

Pre-Analysis Plan:  
Effect of a brief contact on inter-ethnic trust:  
Evidence from Senegal

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**Abstract**

We are conducting a lab-in-the-field experiment in Senegal to test the effects of a brief contact on inter-ethnic trust. In this plan we pre-register some key decisions to follow once the data is collected.

**Keywords:** contact hypothesis, trust, experiments.

*JEL Classification:* C92, C93

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# 1 Introduction

Under the “contact hypothesis”, interpersonal contact across group lines can reduce prejudice and discrimination. Allport (1954) provides conditions for contact interventions to be effective (placing participants on an equal footing, being endorsed by community authorities, and oriented towards a common goal) but provides little guidance regarding the nature of the contact (e.g. face to face encounters vs. team sports). The literature so far has primarily focused on finding contexts in which Allport’s conditions are satisfied (Carrell et al., 2015; Corno et al., 2019; Bagues and Roth, 2020), and whether these conditions are indeed necessary or sufficient (for instance, (Lowe, 2021) randomizes the “common goal” condition). Overall, contact has been proven effective in reducing prejudice and increasing tolerance (Paluck et al., 2019) in contexts such as education (Boisjoly et al., 2006; Scacco and Warren, 2018; Corno et al., 2019), sports (Lowe, 2021; Mousa, 2020) and the Army (Carrell et al., 2015; Finseraas et al., 2019; Bagues and Roth, 2020).<sup>1</sup>

Contact may thus become an important policy tool (Bertrand and Duflo, 2017), in which case the generalizability of contact policies poses a challenge. In this paper, we address two open questions: Is it possible to (1) design contact protocols that can be implemented easily and at a reasonable cost in a wide variety of situations, and (2) target populations for whom contact will have the greatest expected impact?

Regarding the first question, we here propose and implement a structured face-to-face contact protocol that is cheap, fast and replicable. Recent successful contact interventions have used long and unstructured interventions, which are costly and difficult to replicate across contexts.<sup>2</sup> A structured protocol that provides guidelines on how to generate contact in a fast and cheap way may therefore help generalize contact interventions. We here design one such protocol based on a method developed by psychologists called the “fast-friend” procedure (Aron et al., 1997), which aims to generate closeness between two individuals. The proposed protocol consists in face-to-face encounters, with two individuals answering a series of questions drawn from a pre-existing list,<sup>3</sup> where the questions gradually become more personal. In our experiment, the subjects will be paired with an

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<sup>1</sup>Quasi-experimental research, such as Bazzi et al. (2019), Rao (2019), Steinmayr (2021) and Billings et al. (2021), also finds positive effects of inter-group exposure.

<sup>2</sup>For instance, the experiments in Scacco and Warren (2018); Lowe (2021); Mousa (2020) last for several months. The costs of these interventions are not described, but are likely considerable.

<sup>3</sup>The list of of questions is presented in Appendix A.

assistant for about 15 minutes. Aron et al. (1997) find this procedure to have a positive effect on closeness indicators, including the Inclusion of Other in the Self scale. Previous research demonstrated that the procedure reduces anxiety and increases friendships across group lines (Page-Gould et al., 2008; Zhou et al., 2019). Our contribution is to gauge the effect of contact on *economic* outcomes, namely an investment decision (as proxied by the investment game) and the choice of a business partner.

For the second open question, regarding targeting, we explore the possibility that contact interventions works best when pre-experimental contacts are rare. This assumption is based on the existing literature and previous experiments Clochard (2021); Page-Gould et al. (2008) highlighting the potential mitigating role of previous encounters with members of the out-group.

In addition, we intend to use recent machine-learning techniques to test for heterogeneous treatment effects, inspired by the work of Chernozhukov et al. (2018). The methodology automatically looks for splits in the sample to get the sub-groups with the highest and lowest values of the treatment effects.

Furthermore, we aim to test the robustness of our effects across time, collecting follow-up data about a month after the intervention via a quick phone survey.

## 2 Experiment and sample

**Sample** The sample will consist of approximately 500 individuals from Saint-Louis in Northern Senegal. Saint-Louis is known for periods of inter-ethnic tension.<sup>4</sup> We intend to run our experiment in different settings: the local university, a fishing village, and another site inside the city itself.

In addition to this sample, we intend to use data from a pilot experiment which consisted in 238 subjects from the same region. The total sample should therefore be approximately 750 subjects.

**Experimental Design** The sample will be randomly divided into three treatment arms. The first treatment arm (20% of the sample) will be the control group, the second (40% of the sample) will be a *Photo* treatment, and the third (40% of the sample) will

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<sup>4</sup>See for instance <https://observers.france24.com/fr/20200207-senegal-saint-louis-guetndar-affrontements-pecheurs-mauritanie>.

be the *Contact* treatment. In the *Photo* and *Contact* treatment arms, subjects will be paired either with a person from their own ethnic group, or someone from a different ethnic group. Treatments are summarized in Figure 1.

