83, 2008.

Frank, Robert H., "If Homo Economicus Could Choose his Own Utility Function, Would He Want One with A Conscience?", *American Economic Review,* 77, pp. 593-604, 1987.

Frydlinger, David, and Oliver Hart, "Overcoming Contractual Incompleteness: The Role of Guiding Principles", *Journal of Law, Economics, and Organization,* forthcoming.

Gibbons, Robert S., Manuel Greider, Holger Herz, and Christian Zehnder, "Building an Equilibrium: Rules versus Principles in Relational Contracts", *Organization Science,* forthcoming, 2021.

Goette, Lorenz, David Huffman, and Stephan Meier, "The Impact of Group Membership on Cooperation and Norm Enforcement: Evidence Using Random Assignment to Real Social Groups", *American Economic Review,* 96, no. 2 (May), pp. 212-16, 2006.

Gneezy, Uri, “Deception: The Role of Consequences”, *American Economic Review,* 95, pp. 384-94, 2005.

Gneezy, Uri, Agne Kajckaite, and Joel Sobel, “Lying Aversion and the Size of the Lie”, *American Economic Review,* 108, pp. 419-53, 2018.

Johnson, Noel D., and Alexandra A. Mislin, “Trust Games: A Meta Analysis”, *Journal of Economic Psychology,* 32, pp. 865-889.

Kahneman, Daniel, Jack Knetch, and Richard Thaler, “Fairness as a Constraint on Profit Seeking: Entitlements in the Market”, *American Economic Review,* 76, 728-41, 1986

Kandori, Michihiro, “Social Norms and Community Enforcement”, *Review of Economic Studies,* 59, pp. 63-80.

Karlsson, Logi, Astrid Kemperman, and Sara Dolnicar, “ May I sleep in Your Bed? Getting Permission to Book”, *Annals of Tourism Research,* 62, pp, 1 – 12, 2017.

Kartik, Navin, “Strategic Communication with Lying Costs”, *Review of Economic Studies,* 76, pp.1359-95, 2009.

Kosse, Fabian, Thomas Deckers, Pia Pinger, Hannah Schildberg-Horisch, and Armin Falk, “The Formation of Prosociality: Causal Evidence on the Role of the Environment”, *Journal of Political Economy,* 128, pp. 434-67, 2020.

Klein, Cameron, Deborah DiazGranados, Eduardo Sales, and Huy Le, “Does Team Building Work?”, *Small Group Research,* 40, pp 181-220. 2009.

Lundquist, Tobias, Tore Ellingsen, Erik Magnus Johannesson, “The Aversion to Lying”, *Journal of Economic Behavior and Organization,* 70, pp, 81-92, 2009.

Mazar, Nina, On Amir, and Dan Ariely, “The Dis-honesty of Honest People: A Theory of Self-concept Maintenance”, *Journal of Marketing Research,* 45, pp. 633-44, 2008.

Mislin, Alexandra A., Rachel L. Campagna, and William P. Bottom, “After the Deal: Talk, Trust Building and the Implementation of Negotiated Agreements”, *Organizational Behavior and Human Decision Processes,* 115(1), pp. 55-68, 2011.

Morris, Michael, Janice Nadler, Terri Kurtzberg, and Leigh Thompson, “Schmooze or Lose: Social Friction and Lubrication in E-Mail Negotiations”, *Group Dynamics: Theory, Research, and Practice,* 6(1), pp. 89-100, 2002.

Rand, David, Thomas Pheffer, Anna Dreber, Rachel Sheketoff, Nils Wernerfelt, and Yochai Benkler, "Dynamic Remodeling of In-group Bias During the 2008 Presidential Election", *Proceedings of the National Academy of Sciences,* 106 (15), pp. 6187-91, 2009.

Roth, Alvin E., "Bargaining Experiments", in *Handbook of Experimental Economics.* John H. Kagel and Alvin E. Roth, Eds., Princeton, NJ: Princeton University Press, 1995.

Subramaniam, Jeevan, "Small Talk Helps to Establish Trust", ideas.bkconnection.com/5-ways-small-talk-serves-a-big-purpose , accessed 5/11/2012.

Taylor, Donald, and Janet Doria, "Self-serving and group-serving Bias in Attribution", *Journal of Social Psychology,* 113 (2) pp. 201-11, 1981.

Tingley, Dustin, and Barbara Walter, "Does Cheap Talk Matter? An Experimental Analysis", *Journal of Conflict Resolution,* 55, pp. 996-1020, 2011

Vogt, Sonja, Charles Efferson, and Ernst Fehr, "Can we see Inside? Predicting Strategic Behavior Given Limited Information", *Evolution and Human Behavior,* 34, pp. 258-64, 2013.

