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**The psychological correlates of transitional justice in Rwanda: A long-term assessment**

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## The psychological correlates of transitional justice in Rwanda

### **Abstract:**

**Objective:** We tested the psychological correlates of the Gacaca tribunals, a massive program of transitional justice put in place by the Rwandan government following the 1994 genocide perpetrated against the Tutsi. **Method:** The sample consisted of 679 Rwandese participants, among which 373 (55%) were survivors of the genocide. We contrasted three groups of participants: (1) those who had never attended the Gacaca (N=229), the control group, (2) those who had attended without testifying (N=275), the attendance group, and (3) those who had attended and testified (N=120), the testimony group. In the analyses, we controlled for the level of genocide-related negative consequences that participants reported. **Results:** The attendance group presented lower levels of PTSD and depression symptoms than both the control and testimony groups. Both attendance and testimony groups had more positive opinions of the Gacaca and higher openness to reconciliation than the control group. **Conclusions:** contrary to what has been reported in two previous studies, participation in the Gacaca was not, in our data, negatively related to mental health or to social cohesion.

### **Clinical Impact Statement:**

The present study supports the idea that large-scale transitional justice is useful and should be promoted in post-conflict contexts. Two-to-four years after the end of the transitional justice program in post-genocide Rwanda, those who had attended the trials expressed better opinions of the justice program, more openness to reconciliation, and lower PTSD and depression symptoms, than those who had not attended. However, some of those benefits were not observed in individuals who had given testimonies, showing that special attention should be provided to testifiers, to allow them benefit from transitional justice as much as those who do not testify.

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In 1994, in Rwanda (central Africa), one of the most disastrous events of the 20<sup>th</sup> century took place: the 1994 genocide perpetrated against the Tutsi. An estimated 10% of the population was decimated in 3 months (representing around 1 million individuals), and the major part of the rest of the population was left deeply injured, both physically and psychologically (e.g., Blanchette, Rutembesa, Habimana, & Caparos, 2018; Brounéus, 2010; Caparos, Giroux, Rutembesa, Habimana, & Blanchette, 2018). In this study, we were interested in the long-term psychological correlates of the Gacaca (pronounced “Ga-tcha-tcha”), an unprecedented transitional justice program which took place between 2005 and 2012. This paper adds to the growing literature which aims to document the effectiveness of post-conflict transitional justice in improving both individual well-being and social cohesion.

In countries having experienced extreme violence such as Rwanda, wide-scale reconciliation has been proposed to be the cornerstone for the restoration of stable and lasting peace (Bar-Tal, 2009; Staub, 2006). Post-violence governments have put in place reconciliation-promoting policies based on transitional justice. According to the United Nations (The rule of law and transitional justice in conflict and post-conflict societies, 2004, August 23, p. 4), transitional justice comprises “the full range of processes and mechanisms associated with a society’s attempts to come to terms with the legacy of large scale past abuses, in order to ensure accountability, serve justice and achieve reconciliation. These may include both judicial and non-judicial mechanisms [...], individual prosecutions, reparations, truth-seeking, institutional reform, vetting and dismissals, or a combination thereof.” Transitional justice first appeared after the Second World War, in Germany (Nuremberg trials) and in Japan (Tokyo trials), and they have proliferated ever since, for instance in Greece (1975), Argentina (1983), or Chile (1990).

In Rwanda, the post-genocide government organized a program of transitional justice, the Gacaca, consisting of 12,000 tribunals held throughout the country. The scale of this program was unprecedented. An extremely large number of genocide perpetrators (1.2 million individuals, according to a UN estimate; The justice and reconciliation process in Rwanda,

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March 2014) was put to trial in a relatively short amount of time (7 years, between 2005 and 2012), something that the traditional justice system could never have achieved.

The post-genocide Gacaca was built upon the traditional justice system that existed in Rwanda before the arrival of colonial powers (Germany, in 1885, followed by Belgium, in 1916). In each Gacaca tribunal, a judge – the “Inyangamugayo” (meaning the “just”) – was elected by the population. The judge was a respected figure of the community, someone elder and wise (Schabas, 2005). Individuals from the community were brought to the Gacaca, denounced by genocide survivors or individuals who witnessed the violence. The accused were given the opportunity to account for their acts in front of the judge and the community (who was invited to attend the trials). Genocide survivors or neighbors – that is, individuals not targeted by the genocide – could also testify during the trials. Sentences for perpetrators ranged from civil reparation (e.g., rebuilding the house of victims or other types of community service) for the least serious crimes, to life imprisonment for the most serious crimes such as killing.

Beyond its legal role, transitional justice such as the Gacaca has been argued to have a psychological role. It may appease victims, rehabilitate victims’ and perpetrators’ sense of worthy identities, and bring back mutual trust (Clark, 2010; Nadler, 2012). However, several authors have noted that this hypothesis concerning such positive psychological impact is often based on general assumptions rather than on empirical facts (Mendeloff, 2009; Thoms, Ron, & Paris, 2010), and needs to be better documented.

