The Exclusion Cycle: Discrimination and Strategies of Survival among Roma and non-Roma*

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Social exclusion of marginalized populations is an intractable problem of global relevance. This article develops a theory of one way individual behavior can contribute to its persistence. I introduce the "exclusion cycle," which consists of four parts. *Anti-minority culture* (part 1) gives rise to *discrimination* by members of the majority (part 2). Members of the minority anticipate maltreatment and develop *survival strategies* (part 3). Members of the majority often disapprove of minority's survival strategies and attribute them to the minority as such, and not the discrimination, and so commit an *attribution error* (part 4). Such errors feed the existing anti-minority culture and the cycle repeats. I use the case of Roma exclusion to empirically illustrate the cycle. I collected the data via a survey and a lab-in-field experiment using an original videogame that captures discrimination by non-Roma and Roma survival strategies within a single, contained environment.

*I would like to thank Bernarda Bračič and W. Nicholson Price II for invaluable help in developing this project. I am also very grateful to Claire Adida, Colin Barry, Lorena Bogataj, Slavko Bračič, Mike Crespin, Tanner Davis, Chris Eades, Alisa Fryar, Donald Green, Allen Hertzke, Mackenzie Israel-Trummel, David Laitin, Vera Klopčič, Tija Kuhar, Isabela Mares, Rebecca Morton, Jožek Horvat Muc, Soraya Sadik Peron, Scott Robinson, Maša Rozman, Carol Silva, Monika Sandreli, Julija Sardelić, Allyson Shortle, Hank Jenkins Smith, Tjaša Stopar, Kathleen Tipler, Natalija Trunkelj, Milena Tudija, Eva Trapečar, Solongo Wandan, Evgen Šmit Žagar, the participants of the Multiculturalism in Europe Workshop in the Center for European Studies at the University of Texas at Austin, the participants of the Political Research Colloquium in the Department of Political Science at the University of Utah, the participants of the Comparative Speaker Series in the Department of Government at the University of Texas at Austin, and the participants of the Comparative Politics Seminar in the Department of Political Science at Columbia University. This project was approved by the University of Oklahoma IRB (IRB #1: 5432, IRB #2: 7081) and pre-registered at EGAP (ID: 20160313AA).

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Social exclusion is complex, intractable, and devastating.[1] It occurs where individuals or groups cannot fully participate in the typical activities of the societies in which they live, whether they are excluded politically, economically, or live in segregation. Although every population's experience of social exclusion is different, the phenomenon is far too common: many Roma have suffered exclusion for generations in Central and Eastern Europe (Laitin 1995; Matache 2014), as have numerous Dalits in India (Davenport and Trivedi 2013) and black Americans in the United States (Massey and Denton 1993). Often, disparities "codified in our institutions of custom, practice, and law" (Jones 2000) help uphold such exclusion. Individual behaviors, however, also play a role in sustaining the system in which certain individuals enjoy the privileges of their society, while others are marginalized. This article examines some of these behaviors.

In studying marginalization at the level of the individual, scholars often focus on discriminatory behaviors by the majority—be it public housing officials (Einstein and Glick 2017) or legislators in the United States (Butler and Broockman 2011), local natives voting in citizenship referenda in Switzerland (Heinmueller and Hangartner 2013), party gatekeepers in Sweden (Dancygier et al. 2015), or members of the dominant castes in India (Chauchard 2014). Behaviors of the minority are also explored. Reacting to disparate treatment, some minorities, like Italian and Eastern European immigrants in the United States, assimilate (Nevels 2007). Some, like Muslim immigrants in France, might retreat and separate from the host society (Adida et al. 2016, Wimmer 2013). For others, economic opportunities tied to the group—like the role of Jews in financial services—can make marginalization economically superior, in the short term, and so incentivize the preservation of the status quo (Laitin 1995). Yet, while behaviors of the majority and the minority have received much

[1]The terms "social exclusion" and "marginalization" refer to the same phenomenon. I adopt the term social exclusion because the Roma as well as Romani activists and NGOs prefer and use this terminology; I occasionally also use the term marginalization.

scholarly attention, they tend to be considered separately. This obscures the bigger picture.

People rarely act in isolation. Individual behaviors are often affected, curated, or determined by what others do (Ridgeway 2011). Members of the majority might discriminate more often if disparate treatment is commonly, if erroneously, rationalized by minority behaviors. Minority reactions to discrimination, in turn, likely depend on the type and scope of mistreatment. Sometimes, majority and minority behaviors feed into one another to form a vicious, self-sustaining cycle.

I call this dynamic the exclusion cycle, which I define, elaborate, and illustrate in this article. The cycle has four parts: *anti-minority culture*, *discrimination*, *survival strategies*, and *attribution error* (Figure 1). This paper builds on work by Adida et al. (2016, 2014) describing a "discriminatory equilibrium" between the rooted[2] French and Muslim immigrants in France.[3] It introduces the concept of survival strategies, imports from the psychology literature the concept of the attribution error (Pettigrew 1979), and links these different elements into a dynamic and self-sustaining cycle.

Anti-minority culture provides the backdrop. In the United States, for example, anti-black culture has persisted for centuries, appearing in common speech, literature, television, music, and beyond (Alexander 2010). The stereotype of black criminality has become so deeply entrenched that it is automatic. The mere presence of a black man can lead one to think that he is a criminal (Eberhardt et al. 2004), and the mere presence of a crime can invoke thoughts of a black perpetrator (Gilliam and Iyengar 2000). Anti-minority culture sustains and legitimizes prejudice, giving rise to *discrimination*. People of color are substantially more likely than whites to be stopped and searched by the police, whether they are

[2]Adida et al. (2016) define the rooted French as French citizens who report that all four of their grandparents were born within the French hexagon.

[3]Elsewhere, this dynamic has been discussed by Loury (2002) (economics) and Rusche and Brewster (2008) (sociology).

on foot (Gelman 2007) or driving a car (Horrace and Rohlin 2016). In 2015, 40 percent of unarmed men fatally shot by police in the US were black—even though they made up only 6 percent of the population (Kindy et al. 2015).

Reacting to discrimination, members of the minority develop *survival strategies*. These behaviors are not necessarily strategic and develop when discrimination curtails what a person can do. Sometimes, survival strategies are stereotype-affirming. An innocent black American approached by police, for example, might run in order to avoid humiliation and possible police brutality (Commonwealth v. Jimmy Warren). Indeed, recent reports on police brutality suggest that it is far less dangerous for an innocent white man to wait for the police as they approach than for an innocent black man to do the same (Kindy et al. 2015). This survival strategy is stereotype-affirming whether or not the man is guilty.

Finally, in interpreting survival strategies, members of the majority commit *attribution errors*: they attribute the strategies to the minority as such and not the discrimination. Thus, when an innocent black man runs when the police approach, his survival strategy is attributed to his race and its stereotyped criminality (nature of the group) and not police brutality against people of color (discrimination) (Pettigrew 1979). Such attribution errors feed the stereotype of black criminality, which helps sustain anti-minority culture, and the cycle repeats.

While such cycles exist in a number of contexts—the Batwa in Uganda, for example, are stereotyped as savages, denied employment, and then condemned as backward gluttons when they illegally forage in forests to survive (Kidd 2018)—there are many situations in which they do not manifest. Anti-minority culture may exist without discrimination. A minority group member might experience discrimination without being compelled to resort to survival strategies that are stereotype-affirming, or, such strategies, when used, may not elicit the attribution error. The exclusion cycle here is not the only cycle that contributes to the persistence of exclusion, nor do all behaviors that contribute to exclusion strictly follow the logic of the cycle. Addressing the different forms that exclusion cycles might take, and

how and when different cycles manifest, must await future work. This article addresses one form of exclusion cycle, already in place, and the behaviors that sustain it. It thus aims to unravel one part of the complex phenomenon of exclusion, and to provide a theory and evidence on which other work can build.

