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Trust and trustworthiness of immigrants and native-born Americans ☆

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ABSTRACT

Trust and trustworthiness are crucial to amelioration of social dilemmas. Distrust and malevolence aggravate social dilemmas. We use an experimental moonlighting game with a sample of the U.S. population, over-sampling immigrants, to observe interactions between immigrants and native-born Americans in a social dilemma situation that can elicit both benevolent and malevolent actions. We survey participants in order to relate outcomes in the moonlighting game to demographic characteristics and traditional, survey-based measures of trust and trustworthiness and show that they are strongly correlated. Overall, we find that immigrants are as trusting as native-born U.S. citizens when they interact with native-born citizens but do not trust other immigrants. Immigrants appear to be less trustworthy overall but this finding disappears when we control for demographic variables. Women and older people are less likely to trust but no more or less trustworthy. Highly religious immigrants are less trusting and less trustworthy than both other immigrants and native-born Americans.

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1. Introduction

Trustworthiness of immigrants is an important political and security question. Trust in immigrants by native-born citizens is important for acceptance of immigrants' participation in mainstream economic activities in their adopted country. The central purpose of this study is to elicit data on trust and trustworthiness between first-generation immigrants and native-born Americans. For comparison, we also elicit data on trust and trustworthiness among immigrants and among natives.

We use an experimental moonlighting game (Abbink, Irlenbusch, and Renner, 2000; Cox, Sadiraj, and Sadiraj, 2008) to study behavior in a social dilemma situation and pair native-born Americans with first-generation immigrants. We chose the moonlighting game for our experiment rather than the investment (or trust) game (Berg, Dickhaut, and McCabe, 1995; Glaeser et al., 2000; Carter and Castillo, 2002; Cox, 2004) because it allows first movers and second movers to both give and take money. It thereby makes possible observation of behavior with both positive motivations (such as altruism, trust and trustworthiness) and negative motivations (such as malevolence, distrust and untrustworthiness).

Pew Research (2013) found that in terms of educational attainment, incomes, poverty rates, and many other characteristics, second generation immigrants to the United States closely resembled the full U.S. adult population. Rumbaut (2004) also finds significant evidence of second and third-generation immigrants moving closer to the U.S. population mean in terms of English proficiency, education levels, and occupational attainment. We therefore consider second-generation immigrants as native-born Americans for the purposes of this study.

We combine the experiment with a survey to provide more data. The survey includes selected core questions from the World Bank's questionnaire on social capital (Grootaert et al., 2004) as well as questions about demographic characteristics, income, education, life experiences, religious attendance, and membership in secular organizations. We examine the relationship between survey responses and experimental behavior.

The experiment was conducted online by Knowledge Networks, a survey research firm. Subjects were randomly selected from the Knowledge Networks panel, which is a representative sample of the American population. Our use of a random population sample of subjects, rather than student subjects, increases the representativeness of our findings. We oversampled immigrants for the purposes of this study.

2. Game and experiment setup

2.1. Game form and belief elicitation

The setup of the game is as follows. Each individual is randomly assigned to being either a first mover or a second mover. Each first and second mover is credited with a money endowment of $10. Each first mover is given the task of deciding whether she wants to give to a randomly paired second mover none, some, or all of her $10 endowment or take up to $5 from the paired person's endowment. Any amounts given by the first mover are tripled by the experimenter, while any amounts taken by the first mover are not transformed. The second mover then decides how much to return to the first mover, and can also punish the first mover. If the first mover sends the amount $F \geq 0$, the second mover's endowment increases to $10 + $3F$. If the first mover takes the amount $F < 0$, the second mover's endowment becomes $10 − $|F|$. The second mover decides whether to reward or punish the first mover. If the second mover rewards the first mover, she reduces her own payoff by $1 for each $1 that she increases the payoff of the first mover. If the second mover punishes the first mover, she reduces her own payoff by $1 for each $3 that she decreases the payoff of the first mover. The second mover's choices are constrained so as not to give either person a negative payoff. All choices are required to be in integer amounts.