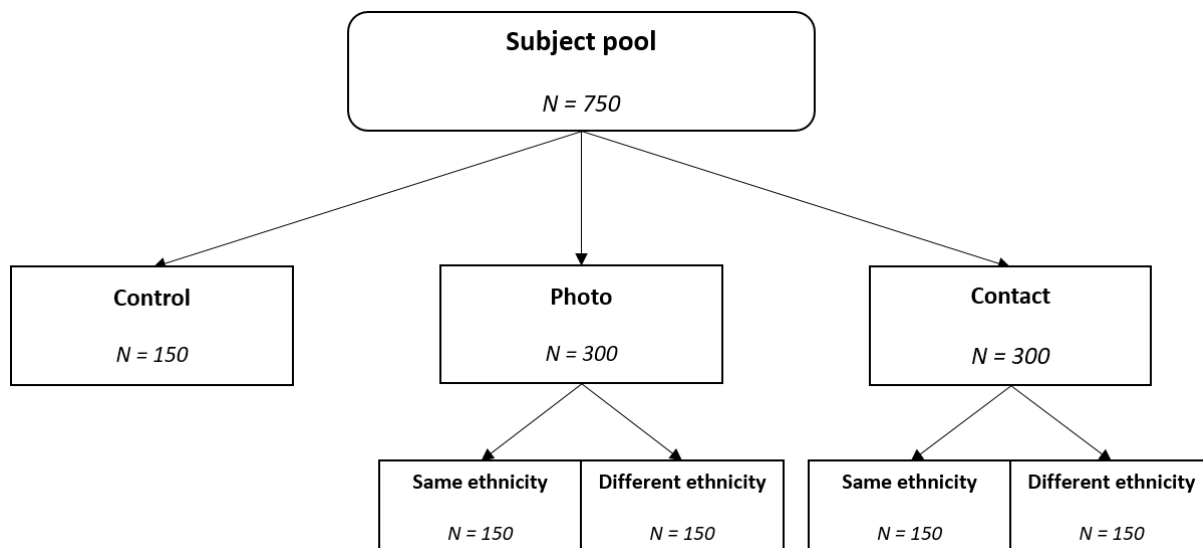


Figure 1: Treatment arms

In the control group, participants are not told who they are going to play with. This group serves as a reference for an average level of trust.

In the *Photo* treatment, participants will be shown the photo of their partner. This treatment is supposed not to affect levels of trust, but comparing the average level of trust between the control group and that for subjects paired with someone from a different ethnic group will indicate the potential anti- (or pro-) other ethnic group bias.

The contact treatment will be adapted from the “fast-friend” procedure by Aron et al. (1997). In pairs (one subject + one assistant), subjects will alternately answer questions becoming more and more intimate. The list of questions are displayed in Appendix A.

After the intervention, all participants will answer a set of questions which will be used to measure trust (see below for a detailed description of outcomes). The data will be collected using pen and paper.

Approximately one month after the intervention, we will test whether our short-term effects are lasting with a phone survey of our participants.

**Decision rules for dropping observations** If participants do not complete the experiment, we will exclude their observation.

**Decision rules for dropping variables** If 90 percent or more of the sample answers the same value on a given variable, we will define this as limited variation, and therefore will drop variables in question from the analysis.

**Missing values** If more than 30 percent of the respondents do not answer a particular question, it will no longer be seen as a variable of interest.

### 3 Data and coding of main variables

The main data will come from the questionnaire in Appendix B. For the follow-up data, the questionnaire will be that of Appendix C

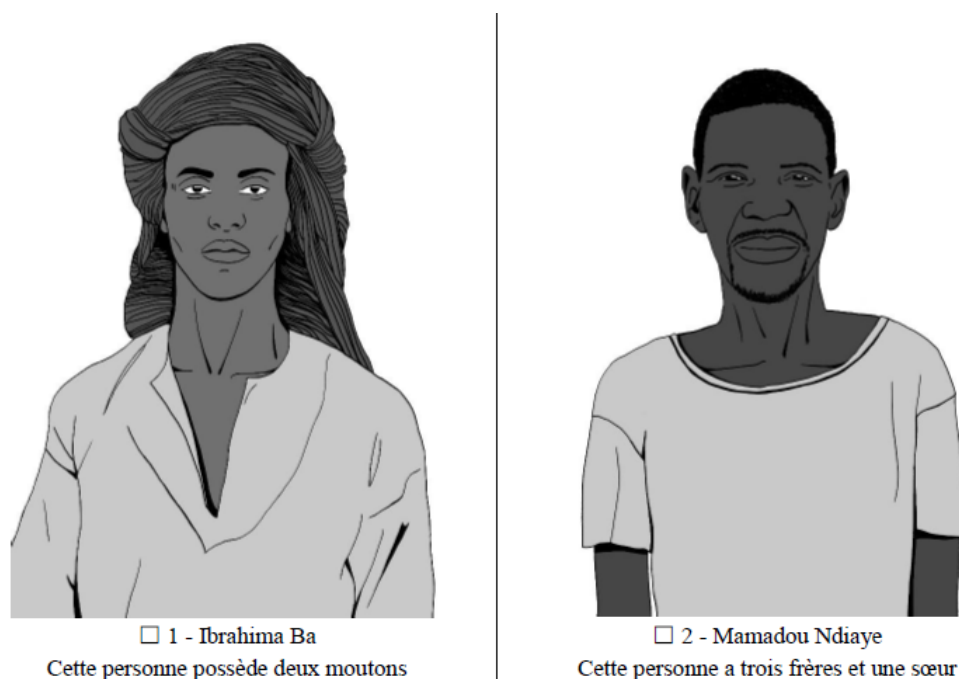
**Treatment variables** We will define two treatment variables, *Photo* and *Contact*. These two variables will be interacted with a dummy variable called *Different ethnic* capturing whether the person met was from a different ethnic group. By definition, the variable *Different ethnic* will be coded as 0 for members of the control group.

**Primary outcome variables** We will use two main outcome variables.

The first will be the amount sent in a regular Trust Game (Berg et al., 1995) played with the pair. The variable will be coded from 0 to 1 with 0 if the subject sends no token at all (corresponding to a very low level of trust) and 1 if the subject sends all his or her tokens (corresponding to high level of trust). This variable - *Trust Game* - will capture the level of trust and will be used to capture the effects of contact at the individual level (the person met).

The second variable will be used to measure the effect of contact at the collective level (the entire out-group). To test for this, we designed two “standard” drawings of a Pulaar man and a Wolof man (the two main ethnic groups in Senegal), shown in Figure 2, inspired by Blouin and Mukand (2019). Subjects were asked the following hypothetical question: “Here are two imaginary persons: Ibrahima Ba (left) and Mamadou Ndiaye (right). Ibrahima Ba owns two sheep. Mamadou Ndiaye has three brothers and one sister. Imagine that you are asked to split 10 000 Francs between these two persons. How would you like to split the money?”.