In what follows, I develop the logic of the cycle and empirically illustrate it using the behaviors of Roma and non-Roma in Novo mesto, Slovenia. I rely on original data from two sources—a novel videogame and a survey. The videogame captures Roma and non-Roma behaviors, while the survey captures attitudes that contextualize the videogame findings. The Roma, often derogatively called "Gypsies" (Oprea 2012), are commonly stereotyped as cheaters and thieves (Scicluna 2007). I leverage this stereotype in the context of a public goods game (Marwell and Ames 1979), which I deliver in the form of a videogame that enables private and confidential participation, avoiding potential contention between members of the two groups, and allows illiterate subjects to participate.[4] I find that non-Roma are prejudiced and discriminate against the Roma. I also find that Roma use survival strategies, which are linked to their experience of discrimination, and that non-Roma tend to interpret those strategies as quintessentially Roma, instead of attributing them to discrimination.

My findings illustrate an interdependence between the behaviors of those who exclude and those who are excluded, and suggest that this relationship helps perpetuate exclusion. The findings I present are an illustration of the exclusion cycle; they are not a test. Questions on how each part of the cycle might respond to changes in other parts and where its vulnerabilities may lie offer a compelling avenue for future research. The first step to breaking the exclusion cycle, however, lies in understanding its structure.

The next section presents the theory of the exclusion cycle. Then, I present the case of the Roma and discuss measurement. The results illustrate each part of the Roma exclusion

[4]Roma literacy levels tend to be lower, particularly those for women and the elderly (FRA 2014).

cycle, and the last section concludes.

Theory

The exclusion cycle has four parts. Anti-minority culture provides the backdrop and sustains discrimination against the minority. Members of the minority anticipate discrimination and develop survival strategies that enable them to live and improve their lives. Members of the majority, often disliking survival strategies of the minority, attribute them to the minority as such and not the discrimination, and so commit attribution errors. Such errors feed anti-minority culture and the cycle starts over. While the steps are distinct, they do not necessarily follow in one clearly defined progression. Instead, constant interactions between different people—making up partial or complete cycles—interweave and so reinforce the already existing group inequalities and divisions.

For groups that have been excluded for generations—and many have—attempting to identify the beginning of the cycle would be futile. I therefore refrain from branding one part of the cycle as first. For the purpose of this discussion, however, I begin with anti-minority culture.

[Figure 1 about here]

Anti-minority culture

Anti-minority culture is sustained by beliefs that some groups are superior to others, and structural inequalities that stem from those beliefs and reproduce them further. The need to see our own groups (ingroups) as superior to others (outgroups) stems from the desire to enhance our self-esteem, which we commonly do by making comparisons that favor our own (Tajfel and Turner 1979). Historical inequalities in power, wealth, and opportunity have created frameworks that accommodate the privileged group's need for higher self esteem. The

resulting anti-minority cultures not only provide space for such sentiment but also, by virtue of having existed before, lend it legitimacy. While anti-minority culture can be enduring, it is not static. It is constantly evolving, being remade with new, updated expressions of prejudice that manifest as personal opinions and spread through informal social networks, as stories that popular media choose to report and curate by using particular language, or as depictions in popular culture that create new imagery of old, limited, and damaging tropes.

Discrimination

An environment where anti-minority culture is part of regular public discourse, sustains discrimination, which occurs when people act on their prejudice (Allport 1954). Discrimination is unfair or unequal treatment of an individual based on certain characteristics, like gender, race, ethnicity, age, sexual orientation, religion, disability, and more. The consequences of such mistreatment can be immediate (White et al. 2015) as well as cumulative (Bowles et al. 2014), and can be passed on from one generation to another (Brave Heart 2003).

Survival strategies

In an environment that sustains discrimination, members of the marginalized minority can anticipate mistreatment and develop strategies to cope with it. In this context, the term "survival strategies" refers to a broad set of behaviors in which individuals engage because discrimination has curtailed their options. These behaviors need not be strategic or rational; some are automatic, some are adopted because other group members engage in them, and some are a matter of tradition, particularly for groups that have been excluded for generations. Survival strategies are defined by the circumstances in which they manifest. Playing the violin on the street is not a survival strategy if the musician merely wishes to share music with strangers, but it is one if performing on the street allows the musician to make ends meet.

While the repertoire of potential survival strategies is substantial, individuals tend

to be constrained in the number and type of strategies they can adopt. Consider black Americans, European Roma, and Muslim women in France. All experience employment discrimination that results in significantly longer average job searches (Adida et al. 2016, Hyde 2006, Pager et al. 2009). In response, black Americans tend to substantially broaden their job searches, applying to a wider set of positions and across a wider set of required skills (Pager and Pedulla 2015). Having little access to the formal economy, the Roma instead turn to trades that are traditionally a part of the informal economy, such as scrap metal collection or selling goods door to door (Brazzabeni et al. 2015). Finally, a Muslim woman in France might opt for a survival strategy that narrows her job searches, applying only to jobs that would respect her choice to wear the hijab.[5] Or, she might choose to assimilate and follow the strict interpretation of laïcité[6] by not wearing her hijab at work (Laitin 1995). These disparate survival strategies all develop in response to a similar form of mistreatment, but not all are available to everyone. For some Muslim women, not wearing a hijab at work would be too personally costly, and for many Roma, widening job searches would be fruitless.

Often, stereotype-affirming behaviors are a part of someone's repertoire of survival strategies. When a Muslim woman only applies to jobs that would respect her choice to wear the hijab, for example, her decision affirms the damaging stereotype of Muslims as unwilling to integrate (Adida et al. 2016). Individuals might be particularly likely to resort to stereotyped behavior as a survival strategy when they believe that stereotyping is intractable. If an individual believes that stereotyping is unlikely to cease and that she cannot escape

[5]Based on a 2013 IFOP study, 84 percent of non-Muslim French oppose employing hijab-wearing women in public spaces (Adida et al. 2016).

[6]When they invoke the norm of laïcité, the rooted French refer to the 1905 law intended to allow each citizen to practice his or her religion. Many French, however, rely on a more radical interpretation, claiming that laïcité demands a complete absence of anything religious in the public life (see Adida et al. (2016)).

it, she may behave as stereotyped because it makes little sense to do otherwise. She might even embrace the stigma with the aim of transforming it into something positive (Burkley and Blanton 2008). The available repertoire of survival strategies is not only constrained by beliefs about stereotype intractability, or varying costs or feasibility of different strategies, but also by other factors. Personal experience of discrimination, for example, can turn people away from strategies that require cooperating with others (Twenge et al. 2007). Importantly, anyone—regardless of group membership or identity—can use survival strategies, but not everyone faces the attribution error as a result. Members of oppressed minorities, however, often do.

Attribution error

Some survival strategies do not elicit disapproval by the majority. Many do. A survival strategy need not be problematic to be viewed unfavorably. Jewish attempts to assimilate in a number of Western nations, for example, resulted in new barriers between Jews and the dominant groups (Laitin 1995). When assimilating Jews abandoned traditional occupations for medical or legal careers, they were not accepted. Instead, some non-Jews began to view those careers as having become characteristically Jewish, and simply shifted the lines of separation (Bauman 1988).

Members of the majority commit an attribution error when they misinterpret the minority's survival strategies and attribute them to the group as such, and not discrimination. Such attribution errors are particularly problematic because individuals tend to commit them more often in reference to outgroup members. When outgroup members engage in undesirable behavior, prejudiced people tend to attribute it to the nature of the group—its disposition or genetics—but when ingroup members engage in the same behavior, prejudiced people attribute the behavior to external circumstances (Pettigrew 1979). For example, white participants exposed to a scenario in which a black or a white man engages in violent behavior are more likely to attribute the behavior to his violent personality when

the man is black, but more often say that the situation is to blame when the man is white (Johnson et al. 2000). When the behavior is desirable, in contrast, the attribution is reversed as well: when ingroup members engage in good behavior, prejudiced people attribute it to the nature of the group, but when outgroup members behave the same way, their good behavior is attributed to outside circumstances (Pettigrew 1979). When outgroup members believe that members of the marginalized minority resort to unfavorable survival strategies because the group simply behaves that way, that belief then feeds anti-minority culture and completes the exclusion cycle.

The Roma exclusion cycle

The Roma are Europe's largest ethnic minority. While every European country has a Roma minority, most of Europe's 10 – 12 million Roma live in Central and Eastern Europe. They emigrated from India over 900 years ago and were variously itinerant (Mendizabal et al. 2012); most are no longer. The Roma minority is complex and constantly evolving (Matache and Mark 2014). While the histories and experiences of Romani communities vary, many have experienced gross mistreatment and discrimination ranging from slavery in Moldavia and Wallachia (Barany 2002) to genocide during World War II (Lewy 2000).