The effectiveness of transitional justice has often been evaluated using three different criteria: (1) the general population’s and/or the survivors’ opinion of the justice system; (2) the impact of transitional justice on attendees’ psychological health (e.g., in terms of psychopathological symptoms); and (3) the impact of transitional justice on social cohesion (e.g., intergroup attitudes and relations). Below, we report findings from the recent literature regarding all three criteria in a range of post-conflict societies. While findings concerning the first two criteria are conflicting, and overall negative, they are generally positive concerning the third one.

### **Public opinion of transitional justice**

A few recent studies have documented positive opinions of transitional justice in Colombia (Nussio, Rettberg, & Ugarriza, 2015; Taylor, 2015) and in Cambodia (Pham, Vinck, Balthazard, Strasser, & Om, 2011). However, more studies have reported negative opinions, for instance, in Cambodia (Abe, 2013), Burundi (Samii, 2013), South Africa (Hamber, Nageng, & O'Malley, 2000) or Rwanda (Burnet, 2008). In the latter country, a number of participants were interviewed during a period that stretched from before the beginning of the Gacaca (1999) to its early stages (2007), and expressed doubts that the Gacaca would achieve their promised goal.

Previous studies have focused either on the opinion of the general population (Abe, 2013; Nussio et al., 2015; Samii, 2013; Taylor, 2015) or that of the victims (Hamber et al., 2000; Pham et al., 2011). In many studies focusing on the general population, it is unclear to what extent the individuals interviewed were personally involved in the conflict or in the transitional justice process itself. Because these two variables may have a large impact on opinions, in the present study we measured the opinion of both survivors (targeted group) and neighbors (non-targeted group), and we compared the opinions of people with different levels of involvement in the transitional justice system (those who attended, testified, and did not attend). We also measured the extent to which individuals actually suffered negative consequences from the 1994 genocide.

Despite the negative perception it sometimes triggers, transitional justice may nevertheless have positive individual or social consequences. At the level of the individual, it has been hypothesized to decrease victims' negative emotions and psychopathological symptoms. At the level of the society, it may increase social cohesion. We address these two dimensions next.

### **Individual wellbeing: Victims' psychological health**

In recent studies, we have found no evidence of a positive link between transitional justice and individual well-being (see Table 1). Worse, a number of studies have presented evidence for a negative link. For instance, 2300 individuals from across 200 villages were tested in Sierra Leone, before and 9 to 31 months after their participation in local transitional justice

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(Cilliers, Dube, & Siddiqi, 2016). Increased levels of depression, anxiety, and post-traumatic stress disorder (PTSD) were observed after their participation. Similar negative findings have been reported in a variety of other countries (e.g., in South Africa: Byrne, 2004, and Mendeloff, 2009; in Cambodia: Pham et al., 2011; in the Former Yugoslavia: Stover, 2004).

Three studies have examined the psychological correlates of the Gacaca in Rwanda. Brounéus (2010) interviewed 1200 participants in 2006, and reported that Gacaca witnesses were 15 to 20% more likely to show clinical signs of PTSD and/or depression than non-witnesses. She concluded that the Gacaca had a generally negative impact on victims' well-being, illustrated in the words of this participant: "When I gave testimony, I had a psychological crisis. When you give testimony surrounded by people who have killed your family, you feel ill, you feel insane... Now, they do not let me speak at the Gacaca. They say I am insane." (Brouneus, 2008, p. 69). Two other studies in Rwanda reached similar conclusions (Funkeson, Schröder, Nzabonimpa, & Holmqvist, 2011; Kanyangara, Rimé, Philippot, & Yzerbyt, 2007).

In sum, a number of recent studies do not support the idea that transitional justice and truth-telling necessarily improve the emotional well-being of victims (for a similar argument, see also: Biro, Adjukovic, Coralko, Djipa, Milin, & Weinstein, 2004; Doak, 2011; Kaminer, Stein, Mbanga, & Zungu-Dirwayi, 2001; Karstedt, 2016). However, it is possible that individuals who were more exposed to the violence were also more likely to participate in transitional justice, hence the negative relationship between participation and mental health. In the present study, we controlled for the impact of genocide exposure. Second, most studies mentioned above took place shortly after exposure to transitional justice. We raise the possibility that justice exposure has a negative impact in the short term, because it reopens trauma-related wounds (e.g., Brounéus, 2010), but a positive impact in the longer term, by allowing psychological closure (Rimé, 2009). The present study documented the psychological health of individuals who have and have not attended the Gacaca trials, several years after the end of the trials.

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Given that psychological health is related to openness to reconciliation (Caparos et al., 2018; Pham et al., 2004; Schaal, Weierstall, Dusingizemungu, & Elbert, 2012), if transitional justice negatively impacts psychological health, it may also have a negative impact on social cohesion. As we will see next, this is not always the case, and several recent studies allow for a more optimistic conclusion.

