Personal Intergroup Contact Between Different Groups of Ex-Combatants and Civilians: Evidence from a Behavioural Experiment in Rwanda

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Personal Intergroup Contact Between Different Groups of Ex-Combatants and Civilians: Evidence from a Behavioural Experiment in Rwanda*

Mayuko Onuki†, Keitaro Aoyagi‡, and Yoshito Takasaki§

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Abstract

Though personal intergroup contact is known to predict positive intergroup outcomes, little is known about a condition that elicits the kind of positive personal contact that reduces prejudice in real-world post-conflict societies. Using a behavioural experiment, the present study examined the effect of face-to-face personal contact between ex-combatants of three different groups, that are former adversaries, and civilians with disabilities in Rwanda. A total of 444 participants were randomly assigned to intergroup or intragroup pairs to interact under personal and task-focused contact conditions, and their person preference, evaluative bias, and impressions of those contact partners were compared against others with no direct contact. Between ex-combatants of the national army and civilians, task-focused contact generally resulted in better intergroup outcomes than personal contact or no contact. The trend is reversed for the task-focused versus personal contact between the three groups of ex-combatants. Implications for personal contact in real-world post-conflict societies are discussed.

Keywords: intergroup contact, personalization, post-conflict society, reconciliation, common identity

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Introduction

Preventing ex-combatants from returning to the battlefields by successfully reintegrating them into a post-conflict community is vital for peacekeeping. This is especially true given that conflicts are becoming more intractable and long-term. Sixty percent of conflicts in the early 2000s relapsed within five years (Strand, Rustad, Urdal, & Nygård, 2019; Von Einsiedel, Bosetti, Cockayne, Salih, & Wan, 2017). Past enemies and civilian victims are faced with having to live side-by-side and cooperate on various social and economic activities in a post-conflict society. In such situations, the social fabric has been destroyed. The present study aimed to understand how contacts can be facilitated to reduce prejudice and to promote rapport between different groups of individuals who had a differentiated experience of the same violent conflict.

We drew a sample of ex-combatants and civilians with disability from a pool of applicants for skills training that was designed and conducted to contribute to the disarmament, demobilization, and reintegration (DDR) programme in Rwanda.[1] Rwanda's DDR programme is unique in its inclusive approach in mixing different groups of ex-combatants who had been hostile to one another during the civil war (RDRC, 2017). The skills training included civilians to further facilitate social integration of ex-combatants. This provided us an opportunity to examine intergroup contact between three groups of ex-combatants (national army, former national army, and armed group) and civilians in Rwanda's post-genocide setting.

The skills training lasted for six months. Ex-combatants and civilians, who share the struggle of living with disability, had plenty of time and opportunities to get personally acquainted inside and outside of the training classroom. A theoretical and practical implication of the peace-building role of such a skills training is prejudice reduction through the mixing of

[1] DDR is a peacekeeping operation in response to civil wars that aims to deter the resurgence of armed conflict (United Nations, 2006). Reintegration of ex-combatants to a post-conflict community is its final phase of operation.

different groups of people in the same classroom. To reconcile practice and theory, we designed a laboratory experiment in a naturalistic field setting, which structurally parallels the skills training to test the effect of intergroup contact which builds on the personalization model of intergroup contact (Ensari & Miller, 2002; Miller, 2002).

Intergroup Contact

Intergroup contact is one of the most studied interventions for reducing tensions between groups (e.g., Allport, 1954; Bertrand & Duflo, 2017; Dovidio, Love, Schellhaas, & Hewstone, 2017; Hewstone & Swart, 2011; Paluck, Porat, Clark, & Green, 2021; Pettigrew & Tropp, 2006). Allport (1954) originally proposed that direct, face-to-face interactions between members of different groups can reduce intergroup hostility and thereby prejudice under the optimal conditions including equal status between group members in a contact situation, shared goals, intergroup cooperation, and institutional supports, whereby personal exchanges lead to the formation of meaningful relationships, called the contact hypothesis. Inspired by the Allport's proposal, extensive research and real-world interventions examined various types of intergroup contact and their relationships with prejudice associated with various kinds of social groups, which provided robust empirical support for the effectiveness of intergroup contact in both laboratory and real-world settings (see Dovidio, Gaertner, & Kawakami, 2003; Lemmer & Wagner, 2015; Paluck & Green, 2009; Paluck, Green, & Green, 2019; Pettigrew & Tropp, 2006 for meta-analytic and systematic reviews).

Evident in the existing meta-analyses of intergroup contact (Lemmer & Wagner, 2015; Paluck et al., 2019; Pettigrew & Tropp, 2006), the majority of studies were conducted in so-called WEIRD (Western, Educated, Industrialized, Rich, and Democratic) societies (Henrich, Heine, & Norenzayan, 2010). This limits the external validity of the contact effect, making it less applicable to many of the populations affected by violent conflicts, often characterized as experiencing disabilities, poverty, political repression, inequality, interrupted education, and

reoccurring conflict in non-Western societies (Collier et al., 2003; Pettersson & Eck, 2018; World Bank, 2011). Exceptions include recent randomized controlled trial field experiments which examined the impact of intergroup contact on prejudice between Christians and Muslims in natural post-conflict settings. Examples include a two-month soccer league in Iraq following the 2014 genocide (Mousa, 2020) and a 16-week IT classroom in Kandura, a city widely known for repeated violent interreligious conflict in Nigeria (Scacco & Warren, 2018). Consistent with the contact hypothesis, individuals in a mixed environment (i.e., Christians and Muslims in the same team or classroom) exhibited more positive behaviours toward members of the outgroup than those in a homogenous environment. Resulting actions included signing up for a mixed team next season and voting for an outgroup member to receive a sportsmanship award (Mousa, 2020) and giving money during economic games (Scacco & Warren, 2018). However, the scopes of the impacts are somewhat limited in these studies. The contact effect in the Scacco and Warren (2018) study was attributable to the detrimental effect of segregation as opposed to the positive effect of mixing the groups. The Mousa (2020) intervention did not affect behaviours in other social contexts (e.g., attending a mixed dinner event).

Less than promised impacts of intergroup contact observed in these post-conflict natural settings may be due to difficulties in maintaining the optimal conditions for positive contact among individuals affected by violent conflict. This appears to be a reasonable interpretation in light of the criticism on the optimal contact conditions in the majority of the intergroup contact research. The criticism is that these settings bear little resemblance to the reality and norm of racial segregation in many historically divided societies (e.g., apartheid in South Africa; Dixon, Durrheim, & Tredoux, 2005, 2007) and the reality of inequality in protracted asymmetrical ethnopolitical conflicts (e.g., Israeli Jews versus Palestinians, Maoz, 2011). It may also imply that, without sufficient opportunities to get to know each other personally to foster meaningful relationships, working together in a classroom or a team may not necessarily

mitigate deep-rooted prejudice. We know little about what can be done, besides mixing members of former adversaries in a cooperative environment, to improve perceptions of outgroup members and to facilitate more contacts rather than avoidance in post-conflict societies.

Personalization

A prominent feature of positive intergroup contact is an opportunity for personal acquaintance (Allport, 1954; Miller & Brewer, 1986; Williams, 1947). Personal intergroup contact is known to augment the beneficial effect of cooperative intergroup interactions (Johnson & Johnson, 2011; Miller & Davidson-Podgorny, 1987). According to the personalization model (Brewer & Miller, 1984; Miller, 2002), intergroup contact reduces prejudice and improves intergroup relations through the personalization process, in which interpersonal interactions among members of opponent groups include self-disclosure, self-other comparisons, and empathy (Ensari & Miller, 2002, 2005, 2006). A gesture of entrusting that induces trust and intimacy, self-disclosure refers to the sharing of personal information that would not be normally shared with others (Miller, 2002; Stephan & Stephan, 1985). Self-other comparison is bottom-up processing of individual information via awareness of similarities and dissimilarities between self and the outgroup member in the formation of person impression, which increases perceptions of outgroup variability and breaks down existing stereotypes associated with the outgroup (Brewer & Miller, 1984; Miller, 2002). Empathic reaction to another person's life circumstances or emotional state can be elicited by personalized contact, which involves self-disclosure and self-other comparison, which then increases altruistic motive (Ensari & Miller, 2006).

Consistent with the model, research shows that personal contact increases empathy and positive attitudes towards outgroup members (Harwood, Hewstone, Paolini, & Voci, 2005; Hewstone, Cairns, Voci, Hamberger, & Niens, 2006; Tam, Hewstone, Harwood, Voci, &

Kenworthy, 2006; Tam et al., 2007). This is a particularly important mediator of positive intergroup contact for cross-group friendships in post-conflict societies (Hewstone et al., 2014). Personal contact, especially self-disclosure, is also a mediating process in which cross-group friendship reduces prejudice (i.e., one of the promising forms of positive intergroup contact) (Davies, Tropp, Aron, Pettigrew, & Wright, 2011; Kenworthy et al., 2016; Pettigrew, 1998; Phinney, Ferguson, & Tate, 1997; Turner & Feddes, 2011; Turner, Hewstone, & Voci, 2007).

Personal contact, however, may not be readily viable or easily facilitated between strangers in post-conflict settings. The theory suggests that the success of personal contact in reducing intergroup prejudice and/or promoting cross-category friendship would depend on whether personal information is willingly offered, received, and voluntarily reciprocated (Miller, 2002). Disclosing private information, thoughts, and feelings can lead to intimacy and friendship only if the percipient exhibits empathy (i.e., understanding, accepting, and appreciating towards what is disclosed) and responds appropriately (Batson et al., 1997; Reis & Shaver, 1988). Accordingly, individuals are unlikely to disclose personal information if they anticipate it being misunderstood or misused (Miller, 2002).

Brewer and Miller (1984) argued that a contact situation with a strong task orientation undermines the effect of personalization by keeping category-based perceptions of outgroup members salient (see also Bettencourt, Brewer, Croak, & Miller, 1992). Using a minimal group paradigm simulating cooperative heterogeneous team-learning interventions, laboratory experiments also showed that intergroup bias was reduced when teammates focused on personal characteristics of outgroup members rather than task-focused contributions in a heterogeneous mixed-group (Bettencourt et al., 1992; Ensari & Miller, 2001; Miller, Brewer, & Edwards, 1985). Whether this holds true in post-conflict settings remains a question to be answered.

As armed conflicts typically end with the victory of one side, groups involved in conflicts hold different social, economic, or political statuses in a post-conflict society (Østby, 2008; Stewart, 2000). Therefore, personal contact through disclosure of information about individual experiences may uncover more inequality than previously imagined. Therefore, it may elicit grievances rather than empathy, especially among members of disadvantaged groups. Furthermore, due to war trauma, some people might be reluctant to share any personal information in the beginning (e.g., Staub, 1998; Staub & Pearlman, 2001). Alternatively, personalized intergroup contact that focuses on tasks or skills may be more beneficial because it would distract people in contact from disparities and conflictual pasts. Contact that allows the kind of self-other comparison can still facilitate personalization. Whether the kind of personalization that involves disclosure of personal and intimate subject matters is effective for contact between members of groups with a history of violent conflict thus calls for an empirical examination.

Commonalities

Sharing common identity with members of opponent groups is known to reduce prejudice when it is made accessible or salient through recategorization of group identity, from a "us" versus "them" orientation to a more inclusive "we" (the common ingroup identity model) (Gaertner & Dovidio, 2000, 2009, 2012). A plethora of research support that promotes common ingroup identity during intergroup contact by emphasizing shared goals, tasks, or overlapping and/or superordinate identities reduce accessibility to automatic stereotypes, prejudice, and negative attitudes and behaviour toward outgroup members (e.g., see Gaertner, Dovidio, Guerra, Hehman, & Saguy, 2016 for a review; Gaertner, Mann, Murrell, & Dovidio, 1989; Guerra et al., 2010; Hall, Crisp, & Suen, 2009; Nier et al., 2001).

Our sample consists of three groups of ex-combatants and civilians who all have some form of physical disabilities. The common ingroup identity model would predict that intergroup

contact that highlights disability as a commonality would reduce intergroup biases between the different groups. Likewise, ex-combatant status is a common identity that should be highlighted during contact. Similarly, commonalities should facilitate personalization by providing common grounds on which people exchange personal experiences and empathize with each other. For example, people may share personal experiences that are unique to people with disability, such as difficulties with labour activities and social exclusion. Such experiences are emblematic of strong distinction from others. Likewise, combat-related experiences during and after the conflict would be highly unique and exclusive to ex-combatants. Thus, sharing and emphasizing them to each other could be a powerful bonding experience.