Figure 2: Drawings of “standard” individuals from the two main ethnic groups in Senegal



The variable *Split out-group* will be coded as the share of the endowment (between 0 and 1) sent to the hypothetical person from an ethnic group other than the participant's. For participants belonging to neither main ethnic groups in the sample, this variable will be coded as a missing value.

**Controls** There are control questions in the questionnaire, such as gender, age, region of origin, etc. We will use a Post-Double-Selection procedure Belloni et al. (2014) to include the most appropriate controls in our regression framework.

**Heterogeneity** We will use two strategies for heterogeneity analyses. First, we will use the number of close friends from an out-group as a dimension of heterogeneity of the treatment effect. The rationale behind this methodology is that the literature has highlighted the potential mediating role of previous contacts with the out-group in the effect of contact (Page-Gould et al., 2008; Clochard, 2021). To do so, in the questionnaire we will ask subjects to state the first and last names of the five people outside of their families with whom they spend the most time. We will then have a sample of local students to evaluate the perceived ethnicity of the family names. The ethnicity of each name will be defined as the mode of the survey. For our subjects, we will construct a dummy variable *Out-group friend* taking the value 1 if the name of the listed friend is

from an ethnic group other than that of the participant. We will then construct a dummy variable called *Exposure* which will be a median split of the sample based on the number of declared out-group friends.

Second, we will use Chernozhukov et al. (2018)'s method to determine other dimensions of heterogeneity. The principle of the method is to randomly partition the data a large number of times to get characteristics of people with the largest heterogeneity in treatment effects.

## 4 Empirical Strategy

We will estimate the following equation for both outcomes (*Trust Game* and *Split out-group*), with  $X_i$  the vector of controls selected by the Post-Double-Selection procedure.

$$Y_i = \beta_0 + \beta_1 Contact_i + \beta_2 Contact_i \times Different\ ethnic_i + \beta_3 Photo_i + \beta_4 Photo_i \times Different\ ethnic_i + \gamma X_i + \varepsilon_i \quad (1)$$

For the heterogeneity analysis based on past exposures, we will interact the treatment variable with the *Exposure* dummy, defined above.

## 5 Hypotheses

We make two main hypotheses. The first is that, at the individual level, meeting a person from a different ethnic group improves the trust at the individual level. To take the definition of Equation 1, this means that when the outcome is *Trust Game*, the coefficient  $\beta_2$  should be positive.

The second main hypothesis is the fact that contact should also have an effect at the collective level, meaning an effect on the out-group in general. We therefore expect the coefficient  $\beta_2$  to be positive when looking at the *Split out-group* should also be positive.

For our heterogeneity analysis, we want to test whether regular interactions with members of the out-group moderate the treatment effect.

## 6 Power Calculation

We test for two main hypotheses, therefore, following the Bonferroni multiple hypothesis testing method from (Sidák et al., 1968), the p-values used for power calculations are divided by 2 and are therefore  $\alpha = 0.025$ .

We assume the sample size of the main treatment group (*Contact*) to be 300. We also assumed that 20% of the variance can be explained by control variables, and use the conventional  $\delta = 0.80$  value for power.

According to the calculations made with the Optimal Design software (Raudenbush et al., 2011), the Minimum Detectable Effect is 0.23.

## 7 IRB Approval and Consent

We will ask for informed consent at multiple points. First, We will ask assistant participating in the study for their consent. Second, we will ask for informed consent from each participant before entering the session. Finally, all participants will be free to leave the session at any point in time and for any reason and without penalty. Their data will in this case not be considered for analysis.

The project received approval from the Institutional Review Board from Institut Louis Bachelier (IRB00013336) on February 21, 2022. The approval decision number is IRB00013336-2022-01.

## 8 Archive

The pre-analysis plan is archived before any data is collected. I archived it at the registry for randomized controlled trials in economics held by the American Economic Association: <https://www.socialscienceregistry.org/> on February 24, 2022.



## References

- Allport, G. W. (1954). *The nature of prejudice*. Addison-wesley Reading, MA.
- Aron, A., E. Melinat, E. N. Aron, R. D. Vallone, and R. J. Bator (1997). The experimental generation of interpersonal closeness: A procedure and some preliminary findings. *Personality and Social Psychology Bulletin* 23(4), 363–377.
- Bagues, M. and C. Roth (2020). Interregional contact and national identity. Technical report, CEPR Discussion Paper No. DP15576.
- Bazzi, S., A. Gaduh, A. D. Rothenberg, and M. Wong (2019). Unity in diversity? how intergroup contact can foster nation building. *American Economic Review* 109(11), 3978–4025.
- Belloni, A., V. Chernozhukov, and C. Hansen (2014). Inference on treatment effects after selection among high-dimensional controls. *The Review of Economic Studies* 81(2), 608–650.
- Berg, J., J. Dickhaut, and K. McCabe (1995). Trust, reciprocity, and social history. *Games and economic behavior* 10(1), 122–142.
- Bertrand, M. and E. Duflo (2017). Field experiments on discrimination. In *Handbook of economic field experiments*, Volume 1, pp. 309–393. Elsevier.
- Billings, S. B., E. Chyn, and K. Haggag (2021). The long-run effects of school racial diversity on political identity. *AER: Insights* 3(3), 267–284.
- Blouin, A. and S. W. Mukand (2019). Erasing ethnicity? propaganda, nation building, and identity in rwanda. *Journal of Political Economy* 127(3), 1008–1062.
- Boisjoly, J., G. J. Duncan, M. Kremer, D. M. Levy, and J. Eccles (2006). Empathy or antipathy? the impact of diversity. *American Economic Review* 96(5), 1890–1905.
- Carrell, S. E., M. Hoekstra, and J. E. West (2015). The impact of intergroup contact on racial attitudes and revealed preferences. Technical report, National Bureau of Economic Research.