As diverse as the Roma are, they are commonly reduced to a single stereotype: cheaters and thieves. This stereotype is common enough to have become part of everyday language; English speakers often say they felt "gypped" when they mean they felt cheated, perhaps without thinking about the implications of the phrase. Popular media (Cahn 2007), public officials (Scicluna 2007), and the entertainment industry (Beaudoin 2015) constantly re-create the image of Roma as cunning criminals, perpetuating the widespread *anti-Roma culture*.

Many Romani communities contend with widespread, all-encompassing *discrimination* today (Matache 2014). Roma experience discrimination in education, employment, and

healthcare; spatial segregation is common and facilitates disparities in access to basic social services (Matache 2014, Mihailov 2012, O'Higgins 2012). They are more likely than non-Roma to be mistreated by the police (Matache 2014). Hate speech against the Roma is common (Scicluna 2007) and with the recent rise of far-right parties and nationalist movements across Europe, Roma communities have faced an increase in hate crimes, some of which have resulted in deaths (Matache 2014).

Roma *survival strategies* vary. Some choose to move away from the Roma community, to live among non-Roma and to avoid being stereotyped by trying to assimilate (Laitin 1995). Some ask family for help. Others look for a job in the informal sector, engaging in activities that range from collecting scrap metal to picking and selling mushrooms and blueberries (Brazzabeni et al. 2015). Some may turn to crime.

Attribution errors are common and often appear in popular media, where the challenges that Roma face in obtaining employment in the formal sector are ascribed to "Romani culture and their lifestyle[, as] they do not fit with the discipline of work" (Hyde 2006, 3). Reporting on thefts, media depict those committed by Roma as acts of "specific ethnic nature," using expressions like "Gypsy thieves, the thievish Gypsy [, and] thievish Roma;" thefts committed by non-Roma, in contrast, are not racialized (Scicluna 2007, 49).

While numerous Romani communities experience exclusion today, not all experience it in the same way, and, certainly, not all Roma are excluded. Indeed, the exclusion cycle is not intended to exhaustively explain Roma/non-Roma relations. Instead, a particular type of Roma/non-Roma dynamic can be harnessed to illustrate the exclusion cycle.[7]

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[7]By speaking broadly about Roma and non-Roma, this work runs the risk of reifying the Roma/non-Roma divide. This is not my intention. What it means to be Roma and non-Roma changes and evolves over time and across experiences. Still, while using a two-word dichotomy as a basis for comparison might be reductive, it reflects a difficult reality. Whatever the categories of Roma and non-Roma mean at a particular moment in time, to

Roma/non-Roma relations speak to interactions between other majorities and marginalized minorities; most naturally, the logic extends to populations that have been excluded for generations, like Dalits in India or black and Native Americans in the US. And among socially excluded minorities without histories of political autonomy or separatism, the Roma tend to fall into the modal categories on a number of relevant indicators. The Roma, as well as the majority or plurality of other marginalized groups, have engaged in almost no rebellion, have had their political interests promoted by one or more political parties or movements, have expressed economic, political and cultural grievances predominantly focused on ending discrimination, and have received some state support but no military support from any entity (Minorities at Risk 2009).

Measurement

I use original data from two sources—a survey and a novel videogame—to illustrate each part of the cycle. Roma and non-Roma subjects participated in both, first playing the videogame and then answering survey questions. The survey provides primary evidence of anti-Roma culture, addressing the first part of the exclusion cycle.

While survey answers also speak to the other three parts of the cycle, they do not capture behaviors. Capturing discriminatory behavior, in particular, is challenging. In a society where racism is systemic, disparate treatment is pervasive. A doctor might discriminate in a hospital (Goyal et al. 2015), a teacher might do so in school (Fenning and Rose 2007), and a police officer on the street (Gelman et al. 2007). There are a number of contexts in which one may encounter discrimination, but the experience of mistreatment

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particular people, the divide is salient—especially as it is reinforced by the experience of past discrimination (Wimmer 2013). Examining behaviors along this divide is therefore useful, even if limited.

differs from one individual to another; in addition, consequences of mistreatment in one, say employment, spill over to others, like residential segregation or healthcare disparities. Capturing mistreatment in its entirety, across all spheres at once is nearly impossible and more so when data are scarce. While recent years have seen a rise in cross-national and national surveys of Roma in a number of European countries (but not Slovenia), the surveys focus on socio-economic conditions and tend not to ask about discrimination.[8] In addition, merely asking about discrimination or survival strategies is unlikely to paint a realistic picture. Roma communities are often reserved with researchers and census takers, chiefly due to past and current disrespect; non-Roma, in turn, might be dishonest when asked whether and how they discriminate.

In order to capture underlying behaviors that in real life appear across a number of contexts, while also reducing the possibility of respondent bias, I use games that capture other-regarding behavior (Camerer 2003). A game offers participants an interaction which, while stylized, is real—most notably, it involves real money. It does so divorced from any particular context such that participants who might in real life discriminate or resort to survival strategies in disparate contexts all have an opportunity to do the same in a more generalized simulated scenario. In addition, a game allows me to capture actual behavior and thus leads to insight beyond that offered by measures that capture prejudice or behavioral intent. The main drawback of such games is that they require a level of abstraction; as they do not reproduce a real-life setting, participants might behave differently in the context of the game than they would in an everyday encounter. I address this concern by linking participant game behaviors to their survey answers, which provide real-life context.

I use the public goods game (Marwell and Ames 1979), which I couple with indirect

[8]See, for example, the UNDP-World Bank-European Commission Regional Roma survey 2011 (Ivanov et al. 2012) and the European Union Agency for Fundamental Rights (FRA) Roma pilot survey (FRA 2014).

reciprocity, as seen in Rockenbach and Milinsky (2006). Scholars tend to use the public goods game to study the dynamics of cooperation and defection in a group setting (Gilligan, Pasquale and Samii 2014, Habyarimana et al. 2007). The game sets individual interest against that of a group. It presents a scenario where the group is best off if everyone cooperates, but where each individual has an incentive to free ride. Typically, each participant receives an endowment. They can either keep it or contribute it to a common pot. Once the participants have decided what to do with their endowments, the common pot is multiplied and evenly divided between all participants, regardless of who contributed. Participants who did not contribute are best off, as they have both their initial endowment and the sum they received from the common pot; the group as a whole is best off, however, if everyone contributes.

This game leverages the stereotype of the Roma as cheaters and thieves. Simply put, if a participant gives credence to this stereotype, she is likely to expect more free-riding from Roma players. While the game itself does not offer a participant an opportunity to cheat—keeping the entire endowment is perfectly acceptable according to the rules of the game—free-riding might nonetheless be interpreted as cheating. The act of free riding can even take on a racialized meaning: a non-Roma participant confirmed as much when she boisterously reacted to the idea that someone might keep their endowment by exclaiming "The Gypsies!" ("Ciganija!").[9]

The idea that the Roma are "takers" is a common extension of the cheating-and-stealing stereotype. Non-Roma often accuse Roma of receiving social benefits which they purportedly do not deserve because they are not contributing to society. Non-Roma participants in this study have, for example, remarked that some Roma women have monthly

[9]Importantly, her reaction to free riding happened while the enumerator was explaining the rules of the game and well before she was aware of the game's ethnic component; she had only been told that the game explores relationships between people in her town.

incomes “exceeding 2,000 euros without ever having worked a day in their lives,”[10] which they supposedly extract from the state by having many children. This gendered accusation closely resembles the highly politicized “Welfare Queen” rhetoric used to describe black women in America (Collins 1990). Non-Roma often use the idea that the Roma are not fit contributors to society to justify mistreatment. A number of towns and villages across Central and Eastern Europe, for example, built walls to separate the Romani neighborhood from the rest of town on account of Roma stealing (Slovakia, Bilefsky 2010), being loud (Czech Republic, Barrie 1999), or being dirty (Romania, Estrin 2012). The expectation that Roma participants might not contribute to the common pot in the public goods game is therefore not a foreign concept—especially not to prejudiced non-Roma individuals who in one way or another do not see Roma as fit, or equal, contributors to society.

The game exploits this expectation—and addresses the second part of the exclusion cycle—by offering non-Roma participants the opportunity to discriminate. Specifically, participants who subscribe to the stereotype of Roma as cheaters, thieves, or takers might systematically contribute less to the common pot when Roma are included in the game.

