Remote and Face-to-Face Bargaining: Economic Effects on Efficiency and Fairness

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Abstract

The digital transformation of labor markets has fundamentally altered economic interactions, particularly negotiations. This study investigates the impact of remote versus face-to-face communication on bargaining outcomes using a modified repeated ultimatum game withy asymmetric information on the stake sizes. Employing a pre-registered laboratory experiment, we compare negotiation dynamics across different stake sizes (C15 and C25) and communication modes. Surprisingly, remote negotiations achieve perfect efficiency (100% success rate) in contrast to face-to-face interactions, which experienced significantly lower success rates, while simultaneously amplifying payoff inequality, particularly when resources are scarce (C15 stake size). We find no significant gender wage gap among responders, but reveal that female proposers tend to create more equal distributions. Our research provides insights into how communication media reshape economic exchange, demonstrating that remote interactions can enhance negotiation completion rates while risking greater distributional inequalities. These findings offer important guidance for organizations navigating increasingly digital workplace environments.

JEL Classification numbers: C91, C92, D03, M54

Keywords: Asymmetric Information, Bargaining, Face-to-Face, Fairness, Remote, Ultimatum Game

1 Introduction

The landscape of labor markets has undergone a profound transformation in recent years, with digital technologies, artificial intelligence, and remote work tools fundamentally reshaping how work is conducted and negotiated. This digital revolution has accelerated dramatically during the COVID-19 pandemic, with remote work adoption increasing from 5% of paid workdays before the pandemic to nearly 30% in 2021 as documented by Barrero et al. (2021) in a survey of American workers. This trend extends well to the United States. In their cross-country analysis, Aksoy et al. (2022) document similar patterns across 27 nations, finding that remote work now averages 1.5 days per week globally.

The digital transformation is also evident in the fundamental reorganization of modern labor markets and the widespread integration of AI tools throughout workplace processes. Team collaborations now frequently occur through video conferencing platforms, while presentations and training sessions have shifted to digital formats. Daily stand-up meetings, executive consultations, and strategic planning sessions are regularly conducted online. Furthermore, numerous academic research seminars and lectures take place online. The hiring process itself has transformed, with job interviews and promotion discussions taking place remotely. Even complex negotiations—whether with business partners, suppliers, procurement specialists, or in salary discussions—increasingly occur in digital environments. The magnitude of these shifts is documented by Autor et al. (2022), who find that by the close of 2022, approximately 58% of knowledge workers reported using digital communication and collaboration tools daily. Their research reveals a 215% increase in AI-powered tools in workplaces between 2018-2021, with 47% of businesses reporting implementation of at least one AI application in their workflow.

This profound shift of digital transformation in labor markets fundamentally alters the mechanisms of economic exchange beyond mere technological adoption, potentially reshaping outcomes across diverse market domains. Throughout the pandemic and its aftermath, practitioners and executives have wrestled with critical questions about workplace dynamics, particularly whether face-to-face interactions enhance collaboration and economic efficiency compared to remote settings. This uncertainty necessitates investigation into how remote versus in-person interactions influence economic efficiency outcomes and distributional fairness, while examining potential heterogeneous effects, such as gender disparities.

In this paper, we address these critical questions by examining a common and economically significant domain: the impact of remote interactions on negotiations. We investigate whether such institutional setting yields lower efficiency outcomes than its face-to-face counterpart, and whether increased social distance in remote bargaining environments leads to systematic reductions in distributional equity, potentially affecting gender gaps. Given the literature documenting bargaining disadvantages for women and gender differences in preferences (Niederle and Vesterlund, 2007; Croson and Gneezy, 2009; Goldin, 2014; Card et al., 2016; Blau and Kahn, 2017; Babcock and Laschever, 2021), we also examine whether gender differences emerge in our setting and if changing institutional environments affect such disparities. Through controlled laboratory experiments with high internal validity, we provide empirical insights into these questions, offering evidence-based guidance for organizational design in our digitalizing economy.

We study a modified variant of the ultimatum-bargaining game introduced by Güth et al. (1982). In

the classical game, a proposer offers a split to a responder, and if the responder accepts, both receive their shares; if rejected, both get nothing.¹ In our experimental design of the ultimatum game, we incorporate three key features: (1) A multi-period negotiation structure with fixed roles and constant pie size following Gneezy et al. (2003), which enables us to observe how communication patterns evolve through ongoing dialogue, unlike other repeated ultimatum studies that employ role reversal or shrinking pies (Güth and Tietz, 1990; Binmore et al., 1985; Güth and Tietz, 1986); (2) Asymmetric information regarding stake size (C15 or C25) as in Mitzkewitz and Nagel (1993); Rapoport and Sundali (1996), where only proposers know the true amount—this mirrors realistic scenarios where employers possess better resource information while enabling analysis of deceptive behavior across communication modes²; and (3) A direct comparison between remote and face-to-face communication. While prior research has established that face-to-face or video communication generally enhances cooperation across various contexts (Brosig and Weimann, 2003; Balliet, 2010; Zultan, 2012), few studies directly compare different communication media in bargaining settings. To the best of our knowledge, we are the first to compare video-mediated and face-to-face negotiation in the ultimatum game under conditions of asymmetric information. Previous work has either focused on different comparison points such as avatar-mediated versus face-to-face communication (Greiner et al., 2014) without information asymmetries, or different contexts, such as social dilemmas (Rockmann and Northcraft, 2008). We use video recordings in both settings to facilitate neurocognitive facial expression analysis (Kulke et al., 2020), allowing us to quantify emotional expressions that may explain differences in outcomes across communication modes. Specifically, we compare two treatments: in REMOTE, participants negotiate via "Zoom" from separate office rooms, while in FACE-TO-FACE, they interact directly at the same desk in our laboratory.

Results show that higher stakes (C25) significantly increase inequality compared to lower stakes (C15), largely driven by proposer dishonesty. Surprisingly, REMOTE negotiations achieve perfect efficiency (100% success rate) while FACE-TO-FACE interactions result in slightly but significantly lower efficiency (90%). However, REMOTE bargaining simultaneously increases payoff inequality, especially when resources are scarce (C15), where FACE-TO-FACE interactions maintain near-equal splits. We find no significant gender wage gap for responders and weak evidence of gender effects among proposers, though female proposers tend to create more equal distributions.

Our study contributes to multiple literature by bridging research on negotiation, communication media effects, and information asymmetries within a unified experimental framework. The surprising efficiency of remote interactions combined with their inequality-enhancing effects provides important insights for theories of social distance in economic exchange. For organizations navigating the post-pandemic work-place, our results offer practical guidance: while remote negotiations may increase completion rates, they simultaneously risk greater distributional inequality, particularly when resources are limited—a crucial consideration for maintaining perceptions of fairness in increasingly digital workplace environments.