Emphasis on commonalities during intergroup contact, however, can have the darker side (Dovidio, Gaertner, Ufkes, Saguy, & Pearson, 2016) and prove more beneficial to members of advantaged groups (Pettigrew & Tropp, 2006; Tropp, 2007; Tropp & Pettigrew, 2005). This critical perspective emphasizes that members of advantaged and disadvantaged groups have different needs and motivations during intergroup interactions. The former may seek a sense of morality while the latter may seek a sense of empowerment (Bergsieker, Shelton, & Richeson, 2010; Nadler & Shnabel, 2015) and like to avoid further discrimination (Tropp & Pettigrew, 2005). The ironic effect of intergroup contact is also found with members of historically disadvantaged groups (Black South Africans) (Dixon et al., 2007; Dixon, Tropp, Durrheim, & Tredoux, 2010). Contact improved their intergroup liking and harmony but at the cost of underestimating the injustice and decreasing support for social change (see McKeown & Dixon, 2017 for a review).

Given this critical perspective, facilitating intergroup contact with common identity issues might not be fruitful in face of the reality of disparities between the groups in a post-conflict society. In the next section, we briefly describe the study context to give a sense of the reality of the three groups of ex-combatants and civilians regarding their position within the

genocide and reconciliation in a post-conflict developing nation. We then describe the nature of the six-month long skills training in which the intergroup contact between the groups of ex-combatants and civilians with disability took place. Our study is an experimental analogue of this skills training for testing whether a personal contact that involves self-disclosure on commonalities or a task-focused contact that focuses on economic and goal oriented subject matters is effective for intergroup contact in a real-world post-conflict society.

Study Context

Our study setting is Rwanda in Central Africa. The country experienced intermittent armed conflicts between Tutsi and Hutu ethnic groups after the country's independence from Belgian rule in 1962. Under Belgian colonization, a racist ideology of Tutsi supremacy developed and the Tutsis were used to govern the country (Mamdani, 2002). Unlike racial categories that can be identified immediately by skin colour, differences between Tutsi and Hutu are less visible, such as occupation, class, power, and social identities. They often live next to one another and share the same language and religion, primarily Catholic (Staub, 2006).

A civil war began after the 1990 invasion of Rwanda by Tutsi exiles from Uganda under the name of the Rwandan Patriotic Front (RPF). War was followed by genocide in 1994; there were an estimated 800,000 deaths (more than 10 % of the population). Among them, about 700,000 were Tutsi (three-quarters of the Tutsi population), 50,000 were moderate Hutu, and a small minority were Twa, a minority indigenous pygmy tribe, who opposed the genocide and the regime. The genocide ended with the RPF victory, after widespread and systematic massacres of Hutu civilians (Des Forges, 1999). The defeated national army (Forces Armées Rwandaises) soldiers, militias, and civilians fled to Zaire (now the Democratic Republic of Congo) and lived in refugee camps. Some formed armed groups and conducted guerrilla warfare along the western border of Rwanda (in the town of Kivu) in their attempts to regain power in Rwanda. The new national army struggled to contain the instability in both Rwanda

and the DRC (Reyntjens, 2011).

The government, led by the leader of the RPF, President Paul Kagame, has practiced authoritarian leadership in Rwandan reconstruction to deter against recurrence of conflicts, to spur national reconciliation, and to implement bold political and social reforms, including legal ban of ethnic identity (e.g., the removal of ethnic classification on national identity cards). Many criticize his methodologies as coercive, devoid of freedom of speech and human rights (Strauss & Waldorf, 2011; Thomson, 2013). For example, according to a nation-wide survey conducted by the National Unity and Reconciliation Commission (NURC) of Rwanda, the level of reconciliation in Rwanda today has improved from the past; current levels are extremely high (Sentama, 2015). However, the NURC and the international NGO, International Alert, recently critiqued that 'the tools used to measure reconciliation were designed and administered in such a way that respondents were compelled to give positive responses' (International Alert, 2018, p. 2), which is surprising given that the survey was conducted by the NURC itself, a government institution of Rwanda.

Supported by international donors, such as UN Agencies and the World Bank, the Rwandan DDR program started in 1997 by demobilizing the national army combatants.[2] By 2002, it allowed combatants of the former national army and armed groups to participate. Skills training is usually a vital aspect of DDR programs that aim for the socio-economic reintegration of ex-combatants seeking to secure jobs and acquire sustainable livelihoods (Finn, Baxter, & Onur, 2014). In 2005, the Japan International Cooperation Agency (JICA), the governmental aid agency of Japan, started a skills training program for ex-combatants with disabilities in cooperation with the Rwanda Demobilization and Reintegration Commission (RDRC), the implementing arm of the Rwandan DDR. This cooperation was extended in 2011 to include

[2] The current national army is called Rwanda Defense Force (RDF) which is formally Rwanda Patriotic Army (RPA), the military force of the RPF.

civilians with disabilities. Despite their former opposition, the three groups of ex-combatants (the current national army, the former national army, and armed groups ex-combatants) and civilians took the training together in the same classrooms for approximately six months. Trainees took one of twelve available training courses (e.g., tailoring, welding, electricity, cooking, and plumbing). The program also offered disability equality training (Kuno, 2009; Walker, 2004) and an entrepreneurship workshop to empower trainees to develop business cooperatives (e.g., tailoring cooperative) with fellow trainees and people in their communities.

Present Study

The purpose of the present study is to examine the effect of personal intergroup contact on prejudice among the three groups of ex-combatants and civilians with disabilities in Rwanda. We generally hypothesize that personal intergroup contact between the groups of ex-combatants and civilians would increase positive attitudes and behaviours towards each other and generate more effective personal contact over the period of contact. However, personal contact might be difficult to induce in the post-conflict real-world setting, where groups have multiple sources of status difference (i.e., victim-perpetrator relationship, and different economic and socio-political statuses).

Our participants are former applicants of the skills training program, a part of Rwanda's DDR program described above. Given the study context, we made several methodological decisions. First, the present study does not focus on the distinction between Hutu and Tutsi because of the ban of the ethnic identity by Rwandan Constitution, despite its direct relevance to the origin of the conflicts. Instead, we distinguish and compare the different groups of ex-combatants (whose ethnicity becomes self-evident by their affiliation in the historical context) and civilians (whose ethnic identity cannot be readily identified).

Second, our operationalization of personalization is different from previous research in reconciling theory and the study setting. In controlled laboratory experiments (e.g., Ensari &

Miller, 2002, 2005), a confederate played the role of an outgroup interviewee who disclosed pre-determined personal information, both positive and negative, to a participant who played the role of an interviewer. To avoid confusion among Rwandan participants, we provided a more naturalistic context for personal contact that could have happened during the skills training, by assigning them into pairs, without a confederate, to ask each other about common issues at vocational training centres.

The personalization model does not specify types of subject matters of self-disclosure nor contexts in which self-disclosure occurs. Unlike in the scripted personal contact examined in laboratory experiments, information disclosed in a natural setting is contextualized in subject matters and an environment. In our study, disability was used as the main theme of conversation in the *personal contact* condition because disability is a salient common identity among our participants and a natural subject of conversation in the context of skills training for people with disabilities. We also added more topics to examine personalization in conversation to discuss the reality that living with disabilities in a post-conflict society is linked to their experiences of the conflict itself. The narrative/story-telling model of intergroup reconciliation (Maoz, 2004) also recommends members of adversary groups engage in story-telling about their lives in the conflict. This narration promotes a more humanistic and complex understanding between participants (Bar-On, 2006; Maoz & Bar-On, 2002). Similarly, in the seminal research on reconciliation in Rwanda (Staub, Pearlman, Gubin, & Hagengimana, 2005; Staub, 2006), sharing painful past experiences in a small mixed group of Tutsi and Hutus was part of the intervention that improved intergroup attitudes (Staub, 2006).

In the *task-focused contact* condition, participants exchanged thoughts and strategies associated with tasks or business about common instrumental goals (e.g., generate more income). Example questions, contrary to the personal contact condition, did not include topics that would elicit self-disclosure or empathy, but self-other comparison in which they get to

know each other about their competence and collegiality, such as reasoning and cooperative motive behind their economic decision making.

Third, Rwandan people are known to value inoffensiveness and respect for authority over honesty (e.g., Paluck, 2009a, 2009b; Staub et al., 2005) and would be compelled to provide positive answers to questions related to reconciliation (i.e., avoid appearing prejudiced) given the political climate and norms as described above. We designed a behavioural measure that eliminates such social desirability bias by introducing the behavioural economics' principle of incentivizing participants to maximize their winning by choosing a competent partner from a mixed/heterogeneous task group. Such a scenario is a common feature of labour-market selection. In essence, participants confronted a dilemma between working with competent but disliked individuals (i.e., outgroup members) versus less competent but likable individuals (i.e., ingroup members). To balance skills levels among the four groups and disability levels, we used a team exercise, called Marshmallow Challenge, in which people build the tallest freestanding structure using spaghetti under time pressure together in a team (Wujec, 2015).[3] Preference was calculated by a function of team choice and a partner's skills level under the assumption that the rationale choice is to choose a person with the highest skills regardless of liking of the person or not. This measure served as our main outcome variable, *person preference*. Separate from this behavioural measure, *evaluative bias* was also calculated by taking the difference between an objective measure of skills and perceived skills because one's perception of someone else's skills can be also biased by his/her person preference. The distinction between our measure of person preference and evaluative bias is that person preference indicates a readiness for contact, which requires a great deal of physical proximity

[3] Through our pilot studies, we verified that people with various types of disability can contribute to this team task meaningfully in various ways (e.g., arm amputees may provide ideas, lead, and/or support their team verbally) and it is possible to gain some objective measure of individuals' task performance, because it was relatively easy to see which members contribute to the task outcome more than others in a team of six members.

(e.g., touching), whereas evaluative bias has no apparent behavioural consequence for the participants.

Fourth, we additionally measured impressions of contact partners—perceived similarity, warmth, and competence—as potential mediators between personalization and person preference as well as evaluative bias for exploratory purposes. In previous laboratory experiments, perceived friendliness and similarity mediated the impact of self-disclosure, an element of personalization, on an intergroup bias (Ensari & Miller, 2002, 2005). Perceived competence was included because our task-focused contact condition focuses on skill-related aspects of one's characteristics.

Method

Participants

Participants were recruited from a pool of 935 applicants traced for an impact evaluation of the skills training program. We had access to their phone numbers through JICA, the program implementing organization. First, local research assistants called potential participants to ask if they are interested in participating in a day-long study conducted by the third author of the University of Tokyo targeting former applicants of the skills training program and whether they are available for one of the study sessions. A total of 628 participants willingly signed up and completed the first part of the study in the morning which is not directly related to the present study. Owing to the capacity and number of the available classrooms, a maximum of 48 participants could participate in the present study per day. There were eight experimental groups in four large sized classrooms. This process was repeated for 10 days, including pilot sessions. As a result, 444 participants in 74 experimental groups completed the present study in the afternoon.

The 444 participants (M_{age} = 43.61 years, SD = 9.97) included: 212 trainees (48%) and 218 non-trainees (49%); 260 men (59%) and 89 women (20%); 167 completed primary school

(38%) and 168 completed secondary school or above (38%); and remaining participants' characteristics are unknown. Excluding 11 participants with unknown group affiliation, our analysis sample is the remaining 433 individuals consisting of four groups: 106 national army (NA) ex-combatants (24%), 32 former national army (FNA) ex-combatants (7%), 29 armed group (AG) ex-combatants (7%), and 266 civilians (61%). They reported having various types of one or more disabilities: physical (legs: 163; arms: 70; back: 25; other: 17), sensory (vision: 34; hearing or speaking: 8), mental (27), and other (35).

Experimental Design

We assigned participants to an experimental group with five other participants (i.e., six participants total per experimental group), in which they engaged in in-person direct contact with either an ingroup or an outgroup member under the personal and task-focused contact conditions with the order of conditions being counterbalanced. That is, there were two rounds of induced contact wherein participants had a different partner for the personal and task-focused contact conditions. They subsequently performed a collaborative team task in which they assessed group members' skills and then ranked group members for a choice of a teammate for a team competition. Responses toward contact partners were compared against those toward the remaining three participants, who were either ingroup or outgroup members, for whom participants did not engage in personalized contact, which served as the control condition (i.e., no direct contact).

In our sample, the composition of the four groups was roughly in a ratio of 8:4:1:1 for civilian, NA, FNA, and AG. The small sample size of FNA and AG ex-combatants precluded us from employing a standard factorial design. On each day, we randomly assigned participants to experimental groups (up to eight) in a way that intergroup pairs were formed between NA ex-combatants and FNA or AG ex-combatants. This resulted in 74 experimental groups with heterogenous group composition, the variation of which was accounted for by treating

experimental groups as random effects in our statistical model.