In this experiment, I couple the public goods game with indirect reciprocity. Indirect reciprocity presents each player in the group with an opportunity to award another, randomly chosen player based on whether that player contributed to the common pot. When a player is rewarded, she gets additional points (or monetary units); when she is not, those points are withheld. The indirect nature of rewarding ensures that players are not mutually exchanging rewards; instead a player is likely rewarded (or not) based on her behavior in the public goods game. Indirect reciprocity can be used to boost cooperation in the public goods game (Rockenbach and Milinsky 2006), but I do not use it for this purpose here. Instead, I use it to capture rewarding behaviors towards coethnics and non-coethnics who both variously cooperate and defect.

[10]The average net monthly income in Slovenia in 2016 was 1,030. 16 euros (Vrh 2017).

The game scenario presents one round of the public goods game, followed by one round of indirect reciprocity. This combination repeats twelve times, allowing me to capture how Roma and non-Roma behave in a repeated interaction setting. In this setting, the incentive structure does not encourage consistent defection. Suppose a group of eight players is playing the game for several rounds. Defecting in the early rounds is likely to make other players defect as well, possibly leading to a scenario where no one contributes to the common pot. This is not Pareto optimal (Rapoport and Guyer 1978). Instead, a "nice" strategy of cooperating can keep the group better off, as long as other players also cooperate (Axelrod 1984, Hardin 1982). Indirect reciprocity makes cooperation even more attractive as it provides an additional opportunity to benefit from cooperation, assuming that players are generally more likely to reward cooperators than defectors. Of course, if participants fail to identify or choose not to follow the winning strategy, their decisions are still revealing as they might reflect "standard operating procedures, rules of thumb, instincts, habits, or imitation" (Axelrod 1984, 18).

Leveraging the stereotype of Roma as cheaters and thieves, the public goods game offers Roma participants an opportunity to engage in stereotype-affirming behavior: free-riding. This speaks to survival strategies, the third part of the exclusion cycle.

Why would Roma free-ride? As mentioned, a "nice" strategy in which everyone cooperates is preferred to the strategy where no one cooperates. For Roma participants in a locality where non-Roma discriminate, a "nice" strategy might be out of reach. Any Roma who expects that non-Roma players will defect as soon as Roma are included in the game is better off free riding; the "nice" strategy only works as long as players cooperate. Free-riding is thus a survival strategy: the expectation that non-Roma will defect curtails a Roma player's options such that she is compelled to defect even if she might otherwise wish to cooperate. Equivalent behavior in real life very much looks like a survival strategy. If provision of electricity does not extend to a minority neighborhood, for example, people from that neighborhood might tap the electricity lines on the outskirts to get access; indeed, this

happens at my research site. As mentioned above, participant behavior need not be strategic to be revealing (Axelrod 1984); for example, Roma players might free ride even if they do not strategically choose defection because people who have experienced discrimination are less likely to engage in cooperative behavior (Twenge et al. 2007).

Finally, indirect reciprocity, through which I capture rewarding behaviors towards coethnics and non-coethnics, shows insight into the attribution error, the fourth part of the exclusion cycle. Recall that a person commits this error when she attributes someone's undesirable behavior to the nature of his group and not outside circumstances. If undesirable behavior, like free-riding, is attributed to someone's nature, withholding a reward from that person seems justified (i.e. "it's his own doing"); if, instead, free-riding is attributed to an outside circumstance (i.e. "it's not his fault"), withholding the reward may seem unduly harsh. Therefore, if a non-Roma participant commits this error, she might systematically under-reward Roma players.

Roma and non-Roma survey answers provide a real-life context for the somewhat abstracted game findings. In particular, Roma reports of perceived discrimination speak to the second part of the cycle (discrimination), while non-Roma attitudes towards the Roma speak to the fourth (attribution error).

Delivery

Several concerns constrained my game delivery. While the public goods game is typically played in a group and face-to-face (Gilligan, Pasquale, and Samii 2014), the possibility of contention ruled out direct interactions. To protect the anonymity and physical integrity of the participants, I needed to ensure participation that was both private and confidential. Further, as Romani literacy levels are often lower and disproportionately so among women and the elderly (FRA 2014), I had to adjust the game so that anyone could participate without having to read. Finally, the game requires multiple iterations and simultaneous decision-making. While others have resolved this problem by designing a game that can be

played online (Egas and Riedl 2008), the financial and logistical challenges of accomplishing that in the field, while also ensuring private participation, rendered that approach infeasible. I therefore created a videogame.

The videogame presents the public goods game in the form of a tower building game. The objective of the game is to collect points, which are converted into remuneration at the end of participation. The game has eight players: one participant and seven simulated avatars. The players collectively build a tower. Each player receives a brick worth 10 points which they can either keep or contribute to the tower. Once the players have decided whether to contribute their brick, the points in the tower are multiplied by 1.6 and divided equally among all players. Those who kept their own brick are best off, having collected points from the tower as well as their brick, but the group is best off if everyone contributes. The tower building phase is followed by a reward phase (indirect reciprocity). Each participant is randomly shown one of the other players, along with information on how that player behaved in the tower building phase just before. Participants then receive 3 additional points, which they can either keep or use to reward that player; if they choose to reward, that player receives 9 points. Once the reward phase is concluded, the game continues with another tower building phase, and so on. Altogether, there are 12 tower building phases in one game, and each is followed by a reward phase.

The videogame allows me to manipulate play scenarios. This is a significant departure from traditional lab-in-field public goods game settings, where groups are made of several active participants who interact with one another in real time. While the traditional set up is dynamic, the experience differs from one participant to another—not only between but also within groups. In the videogame, in contrast, all participants react to identical scenarios. Further, as I simulate how the seven avatars play, I can capture not only how different participants behave in identical scenarios, but also how the same participant behaves in different scenarios. Thus, while the videogame precludes a dynamic scenario where multiple unpredictable players interact, the higher level of control leads to a cleaner comparison of

behaviors.

Participants played a number of game scenarios (see Figure 2). Here, I present results from three. The first game was the baseline game, which presented a mix of cooperating (5) and defecting (2) avatars, all without ethnic identities. This game was always played first and the rest were randomized. The second game was identical to the first in avatar behaviors, but had coethnic avatars (all Roma for Roma participants and all non-Roma for non-Roma participants). The third game was also identical to the baseline in avatar behaviors, but here half the players were Roma and half were not. Non-Roma thus played the third game with 3 non-Roma and 4 Roma avatars; for Roma, the numbers were switched. The treatment—whether the game is coethnic or mixed—was administered before each game started, when the participant was shown the roster of the players (see panels (a), (b), and (c) of Figure 2). The reward phase showed the ethnic identity of the player in all games except the baseline.

[Figure 2 about here]

There was no deception. Participants were told that they would be playing a videogame with a computer and that the other players were not real, but that the decisions of the avatars were based on real decisions by people from their town.[11] Even though they knew they were not playing with real people in real time, participants became quite engaged and played the game with intent.

Case Selection

To illustrate the exclusion cycle, I sampled Roma and non-Roma participants from Novo mesto, Slovenia. Novo mesto is the regional capital of Dolenjska, a region in south-eastern Slovenia. Novo mesto has the largest Roma population in the region; the unofficial estimate,

[11] These decisions were taken from the pilot rounds administered in June 2015.

given to me by a source in town, is 2.8 percent. The official estimate, based on the 2002 Census, is 1.2 percent (SURS 2002). Roma have lived there for over 200 years, but some arrived more recently. Most of the Roma live in isolated neighborhoods; the vast majority lives in Brezje-Žabjak, which is separated from the rest of the town by a stretch of fields and woods. A local Romani NGO, Romano Veseli, predominantly engages in providing services to the Roma and has been active since the early 1990s. The local schools do not teach Romani and do not teach children about Roma history, traditions, or culture. The Roma have had a representative in the local government since 2002 (Dedić 2003). Based on a set of socioeconomic and quality of life indicators, the Roma community in Novo mesto is fairly representative of those from 12 other European states in which the Roma live.[12]

I used simple random sampling to recruit 133 participants—66 Roma and 67 non-Roma—from two strata, the main town where non-Roma live and the Roma settlement. Streets in both were ordered alphabetically and reordered based on a random number list; starting at the top of the new list, I recruited a subject older than 18 from each house on the sampled street, systematically alternating between genders. Roma participants were oversampled as there are fewer Roma than non-Roma in Novo mesto. Subjects participated outside, in their backyards, or in their living rooms. Participants first read the consent form, then played the videogame on laptops we provided, then completed the survey. All decision-making in the videogame was private and confidential.