¹Despite theory predicting that responders should accept any positive offer and proposers should offer the minimum amount, research shows two deviations: proposers typically offer 40-50% of the pie, and responders frequently reject offers below 30% (see Thaler 1988; Güth and Tietz 1990; Roth et al. 1995; Camerer 2011; Güth and Kocher 2014 for excellent surveys).

²Previous research has explored various dimensions of deception in negotiations, including the distinctions between implicit and explicit forms of misrepresentation (Boles et al., 2000; Besancenot et al., 2013; Kriss et al., 2013).

2 Experimental Design

We conducted a laboratory experiment that was pre-registered at aspredicted.org (AsPredicted #130299).³ Specifically, we study an experimental ultimatum game with two key modifications to the original Güth et al. (1982) design. First, we implement a repeated variant, allowing for a richer analysis of the bargaining relations than in one-shot games. Excellent surveys document such experimental variations of the ultimatum game (Güth and Tietz, 1990; Roth et al., 1995; Güth and Kocher, 2014), including two-round versions with efficiency losses (e.g., Binmore et al., 1985; Güth and Tietz, 1986) and variants with increasing pies (Güth et al., 1993). Our approach builds specifically on the repeated interaction framework of Gneezy et al. (2003), which allows for multiple bargaining rounds, though our research question focuses on how remote versus face-to-face communication impacts bargaining outcomes rather than on deadline effects

Second, we introduce incomplete information regarding stake size (C15 or C25), following Mitzkewitz and Nagel (1993); Rapoport and Sundali (1996) by granting only proposers knowledge of the true amount. This feature mirrors realistic scenarios where one party (e.g., firms or employers) possesses better resource information, enhances trust dynamics, particularly relevant in digital environments of remote negotiations. This also enables us to analyze deceptive behavior across different institutional settings—an important connection to the growing experimental economics literature on lying behavior (Abeler et al., 2019).

2.1 The Experimental Game

In our ultimatum game, two participants—a proposer and a responder—are paired together. The timing of the sequential game is as follows. First, participants are informed whether they will act as a first mover (proposer) or a second mover (responder) based on a random draw. Next, another random draw decides whether participants will bargain about a C15 or C25 stake size. The proposer is informed of the actual stake size and must verbally communicate it to the responder. Afterward, the proposer is required to enter their choice into the computer.⁴

In a next step, the proposer and responder engage in a three-minute verbal negotiation to determine how to divide the stake. During this time, the proposer must verbally communicate their offer to the responder. The proposer is then required to enter the offer into the computer within the allotted time. The offer must be in whole euro amounts (no cents) and cannot exceed the actual available stake size that was randomly determined in the beginning. If the proposer fails to make an offer within the time period, the negotiation ends immediately, with the proposer receiving an outside option of C5 and the responder receiving C0. The inclusion of such an outside option introduces a more realistic feature that parallels labor market dynamics where employers retain some productive value even when negotiations fail (e.g., through temporary workers or existing staff). Moreover, our outside option creates a credible fallback position that strengthens proposers' bargaining power and establishes a lower bound on their payoffs.

³The pre-registration can be found here: https://aspredicted.org/k89q-g76s.pdf.

⁴Note that the proposers can make an untruthful report, since only they know the real stake size.

After the proposer makes an offer, the responder is informed of the amount and must decide whether to accept or reject it. If the responder accepts, the negotiation concludes, and the responder receives the offered amount while the proposer receives the remainder (total stake minus the offered amount). If the responder rejects the offer, the negotiation continues. Following a rejection, the pair enters another negotiation round, though with a reduced time limit of two minutes for discussion. All subsequent negotiation periods will only last two minutes from this point onward. The proposer must then make a new offer that exceeds the previously rejected amount by at least one euro. This cycle of negotiation, offers, and decisions continues until either: (1) the responder accepts an offer, (2) the proposer fails to make an offer within the time limit, or (3) the proposer offers the entire stake and the responder rejects this. In the latter two cases, the negotiation ends without agreement, resulting in a $\mathfrak{C}5$ payment to the proposer and $\mathfrak{C}0$ to the responder.

2.2 Treatments

To study the economic effects of remote negotiations on economic outcomes and fairness, we compare two treatments: REMOTE and FACE-TO-FACE. (See Appendix A for photos of our treatment setups). In the REMOTE treatment, participants can only bargain remotely. Therefore, we separate each pair of participants and assign one participant to each of two separate office rooms on different floors of our campus. During our experimental sessions, these rooms always remain the same. The implementation of the remote setting in this manner ensures the highest degree of control and internal validity for our experiment. This level of control would not be achievable in real-life scenarios, where participants may join (in online experiments) from various locations, and their behavior could be influenced by multiple factors, such as the presence of other people, pets, or young children. In the REMOTE treatment, participants can only communicate with the "Zoom" video software, which is running on a computer. They are also provided with a second computer where they must enter their experimental choices, such as reporting the stake size, making offers (proposers), or accepting/rejecting offers (responders).

By contrast, in the FACE-TO-FACE treatment, participants meet physically during the negotiation. Specifically, each pair of participants is in the same room (our laboratory) and they are sitting at the same desk and can speak directly to each other and look each other in the face. To keep conditions as consistent as possible, both participants are seated in front of two computers. On the computer to the left, participants enter their experimental choices (as described above), while on the computer to the right, the "Zoom" video software runs without sound, displaying the images of both participants during the negotiation. In both treatments, we record videos of the negotiation for facial recognition analysis to measure participants' expressed emotions. Participants are informed about the recordings in both treatments. The use of video recordings in FACE-TO-FACE not only ensures better comparability between the settings but also allows us to have video data for facial recognition analysis from both treatments, enabling us to compare them in our analyses. *Note that his preliminary version of the paper does not yet include the face recognition analysis*.

2.3 Questionnaire & Elicitation of Economic Preferences

After the end of the bargaining experiment, we asked participants a short questionnaire on their perceptions of the bargaining situation. We asked them four questions that were each based on 11-point Likert scales: (i) How much pressure they felt from the other person? (0 = no pressure; 10 = very much pressure); (ii) How inhibited they were to assert their demands? (0 = not all; 10 = very much); (iii) How great was their fear that the negotiation could be terminated prematurely? (0 = very small; 10 = very great); (iv) How likely do you think it is that the other person told you the wrong stake size that was involved in the negotiation? (0 = very unlikely; 10 = very likely).