Experimental Procedure

The experiment was implemented at one of four vocational training centres across four different locations (Kibali, Rubengera, Gisenyi, and Rwabuye) in March 2016. The study was approved by the Rwanda National Ethics Committee and the Graduate School of Economics at the University of Tokyo before its implementation. In one day, participants took part in two separate studies wherein the present study was the second, taking approximately three hours in the afternoon. Upon arrival at their experimental venue in the morning, the participants signed in at the front desk, received their participant ID tag to wear, and were escorted to a room in which they were provided with the consent form that an experimenter read aloud. The experimenter explained that the study was conducted by the third author of the University of Tokyo for better understanding perceptions of ex-combatants and civilians with disabilities and improve future skills training and social integrity of the community and that they would be asked to participate in economic games, discussion on disability or ex-combatant experiences, problem solving in a team, and a survey questions about your background, experiences, and opinions, in accessible manners in the local language, Kinyarwanda. Compensation for participating in the study was 2000 RWF, which is an estimated average daily wage of our population (approximately 2 USD), transportation cost, and additional bonus depending on the outcomes of their activities.[4] Participants were also reminded that their participation is

[4] We decided on the price in consultation with local consultants who are familiar with the study population. One of the reviewers pointed out that it is problematic to compensate participants according to their performance in the experiment, especially given that our participants are poor, and that they should have been compensated equally with the highest possible price regardless of their performance. We appreciate this feedback. The performance-based payment, which is common in behavioral economics, is critical in our experiment. We believe that in our field setting, changing the payment method at the end of the study each day, without keeping the promise, would be inappropriate. Presumably, meritocracy could perpetuate existing inequality unless the experiment was carefully structured. Our participants were assigned to their teams arbitrarily and paid based on their team performance. Furthermore, we did not find any significant difference in skill levels for this particular task across the four groups. Therefore,

voluntary, and they can opt-out from the study anytime without any penalty including skipping any questions or activities which they find uncomfortable. At this time, they were asked to remain in the room if they wish to participate in the study as a sign of their consent to participate.[5]

In the first study, participants played a series of economic games with anonymous ingroup and outgroup members for the impact evaluation of the skills training program. This likely heightened their awareness and sensitivity to categorizations of the four groups under the study and their potential biases being assessed. After the completion of the first study, they had a lunch break and were asked to come back to the room if they wish to continue with the second study or wait outside for the payment of compensation at the end of the session. Among the willing participants, six participants were escorted to one of four rooms to participate in the present study.

Introduction

In each experimental group, six participants sat in a circle, facilitated by an experimenter and an assistant. They introduced themselves by answering a set of questions about their basic information asked by the experimenter, including their names, whether they were a trainee of the skills training programme or not, ex-combatant status, places they were born and lived, and types of disability. During this brief introduction, the participants identified who were ex-combatants or civilians, and if the former, to which group they had belonged. They were also asked to write their name on a wearable name tag.

Induction of Personal Versus Task-focused Contact

After the introduction, participants were asked to sit face-to-face in pairs that they were

our methodology at least did not systematically contribute to a structural inequality by compensating participants for their existing inequality in skill levels.

[5] Written consent was not collected because it was not commonly practiced in Rwanda and might raise suspicion or falsely increase conformity to the given tasks against their will. The consent form is provided in Appendix.

assigned. In the personal (task-focused) contact condition, the experimenter stated: 'The purpose of this activity is to understand how sharing personal (business) experiences and opinions works in the skills training program. You will play the role of a support giver (interviewer) and a receiver (interviewee) with your partner. I give the support giver (interviewer) a list of questions that you may ask your peer. If you do not like the questions provided, you can skip or not answer without any penalty. There are no right or wrong questions or answers, so please ask other questions that feel more natural to you'. The experimenter then handed over a paper on a clipboard with a list of five questions regarding their origin of disability, difficulties in living with disability, and opinions and feelings about it. On the back of the page, there was one question about difficulties with memories of genocide and two questions about community integration.

They were asked to write down what the other person said on the paper or simply listen carefully and remember what the other person said. They were instructed not to identify themselves or others so that their conversation stays anonymous and private. They were also reminded that they could skip any questions without any penalty and ask unlisted questions that they could come up with and feel more natural. In each large classroom chairs were organized so that the conversation could not be heard by others, including experimenters. Also, assistants were instructed not to intervene during the conversation. Participants were allotted approximately 20 minutes to play one role and another 20 minutes for the other.

Impression Formation

Following the activity, participants were separated. They sat apart from each other and completed a short survey on impressions of their interaction partners. Once the survey was turned in, participants were assigned with another partner to interact under the task-focused (personal) contact condition. The order of the experimental conditions was counterbalanced.

Team Task and Evaluation

Participants were introduced to the next activity in which they performed a task with five other individuals in their experimental group. The aim was to learn about their task-relevant competence and then rank it in the order of teammate preference for the subsequent team competition in the same task. An experimenter stated: 'The purpose of this activity is to understand how people with disabilities collaborate on a task under time pressure in the skills training. You are a team of 6 people and work on the task, called Marshmallow Challenge. It is a fun and instructive design exercise that encourages teams to experience collaboration, innovation, and creativity. The task is simple: In 10 minutes, your team must build the tallest free-standing structure out of 20 sticks of spaghetti, tape, string, and one marshmallow on top'. While participants were performing the Marshmallow Challenge together in a team, the experimenter and the assistant conducted an independent evaluation of each of the six participants' skills by counting when a member contributed to the task (e.g., giving hands, providing ideas, taking the lead, and assisting other members) and ranking the six participants in the order of skilfulness. This generated *skill ranking* scores. Upon completion, participants also ranked the team members' contribution to the task on a sheet of paper to generate a *perceived skill ranking* score.

Team Choice

Participants were then presented with an opportunity to earn a monetary prize by winning a team competition in the same task. The experimenter stated: 'Now you know how this task works. From now on, we will start the team competition. This time, you will build the same tower in 5 minutes with 10 spaghetti with no string in a team of just two people. I will measure the height of your marshmallow tower and the team that builds the tallest tower will get a prize of 1000 (5000) RWF'. We varied the prize level to explore whether it influenced their team choice strategy. Participants were then asked to think about three members with whom they want to team up for the competition. They privately wrote down the names in order

of preference on a sheet of paper privately and independently and gave it to the experimenter. This generated *team choice ranking* scores. The experimenter looked at the collected sheets and arbitrarily assigned them into teams, apologizing for their preferences not being respected in the actual team assignment. The teams completed the competition and a winning team received a token to exchange for money at the end of the current study.

Finally, they completed the post-experiment survey, which assessed prior acquaintance levels with contact partners. They were then thanked and debriefed for any questions regarding their participation.

Measures

The combination of the three ranking measures, namely, *perceived skill ranking* (ranging from the first to the sixth, including themselves), *team choice ranking* (ranging from the first to the third), and *objective skill ranking*[6] (the average ranking of the experimenter and the assistant, ranging from 1 to 6, $r(444) = .60$, $p < .0001$), allowed us to construct the following outcome measures for each participant. In these three ranking scores, no ties were allowed.

Person Preference

Person preference score for each of the five experimental group members, excluding self, was calculated by subtracting the reversed *skill ranking* from the reversed *team choice ranking* scores. A higher score indicated stronger person preference towards the corresponding individual controlling for that individual's objective skill level. For the remaining two individuals in the group who were not among the top three team choice ranking, the average of the remaining ranking scores, 5, was assigned.

Evaluative Bias

The evaluative bias score was calculated by subtracting the reversed *skill ranking* from

[6] Analysis of variance indicated that skill ranking did not differ between the four groups, $F(3, 425) = 1.50$, $p = .21$. There was no effect of experimental conditions on objective skill ranking, either.

the reversed *perceived skill ranking* scores. A higher score indicates a more positive bias.

Impression

Impressions of contact partners were assessed immediately after each of the personal and task-focused contact conditions.[7] Perceived *similarity* was assessed by two items using a four-point Likert-type scale: (1) How much do you have in common with your partner? and (2) How similar experiences do you share with your partner?

Perceived *warmth* was assessed by one item: How warm and kind is your partner? Perceived *competence* was assessed by one item: How competent is your partner?

Considerations for Participants

Many of our participants are vulnerable, by virtue of living with a disability and in poverty after experiencing violent conflict. Our collaboration with local consultants and research assistants was essential in assuring that our experimental protocol and materials were suitable for the participants' reality and the local context. We hired a local consultant team consisting of a manager and 19 research assistants to run experimental sessions in Kinyarwanda, while we monitored and oversaw the operation in the field. Research assistants were experienced in conducting household surveys with the target population (i.e., applicants of the skills training) and some of them were alumni of the skills training program. Therefore, the research assistants were culturally fluent and familiar with the field setting and the study population. Before the study, we discussed with them the protocol and materials of the study. During our training and pilot sessions, we took into consideration their feedback and made revisions. We also recruited an experienced Rwandan consultant to conduct a back-translation of the study materials and to revise questions and instructions for nuance.

[7] The pilot testing made it apparent that it is confusing and cognitively taxing for our participants to provide impressions of the other members of their experimental group. This could have also influenced their responses to the main outcomes, team choice ranking, and evaluation of skills. Therefore, we decided to measure only the impressions of the partners with whom they had direct contacts (personal and task-focused contacts).

It can be intimidating and challenging to exchange personal experiences about a disability and/or conflict in front of a member of a former adversary. To safeguard participants from unwanted surprises and potential psychological discomfort, the purpose of each activity was explained in advance and in an accessible manner. The experimenter then repeatedly reminded them that there were no right or wrong things; they could skip any questions and activities without any penalty; and their responses would be private and anonymous. Furthermore, the contact activity was presented as a "role play" so that participants could pretend to be someone else to fulfil the role without feeling obliged to reveal the truth about themselves and without necessarily expecting their partner to be completely honest with themselves in return. This would have underestimated the power of the experimental manipulations; however, it was a necessary compromise given the sensitivity of the subject matters and the genuine personalization being expected only when the communication was voluntary.

Our study provided necessary accommodation and logistics for our participants with various kinds of disability. Not only the training centres where the study was done were barrier-free, but also we provided participants with transportation between their home and the training centres accompanied by our research assistants. Anyone with additional concerns or questions regarding their participation was told to contact the local representative, manager of our research assistants, with whom they were familiar. No case of issues or concerns about participating in the study was reported.

Data Preparation

A long-form dataset was created in which five responses (six group members minus self) were centred within a participant and six participants were nested within one of the 74 experimental groups. This generated 2,220 cases of data points in which 82 cases were missing owing to various data collection errors, such as missing and/or mismatched subject ID, lost

questionnaire forms, and missing responses.

Estimation Model

We used linear mixed-effects regression models to examine the effects of personal and task-focused contacts on person preference and evaluative bias separately for different intragroup (civilians and NA ex-combatants) and intergroup (NA ex-combatants with each of the remaining three groups) pairs. There are two treatment dummies: one for the personal contact versus no direct contact (*Person*) and the other for the task-focused contact versus no direct contact (*Task*). There are six covariate dummies (Cov_1-Cov_2): one for the acquaintance vs. stranger (whether they knew the contact partner), one for the ex-trainees vs. non-trainees (whether they were ex-trainees), three dummies for the locations of the experiment site (Gisenyi, Rubengera, and Kibali compared against Rwabuye[8]), and one for the prize for the team competition (2500 vs. 500 RWF). The experimental group was entered as a random effect with a variance component structure and restricted maximum likelihood estimation. The model is as follows:

$$y_{ij} = \alpha + \beta_{Person} Person_{ij} + \beta_{Task} Task_{ij} + \sum_{k=1}^{6} \gamma_k Cov_{kij} + u_j + \varepsilon_{ij}$$

where y_{ij} is the outcome variable for participant *i* in experimental group *j*; u_j is the random intercept for experimental group; and ε_{ij} is the residual. Our key estimates are β_{high} and β_{low}.

For the comparison between the personal versus task-focused contact for the impressions of contact partners (i.e., perceived similarity, warmth, and competence), the same model excluding *Task* was used and our key estimate is $\beta_{Person\ vs.\ Task}$.

Results

[8] Rwabuye is in a district with a high percentage of Tutsi population and known for organized mass-killings during the genocide (Takeuchi, 2003).

Table 1 presents the descriptive statistics and inter-item correlations between the raw ranking scores and the outcome variables. Distributions of the outcome variables are approximately normal, without notable skewness or kurtosis. Small correlations were found among the three ranking variables, which suggests that they were related but still independent. As expected, person preference and evaluative bias were positively correlated, $r(444) = .59$, $p < .0001$.