[12]These countries are Albania, Bosnia and Herzegovina, Bulgaria, Czech Republic, Hungary, Croatia, Moldova, Montengro, Macedonia, Romania, Serbia, and Slovakia (Ivanov 2012). For specifics, see the Online Appendix.

Results

Anti-minority culture

Anti-Roma culture in Novo mesto finds expression in private and public fora. As in numerous cities across Europe (Guy 2017), public officials engage in anti-Roma speech. A former mayor, for example, explained that "we non-Roma from the region are hard working and enterprising, and we demand a lot from ourselves and our own. The Roma avoid work and prefer to party, unfortunately even with firearms" (Rajšek 2011). Some media outlets capitalize on this sentiment; an article headline in 2016, for example, read "When the Roma from Dolenjska go shopping: how and what the Roma steal from shops in Novo mesto" (Glücks 2016). A group of non-Roma from Novo mesto went as far as to form an anti-Roma organization, the "Civil Initiative," that aims to mobilize against the local Roma, raising concerns about alleged Roma crime, noise disturbances, theft, and violence.

To get a sense of the extent of anti-Roma culture among the general non-Roma population in Novo mesto, I asked non-Roma participants whether they agreed with the following statement: "The Roma cannot be trusted." This statement gets at the heart of the stereotype of Roma as cheaters and thieves. Sixty-two percent of non-Roma either agreed or strongly agreed with this statement (left panel of Figure 3). Twenty-six percent of non-Roma participants were neutral and 12 percent either disagreed or strongly disagreed. The modal response was "strongly agree".

[Figure 3 about here]

Probing non-Roma further, I asked whether they had personally had any bad experience with the local Roma. Thirty-one percent indicated that they did. When asked to describe that experience, they mentioned theft, vandalism, and childhood bullying. Conversations with non-Roma participants as well as other non-Roma in town suggest that thefts

generally tend to be attributed to the Roma, mostly without any concrete supporting evidence. When pressed to elaborate on how they knew the perpetrators were Roma, non-Roma would typically say “of course it was the Roma, who else would it be?”. Some statements rang absurd; one non-Roma spoke of Roma “cursing me to death,” and another reported that the Roma “stole mushrooms from my car and ate our dog”.

To get a sense of how this culture manifests in the beliefs among local Roma, I asked Roma participants to what extent they agreed with the following statement: “As long as non-Roma think that one Roma is a criminal, they won’t trust any Roma at all”. Seventy-three percent either agreed or strongly agreed with this statement; the modal response, with 57 percent, was “strongly agree.” Taken together, media statements, non-Roma statements about the Roma, and Roma perceptions of non-Roma beliefs illustrate anti-Roma culture in Novo mesto.

Discrimination

Non-Roma discriminated against the Roma. Figure 4 presents non-Roma contributions to the tower in the baseline, coethnic, and mixed games. The left panel shows the non-Roma average contribution to the tower, with 95 percent confidence intervals, for each of the twelve tower-building rounds in each game. Non-Roma decision-making in the baseline and the coethnic games is very similar, and not statistically distinguishable. In the mixed scenario, however, non-Roma contributed substantially less to the tower ($p < 0.05$). The right panel shows the predicted probabilities of contributing to the tower in the first three games; these are based on logit models with individual clustered standard errors that included covariates for gender, age, employment, education, and game order. Non-Roma contributed to the tower with a predicted probability of .80 in the baseline and 0.78 in the coethnic game; contributions in the mixed game were lower, with a predicted probability of 0.62 ($p < 0.05$). Thus, even though the avatars in the three games behaved identically, non-Roma contributed significantly less to the common pot when Roma avatars were in play.

[Figure 4 about here]

As every participant played all three games, I next explore who among the non-Roma changed their behavior once Roma avatars were included in the game. I take a participant's average contribution to the tower in the coethnic game and subtract it from the participant's average contribution in the mixed game. If these averages are the same, the participant did not change her behavior. If the difference is positive, she contributed more in the mixed game, and if the difference is negative, she contributed more in the coethnic game. In the right panel of Figure 3, I plot the averages of these differences against the participants' agreement with the statement that "the Roma cannot be trusted". This plot shows that non-Roma who agreed or strongly agreed with this statement contributed significantly less to the tower in the mixed game ($p < 0.05$). Non-Roma who disagreed or were neutral did not differ in their average contributions, on average, while non-Roma who strongly disagreed with the prejudiced statement on average contributed more to the tower in the mixed game ($p < 0.05$). As the number of participants in each category is low, it is necessary to exercise caution in interpretation; the differences in average contributions, however, do suggest a relationship between prejudice and discriminatory behavior.

Roma survey answers validate the videogame findings and provide real life context. I asked Roma participants 10 composite questions—the first question asked if they had experienced a specific type of disparate treatment and the second asked them if they thought that had happened because they were Roma. The questions are modeled after Andriessen et al. (2014) and listed in the Online Appendix. One, for example, asks if, when the participant rides the bus, people on the bus visibly switch their bags to the side facing away from the participant or visibly secure their hold on their bags. If the participant answers affirmatively, he is then asked if he thinks that happens because he is Roma. Forty-one percent of Roma participants in Novo mesto answered yes to both of these questions. Across all 10 composite questions, 82 percent of Roma participants reported at least one case of mistreatment by

answering yes to both parts of at least one composite question. This matters, and not only as an alternative, if partial, measure of discrimination. While individuals likely perceive only some aspects of the discrimination they experience (Paradies 2006), it is likely that those experiences (and not the discrimination that is unnoticed) most strongly affect their subsequent behaviors.

Survival strategies

For Roma, free-riding is stereotype-affirming. In the context of the videogame it is also a survival strategy because discrimination by non-Roma makes potential Roma cooperation unrewarding and potentially loss-inducing. Figure 5 presents Roma behaviors in the three games. The left panel shows the Roma average contributions to the tower, with 95 percent confidence intervals, for each of the twelve tower-building rounds in each game, while the right panel shows the predicted probabilities of contributing to the tower in each game.[13] Unlike the behaviors of non-Roma, which changed markedly in the mixed game, the behaviors of Roma participants did not change across the three games. Whether playing the baseline, coethnic, or mixed game, Roma participants contributed to the common pot about 45 percent of the time. This differs substantially from the amounts contributed by non-Roma: regardless of group composition, the Roma contributed significantly less to the tower than non-Roma ($p < 0.05$). Free-riding more often than non-Roma, the Roma engaged in a survival strategy.

[Figure 5 about here]

Who among the Roma is likely to contribute more to the common pot and who is more likely to defect? Free-riding could be linked to beliefs about stereotype intractability.

[13] The predicted probabilities and their 95 percent confidence intervals are based on logit models with individual clustered standard errors that included controls for gender, age, employment, education, and game order.

If a person believes that stereotypes are deeply entrenched and that she cannot escape them, she might see little reason to avoid behaving as stereotyped, especially if the alternative is costly. Or, free-riding could be tied to personal experience of discrimination as people exposed to even short term ostracism and exclusion are less likely to engage in helping or cooperative behaviors, such as contributing to the common pot (Twenge et al. 2007). Figure 6 presents plots that offer insight into these two explanations.