- Chernozhukov, V., M. Demirer, E. Duflo, and I. Fernandez-Val (2018). Generic machine learning inference on heterogeneous treatment effects in randomized experiments, with an application to immunization in india. Technical report, National Bureau of Economic Research.
- Clochard, G.-J. (2021). Improving the perception of the police by the youth. Technical report, CREST Working Paper.
- Corno, L., E. La Ferrara, and J. Burns (2019). Interaction, stereotypes and performance: Evidence from south africa. Technical report, IFS Working Papers.
- Finseraas, H., T. Hanson, Å. A. Johnsen, A. Kotsadam, and G. Torsvik (2019). Trust, ethnic diversity, and personal contact: A field experiment. *Journal of Public Economics* 173, 72–84.
- Lowe, M. (2021). Types of contact: A field experiment on collaborative and adversarial caste integration. *American Economic Review* 111(6), 1807–44.
- Mousa, S. (2020). Building social cohesion between christians and muslims through soccer in post-isis iraq. *Science* 369(6505), 866–870.
- Page-Gould, E., R. Mendoza-Denton, and L. R. Tropp (2008). With a little help from my cross-group friend: Reducing anxiety in intergroup contexts through cross-group friendship. *Journal of personality and social psychology* 95(5), 1080.
- Paluck, E. L., S. A. Green, and D. P. Green (2019). The contact hypothesis re-evaluated. *Behavioural Public Policy* 3(2), 129–158.
- Rao, G. (2019). Familiarity does not breed contempt: Generosity, discrimination, and diversity in delhi schools. *American Economic Review* 109(3), 774–809.
- Raudenbush, S. W., J. Spybrook, R. Congdon, X.-f. Liu, A. Martinez, H. Bloom, and C. Hill (2011). Optimal design software for multi-level and longitudinal research (version 3.01)[software].
- Scacco, A. and S. S. Warren (2018). Can social contact reduce prejudice and discrimination? evidence from a field experiment in nigeria. *American Political Science Review* 112(3), 654–677.

- Sidák, Z. et al. (1968). On multivariate normal probabilities of rectangles: their dependence on correlations. *The Annals of Mathematical Statistics* 39(5), 1425–1434.
- Steinmayr, A. (2021). Contact versus exposure: Refugee presence and voting for the far right. *Review of Economics and Statistics* 103(2), 310–327.
- Zhou, S., E. Page-Gould, A. Aron, A. Moyer, and M. Hewstone (2019). The extended contact hypothesis: A meta-analysis on 20 years of research. *Personality and Social Psychology Review* 23(2), 132–160.

# Appendices

## A Questions for the *Contact* treatment

### A.1 Set I (light closeness)

1. Given the choice of anyone in the world, whom would you want as a dinner guest?
2. Would you like to be famous? In what way?
3. Before making a telephone call, do you ever rehearse what you are going to say?  
Why?
4. What would constitute a “perfect” day for you?
5. When did you last sing to yourself? To someone else?
6. If you were able to live to the age of 90 and retain either the mind or body of a 30-year-old for the last 60 years of your life, which would you want?
7. Do you have a secret hunch about how you will die?
8. Name three things you and your partner appear to have in common.
9. For what in your life do you feel the most grateful?
10. If you could change anything about the way you were raised, what would it be?
11. Take 4 minutes and tell your partner your life story in as much detail as possible.
12. If you could wake up tomorrow having gained any one quality or ability, what would it be?

### A.2 Set II (intermediate closeness)

13. If a crystal ball could tell you the truth about yourself, your life, the future, or anything else, what would you want to know?
14. Is there something that you’ve dreamed of doing for a long time? Why haven’t you done it?
15. What is the greatest accomplishment of your life?
16. What do you value most in a friendship?
17. What is your most treasured memory?
18. What is your most terrible memory?
19. If you knew that in one year you would die suddenly, would you change anything about the way you are now living? Why?
20. What does friendship mean to you?

21. What roles do love and affection play in your life?
22. Alternate sharing something you consider a positive characteristic of your partner.  
Share a total of 5 items.
23. How close and warm is your family? Do you feel your childhood was happier than most other people's?
24. How do you feel about your relationship with your mother?

### **A.3 Set III (intensive closeness)**

25. Make three true "we" statements each. For instance, "We are both in this room feeling..."
26. Complete this sentence: "I wish I had someone with whom I could share..."
27. If you were going to become a close friend with your partner, please share what would be important for him or her to know.
28. Tell your partner what you like about them; be very honest this time saying things that you might not say to someone you've just met.
29. Share with your partner an embarrassing moment in your life.
30. When did you last cry in front of another person? By yourself?
31. Tell your partner something that you like about them already.
32. What, if anything, is too serious to be joked about?
33. If you were to die this evening with no opportunity to communicate with anyone, what would you most regret not having told someone? Why haven't you told them yet?
34. Your house, containing everything you own, catches fire. After saving your loved ones and pets, you have time to safely make a final dash to save any one item. What would it be? Why?
35. Of all the people in your family, whose death would you find most disturbing? Why?
36. Share a personal problem and ask your partner's advice on how he or she might handle it. Also, ask your partner to reflect back to you how you seem to be feeling about the problem you have chosen.

## B Questionnaire



**IDENTIFIANT  
PARTICIPANT**



**A**

**Expérience d'économie Ecole polytechnique –  
Université Gaston Berger – Université Alioune Diop**

**Important :** Toutes vos réponses seront traitées anonymement. Personne n'aura la possibilité d'identifier directement vos décisions.