Person Preference

To examine the impact of personal and task-focused personalization during contact on person preference for ingroup and outgroup members with varying skill levels in a team choice, the eight mixed-effect regression analyses (two for the two intragroup pairs and six for the three intergroup pairs) were conducted on person preference. Person preference was calculated by subtracting the reversed objective skill ranking from the reversed team choice ranking, with a higher value indicating a greater preference for a rating target. Estimation results for the effects of personal and task-focused contact for each of the outcome variables are summarized and reported in Table 2.

Intragroup Pairs

For the NA ex-combatant pairs, person preference in the personal contact condition (M = 0.72) and task-focused contact condition (M = 0.89) were higher than those in the control condition (M = -0.06), $\beta = 0.78$, $t(230) = 2.27$, $p < .05$. and $\beta = 0.96$, $t(232) = 2.75$, $p < .01$, respectively. A pair-wise comparison between the personal versus task-focused contact conditions was not significant, $p = .68$. For the civilian pairs, similarly, person preference in the personal contact condition (M = 0.79) and task-focused contact condition (M = 0.38) were higher than that in the control condition (M = -0.12), $\beta = 0.91$, $t(1202) = 5.91$, $p < .0001$ and $\beta = 0.49$, $t(1202) = 3.32$, $p < .001$, respectively. A pair-wise comparison between the personal versus task-focused contact conditions was also significant, $p < .05$. These results generally

suggest that the inductions of both personal and task-focused contact during personalized *intragroup* contact increased person preference of contact partners, especially the personal contact for the civilian pairs. Although this is not focal to our study, it provides some validation of our manipulations of personal and task-focused contacts.

Intergroup Pairs

For the NA ex-combatant-civilian pairs, the NA ex-combatants' person preference for the civilians in the task-focused contact condition (M = 2.01), but not the personal contact condition (M = 0.67), was higher than that in the control condition (M = 0.61), $\beta = 1.40$, $t(63) = 2.55$, $p < .05$ and $\beta = 0.06$, $t(62) = 0.12$, $p = .91$, respectively. Similarly, civilians' person preference for the NA ex-combatants in the task-focused contact condition (M = 0.75), but not the personal contact condition (M = -0.65), was higher than that in the control condition (M = -0.95), $\beta = 1.69$, $t(59) = 3.03$, $p < .01$ and $\beta = 0.29$, $t(57) = 0.50$, $p = .61$, respectively. Pair-wise comparisons between the personal versus task-focused contact condition were also significant for the NA ex-combatants' person preference for the civilians ($p < .05$) as well as the civilians' s person preference for the NA ex-combatants ($p < .01$). That is, the induction of task-focused rather than personal contact during personalized *intergroup* contact between the NA ex-combatants and the civilians increased person preference between them.

For the intergroup pairs between the three ex-combatant groups, neither personal nor task-focused contact had an effect on person preference, except the significant pair-wise comparison between personal versus task-focused contact conditions on the NA ex-combatants' preference for the AG ex-combatants (Ms = 0.26 and -0.85, respectively), $p < .05$. Albeit statistically only moderately, the FNA ex-combatants' preference for the NA ex-combatants was also somewhat higher in the personal contact condition (M = 0.57) and task-focused contact condition (M = 0.43) than that in the control condition (M = -0.74), $\beta = 1.31$, $t(80) =$

1.88, p = .06 and β = 1.17, $t(77)$ = 1.68, p = .10. It appears that, among some ex-combatant groups, personal contact might be effective in increasing person preference.[9]

To compensate for the small sample sizes for the intergroup pairs, we repeated the analyses above by combining the three groups of ex-combatants. This resulted in substantively similar findings. The inductions of both and personal and task-focused contact during personalized *intragroup* contact increased person preference of ex-combatants, while the induction of task focused rather than personal contact during personalized *intergroup* contact between the ex-combatants and the civilians increased person preference between them. Results are provided in Table 7 in Appendix.

Evaluative Bias

Parallel to the analyses above, the impact of personal and task-focused personalization during contact on evaluative bias was examined by conducting the eight mixed-effect regression analyses. Evaluative bias was calculated by subtracting the reversed objective skill ranking score from the reversed perceived skill ranking score, with a higher value indicating a more positively biased evaluation toward a rating target.

Intragroup Pairs

For the NA ex-combatant pairs, evaluative bias in the personal contact condition (M = 0.90), but not task-focused contact condition (M = -0.26), was higher than that in the control condition (M = -0.86), β = 0.94, $t(230)$ = 2.75, $p < .01$. and β = 0.59, $t(231)$ = 1.71, p = .09, respectively. A pair-wise comparison between the personal versus task-focused contact conditions was not significant, p = .40. For the civilian pairs, evaluative bias in the personal contact condition (M = 0.13) and task-focused contact condition (M = 0.02) was higher than

[9] None of the control variables were significant except the prize of the team competition. The person preference between the civilians was higher when the prize was higher, β = 0.28, $t(1202)$ = 2.43, $p < .05$. We found no significant random effect of the experimental group. All the residuals were significant, ps < .001.

that in the control condition (M = -0.67), β = 0.80, $t(1192) = 5.38$, $p < .0001$ and β = 0.69, $t(1183) = 4.85$, $p < .0001$, respectively. However, a pair-wise comparison between the personal versus task-focused contact conditions was not significant, $p = .53$. These results generally suggest that the inductions of personal and task-focused contact during personalized *intragroup* contact increase positive evaluative bias toward contact partners, similar to person preference. Again, this provides validation of our manipulation of personal and task-focused contacts.

Intergroup Pairs

For the NA ex-combatant-civilian pairs, the NA ex-combatants' evaluative bias for the civilians in the personal contact condition (M = -0.06) and the task-focused contact condition (M = -0.19) were higher than that in the control condition (M = -1.67), β = 1.48, $t(65) = 2.63$, $p < .05$ and β = 1.61, $t(65) = 2.86$, $p < .01$, respectively. A pair-wise comparison between the personal versus task-focused contact conditions was not significant, $p = .85$. On the other hand, civilians' evaluative bias for the NA ex-combatants in the task-focused contact condition (M = 0.48), but not the personal contact condition (M = -0.52), was also higher than that in the control condition (M = -0.91), $\beta = 1.39$, $t(62) = 2.37$, $p < .05$ and $\beta = 0.39$, $t(62) = 0.64$, $p = .53$, respectively. A pair-wise comparison between the personal versus task-focused contact conditions was not also significant, $p = .17$. These results suggest that the induction of both personal and task-focused contacts increased the NA ex-combatants' positive evaluative bias toward the civilians, although only the task-focused contact increased their person preference for the civilians. Only the task-focused contact increased the evaluative bias of the civilians toward the NA ex-combatants, as found for the civilians' person preference.

For the intergroup pairs between the three ex-combatant groups, neither personal nor task-focused contact had an effect on the evaluative bias, except that the AG ex-combatants exhibited a more positive evaluative bias toward the NA ex-combatants under the personal contact (M = 0.09) than the control condition (M = -1.24), $\beta = 1.33$, $t(68) = 2.61$, $p < .05$. This

suggests that the induction of personal contact increased the AG ex-combatants' positive evaluative bias toward the NA ex-combatants.[10]

To compensate for the small sample sizes for the intergroup pairs, we repeated the analyses above by combining the three groups of ex-combatants again. This also resulted in substantively the same findings. That is, the inductions of both personal and task-focused contacts during personalized *intragroup* contact increased evaluative bias toward contact partners, while the induction of task-focused rather than personal contact during personalized *intergroup* contact between the ex-combatants and the civilians was effective. Results are provided in Table 8 in Appendix.

Impressions of Contact Partners

We first conducted parallel linear mixed-effects regression models to examine the effect of personal contact on perceived similarity with, warmth, and competence of contact partners. These outcome measures were only available for the personal and task-focused contact conditions, and thus, the model contained only one main fixed effect factor, personal vs. task-focused contact condition (observations for the control condition are excluded).

Intragroup Pairs

For the NA ex-combatant and civilian *intragroup* pairs, there was no effect of the personal contact on the impressions of contact partners.

Intergroup Pairs

For the NA ex-combatant-civilian *intergroup* pairs, the civilians' perceived *similarity* and *warmth* of the NA ex-combatants were higher in the task-focused contact condition ($M_{similarity}$

[10] Most of the control variables were not significant except the location of the experiment and the prize for the team competition. The evaluative bias for the civilian pairs was more positive in Rwabuye than in Gisenyi ($\beta = 0.28$, $t(45) = 2.15$, $p < .05$) and when the prize was higher ($\beta = 0.32$, $t(45) = 2.81$, $p < .01$). Random effects of the experimental group were not found, whereas all the residuals were significant, $ps < .0001$.

= 3.28, M_{warmth} = 3.69) than in the personal contact condition ($M_{similarity}$ = 2.74, M_{warmth} = 2.91), β = -0.54, $t(22) = 2.37$, $p < .05$ and β = -0.77, $t(17) = 4.11$, $p < .01$, respectively. These results suggest that the induction of task-focused contact, in comparison to the personal contact, resulted in better impressions of the NA ex-combatants among the civilians. This is consistent with the results on their person preference for the NA ex-combatants.

For the *intergroup* pairs between the three ex-combatant groups, on the other hand, the FNA ex-combatants' perceived *warmth* of the NA ex-combatants was higher in the personal contact condition (M_{warmth} = 3.50) than in the task-focused contact condition (M_{warmth} = 2.83), β = 0.67, $t(29) = 2.70$, $p < .05$, and the NA ex-combatants' perceived *competence* of the AG ex-combatants was also higher in the personal contact condition ($M_{competence}$ = 2.92) than in the task-focused contact condition ($M_{competence}$ = 2.32), β = 0.59, $t(15) = 2.59$, $p < .05$. Consistent with the trend observed for the positive impact of the personal contact on FNA ex-combatants' person preference toward the NA ex-combatants, the personal contact resulted in a warmer impression of the NA ex-combatants among the FNA ex-combatants. The personal contact also resulted in a more positive view of the AG ex-combatants' competence among the NA ex-combatants compared to the task-focused contact. Since we do not have observations for the control condition, we cannot tell whether these differences are driven by the induction of either personal or task-focused contact.[11]

Exploratory Mediational Analysis

Following the findings that the induction of task-focused contact for the NA ex-combatant-civilians pairs, in comparison to the personal contact, resulted in better impressions

[11] Most of the control variables were not significant except the location of the experiment. In particular, the civilians' perception of their similarity with the NA ex-combatants was lower in Rwabuye than in Gisenyi (β = -1.13, $t(22) = 2.81$, $p < .05$), and the NA ex-combatants' perception of competence of their fellow NA ex-combatants were lower in Rwabuye than in Gisenyi (β = -0.43, $t(75) = 2.01$, $p < .05$). Again, random effects of the experimental group were not found, whereas all the residuals were significant, ps < .0001.

(similarity and warmth) of the NA ex-combatants among the civilians and their person preference, we conducted exploratory mediational analyses in which perceived similarity and warmth were treated as mediators for the effect of the task-focused versus personal contact contrast on the person preference by applying the Judd and Kenny's (1981) four-step regression equations with the parallel linear mixed-effects regression models. Neither perceived similarity nor warmth mediated the effect. More specifically, the perceived similarity only moderately predicted the person preference, β = 1.29, $t(22) = 1.86$, $p = .07$, and neither the task-focused versus personal contact contrast nor the perceived similarity remained significant when both are entered in the linear mixed-effects regression model, β = 1.06, $t(16) = 1.29$, $p = .22$ and β = 0.89, $t(19) = 1.24$, $p = .23$, respectively. For the perceived warmth as a mediator, it did not predict the person preference, β = -0.13, $t(19) = -0.19$, $p = .85$.

Again, we repeated the analyses above by combining the three groups of ex-combatants again. This resulted in no significant effect for both intragroup and intergroup contact across the three impression outcomes, perceived similarity, warmth, and competence.[12]

Discussion

The present study examined the effect of personal contact between the three groups (NA, FNA, and AG) of ex-combatants and civilians with disabilities in Rwanda. This is one of the few experimental studies on the effect of direct, face-to-face intergroup contact in post-conflict societies, and the first experimental study to test the effect of personal contact in Rwanda. To examine intergroup outcomes not susceptible to social desirability, a non-intrusive behavioural measure was used to assess person preference in team choice for the collaborative team task (i.e., Marshmallow Challenge) competition. Overall, inducing personalization during intergroup contact by focusing on common identity (i.e., disability) versus task-related

[12] Nevertheless, results are provided in Table 8 to Table 11 in Appendix.

common instrumental goals had significant and differing effects on intergroup outcomes depending on the groups in contact.