[Figure 6 about here]

The left panel of Figure 6 shows the predicted probability of contributing to the tower in the mixed scenario for Roma who report having experienced discrimination and for Roma who do not. Although relatively few Roma reported no personal experience of discrimination—only 18 percent reported none across all 10 composite questions on discrimination—the difference between the two groups is notable. Roma who reported experiencing discrimination contributed less to the tower ($p < 0.05$).[14] The right panel of Figure 6 shows the predicted probability of contributing to the tower in the mixed scenario, along with Roma agreement or disagreement with the statement that "as long as non-Roma think that one Roma is a criminal, they won't trust any Roma at all". The difference in tower building between the Roma who agreed and the Roma who disagreed with the statement is apparent, but not statistically significant. This suggests that personal experience of discrimination—more so than beliefs about stereotype intractability—might push Roma to

[14]The predicted probabilities and the 95 percent confidence intervals are based on a logit model with individual clustered standard errors that included the dichotomous reported discrimination variable, the dichotomous perception of stereotype intractability variable (recoded as either agree or disagree), and covariates for gender, age, employment, education, and game order.

non-cooperative survival strategies.[15]

Attribution error

How players reward others in the tower building game offers insight into the attribution error. After each tower-building phase, the participant is shown another player and information on how that player behaved in the preceding tower-building phase, along with the player's ethnic identity (except in the baseline game). The participant then has the option of rewarding that player, at a cost of 3 points, or of withholding the reward, at no cost. As rewarding is retrospective—the participant is not guessing how that avatar will behave, but merely reacting to how that avatar already behaved—one might expect rewarding to be fairly consistent. It was not. Non-Roma withheld rewards from Roma defectors more often than from non-Roma defectors ($p < 0.05$) (see Figure 7). They also rewarded non-Roma cooperators significantly more than they rewarded Roma cooperators ($p < 0.05$).

[Figure 7 about here]

This behavior not only demonstrates the attribution error committed when Roma engage in the disliked survival strategy and defect, but in fact echoes all four cases in which attribution errors occur. A plausible explanation, leaning on Pettigrew (1979), goes as follows: when Roma cooperate, engaging in favorable behavior, non-Roma attribute their behavior to outside circumstance; as their behavior is attributed to an outside circumstance and not a group-based inner quality, they do not seem as deserving of a reward. In contrast, when non-Roma engage in exactly the same favorable behavior, their behavior is attributed to the nature of the group; as good behavior is seen as stemming from an inner quality,

[15] As the number of observations in some categories is low, these results should be treated as suggestive.

a reward seems more appropriate. Indeed, non-Roma reward their own more for identical good behavior. Then, when Roma engage in disliked behavior, defection is attributed to the group as such, and as the group-based inner quality takes the blame, withholding a reward from an individual who possesses that quality seems deserved. Finally, when non-Roma defect, defection is attributed to the situation; as disliked behavior is a result of an outside circumstance, punishing the individual by withholding the reward makes less sense.

To see how the attribution error manifests in everyday life, I asked non-Roma participants this open ended question as part of the post-game survey: "What bothers you most *about the Roma*?" (emphasis not in survey). Here, my intent was to capture the extent to which—if any—non-Roma ascribe survival strategies to the very nature of Roma. Non-Roma mostly committed attribution errors in reference to survival strategies that Roma turn to in light of near complete exclusion from the formal job market. Listing several at once, one participant wrote "that they steal, that they lie, that they receive social assistance instead of putting in some effort and working honestly". Twenty percent of participants wrote that the Roma were thieves, 22 percent wrote that the Roma "refused to work," and 18 percent wrote that they were too dependent on social assistance. Six percent used strong language, accusing the Roma who receive social assistance of "extorting rights" and "abusing the state". Three percent were bothered by dumpster diving and three percent by begging. In answering this question, 67 non-Roma from Novo mesto listed something negative 108 times.[16]

I then asked non-Roma participants to indicate the extent to which they agreed with the following statement: "Most Roma earn a living by engaging in criminal activity, even though they have other options." This statement is intentionally extreme as it identifies a problematic survival strategy—criminal activity—while clarifying that any Roma engagement in crime, should it happen, is a matter of choice and not a result of desperate circumstances. It also invokes the stereotype of Roma as cheaters and thieves. The statement drew

[16]Thirteen percent did not answer the question and 19 percent wrote nothing negative.

agreement. The modal response was "strongly agree," and 62 percent of non-Roma either agreed or strongly agreed with it.

To lend context to the attribution errors that pertain to Roma coping with exclusion from formal employment, I asked Roma participants whether they had ever applied for a job in the formal sector with the aid of the Employment Service of Slovenia. Seventy-three percent had; of those, 10 percent had a job. In the 12-month period before participating in the study, 38 percent of Roma participants looked for a job in the formal sector; only 9 percent of those had a job. With 89 percent of Roma participants excluded from the formal job market, the statement above claiming that Roma "have other options" seems cavalier. That almost 62 percent of non-Roma agree with it is troubling.

The attribution errors mentioned clearly feed anti-Roma culture, as many are themselves expressions of anti-Roma sentiment. The exclusion cycle thus starts over, further cementing Roma marginalization.

Conclusion

This article develops a four-part theory of the exclusion cycle and presents empirical evidence based on Roma/non-Roma relations in Novo mesto, Slovenia to illustrate it. Anti-Roma culture is prevalent, with 62 percent of non-Roma believing that "the Roma cannot be trusted." Discrimination against the Roma is common as well: non-Roma contribute significantly less to the common pot in an iterated public goods game when Roma avatars are included in the group that plays the game, even as the Roma avatars behave no differently than non-Roma avatars. Eighty-two percent of Roma participants report that they have experienced at least one specific type of discrimination. Roma who report personal experience of discrimination, in turn, engage in survival strategies in the context of the iterated public goods game: they defect significantly more often than non-Roma or Roma with no personal experience of discrimination. Finally, non-Roma commit an attribution error when they interpret sur-

vival strategies. Not only do they see survival strategies like relying on state assistance as quintessentially Roma, and not a consequence of employment discrimination, they also put their bias into action by withholding rewards to a significantly greater extent when Roma avatars defect in the public goods game, as opposed to when non-Roma avatars behave in exactly the same way. The attribution errors feed anti-Roma culture, and the Roma exclusion cycle repeats.[17]

While the illustration here is based on Roma and non-Roma, exclusion is a human problem. Similar dynamics arise between white Americans and Americans of color, especially in the context of police brutality (Commonwealth v. Jimmy Warren); between Muslim immigrants in France and the rooted French, in the context of employment discrimination (Adida et al. 2016); between Dalits and non-Dalits in India, as Dalits are forced into occupations culturally considered "unclean" and then despised for it (Shah et al. 2006); and between the Batwa and non-Batwa in Uganda, with the former stereotyped as gluttonous and savage, barred from employment, then blamed as backward when they illegally forage in forests (Kidd 2018, 118). These and other examples, combined with cases where exclusion is not severe or does not exist at all, offer ways to comprehensively test the theory presented here. And, to further refine the theory, future work should consider how the cycle shifts when discrimination strengthens, when survival strategies are more or less socially acceptable, or when anti-minority culture is more or less intense.

The exclusion cycle has implications beyond its own dynamics. Not only is exclusion deeply entrenched at the level of the individual, it is undoubtedly cemented further as people live in environments where institutions, customs, and laws also perpetuate inequality. Indeed,

[17] I have discussed the theory of the exclusion cycle and presented the findings to members of the Roma community in Novo mesto. They expressed agreement with the theory and thought the empirical evidence accurately reflected their daily interactions with Roma and non-Roma.

the question of how individual behaviors that constitute the cycle connect and interact with such institutions (Frymer 2005) presents a compelling challenge for future work. More broadly, the exclusion cycle has implications for political violence, rebellion, protest, and other forms of political engagement.

The story of the exclusion cycle is bleak. And thus, the most important challenge for future work is determining how to break the cycle. The exclusion cycle is self-reinforcing, but does that mean that attacking it at one point is sufficient to break it—and if so, will any point do? Or does the self-reinforcement mean that exclusion like that of the Roma is so intractable that breaking the cycle requires coordinated action across multiple parts of the cycle? Such a result might explain why exclusion persists despite strong top-down incentives aimed at reducing discrimination alone (Bracic 2016). Many questions remain to be addressed. But understanding the structural basis of the dynamic between the excluders and the excluded is essential to breaking the exclusion cycle and moving forward.