In next steps, we also elicited several economic preferences of our participants.⁵ The first elicitation was based on participants' honesty preferences. To measure honesty preferences, we presented the "dot task" introduced by Gino et al. (2010) to our participants. The task requires participants to report whether they observe more dots on the "left" or "right" side of a quadratic area, which is divided by a diagonal line. Reporting honestly "left" yields a small payoff of $\pounds 0.20$, whereas reporting dishonestly "right" yields a high payoff of \pounds 2.00. In the quadratic area, it can be seen that more dots are on the left side. Nevertheless, the fact that participants have to determine the true number of dots themselves offers moral wiggle room, so that people do not feel perfectly observed if they deliberately make a false statement and report "right" in order to earn more. In a next step, we measured participants' social value orientation (SVO) in an unincentivized way with the method of Murphy et al. (2011). Participants are matched in pairs and have to decide about the monetary allocation between them and a passive player in six decision sets. Based on their replies, we compute an SVO angle. Higher (lower) angle values can be interpreted as more (less) prosocial. Finally, we asked three verbal questions on 11-point-Likert-scales to measure risk tolerance, competitiveness, and patience. To measure risk tolerance, we followed Falk et al. (2023) and presented participants with the following questions: "Are you generally a person who is willing to take risks?" (0 = not at all willing to take risks; 10 = fully prepared to take risks). We assessed participants' competitiveness using a verbal question inspired by Buser et al. (2024): "How much do you love competing with other people?" (0 = not at all; 10 = very much). Moreover, we formulated an own question to measure patience: "How patient are you?" (0 = not at all; 10 = very patient). Finally, we ran a post-experimental questionnaire.⁶

2.4 Experimental Procedures

We collected data for our REMOTE treatment in two consistent office rooms located on different floors of our campus. In our invitation emails, we specifically directed each participant to their assigned room number in separate locations.⁷ We had student helpers assisting us. Their job was to welcome participants

⁵See Appendix A for representations of the preference elicitation tasks for honesty preferences and social value orientation.

⁶Here, we collected participants' gender identification, their age, their field of study, and their highest level of education. Additionally, we asked participants whether they knew their negotiation partner and how frequently they had participated in previous experiments.

⁷While collecting the data of this REMOTE treatment, we took great care to avoid that participants met each other before or after the experiment.

in the two distinct offices and to provide them with written experimental instructions. Before the REMOTE sessions began, participants read the instructions and waited individually outside the offices, supervised by student assistants who coordinated the experiment via smartphone messaging apps. After participants finished reading, student assistants escorted them to their offices, directed them to their computers, reminded them about the recording, started the recording, and exited the room. Once participants completed the bargaining part of the experiment, the assistants returned to stop both the recording and video transmission before beginning the preference elicitation phase, then left the room again. In contrast, participants in the FACE-TO-FACE treatment were not separated during laboratory sessions. Participants were invited to the same laboratory and arrived simultaneously in the waiting area, allowing them to see each other in person before the experiment began and while reading the instructions. However, we took great care that they did not talk to each other. After participants finished reading, they were both escorted to the laboratory, which was in the next room. The same procedure with student assistants was followed as in the REMOTE treatment.

We recruited 202 participants using the subject-pool recruitment software ORSEE (Greiner, 2015). Of these, 98 participated in the REMOTE treatment (42 women, 56 men) and 104 in the FACE-TO-FACE treatment (48 women, 55 men, 1 non-binary participant).⁸ We used the experimental software z-Tree (Fischbacher, 2007) to conduct our experiments, which lasted approximately 30 minutes in both treatments. Participants earned an average of €15.81, which included a €5 show-up fee.⁹

3 Hypotheses

In this section, we present our pre-registered hypotheses. We start by focusing on the general effects of the stake size. First, the larger stake size (C25) statistically allows for a wider spectrum of distributional outcomes compared to the smaller pie size (C15), creating greater space for unequal allocations to emerge. This expanded feasible set inherently accommodates more extreme inequality in the distribution of profits between bargaining parties. Second, the C25 stake size offers proposers scope to falsely report the responders that the stake size to be negotiated is small (C15). Such cases of untruthful reports will additionally increase inequality under the C25 stake size. Taken together, we derive our first hypothesis.

Hypothesis 1: Effects of the Pie Size

Bargaining under the high pie size (\pounds 25) *increases inequality in ultimatum-bargaining profits.*

Next, we turn to our treatments, concentrating on the potential institutional effects of bargaining under different communication media (remote vs. face-to-face). Generally, research consistently shows that communication enhances cooperation in social dilemmas (e.g., Sally, 1995; Ledyard, 1995), oligopoly

⁸While our pre-registration specified 200 participants (100 per treatment), we had to exclude one pair in REMOTE after discovering a participant had participated twice due to multiple database accounts. To maintain our randomization protocol while accounting for potential no-shows, we unintentionally collected two additional pairs (4 participants) in the FACE-TO-FACE treatment. This minor deviation from our pre-registered sample size (104 vs. 100 in Face-to-Face) does not compromise our analysis, as it slightly increases statistical power without altering the experimental design or introducing selection bias.

⁹The average profits in the treatments are as follows: €16.16 (REMOTE); €15.49 (FACE-TO-FACE).

settings (e.g., Andersson and Wengström, 2007; Fonseca and Normann, 2012), and ultimatum games (Roth et al., 1995; Camerer, 2011), with face-to-face or video interaction being particularly effective (Brosig and Weimann, 2003; Balliet, 2010; Zultan, 2012).

Despite the importance of this question, few studies compare the effectiveness of different communication media in bargaining contexts. Rockmann and Northcraft (2008) show that face-to-face interactions generated higher cooperation than video-mediated communication in framed social dilemma contexts. Their findings suggest a medium-dependent "social distance" effect that may similarly impact ultimatum bargaining. While Greiner et al. (2014) studied an ultimatum game, they compared avatar-mediated to face-to-face and text chat communication, but did not investigate video interactions. Results show that face-to-face communication increases offers and acceptance rates compared to text chat. Building on the evidence that richer communication channels enhance cooperative behavior, and considering that remote video interaction creates reduced social presence, which may increase social distance between negotiators, we hypothesize lower bargaining success rates in our REMOTE video treatment compared to our FACE-TO-FACE treatment. This reduction in bargaining success will lead to lower welfare (H2a) and increased inequality in ultimatum-bargaining profits (H2b), as diminished social presence may weaken proposers' concerns for fairness.

Hypothesis 2: Effects of Remote Bargaining

(a) Remote bargaining leads to lower ultimatum-bargaining welfare as compared to situations where participants meet physically.

(b) Remote bargaining increases inequality in the ultimatum-bargaining profits.

We also examine gender gaps in bargaining outcomes-mirroring important labor market findings-though the literature provides limited guidance on how communication modes might influence these patterns. On the general existence of gender pay gaps, robust empirical evidence shows women earn less than men across diverse occupations and countries (e.g., Bertrand et al., 2010; Goldin, 2014; Card et al., 2016; Blau and Kahn, 2017). These disparities may also manifest in ultimatum games, where responders resemble employees negotiating wages. Women's potential bargaining disadvantages may be linked to psychological evidence showing that they are less likely to initiate negotiations (Babcock and Laschever, 2021), face social backlash when they do (Bowles et al., 2007), and exhibit greater risk aversion and lower competitiveness (Niederle and Vesterlund, 2007; Croson and Gneezy, 2009). Consistent patterns emerge across various contexts: female buyers face higher prices in car price negotiations (Ayres and Siegelman, 1995), request lower salaries (Säve-Söderbergh, 2019), make higher ultimatum offers and accept lower ones (Eckel and Grossman, 2001), claim less in ultimatum games (Rigdon, 2012), and concede more quickly in experimental wage negotiations (Dittrich et al., 2014). Based on this evidence, especially the findings on acceptance and demand behavior that most directly relates to the responder role in our ultimatum game, we hypothesize that male responders will achieve higher bargaining profits than female responders (H3a). Given the scarcity of literature examining how communication modes influence gender disparities in bargaining contexts, we formulate a null hypothesis (H3b) on the interaction between gender pay gaps and communication modalities.