Contrary to the personalization model (e.g., Ensari & Miller, 2002), a task-focused contact which involves a low level of personalization rather than a personal contact which involves a high level of personalization resulted in greater person preferences between NA ex-combatants and civilians. In particular, civilians' person preference, positive evaluative bias, and perceived similarity and warmth of NA ex-combatants were all *lower* after personal contact rather than task-focused contact. The effect of personal contact between the three ex-combatant groups, however, was generally consistent with the theory, albeit statistically weak: personal contact, relative to task-focused contact or no contact, showed some positive impacts on the AG ex-combatants' positive evaluative bias toward the NA ex-combatants; the FNA ex-combatants' perceived warmth (and person preference) of the NA ex-combatants, and the NA ex-combatants' perceived competence of the AG ex-combatants.

To understand the differential impacts of personalization by groups under the contact, we conjecture ways in which our manipulation of personal versus task-focused contact interacts with the nature of group differences between each of the four groups under the study.

Personalization Through Commonalities for Divergent Group Members

In the personal contact condition, participants played the role of peer supporters asking their partners questions related to disability, conflict, and reconciliation and switched the roles to be asked the questions. The majority of the questions were regarding their disability which is a superordinate, common identity of our participants. According to the common ingroup identity theory (Gaertner & Dovidio, 2000, 2009, 2012), this could have facilitated recategorization of an outgroup member in contact as an ingroup and therefore increased liking as well as reduced anxiety or threat, which in turn could have also facilitated the personalization. If our participants were focused on individual characteristics in this personal contact condition,

as intended by the personalization model, decategorization must have occurred as well, which then also would have improved orientations toward the outgroup member.

In the case of NA ex-combatants and civilians, however, the origin of disability is different. While most of the NA ex-combatants became disabled during their military service, some civilians became disabled before or after the genocide (such injuries were often not directly related to the conflict). Moreover, living with disability is a different experience for them, such as disability subsidies and benefits available for ex-combatants that are not available for civilians, a conception of disability as an injury of pride and honour versus a life-long social exclusion and low self-esteem, and memories of genocide as acting in service of a larger force versus hiding, running away and being chased.[13] Therefore, even a small dose of disclosure of personal experiences related to their disability could have amplified perceptions of inequality, injustice, and grievance rather than empathy especially on the part of the disadvantaged group (i.e., civilians with disabilities), and the recipient might or might not have disclosed his or her divergent experiences in return. This might have explained the lack of positive effect of personal contact between the NA ex-combatants and civilians.

In the case of the three groups of ex-combatants, on the other hand, the cause of disability is relatively similar (i.e., injuries during combatant activities) and personal experiences about their disability are likely to be more similar to each other than those of civilians with disabilities. Therefore, when unique but still similar disability experiences are disclosed, personalization is more likely to be facilitated than when divergent experiences are disclosed. This might have explained the asymmetrical effect of disability focused self-disclosure (i.e., personal contact) between the three groups of ex-combatant groups versus the NA ex-combatant-civilian contacts. That is, the benefit of facilitating personalization using a common identity during intergroup

[13] This observation is based on semi-structural interviews conducted for a separate sample of ex-trainees of the same skills training program by a senior advisor of peace-building at JICA and the first author.

contact may hinge upon the expectation that disclosure would not amplify the sense of inequality and injustice.

Our operationalization of personalization in a cocktail of different treatments was the result of our attempt to reconcile theory and context. We therefore cannot identify which of the treatments, whether disability or other conflict related questions or a lack of disclosure, is responsible for the lack of positive effect of personal contact. These two issues are nonetheless often inseparable in the post-conflict reality in which their experience with disability cannot be fully explained without their experience with the conflict. Research found that self-disclosure through expressive talking or writing about traumatic events or life stressors had mental health benefits (Pennebaker & Chung, 2007) and social bonding (Peters & Kashima, 2007), only when the listener is validating via verbal and non-verbal cues (e.g., eye contact, smile, and nodding, Lepore, Ragan, & Jones, 2000). Given the normative reconciliation narrative in Rwanda, participants might have unanimously provided positive answers to questions related to community integration. However, in the face-to-face personal contact, silence or non-verbal cues could have easily signalled true attitudes, and their gap between verbal vs. non-verbal attitudes, if any, could have generated an uninviting atmosphere and distancing and undermined personalization.

Personalization Through Instrumental Goals for Divergent Group Members

Little is known about the potential benefit of direct, face-to-face, but impersonal contact on intergroup relations in post-conflict societies. In the task-focused contact condition, participants were provided with questions about task related issues of a mutual instrumental goal with no reference to personal history or conflict. This condition involves self-other comparison without self-disclosure. Implicit in the personalization model is that the self-other comparison in itself could exert a positive effect of personalization during the intergroup contact (Ensari & Miller, 2006). Our study suggests that this method is more efficacious than

the kind of personalization which involves self-disclosure for divergent groups of people who experienced the violent intergroup conflict differently.

Such interactive task-focused intergroup contact may be ideal for building familiarity and comfort while minimizing the risk of inadvertently raising a politically sensitive question or opening a topic of conversation that potentially elicits negative emotions from the other person who suffered from a violent intergroup conflict. That is, having people focused on a structured task of mutual instrumental value, such as skills training and team sports, might be an alternative safe method of intergroup reconciliation in a post-conflict setting. This idea is supported by a field experiment by Mousa (2020) which demonstrated a positive impact of mixed group soccer teams on Iraqi Christians' orientations toward Iraqi Muslims in the aftermath of genocide in 2014.

Sentama (2017, 2019) proposed that private business cooperatives serve as a favourable space for positive intergroup contact between genocide survivors and perpetrators as an effective alternative for peacebuilding in Rwanda. This is another channel of fostering a common ingroup identity that is less likely to amplify a sense of inequality than exchanging personal experiences as far as opportunities and rewards are allocated equally. Koschate, Oethinger, Kuchenbrandt, & Van Dick (2012) also found that task-focused contact predicted prosocial behaviour directed at an outgroup as a whole. Shnabel and Nadler (2008) call this kind of intergroup contact an instrumental route to reconciliation when former adversaries cooperate repeatedly to achieve instrumental goals that are important for both parties and gradually learn to trust and accept each other. This method is presumably suitable when a post-conflict society aims to create a conflict free environment with two separate parties co-existing pragmatically, which is especially true immediately after a violent conflict ended. Nadler and Shnabel (2015), however, also argue that socio-emotional reconciliation which focuses on the removal of the emotional barriers through the apology-forgiveness cycle is crucial if the goal

of reconciliation is social integration rather than simple co-existence. That is, what are optimal conditions for intergroup contact would depend on the reality and goal of the post-conflict society.

Limitations

We acknowledge some limitations to this study. First, during the contact (especially under the personal contact condition), we do not know what exactly participants disclosed to each other or the nature of the interaction. Not enough participants took notes about their partners to give a fair assessment of the quality of the interaction. The lack of answers on the sheet could be due to many reasons, such as illiteracy, a lack of cooperation, and no disclosure. Therefore, it is possible that contact under the personal contact condition was not so personal after all. Indeed, civilians' impressions of NA ex-combatants (i.e., perceived similarity and warmth) were better in the task-focused rather than the personal contact condition. These perceptual measures, however, did not mediate the effect of task-focused contact, leaving room for explanations.

Secondly, we did not assess attitudes toward other outgroup members who were not involved in the contact. Therefore, we could not test the secondary transfer effect of intergroup contact, by which contact with a primary outgroup reduces prejudice toward other members of the same outgroup who are not directly involved in the contact (Tausch et al., 2010). Therefore, we cannot eliminate the possibility that increased person preference towards an outgroup member after the effective contact in our study did not generalized to other members of that group, as often criticized in older contact studies (Hewstone & Brown, 1986).

Finally, our contact intervention was relatively brief, lasting about 40 minutes each. Thus, our findings do not preclude the possibility that the same kind of personal contact intervention could become more effective over time (e.g., the actual six-month skills training). Our study also did not capture the long-term effects of contact, as the outcome measures were taken

immediately after the contact. Future studies should explore different methods of eliciting personalization in post-conflict settings, including a long intervention in which participants engage in personalization after getting to know each other more gradually.

Conclusion

Is it effective to promote a face-to-face, personal, and intimate contact between members of former adversarial groups that experienced violent intergroup conflict? Our answer is no unless some symmetries between the groups can be expected about subject matters that frame the conversation. We argue that when disclosure of personal experiences or opinions makes the group inequality and injustice salient, personal intergroup contact is no longer effective. In this regard, our study strikes a chord with the critical analysis of the contact literature showing that optimal contact settings, especially equality between the contact partners, are difficult to maintain in the natural post-conflict settings (e.g., Dixon et al., 2005, 2007; Paluck, 2010). What we alternatively propose for groups divided by a history of atrocity is the type of personalized contact that focuses on a mutual instrumental goal and keeps the contact less personally involved.

Rwanda has maintained a stable coexistence of people who were divided along ethnic lines in the 1994 genocide without a recurrence of large-scale conflicts. This success may be partly attributed to its DDR approach that consciously involved groups in former opposition, such as FNA and AG ex-combatants (RDRC, 2017). Whether our findings can be generalized to other post-conflict societies where opposition groups are neither formally recognized nor in the process of reintegration into the community is a question best addressed by future research.

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Table 1

Means, Standard Deviations, and Inter-Item Correlations Between Ranking Scores and Outcome Variables

	M	*SD*	1	2	3	4	5	6	7
1. Objective skill rank	3.39	1.50	-						
2. Perceived skill rank	3.83	1.58	.25**	-					
3. Team choice rank	3.24	1.60	.19**	.39**	-				
4. Person preference	0.15	1.98	.61**	-.13**	-.66**	-			
5. Evaluative bias	-0.44	1.89	.59**	-.64**	-.18**	.59**	-		
6. Similarity	2.72	0.67	.01	-.03	-.01	.01	0	-	
7. Warmth	3.06	0.79	.01	-.08*	-.01	.01	.08*	.33**	-
8. Competence	2.46	0.74	.02	.00	-.04	.05	.01	.34**	.33**

Note: *$p < .05$, **$p < .01$

Table 2

Effects of Personal and Task-focused Contact on Person preference, Evaluative Bias, and Impressions of Outgroup Members

	Person Preference		Evaluative Bias		Similarity	Warmth	Competence
	β_{person}	β_{task}	β_{person}	β_{task}	$\beta_{personal\ vs.\ task}$		
			A: Intragroup Pairs				
NA	0.78*	0.96**	0.94**	0.59	0.11	-0.12	-0.10
(*n* = 233)	(0.34)	(0.35)	(0.34)	(0.35)	(0.16)	(0.18)	(0.17)
Civilian	0.91***	0.49**	0.80***	0.81***	0.06	0.00	0.08
(*n* = 1156)	(0.15)	(0.15)	(0.15)	(0.14)	(0.06)	(0.07)	(0.07)
			B: Intergroup Pairs				
NA→Civilian	0.06	1.40*	1.48*	1.61**	0.14	-0.31	0.05
(*n* = 69)	(0.55)	(0.55)	(0.56)	(0.56)	(0.22)	(0.33)	(0.30)
Civilian→NA	0.29	1.69**	0.39	1.39*	-0.54*	-0.77**	-0.43
(*n* = 66)	(0.58)	(0.56)	(0.62)	(0.59)	(0.23)	(0.19)	(0.37)
NA→FNA	-0.35	-0.11	0.20	-0.04	-0.19	-0.20	-0.09
(*n* = 82)	-0.50	(0.51)	(0.48)	(0.49)	(0.17)	(0.23)	(0.18)
FNA→NA	1.31	1.17	0.87	0.96	0.30	0.67*	0.35
(*n* = 82)	(0.70)	(0.70)	(0.58)	(0.58)	(0.22)	(0.25)	(0.22)
NA→AG	0.64	-0.47	0.57	-0.10	-0.10	0.19	0.59*
(*n* = 74)	(0.48)	(0.46)	(0.47)	(0.46)	(0.22)	(0.17)	(0.23)
AG→NA	0.55	0.60	1.33*	0.79	0.02	0.16	-0.05
(*n* = 73)	(0.60)	(0.64)	(0.51)	(0.54)	(0.22)	(0.24)	(0.21)

Note. Each line contains parameter estimates (standard errors in parentheses) from separate linear mixed-effects regression analyses for the five outcome variables. Personal and task-focused contact conditions are scored as 1 (vs. control condition as 0) for the main outcome variables. Personal contact condition is scored as 1 (vs. task-focused contact condition as 0) for the perceived similarity, warmth, and competence. Full estimation results are reported in Table 2 to Table 6 in Appendix. *p < .05. **p < .01.