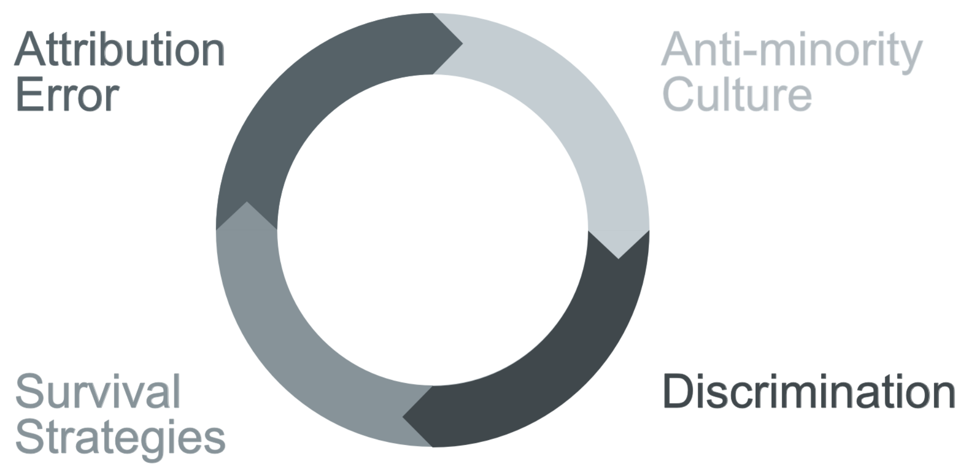

Figure 1: The exclusion cycle.

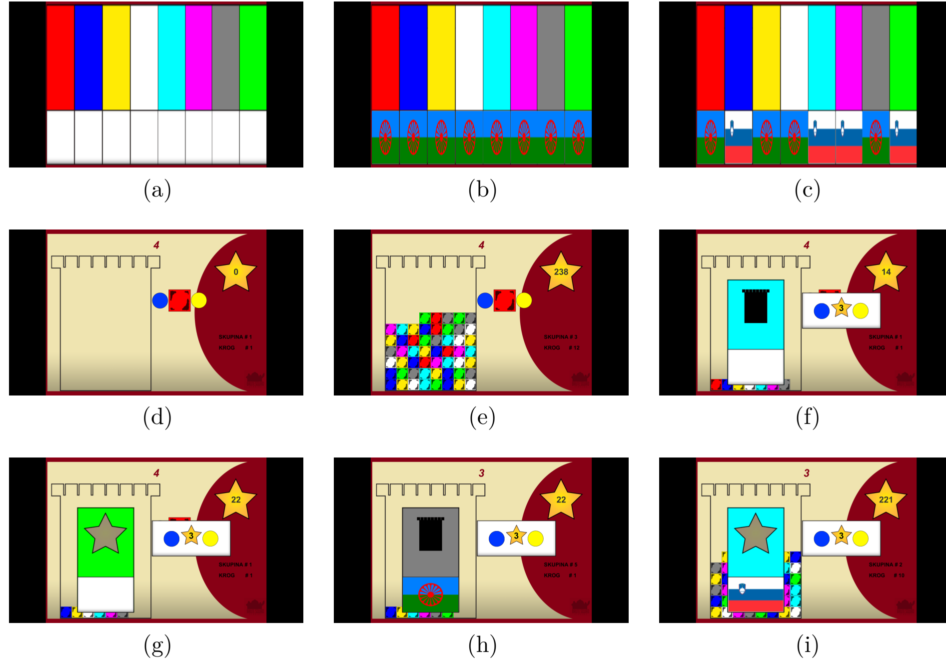

Figure 2: Videogame screenshots. Screens (a), (b), and (c) show the presentation of players. This happens before each condition (once, before every 12-round combination). Ethnic ID of players is indicated by a Roma flag for Roma, and a Slovene flag for ethnic Slovenes. (a) is the baseline screen in which no ethnic IDs are presented for the players; this condition is always played first. (b) is a coethnic condition, in which all players are Roma, and (c) is a mixed condition with players evenly split. The colors correspond to each player and are displayed in the tower, as players contribute bricks to build it. The subject's color is always red. In (d), or the tower building phase, subjects press blue to contribute their brick to the tower and yellow to keep their brick. The star displays the points gained so far (points reset for every condition). Screen (e) shows a mostly built tower. The tower building phase is followed by either (f) or (g), both representing the reward phase (indirect reciprocity). If the partner presented contributed to the tower in the preceding round, the subject sees a black tower (f). If the partner presented kept the brick in the preceding round, the subject sees a grey star (g). The subject then decides whether to reward that player; if yes, the blue key sends 3 points (tripled) to that player; if no, the yellow key lets the subject keep the 3 points. Screens (f) and (g) present the reward phase of the baseline condition, without ethnic IDs. Screen (h) presents a Roma cooperator. Screen (i) presents a Slovene defector.

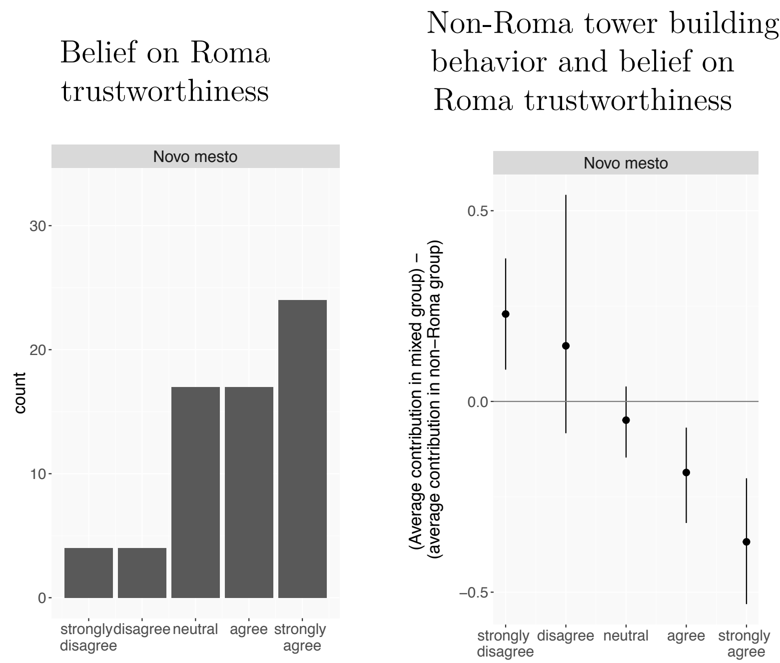

Figure 3: The left panel of this figure shows non-Roma agreement with the statement "the Roma cannot be trusted". The right panel plots agreement with the statement, in both towns, along with the mean difference in average participant contributions to the tower in the mixed and coethnic games.

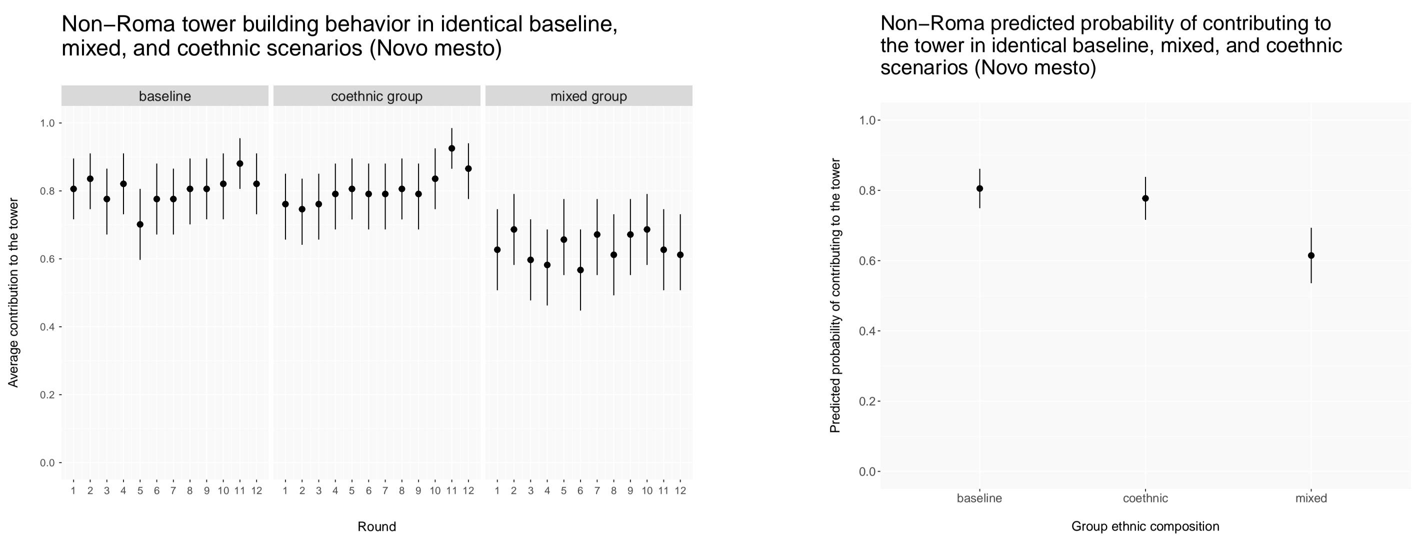

Figure 4: The left panel presents the average contribution to the tower, with 95 percent confidence intervals, that non-Roma participants made in each round of the first three games. The right panel presents the predicted probability of contributing to the tower in the first three games.