Hypothesis 3: Gender Differences

(a) A gender-pay gap occurs among responders, i.e., male responders achieve higher ultimatum-bargaining profits than female responders.

(b) The gender-pay gap among responders is of similar magnitude in the FACE-TO-FACE and the REMOTE treatment.

4 Results

In this section, we present our results. First, we examine key bargaining outcomes before testing our hypotheses and analyzing the data in detail. Table 1 shows means of these descriptives across the REMOTE and FACE-TO-FACE treatments with stakes of C15 and C25. We report proposer offers, earnings for both parties, bargaining periods, and bargaining success rates.

Treatment	Proposer Offer	Responder Earning	Proposer Earning	Bargaining Periods	Success (%)
Remote €15 (n = 50)	7.80 (1.35)	7.80 (1.35)	7.20 (1.35)	1.36 (0.57)	100.00
Remote €25 (n = 48)	10.54 (2.26)	10.54 (2.26)	14.45 (2.26)	1.08 (0.41)	100.00
Mean (n = 98)	9.14 (2.30)	9.14 (2.30)	10.76 (4.10)	1.22 (0.51)	100.00
Face-to-Face $\bigcirc 15$ (n = 52)	7.38 (1.96)	6.42 (2.87)	6.27 (2.81)	1.50 (0.86)	84.62
Face-to-Face $C25$ (n = 52)	10.50 (3.29)	10.54 (3.15)	13.50 (3.59)	1.04 (0.20)	96.15
Mean (n = 104)	8.94 (3.11)	8.48 (3.64)	9.88 (4.85)	1.27 (0.66)	90.38

Table 1: Bargaining Outcomes under Remote and Face-to-Face Treatments

It can be seen that with $\bigcirc 15$ stakes, proposers offer less than with $\bigcirc 25$ stakes in both treatments. High-stake proposers earn more than responders, especially in REMOTE, while low-stake proposers earn slightly less. FACE-TO-FACE negotiations have a higher mean number of bargaining periods but lower success rates (90.38%) compared to REMOTE, where all negotiations succeed. While REMOTE proposals are marginally higher for $\bigcirc 15$ stakes, this pattern reverses for $\bigcirc 25$ stakes. These descriptive findings suggest potential differences in fairness considerations and bargaining efficiency between treatments that warrant further investigation.

4.1 Payoff Inequality

Next, we proceed to test our hypotheses. We start focusing on the payoff inequality that emerges from the two institutional settings in our treatments. Specifically, we examine the potential differential effects on payoff inequality between proposers and responders when bargaining under the limbda15 and limbda25 stake sizes. Figure 1 overviews the means of the squared payoff differences in Euros between the proposer and responder. The bar chart conditions on treatments (left panel: Remote; right panel: Face-to-Face) and on stake sizes (white bars: limbda15 Stake; gray bars: limbda25 Stake). It also includes standard error bars.

A first look reveals that the C25 stake size consistently leads to greater inequality across both treatments, resulting in an overall inequality of 32.18 compared to a significantly smaller and less

significant inequality of 4.55 (1-sided Mann-Whitney test, p=0.002) for the $\\mbox{els}1$ stake size. This confirms our Hypothesis 1 that predicted that bargaining under the high stake size increases inequality in ultimatum-bargaining profits.

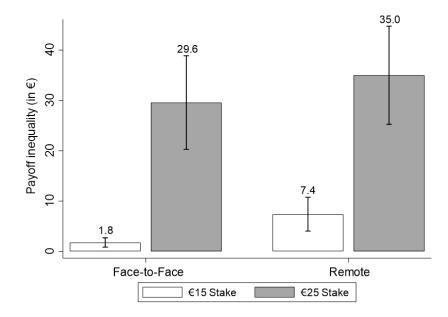


Figure 1: Payoff differences squared by treatment and stake size

Turning to treatment effects, the diagram reveals that inequality is significantly more pronounced in the REMOTE treatment (20.92) than in the FACE-TO-FACE treatment (15.69) (1-sided Mann-Whitney test, p=0.015), a pattern observed across both stake sizes. This confirms Hypothesis 2b that predicted that remote bargaining increases inequality in the ultimatum-bargaining profits. A closer look reveals that this treatment effect is driven by the €15 stake size, which leads to significantly more inequality between the proposer and responder that is more than four times higher in REMOTE (7.4) as compared to FACE-TO-FACE (1.8) (2-sided Mann-Whitney test, p=0.009) where hardly any inequality arises. Although slightly higher, the inequality for the €25 stake size in the Remote treatment (35.0) is not significantly greater than in the Face-to-Face treatment (29.6) (2-sided Mann-Whitney test, p=0.460).

To investigate further underlying relationships in our data, such as the effects of gender matching, negotiation duration (in periods), and the impact of proposer dishonesty on inequality, we present a series of GLM regressions. Given the heavily skewed distribution of our dependent variable as described above, we apply the Gamma GLM specification with log-link throughout these deeper analyses. Table 2 presents these models where we always include dummies for the stake size (*Stake 15*), treatment (*Remote*), and a variable *Period*, which accounts for the number of bargaining periods. In models (2)–(4) we also include the interaction of *Stake 15* and *Remote* to test whether the €15 stake size drives the treatment effect of increased inequality in remote negotiations. Furthermore, models (3)–(4) additionally account for the effects of proposer making a dishonest report (*Female/Male Proposer Dishonest*) and we include dummies to account for the impact of gender matching. In Model (4), we test the robustness of our findings by

incorporating additional control variables, including participants' field of study (economics/business), age, experimental experience (measured by their number of previous participations), and whether they were previously acquainted with their interaction partner.

Models (1) and (2) confirm our previous findings: the coefficient of *Stake 15* is negative and highly significant, indicating that higher stake sizes lead to increased payoff inequality. The significant positive coefficient of *Remote* in Model (1) confirms the pattern observed in Figure 1: remote negotiations lead to higher payoff inequality. However, this direct effect becomes insignificant once we include the interaction term *Stake 15* × *Remote* in Models (2) and (3). Instead, the interaction term is positive and significant, revealing that remote negotiations amplify inequality particularly when stakes are low.