Wikijob Team, "The Best Ways to Make Business Small Talk", https://www.wikijob.co.uk/content/features/useful-resources/best-ways-make-business-small-talk, accessed 5/11/2012.

Wilson, Edward O., *The Social Conquest of Earth,* New York, NY: W. W. Norton, 2012.

APPENDIX

Procedures and instructions for the two experiments

Experiment 1: Investor-Operator game

1. Subjects are recruited via Amazon Mechanical Turk. They report being resident in the United States and being 26 years old or older.
2. Subjects enter the experiment and are consented.
3. Subjects proceed to a screening task. In this task, subjects transcribe some nonsense text according to some rules that are given (e.g., "Only transcribe the first and fourth sentences. Make sure each sentence you transcribe has an exclamation point at the end"). This task is easy for native speakers and is meant to screen out subjects who do not speak English well.
4. Subjects proceed to the main task. Some answer a series of lifestyle questions before proceeding (rural/urban, tacos/sushi, beach/mountain, etc.). Others are asked to try to find the two most interesting things they have in common.
5. Subjects enter a waiting room where they are given the opportunity to play a game while they wait for a partner. Once a suitable partner has entered the waiting room, the two are paired and the game proceeds. There is a maximum wait time of 10 minutes, for which they are paid.

   (i) In the case of Treatment 1, the two simply proceed to the next step

   (ii) In the case of Treatment 2, the subjects have a video chat for three minutes with the instruction to find the most interesting thing they have in common. Subjects often fail to get their video equipment working, so if a subject reports his partner has not been able to video chat for more than a minute that subject tries a new partner.

   (iii) The pairs who answered the ten lifestyle questions are shown what answers they had in common but are given no instruction other than to chat with their partner.
6. Subjects are then instructed in the rules of the Investor / Operator game. The rules to the game are then reproduced at the bottom of subsequent pages. Subjects must spend two minutes on this page.
7. Subjects are given a series of comprehension questions and are not allowed to proceed until they get them right.

8. Subjects play a practice game.
9. Subjects are notified that on the next page they will play the game for real with their partner.
10. Subjects then play the Investor / Operator game for real.
11. Subjects wait a few seconds to make sure their partner has moved.
12. Subjects then answer a variety of demographic questions.
13. Subjects are told the results of the game, are debriefed, and paid.

Experiment 2: Twice-repeated Stag Hunt

1. Subjects are recruited via Amazon Mechanical Turk. They report being resident in the United States and being 26 years old or older.
2. Subjects enter the experiment and are consented.
3. Subjects proceed to a screening task.

   (i) In the treatment with no small talk, subjects transcribe some nonsense text according to some rules that are given (e.g., "Only transcribe the first and fourth sentences. Make sure each sentence you transcribe has an exclamation point at the end"). This task is easy for native speakers and is meant to screen out subjects who do not speak English well.

   (ii) In the treatment with small talk, subjects give a code word to an experimenter via video, and the experimenter gives a corresponding code word which allows the subject to proceed. This verifies that the subject can speak English and that the subject has working video equipment.
4. Subjects enter a wait room where they wait to be paired with a partner. They are able to play a game while they wait if they wish. There is a maximum wait time of 10 minutes, for which they are paid.
5. Subjects proceed to the main task, which begins with an explanation of the rules to the Stag Hunt game (cast as Rabbit / Buffalo due to higher comprehension). The rules are reproduced at the bottom of subsequent pages. Subjects must spend two minutes on this page.
6. Subjects are given a series of comprehension questions and are not allowed to proceed until they get them right.

7. Subjects play a practice game.
8. Subjects are notified that on the next page they will play the game for real with their partner.
9. Subjects then play the Stag Hunt game for real.
10. Subjects wait a few seconds to make sure their partner has moved.
11. Subjects either video chat or proceed.

    (i) In the treatment with no small talk, subjects are told the result of the first game and proceed.

    (ii) In the treatment with small talk, subjects learn the result of the game and are told, "You have finished this game and will now video chat for three minutes with the person you just played with before moving on to the next task" in order to make it non-obvious that they will be playing the exact same game again. Subjects then talk with their partner for three minutes. They are told, "You will talk with your partner from the last game for 3 minutes before we move on to the next phase of the task.". They must exchange a code word with each other in order to move on, verifying that the video chat happened.
12. Subjects are then told that they will play the same game again with the same person.
13. Subjects make their decision for the second Stag Hunt game.
14. Subjects wait a few seconds to make sure their partner has moved.
15. Subjects are told the results of the second game.
16. Subjects then answer a variety of demographic questions.
17. Subjects are told their earnings breakdown, are debriefed, and paid.