The total payoff of a pair of first and second movers is maximized when the first mover sends his entire $10 endowment to the second mover; that choice increases the total payoff of a pair of subjects from the endowed amount of $20 to the maximum amount of $40. The first mover may send a positive amount to the second mover because of altruistic preferences or trust that the second mover will share the profits generated by the experimenter's tripling of amounts sent or because of both motivations. A second mover may return a positive amount to the first mover because of altruistic preferences or positive reciprocity to the generous action of the first mover or because of both motivations (Cox, Sadiraj, and Sadiraj, 2008). If a first mover has self-regarding (*homo economicus*) preferences and believes that second movers also have such preferences, the first mover will take the maximum amount of $5 from the second mover. A second mover with self-regarding preferences will neither punish nor reward a first mover because either of such actions cost the second mover money. Hence the subgame perfect equilibrium of the moonlighting game for a pair of agents with self-regarding preferences (and beliefs that the other has self-regarding preferences) is for the first mover to take $5 and the second mover to neither punish nor reward (i.e. choose the amount 0). A second mover, however, may not have self-regarding preferences; instead a second mover may be positively reciprocal toward a first mover who sends money and negatively reciprocal to a first mover who takes money (as modeled, for example, in Cox, Friedman, and Sadiraj, 2008). If a first mover takes $5, which reduces the second mover's endowment from $10 to $5, a negatively reciprocal or malevolent second mover may respond by spending her remaining $5 in order to take $15 from the first mover. In that event, the pair of subjects in this game has a total payoff of $0.

In summary, the range of payoffs to a pair of subjects from more or less successful resolution of the social dilemma in the moonlighting game varies from $40 to $0. A cooperative pair of subjects can add (as much as) $20 in profit to their initial endowment of $20 while an uncooperative pair of subjects can destroy (as much as) the entire $20 endowment. The moonlighting game is particularly well-suited for researching interactions between immigrants and native-born citizens because it makes possible elicitation of a full range of both positive motivations (such as altruism, trust and trustworthiness) and negative motivations (such as malevolence, distrust and untrustworthiness).

2.2. Experimental design and protocol

Respondents completed their questionnaires online at their convenience. Due to the nature of the survey, the strategy method (Falk, Fehr, and Fischbacher, 2008) is the only feasible way to elicit responses from the second mover. The first mover indicates how much they wish to send or take. Each second mover decides, for each possible action of the first mover, whether she wants to give money to the paired first mover or take money from her. This has the added advantage of providing a full range of information on the second mover's responses to each possible decision by the first mover. First and second mover responses were randomly matched ex-post.

Following Dufwenberg and Gneezy (2000), beliefs about the behavior of the average person were elicited from both the first movers and the second movers with a monetary reward for guessing correctly. Gächter and Renner (2010) show that incentivized beliefs are more accurate than beliefs that are elicited without a monetary incentive. First movers were asked to guess the behavior of the average second mover and second movers were asked to guess the behavior of the average first mover. This provides more information about their motivations and helps to distinguish between trust in anticipation of reciprocity (or reciprocity in response to trust) versus unconditional altruism.

There are four types of pairings. Using I to represent an immigrant, N to represent a U.S. native, FM to represent the first mover and SM to represent the second mover, the pairings are: I (FM)–I (SM), I (FM)–N (SM), N (FM)–I (SM), and N (FM)–N (SM). The pairings were arranged using the respondents' place of birth, which had been previously collected by Knowledge Networks. Subjects were randomly assigned to treatments and to first mover or second mover role.

Subjects were informed whether the person they were going to be matched with was a U.S. native or an immigrant to the United States. For example, if a respondent who listed their own or their parents' place of birth as Jordan was pre-assigned to the I (FM)–I (SM) treatment they were informed that they would be matched with another randomly selected individual from the Middle East, living in the U.S. If they were assigned to the I (FM)–N (SM) or the N (FM)–I (SM) treatment, they were informed that they would be matched with a randomly selected native-born American. A respondent listing their and their parents' place of birth as the U.S. was informed that they would be matched with a randomly selected immigrant if they were assigned to the I (FM)–N (SM) or N (FM)–I (SM) treatment, or with a randomly selected native-born American if they were assigned to the N (FM)–N (SM) treatment. Immigrants from any particular region were matched only with others from their own region in the I (FM)–I (SM) treatment. While interactions between different immigrant groups are an important topic of study, it is beyond the scope of this paper. Native-born Americans paired with immigrants were informed only of that fact; they were not informed about the country of origin of the immigrant. While (some or many) native-born Americans may discriminate between immigrants from different countries, study of that topic is beyond the scope of the present paper. Our focus is on the dichotomy, native-born versus immigrant. Study of discrimination between immigrant groups would require different treatment cells than we used and use of a subject sample size much larger than the 450 subjects in our study. Information about respondents' religion was not used to match subjects.

Data on income and educational background were collected in the standard set of demographic questions that preceded the survey. We also included selected core questions from the World Bank's questionnaire on social capital (Grootaert et al., 2004) to test if answers to these questions are predictors of behavior in the moonlighting game. The survey included questions on whether the subject or anyone they knew had ever been a victim of a hate crime or prejudice, to ascertain whether these experiences made a person more or less likely to