	Payoff inequality				
	(1)	(2)	(3)	(4)	
Stake 15	-2.177***	-2.784***	-1.132*	-0.725	
	(0.410)	(0.585)	(0.658)	(0.604)	
Remote	0.808**	0.163	-0.497	-0.293	
	(0.400)	(0.413)	(0.511)	(0.487)	
Stake $15 \times \text{Remote}$	· · · ·	1.266*	1.818**	1.424**	
		(0.765)	(0.807)	(0.685)	
Period	-0.153	-0.182	0.084	0.007	
	(0.269)	(0.211)	(0.274)	(0.285)	
Female Proposer Dishonest			3.378***	3.491***	
-			(0.566)	(0.586)	
Male Proposer Dishonest			2.720***	2.607***	
_			(0.420)	(0.423)	
Male Proposer & Male Responder			1.153**	0.981**	
			(0.517)	(0.464)	
Male Proposer & Female Responder			1.141*	0.975**	
			(0.598)	(0.495)	
Female Proposer & Male Responder			0.784	0.436	
			(0.612)	(0.614)	
Constant	3.307***	3.600***	0.879	0.047	
	(0.405)	(0.394)	(0.585)	(1.484)	
Controls	No	No	No	Yes	
Observations	101	101	100	100	
AIC	6.896	6.818	6.049	5.998	
BIC	-166.341	-169.867	-240.658	-236.465	

Standard errors in parentheses

* p<0.10, ** p<0.05, *** p<0.01

Table 2: GLM Regressions on payoff inequality (Gamma with log link)

The significance of *Stake 15* diminishes or disappears in Models (3) and (4) when controlling for gender-specific proposer dishonesty, with both *Female Proposer Dishonest* and *Male Proposer Dishonest* showing strong positive significance at the 1% level. Another interesting finding is revealed by the

positive and significant coefficients of both *Male Proposer & Male Responder* and *Male Proposer & Female Responder*, relative to the omitted category of *Female Proposer & Female Responder*, reveal a clear gender effect: female proposers achieve substantially lower levels of inequality. This inequality-reducing effect of female proposers is particularly noteworthy as it persists regardless of responder gender, as evidenced by the insignificant coefficients for *Female Proposer & Male Responder pairings*. These results suggest that it is specifically the proposer's gender, rather than the responder's, that drives inequality outcomes. We summarize our results of payoff inequality as follows:

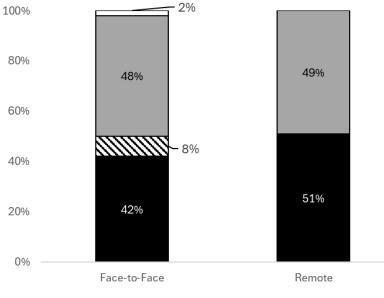
Result 1a: The \notin 25 stake size leads to significantly greater payoff inequality, which is considerably explained by proposer dishonesty regardless of gender.

Result 1b: *Remote bargaining increases payoff inequality compared to face-to-face interactions, which is particularly pronounced for the* \notin 15 *stake size.*

Result 1c: *The proposer's gender is a key driver of fairness in bargaining outcomes, with female proposers achieving systematically lower levels of inequality regardless of responder gender.*

4.2 Welfare

Next, we turn to the analysis of welfare in our institutional settings. Therefore, we compare the rates of bargaining success in our two treatments. More specifically, we count the cases where the responder accepted an offer (no offer) as bargaining success (failure). Figure 2 displays stack-bar charts to give an overview of the bargaining success/failure rates in our two treatments conditional on stake sizes.



■ Stake 15 successful ■ Stake 15 failure ■ Stake 25 successful ■ Stake 25 failure

Figure 2: Welfare: Bargaining success/failure conditional on treatment and stake size

While our experiments show high bargaining success rates across all conditions, FACE-TO-FACE negotiations achieved a lower success rate (90%) compared to remote meetings (100%), resulting in significantly reduced welfare in the FACE-TO-FACE treatment, ($\chi^2(1)=4.96$, p=0.026). Although this interesting finding deserves attention, we must reject Hypothesis 2a, which predicted lower welfare in remote bargaining compared to FACE-TO-FACE interactions. The majority of negotiation failures (8%) in face-to-face interactions occurred at the €15 stake size, indicating that in this treatment, resource scarcity may have intensified fairness concerns and emotional reactions. Taken together, our results uncover a paradoxical pattern: Despite having the highest social distance and resulting in higher payoff inequality (as shown in our previous analysis), remote bargaining achieved a remarkable perfect efficiency with a 100% success rate. While face-to-face interactions might intuitively seem more conducive to successful negotiations, our data show that the physical absence of counterparts does not impede reaching agreements. The increased failure rates in face-to-face situations suggest that social preferences and emotions may play a pronounced role when meeting in person, potentially leading to more rejections when offers are deemed unfair.

Result 2a: *Remote bargaining proves remarkably efficient, achieving a perfect success rate and significantly outperforming face-to-face negotiations.*

Result 2b: Bargaining failures predominantly occur in face-to-face interactions with $\in 15$ stakes, suggesting that lower stakes combined with physical presence may intensify fairness concerns.

4.3 Individual Profits

In this section, we analyze how institutional settings and stake sizes affect payoff distributions across roles (proposer vs. responder) and gender. Therefore, Table 3 presents a set of Tobit regression analyses on participants' profits. Due to the possible payoff distribution in our data, we apply Tobit regressions where the results are left censored to 0 and right censored to 25. Our models contain the same dummies on stake size (*Stake 15*) and treatment (*Remote*), as well as the *Period* variable as in Table 2. To study type-specific individual profits, we include dummies that identify whether a participant's role is a *proposer* (models (1)–(4)), and whether the participant is *female* (models (2)–(4)) and the interaction of this gender dummy with the treatment dummy "Remote" (models (4) & (6)). Models (2)–(4) explore the role of economic preferences by including two indices *PC 1: Risk Tolerance & Competitiveness* and *PC 2: Prosocial & Patience* that we derived from a principal component analysis (PCA). In the first principal component risk tolerance and competitiveness load positively and high, whereas in the second principal component patience and prosocial behavior load positively and high.¹⁰ We include a third index that we derived with a

¹⁰We included in the PCA our economic preferences on risk tolerance, competitive behavior, and patience. According to the criterion defined by Kaiser (1960), we identified two components with an Eigenvlaue >1. In the first component, risk tolerance (0.6335) and competitive behavior (0.6436) load strongly, why we called it "PC 1: Risk Tolerance & Competitiveness." In the second component, SVO (0.4874) and Patience (0.8306) load strongly. We call this component "PC 2: Prosocial & Patience," since higher SVO values reflect prosocial behavior.

further PCA on the first three questionnaire measures about participants' perceptions of the negotiation.¹¹ Here, all components load positively and at similar magnitudes. We call this principal component: *PC 3: Negotiation Pressure Index*.¹² Furthermore, we include a dummy variable (*Honesty Preferences*) from our lying elicitation to account for the role of participants' honesty preferences and another variable (*Stake 25 × Dishonest Report*) that indicates whether proposers reported dishonestly when deciding about a €25 stake size. In models (3)–(4), we include the same control variables as in Table 1.