Appendix

Table 1

Number of Observations for Levels of Regressor Variables

	N	%
Contact condition		
Personal contact	428	20.02
Task-focused contact	430	20.11
No contact	1280	59.87
Acquaintance level		
Stranger	1931	90.32
Acquaintance	207	9.68
Trainee vs. Non-trainee		
Non-trainee	1095	51.22
Trainee	1043	48.78
Study location		
Kibali	235	10.99
Rubengera	411	19.22
Gisenyi	780	36.48
Rwabuye	712	33.30
Prize		
Low	1064	49.77
High	1074	50.23

Table 2

Results of Linear Mixed Models on Person preference

	Intragroup pairs				Intergroup pairs											
	NA		Civilian		NA→Civilian		Civilian→NA		NA→FNA		FNA→NA		NA→AG		AG→NA	
	n=233		*n*=1156		*n*=69		*n*=66		*n*=82		*n*=82		*n*=74		*n*=73	
Fixed-Effect Parameter	*Est*	*(SE)*	*Est*	*(SE)*	*Est*	*(SE)*	*Est*	*(SE)*	*Est*	*(SE)*	*Est*	*(SE)*	*Est*	*(SE)*	*Est*	*(SE)*
$\beta_{(Intercept)}$	0.00	(0.65)	0.05	(0.24)	0.34	(1.24)	-0.52	(1.11)	2.12	(1.40)	-1.52	(1.27)	-0.37	(1.07)	-0.70	(1.17)
β_{person}	0.78*	(0.34)	0.91***	(0.15)	0.06	(0.55)	0.29	(0.58)	-0.35	(0.50)	1.31	(0.70)	0.64	(0.48)	0.55	(0.60)
β_{task}	0.96**	(0.35)	0.49**	(0.15)	1.40*	(0.55)	1.69**	(0.56)	-0.11	(0.51)	1.17	(0.70)	-0.47	(0.46)	0.60	(0.64)
$\beta_{(Acquaintance\ vs.\ Stranger)}$	-0.13	(0.51)	-0.06	(0.21)	0.80	(1.17)	-0.63	(0.96)	0.19	(0.72)	-0.69	(0.84)	-0.05	(0.68)	-0.10	(0.58)
$\beta_{(Trainee\ vs.\ non\text{-}Trainee)}$	0.17	(0.26)	0.03	(0.12)	-0.39	(0.43)	0.50	(0.50)	0.45	(0.45)	0.84	(0.65)	-0.16	(0.42)	-0.10	(0.58)
$\beta_{(Rwabuye\ vs.\ Kibali)}$	0.14	(0.57)	-0.14	(0.18)	-0.83	(0.73)	1.37	(0.98)	2.82	(1.51)	-1.06	(1.25)	-0.87	(1.84)	-1.21	(1.25)
$\beta_{(Rwabuye\ vs.\ Rubengera)}$	0.52	(0.46)	0.08	(0.00)	-0.63	(0.58)	-0.02	(0.82)	1.68	(1.26)	-0.84	(1.16)	1.10	(1.11)	0.57	(0.77)
$\beta_{(Rwabuye\ vs.\ Gisenyi)}$	-0.08	(0.41)	0.24	(0.12)	0.86	(0.76)	-1.16	(0.96)	1.00	(1.18)	-1.24	(1.04)	-0.07	(1.00)	-0.59	(0.67)
$\beta_{(2500\ vs.\ 500\ RWF)}$	-0.21	(0.33)	0.28*	(0.11)	-0.66	(0.57)	0.89	(0.80)	1.02	(0.70)	-0.14	(0.60)	0.13	(0.84)	0.25	(0.58)
Covariance Parameter																
$\sigma^2_{exp.group}$	0.29	(0.23)	0.00	(0.00)	0.10	(0.40)	0.43	(0.57)	1.53	(0.90)	0.27	(0.52)	1.84	(0.96)	0.00	(0.00)
$\sigma^2_{(residual)}$	3.47***	(0.34)	3.67***	(0.15)	3.16***	(0.59)	3.14***	(0.59)	2.98***	(0.52)	5.55***	(0.93)	2.28***	(0.44)	4.50***	(0.77)
Model Information Criterion																
-2 Restricted Log Likelihood	1021.09		5022.51		282.88		272.58		363.55		396.10		287.08		318.18	

Note: Est = Estimate. *p < .05. **p < .01. ***p < .001.

Table 3

Results of Linear Mixed Models on Evaluative Bias

	Intragroup pairs				Intergroup pairs											
	NA		Civilian		NA→Civilian		Civilian→NA		NA→FNA		FNA→NA		NA→AG		AG→NA	
	n=233		n=1156		n=69		n=66		n=82		n=82		n=74		n=73	
Fixed-Effect Parameter	*Est*	*(SE)*	*Est*	*(SE)*	*Est*	*(SE)*	*Est*	*(SE)*	*Est*	*(SE)*	*Est*	*(SE)*	*Est*	*(SE)*	*Est*	*(SE)*
$\beta_{(Intercept)}$	-1.07	(0.63)	-0.44	(0.23)	-2.52*	(1.24)	-1.09	(1.01)	1.31	(1.17)	-1.60	(1.09)	-0.77	(0.99)	-1.75	(0.99)
β_{person}	0.94**	(0.34)	0.80***	(0.15)	1.48*	(0.56)	0.39	(0.62)	0.20	(0.48)	0.87	(0.58)	0.57	(0.47)	1.33*	(0.51)
β_{task}	0.59	(0.35)	0.69***	(0.14)	1.61**	(0.56)	1.39*	(0.59)	-0.04	(0.49)	0.96	(0.58)	-0.10	(0.46)	0.79	(0.54)
$\beta_{(Acquaintance\ vs.\ Stranger)}$	-0.42	(0.50)	0.07	(0.20)	-1.65	(1.18)	-0.18	(1.00)	0.48	(0.67)	-0.34	(0.71)	0.11	(0.67)	0.16	(0.49)
$\beta_{(Trainee\ vs.\ non\text{-}Trainee)}$	0.20	(0.26)	-0.04	(0.11)	0.11	(0.43)	-0.05	(0.52)	0.53	(0.41)	0.76	(0.55)	-0.71	(0.41)	0.16	(0.49)
$\beta_{(Rwabuye\ vs.\ Kibali)}$	-0.21	(0.52)	-0.09	(0.18)	-0.31	(0.70)	0.44	(0.76)	1.81	(1.16)	-1.07	(1.10)	-0.28	(1.63)	-0.69	(1.05)
$\beta_{(Rwabuye\ vs.\ Rubengera)}$	0.49	(0.42)	0.02	(0.00)	-0.15	(0.54)	-0.71	(0.63)	1.46	(0.96)	-0.72	(1.02)	0.83	(0.98)	0.39	(0.65)
$\beta_{(Rwabuye\ vs.\ Gisenyi)}$	-0.46	(0.38)	0.28*	(0.11)	0.24	(0.72)	-0.60	(0.77)	0.94	(0.91)	-1.30	(0.91)	0.41	(0.89)	-0.68	(0.56)
$\beta_{(2500\ vs.\ 500\ RWF)}$	-0.12	(0.30)	0.32**	(0.11)	-0.07	(0.53)	0.30	(0.59)	0.61	(0.53)	0.34	(0.53)	-0.05	(0.75)	0.27	(0.49)
Covariance Parameter																
$\sigma^2_{exp.group}$	0.18	(0.21)	0.01	(0.03)	0.00	(0.00)	0.00	(0.00)	0.67	(0.54)	0.33	(0.40)	1.32	(0.76)	0.00	(0.00)
σ^2 (residual)	3.46***	(0.34)	3.41***	(0.14)	3.37***	(0.59)	3.54***	(0.64)	2.70***	(0.47)	3.77***	(0.63)	2.24***	(0.43)	3.20***	(0.55)
Model Information Criterion																
-2 Restricted Log Likelihood	1016.79		4936.37		285.97		276.73		349.28		366.46		282.91		294.92	

*Note: Est = Estimate. *p < .05. **p < .01. ***p < .001.*

Table 4

Results of Linear Mixed Models on Perceived Similarity

	Intragroup pairs						Intergroup pairs							
	NA		Civilian		NA→Civilian		Civilian→NA		NA→FNA		FNA→NA		NA→AG		AG→NA	
	n=79		*n*=461		*n*=29		*n*=29		*n*=37		*n*=36		*n*=73		*n*=38	
Fixed-Effect Parameter	*Est*	*(SE)*	*Est*	*(SE)*	*Est*	*(SE)*	*Est*	*(SE)*	*Est*	*(SE)*	*Est*	*(SE)*	*Est*	*(SE)*	*Est*	*(SE)*
$\beta_{(Intercept)}$	2.61***	(0.30)	2.66***	(0.06)	3.49*	(1.15)	2.65***	(0.32)	2.48***	(0.51)	2.87***	(0.55)	3.25***	(0.32)	3.11***	(0.41)
$\beta_{(Person\ vs.\ Task)}$	0.11	(0.16)	0.06	(0.06)	0.14	(0.22)	-0.54*	(0.23)	-0.19	(0.17)	0.30	(0.22)	-0.10	(0.22)	0.02	(0.22)
$\beta_{(Acquaintance\ vs.\ Stranger)}$	-0.06	(0.21)	0.05	(0.07)	0.20	(0.95)	0.31	(0.34)	-0.20	(0.26)	0.16	(0.31)	0.07	(0.28)	0.22	(0.35)
$\beta_{(Trainee\ vs.\ non\text{-}Trainee)}$	-0.02	(0.17)	-0.06	(0.06)	0.10	(0.22)	-0.28	(0.25)	-0.10	(0.24)	-0.33	(0.35)	-0.33	(0.24)	0.10	(0.27)
$\beta_{(Rwabuye\ vs.\ Kibali)}$	0.01	(0.35)	-0.02	(0.12)	0.61	(0.81)	0.52	(0.36)	-0.58	(0.59)	0.30	(0.69)	0.20	(0.56)	-0.35	(0.56)
$\beta_{(Rwabuye\ vs.\ Rubengera)}$	-0.13	(0.28)	0.03	(0.11)	0.11	(0.64)	-0.40	(0.32)	-0.24	(0.47)	0.15	(0.64)	0.62	(0.35)	0.52	(0.38)
$\beta_{(Rwabuye\ vs.\ Gisenyi)}$	-0.21	(0.25)	0.02	(0.08)	-0.01	(0.75)	-1.13*	(0.40)	-0.07	(0.45)	-0.23	(0.55)	0.43	(0.31)	-0.09	(0.29)
$\beta_{(2500\ vs.\ 500\ RWF)}$	0.02	(0.20)	-0.15	(0.07)	0.58	(0.63)	0.31	(0.27)	0.30	(0.27)	0.03	(0.33)	0.19	(0.27)	0.38	(0.27)
Covariance Parameter																
$\sigma^2_{exp.group}$	0.09	(0.08)	0.02	(0.01)	0.48	(0.36)	0.00	(0.00)	0.19	(0.14)	0.26	(0.22)	0.00	(0.00)	0.00	(0.00)
σ^2 (residual)	0.46***	(0.09)	0.41***	(0.03)	0.26**	(0.09)	0.32**	(0.10)	0.26**	(0.08)	0.38**	(0.14)	0.45***	(0.12)	0.44***	(0.11)
Model Information Criterion																
-2 Restricted Log Likelihood	184.66		967.85		55.71		51.38		75.02		80.73		77.23		78.24	