**Questions préliminaires :**

1. Quel est le prénom de la personne qui vous a été présentée au début de l'expérience ?

*What is the first name of the person that was presented to you at the beginning of the experiment?*

.....

2. Si vous répondez correctement à cette question, vous remporterez 100 Francs supplémentaires. Cette personne portait-elle des lunettes ?

*If you answer this question correctly, you will earn an additional 100 Francs. Does this person wear glasses?*

1- Oui 2- Non

## Première étape :

### First step:

### Règles du jeu 1 :

Ce jeu se joue à deux joueurs : vous et un autre joueur.

Vous avez le rôle de l'envoyeur, l'autre joueur a le rôle du receveur.

Chacun d'entre vous reçoit 10 jetons.

Le jeu se joue en deux phases :

1. Vous décidez d'un nombre (entre 0 et 10) à envoyer au receveur.
2. Les jetons que vous avez envoyés sont multipliés par 3 par l'examineur avant d'être donnés au receveur. Le receveur décide alors du nombre de jetons qu'il/elle souhaite vous renvoyer. Le receveur peut donc vous renvoyer un nombre de jetons allant de 0 à la totalité des jetons qu'il/elle a reçus.

**Le gain de chaque joueur correspond au nombre de jetons qui lui reste à la fin de ces trois étapes.**

Ainsi, en notant  $A$  le nombre de jetons que vous avez envoyés à la première étape, et  $B$  le nombre de jetons renvoyés par le receveur, les gains sont les suivants :

- Pour vous, le gain est de  $10 - A + B$
- Pour l'autre joueur, le gain est de  $10 + 3A - B$

### Rules for game 1:

*This game is played with two players: you and another player.*

*You play the sender's role; the other player is the receiver.*

*You both earn 10 tokens.*

*The game is played in three phases:*

1. *You decide of a number of tokens (0 to 10) to send to the receiver.*
2. *Tokens you send are multiplied by three by the experimenter before being given to the receiver.*
3. *The receiver decides how many tokens to send back to you. The receiver can send any amount from 0 to all the tokens she received.*

*Earnings from each player corresponds to the number of tokens at the end of all three steps. Thus, denoting  $A$  the number of tokens you sent and  $B$  the number of tokens sent back by the receiver, earnings are the following:*

- *Your earnings are  $10 - A + B$*
- *The other player's earnings are  $10 + 3A - B$*

### 3. Questions de compréhension du jeu 1 (vos réponses ne rentreront pas en compte dans le calcul de vos résultats)

- a. Pouvez-vous envoyer 0 jeton ? (Cocher votre réponse)  1- Oui  2- Non  
*Can you send 0 token?*
- 
- b. Si le receveur reçoit des jetons, peut-il renvoyer 0 jeton ? (Cocher votre réponse)  1- Oui  2- Non  
*If the receivers receives tokens, can they send back 0 token?*
- 
- c. Si vous envoyez 2 jetons, de combien de jetons le receveur dispose-t-il ? (Ecrire la valeur) .....  
*If you send 2 tokens, how many tokens does the receiver have?*
- 
- d. Si vous envoyez 2 jetons, le receveur peut-il renvoyer 8 jetons ? (Cocher votre réponse)  1- Oui  2- Non  
*If you send 2 tokens, can the receiver send 8 tokens back?*



- Si vous envoyez 4 jetons et que le receveur renvoie 4 jetons, quel est votre gain final (en jetons) ? (*Ecrire la valeur*) .....
- If you send 4 tokens and the receiver sends 4 tokens back, what are your earnings?*
- 
- f. Et le gain du receveur ? (*Ecrire la valeur*) .....
- What are the earnings of the receiver?*
- 
- g. Quel est le nombre maximal de jetons que peut recevoir le receveur de votre part ? .....
- What is the maximal number of tokens the receiver can receive from you?*

**4. Cette question peut être prise en compte pour le calcul de vos gains.** Vous jouez au jeu 1 avec la personne qui vous a été présentée juste avant de commencer l'expérience.

Vous disposez de 10 jetons.

***This question can be taken into account to compute your earnings.***

***You are playing game 1 with the person who was presented to you at the beginning of the experiment.***

***You have 10 tokens.***

Combien de jetons souhaitez-vous envoyer à l'autre joueur ? (*Ecrire la valeur*) .....

*How many tokens do you wish to send to the other player?*

**5. Maintenant imaginez que vous êtes le receveur.** Vous jouez toujours au jeu 1 avec la personne qui vous a été présentée juste avant de commencer l'expérience. Cette personne a maintenant le rôle de l'envoyeur. Que feriez-vous dans les situations suivantes ?

*Now assume you play the role of the receiver. You are still playing game 1 with the person who was presented to you at the beginning of the experiment. This person now plays the role of the sender. What would you choose in each of the following situations?*

	Si l'autre joueur vous envoie : <i>If the other player sends:</i>	Vous disposez alors de : <i>You then have:</i>	Vous choisissez de renvoyer <i>You choose to send back:</i>
a.	1 jeton	3 jetons	.....
b.	2 jetons	6 jetons	.....
c.	3 jetons	9 jetons	.....
d.	4 jetons	12 jetons	.....
e.	5 jetons	15 jetons	.....
f.	6 jetons	18 jetons	.....
g.	7 jetons	21 jetons	.....
h.	8 jetons	24 jetons	.....
i.	9 jetons	27 jetons	.....
j.	10 jetons	30 jetons	.....

## Deuxième étape : Questionnaire

### Step 2: Questionnaire

Les réponses à ce questionnaire ne seront pas prises en compte dans le calcul de vos gains.