	(1)	(2)	(3)	(4)	(5)	(6)
	Full Sample	Full Sample	Proposer	Proposer	Responder	Responder
Stake15	-4.991***	-4.794***	-5.477***	-5.567***	-4.640***	-4.576***
	(0.404)	(0.402)	(0.551)	(0.548)	(0.435)	(0.434)
Proposer	1.500***	1.329***				
	(0.383)	(0.376)				
Remote	0.709*	0.741*	0.920**	0.331	0.597	1.020**
	(0.384)	(0.380)	(0.461)	(0.610)	(0.373)	(0.499)
Period	-0.679*	-0.457	-0.453	-0.457	-0.325	-0.347
	(0.346)	(0.359)	(0.431)	(0.426)	(0.360)	(0.358)
Female		0.553	0.106	-0.538	0.497	0.893*
		(0.410)	(0.487)	(0.655)	(0.410)	(0.513)
Remote \times Female				1.323		-0.901
				(0.914)		(0.711)
PC 1: Risk Tolerance & Competitiveness		0.442**	0.433*	0.421*	0.188	0.199
		(0.174)	(0.223)	(0.221)	(0.174)	(0.173)
PC 2: Prosocial & Patience		-0.008	-0.009	-0.011	0.196	0.176
		(0.184)	(0.230)	(0.228)	(0.185)	(0.184)
PC 3: Negotiation Pressure Index		-0.504***	-0.578***	-0.571***	-0.298**	-0.297**
		(0.148)	(0.199)	(0.197)	(0.147)	(0.146)
Honesty Preferences		0.298	0.329	0.381	0.313	0.309
		(0.387)	(0.518)	(0.513)	(0.376)	(0.373)
Stake 25 \times Dishonest Report			3.290***	3.257***	-4.503***	-4.524***
			(0.729)	(0.721)	(0.550)	(0.546)
Constant	11.868***	11.637***	13.443***	14.075***	11.588***	11.323***
	(0.533)	(1.265)	(1.658)	(1.696)	(1.191)	(1.200)
Controls	No	Yes	Yes	Yes	Yes	Yes
Observations	202	202	101	101	101	101
Pseudo R ²	0.129	0.145	0.235	0.239	0.205	0.208
Log likelihood	-482.176	-473.305	-221.989	-220.954	-200.277	-199.481

Standard errors in parentheses

* p<0.10, ** p<0.05, *** p<0.01

Table 3: Tobit Regressions on Profits

As expected, the results show that profits are consistently lower under the $\\mbox{l}15$ stake size. More importantly, Models (1) and (2) confirm our descriptive findings: participants in the proposer role earn significantly higher profits than responders (approximately $\\mbox{l}1.5$ more, p < 0.01), indicating their structural advantage in the bargaining process. Furthermore, the positive coefficient of *remote* across several models

¹¹We excluded the question about trust in the negotiation partner since it only applies to responders. Asking whether participants believed their counterpart reported the correct stake size is meaningful solely for responders, making this trust measure inappropriate for proposers.

¹²Based on the criterion of Kaiser (1960), we identified one component with an Eigenvalue >1. All questions load positively: the perceived pressure (0.5955), the perceived inhibitions (0.5819), and the fear that negotiation could be terminated early.

reinforces our previous findings on welfare differences between institutional settings, though with subtle patterns. In the full sample (models (1)–(2)), remote negotiations yield weakly significantly higher profits. This effect strengthens for proposers in Model 3 ($\beta = 0.920$, p < 0.05) and for male responders in Model 6 ($\beta = 1.020$, p < 0.05), suggesting that while remote negotiations generally enhance welfare as previously established, these benefits are distributed unevenly across roles and gender. Model (2) reveals that participants' risk tolerance and competitiveness (PC 1) are significantly positively associated with profits, suggesting that more risk-tolerant and competitive individuals achieve better bargaining outcomes. This could indicate that competitive negotiators possess superior negotiation skills or more assertive bargaining strategies. The significant negative coefficient of PC 3 across all models indicates that higher perceived negotiation pressure corresponds with lower profits, with stronger and effects for proposers ($\beta \approx -0.57$, p < 0.01) than responders ($\beta \approx -0.30$, p < 0.05).

Examining role-specific effects in models (3)–(6), we find that the previously observed significance of risk tolerance and competitiveness (PC 1) is driven primarily by proposers, for whom these traits prove particularly advantageous. This relationship is intuitive: risk-tolerant proposers might be less concerned about potential rejection and therefore make lower offers, often resulting in higher profits. Regarding gender effects, we find limited evidence of gender differences in profits. The *female* coefficient is marginally significant for responders in Model (6), while interaction terms with REMOTE remain non-significant across models. Therefore, we do not support Hypothesis 3a and cannot reject the null hypothesis 3b, which states that our treatments influence gender gaps. Models (3)-(6) demonstrate that dishonest reporting under the €25 stake size significantly redistributes profits, increasing proposers' earnings by approximately €3.29 while reducing responders' profits by approximately €4.50. We also find that honesty preferences are not significantly related to profits in our setting. In summary, our findings indicate that negotiation outcomes are shaped by a complex interplay of institutional factors (stake size, negotiation mode), structural positions (proposer vs. responder), individual characteristics (risk preferences, negotiation pressure), with the benefits of remote settings accruing differently across roles and gender categories. We summarize our findings:

Result 3a: Proposers earn higher profits than responders. Profits are lower for the $\notin 15$ stake compared to the $\notin 25$ stake. There is no gender wage gap, nor do the treatments affect it.

Result 3b: Remote negotiations lead to higher profits than in face-to-face negotitaions, especially for proposers and male responders. Higher perceived negotiation pressure reduces profits, particularly for proposers.

Result 3c: *Risk tolerance and competitiveness are associated with higher profits, especially for proposers. Dishonest reporting under the* \pounds 25 *stake increases proposers' profits at the expense of responders.*

4.4 Behavioral Mechanisms

To gain deeper insight into the behavioral mechanisms underlying our findings on inequality, we now take a close look at the payoff differences between proposers and responders that resulted from successful

negotiations. Specifically, Figure 3 presents four histograms that give an overview of the payoff differences from the perspective of proposers. The histograms illustrate the difference in payoffs between proposers and responders. Positive values represent the additional earnings of proposers compared to responders, while negative values indicate lower earnings for proposers relative to responders, measured in euros.

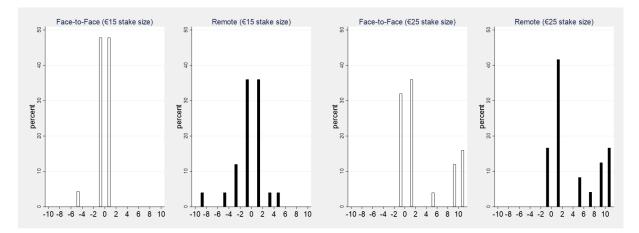


Figure 3: Payoff difference in euros (proposer-responder) conditional on stake size and treatment

The first two panels depict the €15 stake size, whereas the second two panels depict the €25 stake size. White (black) bars represent the FACE-TO-FACE (REMOTE) treatment.