*Note: Est = Estimate. *p < .05. **p < .01. ***p < .001.*

Table 5

Results of Linear Mixed Models on Perceived Warmth

	Intragroup pairs				Intergroup pairs									
	NA		Civilian		NA→Civilian		Civilian→NA		NA→FNA		FNA→NA		NA→AG		AG→NA	
	n=79		*n*=461		*n*=29		*n*=29		*n*=37		*n*=36		*n*=73		*n*=38	
Fixed-Effect Parameter	*Est*	*(SE)*	*Est*	*(SE)*	*Est*	*(SE)*	*Est*	*(SE)*	*Est*	*(SE)*	*Est*	*(SE)*	*Est*	*(SE)*	*Est*	*(SE)*
$\beta_{(Intercept)}$	3.02***	(0.30)	3.07***	(0.07)	1.92	(1.02)	3.15**	(0.52)	2.58***	(0.58)	4.10***	(0.43)	3.78***	(0.37)	3.57***	(0.53)
$\beta_{(Person\ vs.\ Task)}$	-0.12	(0.18)	0.00	(0.07)	-0.31	(0.33)	-0.77**	(0.19)	-0.20	(0.23)	0.67*	(0.25)	0.19	(0.17)	0.16	(0.24)
$\beta_{(Acquaintance\ vs.\ Stranger)}$	-0.31	(0.22)	-0.01	(0.09)	-1.30	(0.84)	0.24	(0.31)	-0.31	(0.33)	-0.11	(0.27)	0.04	(0.27)	-0.06	(0.41)
$\beta_{(Trainee\ vs.\ non\text{-}Trainee)}$	0.03	(0.18)	0.02	(0.08)	0.35	(0.32)	-0.23	(0.24)	-0.43	(0.31)	0.23	(0.33)	-0.07	(0.20)	-0.12	(0.33)
$\beta_{(Rwabuye\ vs.\ Kibali)}$	0.23	(0.32)	0.22	(0.17)	-0.11	(0.67)	1.04	(0.62)	0.42	(0.65)	0.50	(0.53)	0.28	(0.70)	0.85	(0.71)
$\beta_{(Rwabuye\ vs.\ Rubengera)}$	-0.09	(0.27)	0.00	(0.15)	-0.45	(0.53)	-0.21	(0.54)	0.50	(0.51)	0.90	(0.51)	0.36	(0.43)	0.50	(0.49)
$\beta_{(Rwabuye\ vs.\ Gisenyi)}$	0.02	(0.23)	0.12	(0.12)	-0.60	(0.66)	-1.28	(0.62)	0.32	(0.50)	0.47	(0.43)	0.27	(0.39)	0.77	(0.39)
$\beta_{(2500\ vs.\ 500\ RWF)}$	0.13	(0.18)	-0.02	(0.10)	0.71	(0.52)	0.70	(0.52)	-0.51	(0.30)	0.13	(0.25)	0.39	(0.33)	-0.19	(0.34)
Covariance Parameter																
$\sigma^2_{exp.group}$	0.00	(0.00)	0.06*	(0.03)	0.17	(0.25)	0.30	(0.23)	0.13	(0.18)	0.00	(0.00)	0.23	(0.16)	0.09	(0.15)
σ^2 (residual)	0.63***	(0.10)	0.56***	(0.04)	0.64**	(0.22)	0.19**	(0.07)	0.48**	(0.16)	0.53***	(0.14)	0.23**	(0.08)	0.52**	(0.17)
Model Information Criterion																
-2 Restricted Log Likelihood	196.42		1122.25		68.94		49.05		89.30		80.07		69.12		81.86	

*Note: Est = Estimate. *p < .05. **p < .01. ***p < .001.*

Table 6

Results of Linear Mixed Models on Perceived Competence

	Intragroup pairs						Intergroup pairs							
	NA		Civilian		NA→Civilian		Civilian→NA		NA→FNA		FNA→NA		NA→AG		AG→NA	
	n=79		*n*=461		*n*=29		*n*=29		*n*=37		*n*=36		*n*=73		*n*=38	
Fixed-Effect Parameter	*Est*	*(SE)*	*Est*	*(SE)*	*Est*	*(SE)*	*Est*	*(SE)*	*Est*	*(SE)*	*Est*	*(SE)*	*Est*	*(SE)*	*Est*	*(SE)*
$\beta_{(Intercept)}$	1.90***	(0.28)	2.46***	(0.07)	1.61	(0.78)	1.97**	(0.51)	2.44**	(0.65)	2.13***	(0.45)	3.01***	(0.39)	2.52***	(0.48)
$\beta_{(Person\ vs.\ Task)}$	-0.10	(0.17)	0.08	(0.07)	0.05	(0.30)	-0.43	(0.37)	-0.09	(0.18)	0.35	(0.22)	0.59*	(0.23)	-0.05	(0.21)
$\beta_{(Acquaintance\ vs.\ Stranger)}$	-0.25	(0.21)	-0.03	(0.08)	-0.54	(0.65)	0.02	(0.55)	-0.04	(0.29)	-0.14	(0.27)	-0.35	(0.32)	0.33	(0.37)
$\beta_{(Trainee\ vs.\ non\text{-}Trainee)}$	0.02	(0.17)	0.01	(0.07)	-0.35	(0.29)	0.32	(0.40)	0.19	(0.26)	0.28	(0.32)	0.22	(0.26)	0.03	(0.31)
$\beta_{(Rwabuye\ vs.\ Kibali)}$	-0.02	(0.30)	-0.17	(0.15)	0.26	(0.48)	-0.48	(0.57)	0.45	(0.78)	-0.20	(0.56)	-0.62	(0.69)	0.23	(0.68)
$\beta_{(Rwabuye\ vs.\ Rubengera)}$	-0.44	(0.25)	0.10	(0.13)	-0.23	(0.38)	-0.64	(0.51)	0.20	(0.64)	-0.39	(0.53)	0.31	(0.43)	-0.17	(0.46)
$\beta_{(Rwabuye\ vs.\ Gisenyi)}$	-0.43*	(0.21)	-0.09	(0.10)	-0.35	(0.51)	-1.21	(0.64)	-0.05	(0.60)	-0.65	(0.45)	-0.22	(0.39)	-0.02	(0.37)
$\beta_{(2500\ vs.\ 500\ RWF)}$	0.05	(0.17)	-0.05	(0.09)	0.15	(0.37)	-0.06	(0.44)	0.06	(0.37)	0.05	(0.26)	0.57	(0.33)	-0.04	(0.33)
Covariance Parameter																
$\sigma^2_{exp.group}$	0.00	(0.00)	0.03	(0.02)	0.01	(0.19)	0.00	(0.00)	0.43	(0.23)	0.09	(0.15)	0.11	(0.19)	0.12	(0.15)
σ^2 (residual)	0.55***	(0.09)	0.52***	(0.04)	0.58**	(0.21)	0.83**	(0.25)	0.27**	(0.09)	0.41**	(0.14)	0.46**	(0.17)	0.40**	(0.13)
Model Information Criterion																
-2 Restricted Log Likelihood	191.89		1081.73		61.57		72.24		83.62		76.73		80.06		78.58	

*Note: Est = Estimate. *p < .05. **p < .01. ***p < .001.*

Table 7

Results of Linear Mixed Models on Person preference Within and Between Civilians and Ex-combatants

	Intragroup pairs (within)				Intergroup pairs (between)			
	EXC		Civ		EXC→Civ		Civ→EXC	
	n=608		*n*=1156		*n*=125		*n*=122	
Fixed-Effect Parameter	*Est*	*(SE)*	*Est*	*(SE)*	*Est*	*(SE)*	*Est*	*(SE)*
$\beta_{(Intercept)}$	-0.27	(0.39)	0.05	(0.24)	0.92	(0.74)	-0.07	(0.83)
β_{person}	**0.61****	**(0.22)**	**0.91*****	**(0.15)**	**0.50**	**(0.41)**	**0.63**	**(0.41)**
β_{low}	**0.52***	**(0.22)**	**0.49****	**(0.15)**	**1.14****	**(0.39)**	**1.29****	**(0.44)**
$\beta_{(Acquaintance\ vs.\ Stranger)}$	-0.42	(0.29)	-0.06	(0.21)	1.27*	(0.63)	-0.89	(0.67)
$\beta_{(Trainee\ vs.\ non\text{-}Trainee)}$	0.13	(0.17)	0.03	(0.12)	-0.17	(0.34)	0.05	(0.37)
$\beta_{(Rwabuye\ vs.\ Kibali)}$	0.22	(0.37)	-0.14	(0.18)	-0.46	(0.63)	2.12*	(0.86)
$\beta_{(Rwabuye\ vs.\ Rubengera)}$	0.51	(0.28)	0.08	(0.17)	-0.19	(0.46)	0.51	(0.67)
$\beta_{(Rwabuye\ vs.\ Gisenyi)}$	-0.05	(0.26)	0.24	(0.13)	0.09	(0.45)	0.60	(0.64)
$\beta_{(2500\ vs.\ 500\ RWF)}$	0.01	(0.19)	0.28*	(0.11)	0.28*	(0.11)	0.28*	(0.11)
Covariance Parameter								
$\sigma^2_{exp.group}$	0.07	(0.07)	0.00	(0.00)	0.12	(0.26)	0.61	(0.47)
σ^2 (residual)	4.07***	(0.23)	3.67***	(0.15)	3.26***	(0.43)	3.35***	(0.46)
Model Information Criterion								
-2 Restricted Log Likelihood	2785.23		5022.51		558.97		541.53	

Note: Est = Estimate, EXC=Ex-combatant, Civ=Civilians. *p < .05. **p < .01. ***p < .001.

Table 8

Results of Linear Mixed Models on Evaluative Bias Within and Between Civilians and Ex-combatants

	Intragroup pairs (within)				Intergroup pairs (between)			
	EXC		Civ		EXC→Civ		Civ→EXC	
	n=608		*n*=1156		*n*=125		*n*=122	
Fixed-Effect Parameter	*Est*	*(SE)*	*Est*	*(SE)*	*Est*	*(SE)*	*Est*	*(SE)*
$\beta_{(Intercept)}$	-1.03**	(0.37)	-0.44	(0.23)	-0.52	(0.76)	-1.43*	(0.69)
β_{person}	0.88***	(0.20)	0.80***	(0.15)	1.03*	(0.44)	0.75	(0.40)
β_{low}	0.54**	(0.20)	0.69***	(0.14)	1.04*	(0.42)	1.30**	(0.43)
$\beta_{(Acquaintance\ vs.\ Stranger)}$	-0.37	(0.27)	0.07	(0.20)	0.17	(0.66)	-0.86	(0.65)
$\beta_{(Trainee\ vs.\ non\text{-}Trainee)}$	0.04	(0.15)	-0.04	(0.11)	0.22	(0.35)	-0.45	(0.35)
$\beta_{(Rwabuye\ vs.\ Kibali)}$	-0.02	(0.38)	-0.09	(0.18)	0.02	(0.62)	1.24*	(0.59)
$\beta_{(Rwabuye\ vs.\ Rubengera)}$	0.42	(0.29)	0.02	(0.17)	-0.02	(0.43)	-0.17	(0.44)
$\beta_{(Rwabuye\ vs.\ Gisenyi)}$	-0.10	(0.26)	0.28*	(0.13)	-0.14	(0.43)	0.31	(0.41)
$\beta_{(2500\ vs.\ 500\ RWF)}$	-0.01	(0.20)	0.32**	(0.11)	0.32**	(0.11)	0.32**	(0.11)
Covariance Parameter								
$\sigma^2_{exp.group}$	0.11	(0.07)	0.01	(0.03)	0.00	(0.00)	0.00	(0.00)
σ^2 (residual)	3.30***	(0.19)	3.41***	(0.14)	3.78***	(0.47)	3.29***	(0.42)
Model Information Criterion								
-2 Restricted Log Likelihood	2656.56		4936.37		575.00		528.17	

Note: Est = Estimate, EXC=Ex-combatant, Civ=Civilians. *p < .05. **p < .01. ***p < .001.

Table 9

Results of Linear Mixed Models on Perceived Similarity Within and Between Civilians and Ex-combatants

	Intragroup pairs (within)				Intergroup pairs (between)			
	EXC		Civ		EXC→Civ		Civ→EXC	
	n=239		*n*=461		*n*=54		*n*=54	
Fixed-Effect Parameter	*Est*	*(SE)*	*Est*	*(SE)*	*Est*	*(SE)*	*Est*	*(SE)*
$\beta_{(Intercept)}$	2.81***	(0.18)	2.66***	(0.09)	2.89***	(0.41)	2.43***	(0.25)
$\beta_{(Person\ vs.\ Task)}$	0.02	(0.08)	0.06	(0.06)	0.04	(0.19)	-0.23	(0.15)
$\beta_{(Acquaintance\ vs.\ Stranger)}$	0.01	(0.10)	0.05	(0.07)	0.32	(0.28)	-0.39	(0.22)
$\beta_{(Trainee\ vs.\ non\text{-}Trainee)}$	-0.06	(0.09)	-0.06	(0.06)	-0.06	(0.21)	-0.23	(0.17)
$\beta_{(Rwabuye\ vs.\ Kibali)}$	0.03	(0.26)	-0.02	(0.12)	0.05	(0.47)	0.71*	(0.31)
$\beta_{(Rwabuye\ vs.\ Rubengera)}$	0.07	(0.20)	0.03	(0.11)	-0.16	(0.35)	0.08	(0.25)
$\beta_{(Rwabuye\ vs.\ Gisenyi)}$	-0.06	(0.18)	0.02	(0.08)	-0.12	(0.35)	-0.01	(0.22)
$\beta_{(2500\ vs.\ 500\ RWF)}$	0.14	(0.14)	-0.15	(0.07)	-0.06	(0.30)	0.01	(0.20)
Covariance Parameter								
$\sigma^2_{exp.group}$	0.07	(0.04)	0.02	(0.01)	0.18	(0.13)	0.03	(0.05)
σ^2 (residual)	0.42***	(0.04)	0.41***	(0.03)	0.46***	(0.11)	0.30***	(0.07)
Model Information Criterion								
-2 Restricted Log Likelihood	526.26		967.85		138.29		101.13	

Note: Est = Estimate, EXC=Ex-combatant, Civ=Civilians. *p < .05. **p < .01. ***p < .001.