*Answers to this questionnaire will not be taken into account when considering your earnings.*

**6.** Sur une échelle de 1 à 7, à quel point diriez-vous que vous pouvez faire confiance à la personne qui vous a été présentée juste avant le début de l'expérience ? (*Cocher votre réponse*)

*On a scale from 1 to 7, how much would you say you can trust the person who has been presented to you at the beginning of the experiment?*

1 – Je ne lui fais absolument pas confiance. *I absolutely cannot trust this person.*

2

3

4

5

6

7 – Je lui fais totalement confiance. *I completely trust this person.*

**7.** Vous êtes : (*Cocher votre réponse*) *You are*

1 - Un homme *A man*

2 - Une femme *A woman*

**8.** Quelle est votre année de naissance ? (*Ecrire la valeur*)

*What is your birth year?*

.....

**9.** Quelle est/était votre profession ? (*Cocher la réponse*) *What is/was your occupation?*

1 – Pêcheur(se)  
*Fisherman/woman*

2 – Agriculteur(trice) /  
éleveur(se)  
*Farmer*

3 – Commerçant(e)  
*Shop keeper*

4 – Ouvrier(ère)  
*Worker*

5 – Instituteur(trice)  
*Teacher*

6 - Employé(e)  
*Employee*

7 – Technicien(ne)  
*Technician*

8 – Cadre / ingénieur  
*Executive / Engineer*

9 - Sans emploi  
*Unemployed*

10 – Homme/Femme au  
foyer  
*House wife/husband*

11 – Étudiant(e)  
*Student*

12 - Militaire / Policier  
*Soldier / Police officer*

13 – Fonctionnaire  
*Civil servant*

14 – Marabout  
*Marabout (imam)*

50 - Autre : préciser →  
*Other: please precise*

.....

99 - Ne sait pas  
*Do not know*

**10.** Jusqu'à quelle classe êtes-vous allé à l'école (si étudiant(e), notez votre niveau actuel) ? (Cocher la réponse)  
*What is the highest education level you have reached (if still student, what is your current level)?*

- |  |   |   |  |
|--|---|---|--|
| <input type="checkbox"/> 1 Jamais allé à l'école<br><i>Never received formal education</i> | <input type="checkbox"/> 2 CP<br><i>1st grade</i>               | <input type="checkbox"/> 3 CE1<br><i>2<sup>nd</sup> grade</i> | <input type="checkbox"/> 4 CE2<br><i>3rd grade</i>                               |
| <input type="checkbox"/> 5 CM1<br><i>4th grade</i>   | <input type="checkbox"/> 6 CM2<br><i>5th grade</i>              | <input type="checkbox"/> 7 Collège<br><i>Middle school</i>    | <input type="checkbox"/> 8 Brevet des collèges<br><i>Completed middle school</i> |
| <input type="checkbox"/> 9 Baccalauréat<br><i>High school graduation</i>                   | <input type="checkbox"/> 10 Licence<br><i>Bachelor's degree</i> | <input type="checkbox"/> 11 Master<br><i>Master's degree</i>  | <input type="checkbox"/> 12 École coranique<br><i>Koranic school</i>             |
| <input type="checkbox"/> 99 Ne sait pas<br><i>Does not know</i>                            |   |   |  |

**11.** Si vous êtes étudiant dans le supérieur ou si vous avez fait des études supérieures, quelle est/a été votre domaine d'étude ? (Cocher votre réponse)

*If you are currently a student in higher education or a higher education graduate, what is/was your field of study?*

- |  |   |   |   |
|--|---|---|---|
| <input type="checkbox"/> 1- Arts<br><i>Arts</i>  | <input type="checkbox"/> 2- Commerce/gestion<br><i>Trade / Accounting</i>     | <input type="checkbox"/> 3- Droit<br><i>Law</i>                                 | <input type="checkbox"/> 4- Enseignement<br><i>Teaching</i>                         |
| <input type="checkbox"/> 5- Industrie<br><i>Industry</i>                               | <input type="checkbox"/> 6- Lettres/Langues<br><i>Humanities / Linguistic</i> | <input type="checkbox"/> 7- Santé<br><i>Health</i>                              | <input type="checkbox"/> 8- Sciences humaines et sociales<br><i>Social sciences</i> |
| <input type="checkbox"/> 9- Sciences et technologies<br><i>Sciences and technology</i> | <input type="checkbox"/> 10- Sciences politiques<br><i>Political sciences</i> | <input type="checkbox"/> 11- Autre : préciser →<br><i>Other: Please specify</i> | .....   |

**12.** Dans quelle région êtes-vous né(e) ? (*Cocher votre réponse*)

*What is your birth region?*

- |                                      |   |   |   |
|--------------------------------------|---|---|---|
| <input type="checkbox"/> 1 - Dakar   | <input type="checkbox"/> 2 - Diourbel     | <input type="checkbox"/> 3 - Fatick       | <input type="checkbox"/> 4 - Kaffrine         |
| <input type="checkbox"/> 5 - Kaolack | <input type="checkbox"/> 6 - Kédougou     | <input type="checkbox"/> 7 - Kolda        | <input type="checkbox"/> 8 - Louga            |
| <input type="checkbox"/> 9 - Matam   | <input type="checkbox"/> 10 - Saint-Louis | <input type="checkbox"/> 11 - Sédhiou     | <input type="checkbox"/> 12 - Tambacounda     |
| <input type="checkbox"/> 13 - Thiès  | <input type="checkbox"/> 14 - Ziguinchor  | <input type="checkbox"/> 99 - Ne sait pas | <input type="checkbox"/> 98 - Non concerné(e) |

**13.** Quelle langue parlez-vous avec votre famille ? (*Cocher votre réponse*)

*What language do you speak with your family?*

- |                                       |                                    |  |   |
|---------------------------------------|------------------------------------|--|---|
| <input type="checkbox"/> 1 - Français | <input type="checkbox"/> 2 - Wolof | <input type="checkbox"/> 3 - Pulaar/Toucouleur | <input type="checkbox"/> 4 - Serer            |
| <input type="checkbox"/> 5 - Diola    | <input type="checkbox"/> 6 - Autre | <input type="checkbox"/> 99 - Ne sait pas      | <input type="checkbox"/> 98 - Non concerné(e) |