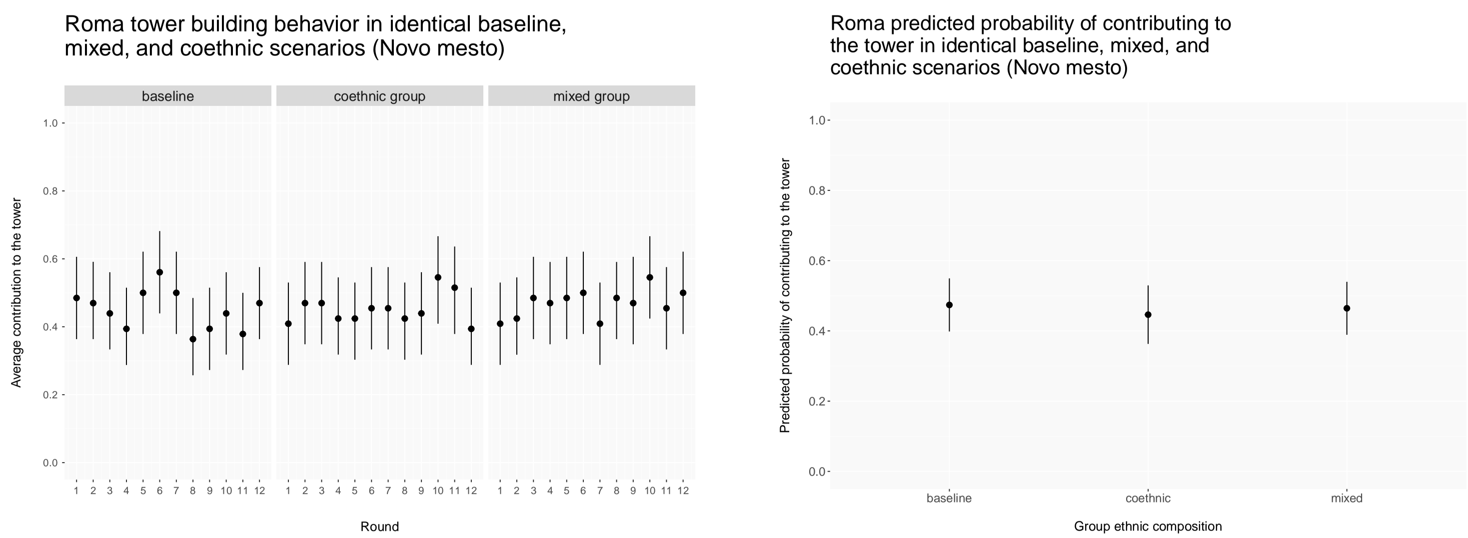

Figure 5: The left panel presents the average contribution to the tower, with 95 percent confidence intervals, that Roma participants made in each round of the first three games. The right panel presents the predicted probability of contributing to the tower in the first three games.

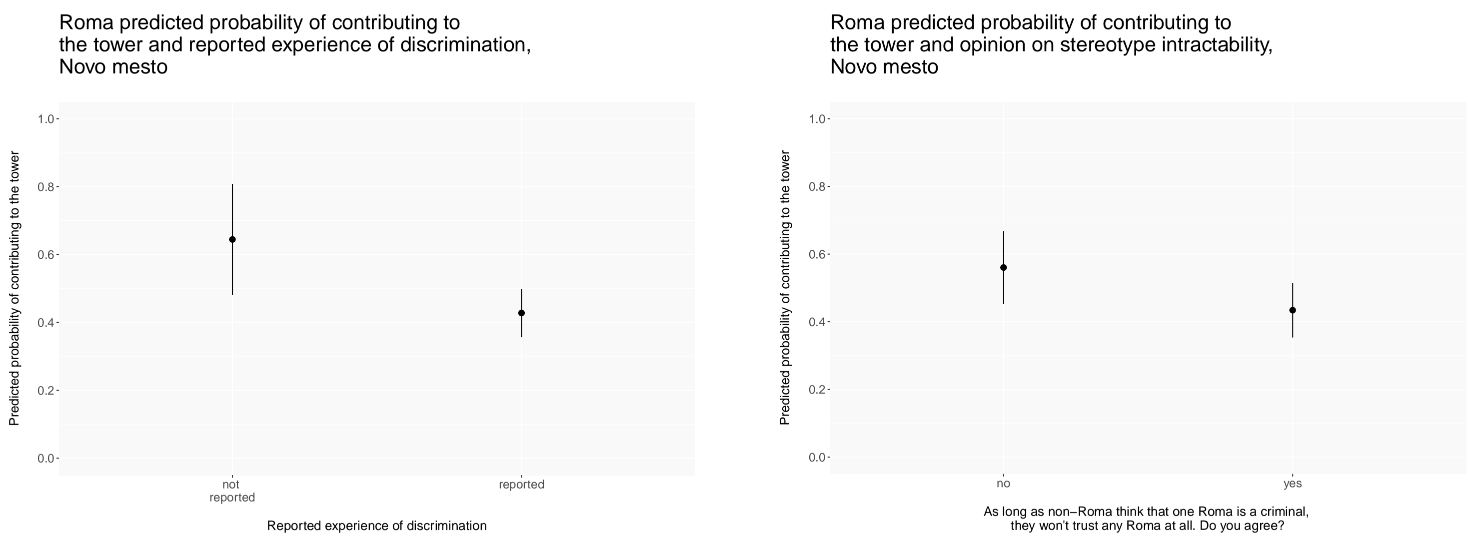

Figure 6: The left panel presents the predicted probability of contributing to the tower in the mixed game, by reported experience of discrimination (the difference is statistically significant ($p < 0.05$)). The right panel shows Roma tower contributions in the same game, but by perceived stereotype intractability (the difference is not statistically significant).

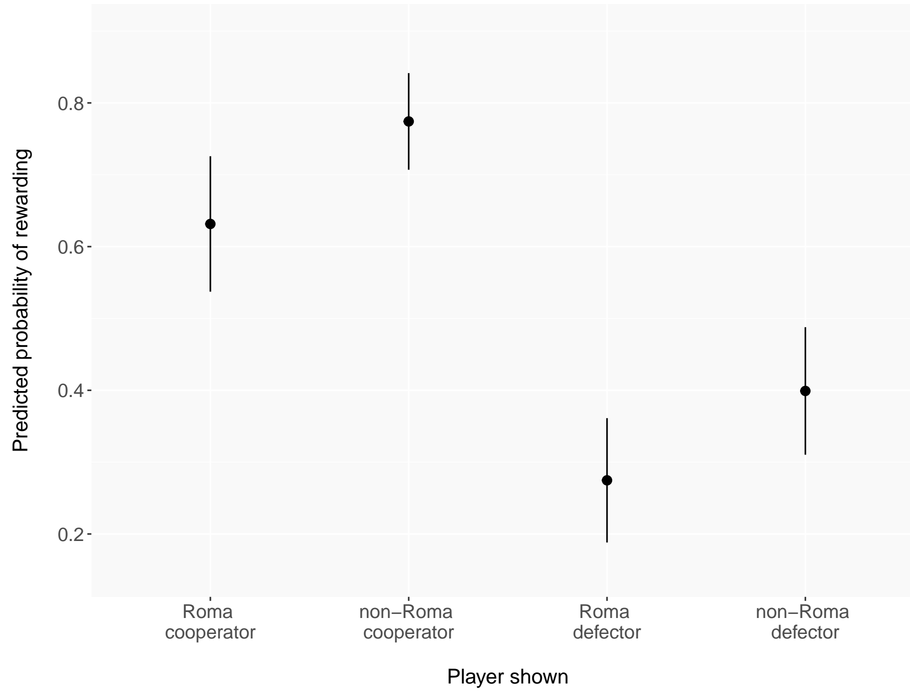

Figure 7: This figure presents the predicted probability of rewarding the player whose avatar is shown in the reward phase.

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