First, the figure clearly supports our initial finding on inequality for the small stake: while outcomes in FACE-TO-FACE cluster tightly around equal splits, the REMOTE treatment shows notable divergence in both directions, but especially in the negative direction. We observe several extreme negative cases (below -3) where proposers must offer responders substantially more than they keep for themselves, occurring more frequently than the positive extremes where proposers retain larger shares. This asymmetric pattern suggests that the absence of face-to-face interaction particularly increases demands from responders. Statistical analysis confirms this pattern: the distribution of payoff differences in the €15 stake size exhibits significantly more extreme values (±3) in REMOTE than in FACE-TO-FACE interactions (Fisher's exact test, 2-sided p=0.050). Specifically, while only a single case in FACE-TO-FACE shows an extreme value (-5), the REMOTE condition yields substantially more variation, with 28.0% of cases displaying extreme values (differences of ±3 or more).

This pattern suggests that remote communication fundamentally alters bargaining dynamics. On the one hand, it appears that trust is lower in this scenario, i.e., responders may frequently demand a "risk premium," as compensation for the uncertainty of the stake size, leading to negative payoff differences. On the other hand, the absence of face-to-face interaction occasionally enables some proposers to successfully claim larger shares for themselves. This likely reflects heterogeneity in communication skills across proposers, where certain individuals may be particularly effective in remote negotiations compared to face-to-face settings. As we demonstrated in the previous section, despite these greater inequalities in payoff distribution, remote proposals are accepted at higher rates than face-to-face proposals — a pattern

that suggests fundamental differences in how responders evaluate offers across communication channels. Finally, panels 3 and 4 of Figure 3 show a similar pattern for the \bigcirc 25 stake sizes in the two treatments. This confirms our initial findings that no treatment effect regarding fairness occurs across institutions when resources are large.

5 Conclusion

The digital transformation of labor markets has fundamentally reshaped economic interactions, with remote negotiations emerging as a critical domain of scientific inquiry. Our study directly addresses this emerging landscape through a laboratory experiment that extends the classical ultimatum bargaining paradigm. By building upon the foundational work of Güth et al. (1982), we implement a repeated negotiation framework inspired by Gneezy et al. (2003) and incorporate uncertain stake sizes following Mitzkewitz and Nagel (1993); Rapoport and Sundali (1996). Our approach further enriches existing literature on communication dynamics in Balliet (2010) and comparative studies of face-to-face and video-mediated interactions (Brosig and Weimann, 2003; Greiner et al., 2014).

The findings reveal complex bargaining dynamics that challenge conventional wisdom about communication and economic efficiency. Remote negotiations present a paradoxical set of outcomes, simultaneously achieving perfect efficiency with a 100% success rate while introducing greater potential for payoff inequality. The most striking results emerge from negotiations with scarce resources (C15 stake size), where remote settings dramatically amplify distributional disparities compared to face-to-face interactions. This subtle understanding extends beyond mere technological adoption, providing crucial insights into the mechanisms of economic exchange in increasingly digital workplace environments. While drawing from literature on gender differences in negotiation (Niederle and Vesterlund, 2007; Goldin, 2014; Babcock and Laschever, 2021), our findings provide an alternative perspective. The data show variations in negotiation behaviors across genders, though no statistically significant wage gap emerged in our experimental setting. This highlights the complex interplay of gender dynamics in economic interactions and the potential impact of institutional contexts.

Our research highlights the critical importance of institutional settings in shaping bargaining outcomes, demonstrating how communication modes can fundamentally alter negotiation strategies and results. Organizations must carefully navigate these emerging challenges by developing sophisticated approaches to digital interactions. The results underscore the need for carefully designed negotiation protocols that can mitigate potential inequalities in remote settings, including implementing transparency mechanisms, establishing clear guidelines for fair negotiation practices, and developing targeted training programs to enhance remote communication skills. The broader context of digital transformation in labor markets, as documented by Autor et al. (2022) and Barrero et al. (2021), provides a critical backdrop to our experimental findings. Our study offers empirical insights into the micro-level mechanisms of economic exchange in increasingly digital environments. Ultimately, the research contributes not only to the understanding of bargaining processes but also provides practical insights for navigating the increasingly digital landscape of modern economic interactions. By bridging experimental economics, communication studies, and labor market research, we offer a comprehensive examination of how technological mediation transforms fundamental economic interactions. Our results invite further investigation into the complex dynamics of digital negotiations, promising rich ground for future scholarly exploration.

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Appendix A: Figures

Experimental setups in our treatments



Figure 4: REMOTE - computer setup (left); Bargaining interaction in the two offices (middle & right)



Figure 5: FACE-TO-FACE - computer setup (left); Bargaining interaction in our laboratory (middle & right)

Experimental Design: Elicitation of Preferences

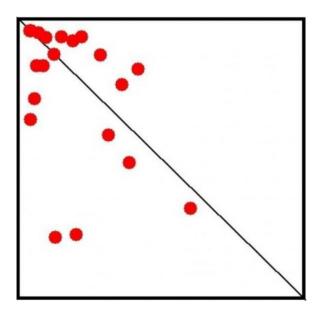


Figure 6: Dot task of Gino et al. (2010)

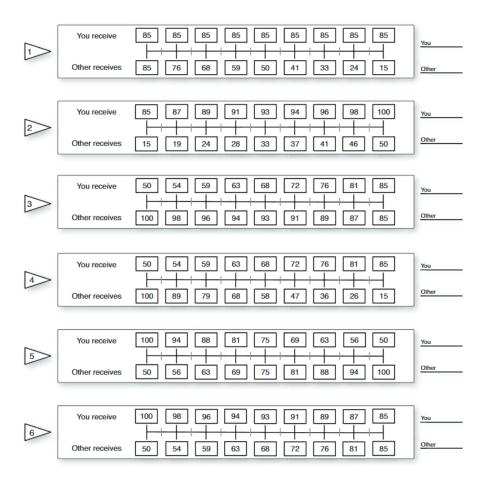


Figure 7: Payoff-allocation decision sets of Murphy et al. (2011)

Instructions ["Face-to-Face"]

For participating in this experiment, you will receive compensation of €5.

Additionally, you can earn more money depending on your decisions and the decisions of another participant in the experiment.

Participation in a Negotiation

In the experiment, you will sit at a table with another person to negotiate the division of a monetary amount. You and the other person will be seated in front of two computers. On the left computer, you can make your entries for the experiment, while the "Zoom" software runs on the right computer and records the negotiation. After you and the other person have read the instructions, the experimental leader will start the recording on the Zoom computer before the negotiation begins.