**14.** A quelle ethnie ou groupe culturel appartenez-vous ? (*Cocher votre réponse*)

*What is your ethnic or cultural group?*

- |   |   |                                      |   |
|---|---|--------------------------------------|---|
| <input type="checkbox"/> 1 - Wolof            | <input type="checkbox"/> 2 - Pulaar/Toucouleur        | <input type="checkbox"/> 3 - Serer   | <input type="checkbox"/> 4 - Diola        |
| <input type="checkbox"/> 5 - Mandinka/Bambara | <input type="checkbox"/> 6 - Soninke                  | <input type="checkbox"/> 7 - Manjack | <input type="checkbox"/> 8 - Bainouk      |
| <input type="checkbox"/> 9 - Lebou            | <input type="checkbox"/> 10 - Seulement Sénégalais(e) | <input type="checkbox"/> 98 - Autre  | <input type="checkbox"/> 99 - Ne sait pas |

**15.** A votre avis, à quel groupe ethnique ou culturel appartient la personne qui vous a été présenté avant le début de l'expérience ? (*Cocher votre réponse*)

*What do you think the ethnic or cultural group of the person you met at the beginning of the experiment is?*

- |   |   |   |                                      |
|---|---|---|--------------------------------------|
| <input type="checkbox"/> 1 - Wolof              | <input type="checkbox"/> 2 - Pulaar/Toucouleur        | <input type="checkbox"/> 3 - Serer                            | <input type="checkbox"/> 4 - Diola   |
| <input type="checkbox"/> 5 - Mandinka/Bambara   | <input type="checkbox"/> 6 - Soninke                  | <input type="checkbox"/> 7 - Manjack                          | <input type="checkbox"/> 8 - Bainouk |
| <input type="checkbox"/> 9 - Lebou              | <input type="checkbox"/> 10 - Seulement Sénégalais(e) | <input type="checkbox"/> 11 - Autre ethnie (mais sénégalaise) |                                      |
| <input type="checkbox"/> 50 - Non Sénégalais(e) | <input type="checkbox"/> 0 - Je n'ai pas d'opinion    | <input type="checkbox"/> 99 - Ne sait pas                     |                                      |

**16.** Sur une échelle de 1 à 5, à quel point êtes-vous sûr(e) de votre réponse à la question précédente ? (*Cocher votre réponse*)

*On a scale from 1 to 5, how certain would you say you are of your previous answer?*

- 1 – Je ne suis pas sûr du tout de ma réponse. *I am not certain at all of my answer.*  
 2  
 3  
 4  
 5 – Je suis absolument certain de ma réponse. *I am absolutely certain of my answer.*

**17.** D'une manière générale, diriez-vous que l'on peut faire confiance à la plupart des gens ou que l'on n'est jamais trop prudent dans ses rapports avec autrui ? (*Cocher votre réponse*)

*Generally speaking, would you say that most people can be trusted or that you need to be very careful in dealing with people?*

- 1 – On peut faire confiance à la plupart des gens. *Most people can be trusted.*  
 2 – On n'est jamais trop prudent dans ses rapports à autrui. *Need to be very careful.*

**18.** Appartenez-vous à une des confréries ci-dessous ?

*Do you belong to one of the following Muslim brotherhoods?*

- 1 - Mouride
- 2 - Khadre
- 3 - Tidiane
- 4 - Layenne
- 50 – Autre : préciser → .....
- 0 – Aucune

**19.** En général, comment évaluez-vous vos conditions de vie par rapport à celles des autres Sénégalais ? (*Cocher votre réponse*)

*In general, how would you say your living conditions compare to those of other Senegalese people?*

- 1 – Bien pires – *Much worse*
- 2 – Pires
- 3 – Identiques
- 4 – Meilleures
- 5 – Bien meilleures – *Much better*
- 99 – Ne sait pas – *Does not know*
- 98 – Non concerné(e) – *Not applicable*

**20.** Connaissiez-vous la personne qui vous a été présentée avant le début de l'expérience avant de participer ? (*Cocher votre réponse*)

*Did you know the person who was presented to you at the beginning of the experiment before participating in this experiment?*

- 1 – Oui, je la connais très bien – *yes, I know them well*
- 2 – Oui, je lui ai déjà parlé avant – *yes, I have already spoken with them*
- 3 – Oui, je l'ai déjà rencontré(e) avant - *yes, I have met them before*
- 4 – Oui, je l'ai déjà vu(e) avant - *yes, I have already seen them*
- 5 – Non, pas du tout – *no, not at all*

21. Voici deux individus *imaginaires* : Ibrahima Ba (à gauche) et Mamadou Ndiaye (à droite). Ibrahima Ba possède deux moutons. Mamadou Ndiaye a trois frères et une sœur.

Imaginez que vous ayez 10 000 Francs à diviser entre ces deux personnes. Combien voudriez-vous donner à chacune de ces personnes ? (Cocher votre réponse)

*Here are two imaginary persons: Ibrahima Ba (left) and Mamadou Ndiaye (right). Ibrahima Ba owns two sheep. Mamadou Ndiaye has three brothers and one sister.*

*Imagine that you are asked to split 10 000 Francs between these two persons. How would you like to split the money?*