Table 10

Results of Linear Mixed Models on Perceived Warmth Within and Between Civilians and Ex-combatants

	Intragroup pairs (within)				Intergroup pairs (between)			
	EXC		Civ		EXC→Civ		Civ→EXC	
	n=239		*n*=461		*n*=54		*n*=54	
Fixed-Effect Parameter	*Est*	*(SE)*	*Est*	*(SE)*	*Est*	*(SE)*	*Est*	*(SE)*
$\beta_{(Intercept)}$	3.38***	(0.18)	3.07***	(0.12)	2.76***	(0.44)	3.10***	(0.37)
$\beta_{(Person\ vs.\ Task)}$	0.07	(0.09)	0.00	(0.07)	-0.10	(0.22)	-0.19	(0.20)
$\beta_{(Acquaintance\ vs.\ Stranger)}$	-0.15	(0.11)	-0.01	(0.09)	-0.31	(0.32)	-0.43	(0.30)
$\beta_{(Trainee\ vs.\ non\text{-}Trainee)}$	0.04	(0.10)	0.02	(0.08)	0.20	(0.24)	-0.16	(0.23)
$\beta_{(Rwabuye\ vs.\ Kibali)}$	0.51*	(0.24)	0.22	(0.17)	-0.02	(0.47)	1.20*	(0.47)
$\beta_{(Rwabuye\ vs.\ Rubengera)}$	0.35	(0.18)	0.00	(0.15)	-0.30	(0.35)	0.20	(0.38)
$\beta_{(Rwabuye\ vs.\ Gisenyi)}$	0.29	(0.17)	0.12	(0.12)	-0.22	(0.35)	0.32	(0.33)
$\beta_{(2500\ vs.\ 500\ RWF)}$	0.04	(0.12)	-0.02	(0.10)	0.11	(0.30)	0.28	(0.30)
Covariance Parameter								
$\sigma^2_{exp.group}$	0.03	(0.03)	0.06*	(0.03)	0.10	(0.14)	0.13	(0.12)
σ^2 (residual)	0.55***	(0.05)	0.56***	(0.04)	0.69***	(0.16)	0.51***	(0.12)
Model Information Criterion								
-2 Restricted Log Likelihood	567.38		1122.25		153.11		130.62	

Note: Est = Estimate, EXC=Ex-combatant, Civ=Civilians. *p < .05. **p < .01. ***p < .001.

Table 11

Results of Linear Mixed Models on Perceived Competence Within and Between Civilians and Ex-combatants

	Intragroup pairs (within)				Intergroup pairs (between)			
	EXC		Civ		EXC→Civ		Civ→EXC	
	n=239		*n*=461		*n*=54		*n*=54	
Fixed-Effect Parameter	*Est*	*(SE)*	*Est*	*(SE)*	*Est*	*(SE)*	*Est*	*(SE)*
$\beta_{(Intercept)}$	2.32***	(0.17)	1.00***	(436.35)	0.00***	(0.00)	1.00***	(51.00)
$\beta_{(Person\ vs.\ Task)}$	0.12	(0.09)	-1.00	(443.91)	0.06	(0.20)	-1.00	(51.00)
$\beta_{(Acquaintance\ vs.\ Stranger)}$	-0.12	(0.11)	-3.00	(45.15)	-0.13	(0.27)	-1.00	(51.00)
$\beta_{(Trainee\ vs.\ non\text{-}Trainee)}$	0.08	(0.10)	-1.00	(48.00)	-0.24	(0.21)	-1.00	(220.91)
$\beta_{(Rwabuye\ vs.\ Kibali)}$	0.07	(0.23)	-1.00	(48.00)	0.47	(0.38)	-1.00	(210.92)
$\beta_{(Rwabuye\ vs.\ Rubengera)}$	-0.17	(0.17)	-1.00	(48.00)	0.11	(0.27)	-3.00	(17.88)
$\beta_{(Rwabuye\ vs.\ Gisenyi)}$	-0.25	(0.15)	-3.00	(48.00)	-0.25	(0.26)	-1.00	(16.70)
$\beta_{(2500\ vs.\ 500\ RWF)}$	0.12	(0.12)	-1.00	(51.00)	0.02	(0.23)	0.00	(0.00)
Covariance Parameter								
$\sigma^2_{exp.group}$	0.02	(0.03)	0.03	(0.02)	0.00	(0.00)	0.00	(0.00)
σ^2 (residual)	0.51***	(0.05)	0.52***	(0.04)	0.55***	(0.11)	0.72***	(0.15)
Model Information Criterion								
-2 Restricted Log Likelihood	553.72		1081.73		134.52		140.21	

Note: Est = Estimate, EXC=Ex-combatant, Civ=Civilians. *p < .05. **p < .01. ***p < .001.

CONSENT STATEMENT

Enumerator, please read in FULL before beginning the activity:

Hello, my name is _____. I am working with Incisive Africa on a study being conducted by Yoshito Takasaki, Ph.D. from the Graduate School of Economics at the University of Tokyo in Japan. The study targets applicants and those who are eligible for **"The Skills Training and Job Obtainment Support for Social Participation of Ex-Combatants and Other People with Disabilities (ECOPD)"**. I would like to ask you to participate in some group activities as well as answer questions about your background, experiences, and opinions about issues related to your disability and ex-combatant status. The information you provide will be used to better understand perceptions of ex-combatants with disabilities and improve future skills training and social integrity of the community.

If you decide to participate in the study, you will be assigned to some of the following activities: focus group on disability or ex-combatant experiences, solving problems together in a group, money-exchange games, and survey questions about your background, experiences, and opinions. The study will take approximately 6 hours depending on the assignment of group activity and questions asked. At the end of the study, you will receive 2000 franc and transportation fee as a compensation for your participation. Additional 0~10000 franc will be awarded depending on the outcomes of your group activities.

Your participation is completely voluntary. There is no anticipated risk associated with this study; however, if for any reason you feel uncomfortable with a question or an activity, you may skip it or withdraw from the study at any point without penalty.

Your responses in this study will remain completely anonymous. That is, no one will be able to tell who provides which information. **Your privacy will be protected** to the maximum extent allowable by law.

If you have any questions or concerns about your participation in this study or to ask or report a research issue you can contact Kenneth Ndirangu at Telephone ############.

Do you have any questions for me? ***<Enumerator: pause and respond to any questions raised, then continue with the following statement>***

At this point, if you stay and continue to the study procedure, that will indicate your willingness to **voluntarily** participate in the study. If you are not willing to participate, you may leave now and receive the travel fee. Please also note that if you are unable to read and write in Kinyarwanda, you cannot participate in this study.

SURVEY MATERIALS

Peer

Please check your answer below like this: ☑

- When, how, and why did you get the disability?

- What do you struggle in daily life due to the disability you have? What do you struggle the most? For example?

- Have you ever experienced difficulty in getting a job, keeping (staying in) a job, getting a promotion, or receiving a competitive wage due to your disability?

  ☐ Yes ☐ No

  - If yes, how and what happened? How did you feel about it? For example?

- Do you think you make more money if you did not have the disability?

  ☐ Yes ☐ No

  - If yes, how much do you think you can make without the disability?

  - What would be your job if you did not have the disability?

- In the past 12 months, have you felt any of the following emotions because of your disability status?

  ☐sad ☐ shame ☐ guilt ☐ blaming yourself

  ☐ cursed ☐ deserve to be punished

  Only if you do not mind, can you tell me why you felt that way? For example?

- With respect to genocide which happened in 1994, have you experienced difficulties, such as the followings, in the past several months?
    - ☐ Any reminder brings back feelings about it.
    - ☐ Trouble falling or staying asleep
    - ☐ Dreamed about it
    - ☐ Flashback: Pictures about it popped into your mind
    - ☐ I found myself thinking or feeling like I was back at that time
- If so, how distressing has it been?

  ☐ Very little ☐ Little ☐ Somewhat ☐ A lot

  Only if you do not mind, can you tell me how?

- How much mistrust do you think there are in your community?

  ☐ Very little ☐ Little ☐ Somewhat ☐ A lot

  If any, what kind of mistrust have you seen in your community? What did you think or feel about it? Did you do anything about it then or afterward? For example?

- How would you react to one of your family members who did not want to go to the hospital run by the person with different background?

  ☐ I do not take care ☐ I feel shame ☐ I feel angry

  ☐ I accuse the person to government ☐ I try to correct his/her attitude

  ☐ Sympathize with his or her attitude

Thank you.

Strategy

Please check your answer below like this: ☑

- What did you learn from playing these games?

- How much do you think you earned?
  _____ RWF

- Which game did you enjoy playing the most?
  ☐ Public goods game ☐ Dictator game ☐ Trust game ☐ Dice Game
  Why?

- What you were thinking when you played the game? What was your strategy?

- Which game do you think you earned the most for yourself?
  ☐ Public goods game ☐ Dictator game ☐ Trust game ☐ Dice Game
  How so? Can you take an example and explain?

- Which game do you think you and your partner together earned the most in total?
  ☐ Public goods game ☐ Dictator game ☐ Trust game ☐ Dice Game
  How so? Can you take an example and explain?

- Which game do you think you and your partner together earned the least in total?
  ☐ Public goods game ☐ Dictator game ☐ Trust game ☐ Dice Game
  How so? Can you take an example and explain?

- How important was it for you to earn the most money possible for yourself?

  ☐ Very little ☐ Little ☐ Somewhat ☐ A lot

  Can you take an example why?

- How important was it for you to earn more money than the other members in your group?

  ☐ Very little ☐ Little ☐ Somewhat ☐ A lot

  Can you take an example why?

- To what extent were your decisions aimed at maximizing your group's payoff?

  ☐ Very little ☐ Little ☐ Somewhat ☐ A lot

  Can you take an example why?

- How important was it that everyone in your group earned as much money as possible?

  ☐ Very little ☐ Little ☐ Somewhat ☐ A lot

  Can you take an example why?

  Thank you.

Interaction Survey

We would like to ask you about the impression of the conversation you have just had. (please check your answer below like this:☑)

About the second conversation:

1. What did you talk about?

   ☐ Game Strategy ☐ Disability Struggle

2. How much do you have in common with your partner?

   ☐ Very little ☐ Little ☐ Somewhat ☐ A lot

   For example: _____

3. How similar experiences do you share with your partner?

   ☐ Very little ☐ Little ☐ Somewhat ☐ A lot

   For example:

   _____

4. How much different opinions do you and your partner have?

   ☐ Very little ☐ Little ☐ Somewhat ☐ A lot

5. How warm and kind is your partner?

   ☐ Very little ☐ Little ☐ Somewhat ☐ A lot

6. How competent is your partner?

   ☐ Very little ☐ Little ☐ Somewhat ☐ A lot

Thank you.

Post-Experiment Survey

We would like to get some feedback on your group session. (please check your answer below like this:☑)

About your team for the competition:

1. Did you know the person from before?

□ Yes

□ No

1.1 If Yes, how did you meet the person originally? (please check all that apply.)

□ We were in the same class for the skills training (if you are an ex-trainee)

□ We were in the same center for the skills training (if you are an ex-trainee)

□ We live in the same community

□ We work in the same community

□ Others (please specify:_____)

1.2 How well did you know the person from before?

□ Not at all

□ A little bit

□ Moderately

□ Quite a bit

□ Extremely

About the first conversation:

2. Did you know the person from before?

□ Yes

□ No

2.1 If Yes, how did you meet the person originally? (please check all that apply.)

□ We were in the same class for the skills training (if you are an ex-trainee)

□ We were in the same center for the skills training (if you are an ex-trainee)

□ We live in the same community

□ We work in the same community

□ Others (please specify:_____)

2.2 How well did you know the person from before?

□ Not at all

□ A little bit

□ Moderately

□ Quite a bit

□ Extremely

About the second conversation:

3. Did you know the person from before?

□ Yes

□ No

3.1 If Yes, how did you meet the person originally? (please check all that apply.)

□ We were in the same class for the skills training (if you are an ex-trainee)

□ We were in the same center for the skills training (if you are an ex-trainee)

□ We live in the same community

□ We work in the same community

□ Others (please specify:_____)

3.2 How well did you know the person from before?

□ Not at all

□ A little bit

□ Moderately

□ Quite a bit

□ Extremely

Thank you.