Roles in the Negotiation:

There are two different roles in the negotiation (Person 1 and Person 2):

Person 1:

Person 1 will be informed about the monetary amount available for division in the negotiation via the screen of the left computer. Person 2 will not receive this information. Two monetary amounts are possible: $\notin 25$ or $\notin 15$. The actual amount to be negotiated will be randomly determined at the beginning of the experiment.

During the negotiation, Person 1 will make offers about the division of the monetary amount between themselves and Person 2.

Person 2:

Person 2 will not be shown information about the actual amount. During the negotiation, Person 2 will decide whether to accept or reject the divisions proposed by Person 1.

Negotiation Procedure:

- 1. At the beginning of the experiment, both participants will be informed via the computer screen about their role (Person 1 or Person 2). Person 1 will additionally be informed about the amount ($\epsilon 25$ or $\epsilon 15$) of the available monetary amount.
- The negotiation situation begins with Person 1 having to verbally inform Person 2 about the amount available. Untrue statements are possible. However, the communicated amount must correspond to one of the two possible amounts (€25 or €15). Person 1 will then confirm the communicated amount by entering it into the left computer.
- 3. **Person 1 and Person 2** then have **3 minutes** to negotiate verbally about the money division. Before this time expires, **Person 1** has the opportunity to **enter an offer** into the left computer. This offer specifies a payout amount for Person 2. The offer can only be made in whole euro amounts (no cents) and must not exceed the actually available monetary amount. If Person 1 does not enter anything during this time, the

negotiation ends immediately. In this case, Person 1 receives $\notin 5$ and Person 2 receives $\notin 0$ from the negotiation.

4. Person 2 will then be informed via the left computer whether Person 1 has made an offer. If yes, Person 2 will be told the amount of the offer. Then **Person 2** will enter their decision on the computer, **whether they accept or reject the offer**. If accepted, the negotiation ends and Person 1 receives the remaining amount, which is the available monetary amount minus the offer. Person 2 receives the offer. If Person 2 rejects it, the negotiation continues.

If the offer is rejected, the negotiation returns to Step 3 (both persons discuss the negotiation situation verbally). In this case, you now only have 2 minutes for discussion. Before this time expires, Person 1 has the opportunity to make an offer. This offer to Person 2 must be higher than the last rejected monetary amount.

Steps 3 and 4 will repeat until either Person 1 fails to make an offer within the time limit, or Person 2 accepts Person 1's offer in Step 4. Upon accepting the offer, Person 2 receives the offer amount. Person 1 receives the remaining amount, which is the available monetary amount minus the offer. The negotiation ends without agreement if Person 1 fails to make an offer within the time limit, or if Person 1 offers the entire actually available amount ($\ell 25$ or $\ell 15$) and Person 2 rejects it. If the negotiation ends without agreement, Person 1 receives $\ell 5$ and Person 2 receives $\ell 0$.

After completing the negotiation, the experimental leader will stop the Zoom recording. Subsequently, you will individually participate in a short survey on the left computer. Then the experiment ends.

Please contact the experimental leader if you have any questions about the experiment. We will then discuss these anonymously in the ante-room of the experiment room.

Experimental Instructions [Treatment "Remote"]

You are participating in an economic decision-making experiment. The decisions you make are anonymous and cannot be linked to your person. For participating in this experiment, you will receive compensation of $\in 5$.

Additionally, you can earn more money depending on your decisions and the decisions of another participant in the experiment.

Participation in a Negotiation

In the experiment, you will sit at a table and conduct a negotiation with another person who is located in a different seminar room on the University of Göttingen campus. The goal is to divide a monetary amount. You and the other person will be seated in front of two computers. On the left computer, you can make your entries for the experiment, while the "Zoom" software runs on the right computer and records the negotiation. After you and the other person have finished reading the instructions, the experimental leader will start the recording on the Zoom computer before the negotiation begins.

Roles in the Negotiation:

There are two different roles in the negotiation (Person 1 and Person 2):

Person 1:

Person 1 will be informed about the monetary amount available for division in the negotiation via the screen of the left computer. Person 2 will not receive this information. Two amounts are possible: \notin 25 or \notin 15. The actual amount to be negotiated will be randomly chosen (with equal probability) by the computer at the beginning of the experiment.

During the negotiation, Person 1 will make offers about the division of the monetary amount between themselves and Person 2.

Person 2:

Person 2 will not be shown information about the actual amount. During the negotiation, Person 2 will decide whether to accept or reject the divisions proposed by Person 1.

Negotiation Procedure:

- 1. At the beginning of the experiment, both participants will be informed via the computer screen about their role (Person 1 or Person 2). Person 1 will additionally be informed about the amount (€25 or €15) of the monetary amount to be divided.
- The negotiation situation begins with Person 1 having to verbally inform Person 2 about the amount to be divided. For this, please use the video telephony function of the Zoom software running on the right laptop. Please do not use the chat function. Untrue statements are possible. However, the communicated amount must correspond to one of the two possible amounts (€25 or €15). Person 1 will then confirm the communicated amount by entering it into the left computer.
- 3. Person 1 and Person 2 will then verbally discuss the negotiation situation for 3 minutes. Please use the video telephony function of the Zoom software running on the

right laptop. Please do not use the chat function. After this time, **Person 1 has 20** seconds to enter an offer into the left computer. This offer specifies a payout amount for Person 2. The offer can only be made in whole euro amounts (no cents) and must not exceed the actual monetary amount. If Person 1 does not enter anything, the negotiation ends immediately. In this case, Person 1 receives $\notin 5$ and Person 2 receives $\notin 0$ from the negotiation.

4. Person 2 will then be informed via the left computer whether Person 1 has made an offer. If yes, Person 2 will receive information about the offer amount. Then **Person 2** will enter their decision on the computer, **whether they accept or reject the offer**. If accepted, the negotiation ends and Person 1 receives the remaining amount, which is the divisible monetary amount minus the offer. Person 2 receives the offer. If Person 2 rejects it, the negotiation continues.

If the offer is rejected, the negotiation returns to Step 3 (both persons discuss the negotiation situation verbally). In this case, you now only have 2 minutes for discussion using the video telephony function of the Zoom software. After the discussion, Person 1 has 20 seconds to make an offer to Person 2. This offer to Person 2 must be higher than the last rejected monetary amount.

Steps 3 and 4 will repeat until either Person 1 fails to make an offer within the 20 seconds, or Person 2 accepts Person 1's offer in Step 4. If rejected, Person 1 receives \notin 5 and Person 2 receives \notin 0. If the offer is accepted, Person 1 receives the remaining amount, which is the divisible monetary amount minus the offer. Person 2 receives the offer. The negotiation also ends if Person 1 offers the highest possible amount (either \notin 25 or \notin 15) and Person 2 rejects this proposal.

After completing the negotiation, the experimental leader will stop the Zoom recording. Subsequently, you will individually participate in a short survey on the left computer. Then the experiment ends.

Please contact the experimental leader if you have any questions about the experiment. We will then discuss these anonymously in the ante-room of the experiment room.