1 - Ibrahima Ba

Cette personne possède deux moutons



2 - Mamadou Ndiaye

Cette personne a trois frères et une sœur

<input type="checkbox"/> 0	10 000 FCFA	0 FCFA
<input type="checkbox"/> 1	9 000 FCFA	1 000 FCFA
<input type="checkbox"/> 2	8 000 FCFA	2 000 FCFA
<input type="checkbox"/> 3	7 000 FCFA	3 000 FCFA
<input type="checkbox"/> 4	6 000 FCFA	4 000 FCFA
<input type="checkbox"/> 5	5 000 FCFA	5 000 FCFA
<input type="checkbox"/> 6	4 000 FCFA	6 000 FCFA
<input type="checkbox"/> 7	3 000 FCFA	7 000 FCFA
<input type="checkbox"/> 8	2 000 FCFA	8 000 FCFA
<input type="checkbox"/> 9	1 000 FCFA	9 000 FCFA
<input type="checkbox"/> 10	0 FCFA	10 000 FCFA

**POUR LES QUESTIONS 22 A 24, VEUILLEZ COCHER LA CASE QUI CORRESPOND LE PLUS A VOTRE SENTIMENT VIS-A-VIS DE L’AFFIRMATION (PAS DU TOUT D’ACCORD, PLUTOT PAS D’ACCORD, PLUTOT D’ACCORD, TOUT A FAIT D’ACCORD)**

**FOR QUESTIONS 22 TO 24, PLEASE SELECT THE OPTION WHICH BEST FITS YOUR FEELINGS WITH RESPECT TO THE PROPOSED STATEMENT (COMPLETELY DISAGREE, DISAGREE, AGREE, STRONGLY AGREE)**

Réponse	1 Pas du tout d'accord <i>Completely disagree</i>	2 Plutôt pas d'accord <i>Disagree</i>	3 Plutôt d'accord <i>Agree</i>	4 Tout à fait d'accord <i>Completely agree</i>
22. Je passe souvent du temps avec des personnes d'un autre groupe ethnique que le mien <i>I often spend time with people from different ethnic group than mine.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23. C'est une bonne chose pour un homme d'épouser sa cousine. <i>It is a good thing for a man to marry his cousin.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24. Si ma fille voulait épouser une personne d'une ethnique différente, je serais heureux. <i>If my daughter wanted to marry a person from a different ethnic group, I would be happy about it.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

25. Pourriez-vous écrire les noms et prénoms des 5 personnes, en dehors de votre famille, avec le qui vous passez le plus de temps dans la vie de tous les jours ? Pour rappel, toutes vos réponses seront anonymes et ces personnes ne seront pas contactées.

*Could you write the first and last names of the five persons, outside of your family, with whom you spend the most time in your everyday life? Just as a reminder, all your answers are completely anonymous, and these persons will not be contacted.*

	PRENOM	NOM
a		
b		
c		
d		
e		

26. Dans quelques jours, vous serez peut-être contactés par téléphone, et nous vous poserons quelques questions. Nous aurons alors besoin de vous identifier. C'est le but de cette question. Elle ne sera pas utilisée pour l'analyse des données. La méthode pour vérifier votre identité est le prénom de votre père. Quel est/était-il ?

*In a few days, you might be contacted by phone and we will ask you some questions. To do our investigation, we will need to verify your identity. This is the aim of this question. It will not be used for the data analysis. We want to control your identity by asking you your father's first name. What is/was it?*

.....

**Votre participation est maintenant terminée. Merci pour vos réponses, vous pouvez procéder au paiement.**

*Your participation is now over. Thank you for your answers, you may now proceed to payment.*



## C Questionnaire

Bonjour,

Vous avez participé à une enquête il y a quelques semaines. Nous aimerions vous poser quelques questions supplémentaires. Pour vous remercier de votre temps, nous vous proposons 500 Francs de crédit à la fin de ce questionnaire. L'échange va durer seulement quelques minutes.

Etes-vous d'accord ?

*Hello,*

*You participated to a survey a few weeks ago. We would like to ask you a few follow-up questions. To thank you for your time, we offer to send you 500 Francs at the end of the questionnaire. The entire exchange will only last a few minutes.*

*Do you agree?*

Merci.

*Thank you.*

Nous allons maintenant vérifier que vous êtes bien la même personne qui a répondu à l'enquête, en vous posant deux questions.

*We are now going to check that you are indeed the person who answered the first survey, by asking you two questions.*

**1.** Quelle est votre année de naissance ?

*What is your birth year?*

**2.** Quel est le prénom de votre père ?

*What is/was the first name of your father?*

Merci. Nous allons maintenant vous poser une série de questions. Veuillez y répondre le plus honnêtement possible.

*Thank you. We will now ask you a series of questions. Please answer them as honestly as possible.*

**3.** Lors de l'expérience il y a quelques semaines, vous avez rencontré une personne. Le nom de cette personne était dans la liste suivante ?

*At the beginning of the experiment a few weeks ago, you were presented a person. Was the name of this person in the following list?*

**4.** Sur une échelle de 1 à 7, à quel point diriez-vous que vous pouvez faire confiance cette personne ?

*On a scale from 1 to 7, how much would you say you would trust this person?*

**5.** Voici deux individus imaginaires : Oumar Sow, qui a trois enfants, un fils et deux filles, et Abdoulaye Dieye, qui possède un scooter noir. Imaginez que vous ayez 10 000 Francs à diviser entre ces deux personnes. Combien voudriez-vous donner à Oumar Sow ?

*Here are two imaginary individuals: Oumar Sow, who has three children, one son and two daughters, and Abdoulaye Dieye, who owns a black scooter. Imagine you have 10 000 Francs to split between these two persons. How much would you like to send to Oumar Sow?*

**6.** Depuis l'expérience, avez-vous rencontré de nouvelles personnes ? Oui/Non

*Since the experiment, have you met any new people?*

7. Si oui, pourriez-vous nous donner le nom de ces personnes ? Maximum 5 noms.  
*If yes, could you give us the names of these persons? 5 names maximum.*

Merci de votre participation. Nous allons envoyer les 500 Francs sur votre compte à la fin de l'appel.  
*Thank you for your participation. We will send 500 Francs to your account at the end of this call. s*