### **Social cohesion: Openness to reconciliation**

A large number of studies suggest a positive relationship between transitional justice and peace and reconciliation. In Sierra Leone, transitional justice led to increased social cohesion (Cilliers et al., 2016), despite its negative impact on witnesses' psychological health (see above). In South Africa, the truth and reconciliation commissions (TRC) was related to more positive attitudes towards outgroups and contributed to reconciliation (Gibson, 2006). Participation in the International Criminal Tribunal for the Former Yugoslavia (Meernik & Guerrero, 2014) and in the Chilean TRC (Ferrara, 2014) was also linked to more favorable attitudes towards reconciliation. Post-conflict countries which have used transitional justice mechanisms (tribunals, truth commissions, or both) show lower human-right abuse and higher democratization than countries which have not (Druckman & Wagner, 2016).

In Rwanda, two studies have documented a positive impact of the Gacaca trials on social cohesion. First, Rimé, Kanyangara, Yzerbyt, and Paez (2011) found that Gacaca participation promoted social cohesion by reducing perceived outgroup homogeneity and by increasing positive stereotypes, among victims and perpetrators alike. Similarly, Kanyangara et al. (2007) showed positive consequences of Gacaca involvement on intergroup perception, through a lowering of prejudicial and stereotypical reactions between survivors and perpetrators.

Despite a majority of studies showing positive associations between transitional justice and social cohesion, some counter-examples have been documented. The Gacaca may promote collective guilt and decrease trust (Rettig, 2008), which are both negative predictors of reconciliation (Zorbas, 2009). Kanyangara et al. (2014) reported that genocide survivors were



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more inclined to feel revengeful, less able to forgive, and less willing to have intergroup contact when they had attended the Gacaca than when they had not.

In summary, previous studies have highlighted that populations often have a negative opinion of transitional justice, and that individuals who have participated show lower psychological well-being. On the other hand, transitional justice may generally promote social cohesion. In Rwanda, a majority of studies have reported negative correlates on all three dimensions: public opinion, individual well-being, and social cohesion (see Table 1). Most studies in Rwanda were conducted relatively early, as the Gacaca trials had just started, between 2005 and 2007 (Brounéus, 2010; Burnett, 2008; Rettig, 2008; Kanyangara et al., 2007; Kanyangara et al., 2014), or before they had finished, between 2005 and 2010 (Funkeson et al., 2011; Waldorf, 2013). Long-term, more stable effects may be different, and some of the positive effects of transitional justice on mental health and social cohesion, after such massive violence, may take time to develop and manifest themselves.

There are theoretical reasons to expect different short- and long-term consequences of transitional justice, particularly for victims. The Gacaca involved social sharing of traumatic emotional experience. The work of Rimé (2009) showed that this does not, in and of itself, lead to emotional recovery. In their theoretical model of PTSD, Ehlers and Clark (2000) propose that PTSD is first and foremost a pathology of autobiographical memory, whereby traumatic events are disproportionately encoded in a data-driven sensory form (i.e., through mental imagery), as opposed to in a conceptual form (i.e., by giving meaning to the event). As a result of this, the revisiting of a traumatic experience, through testimony for instance, may at first mostly reactivate and reinforce sensory-based memories, leading to a worsening of the emotional state. It is possible that on a longer-term basis, however, having revisited the traumatic experience may also help reshape it, from a sensory- to a conceptual-based memory. Consistent with this idea, findings suggest that the social sharing of emotions related to a highly emotional event (the

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Madrid terrorist attacks in 2004) led to the improvement of well-being and social integration only after some time had elapsed (Rimé, Páez, Basabe, & Martínez, 2010).

Table 1

*Studies reporting positive and negative relationships between (1) transitional justice and (2) public opinion, individual well-being, and social cohesion.*

	Positive	Negative
Public opinion	Nussio et al., 2015 (Colombia) Taylor, 2015 (Colombia) Pham et al., 2011 (Cambodia)	Abe, 2013 (Cambodia) Samii, 2013 (Burundi) Hamber et al., 2000 (South Africa) <b>Burnett, 2008 (Rwanda)</b>
Individual well-being		Cilliers et al., 2016 (Sierra Leone) Byrne, 2004 (South Africa) Pham et al., 2011 (Cambodia) Stover, 2004 (Former Yougoslavia) Mendeloff, 2009 (South Africa) <b>Funkeson et al., 2011 (Rwanda)</b> <b>Kanyangara et al., 2007 (Rwanda)</b> <b>Brounéus, 2010 (Rwanda)</b>
Social cohesion	Cilliers et al., 2016 (Sierra Leone) Gibson, 2006 (South Africa) Meernik & Guerrero, 2014 (Former Yougoslavia) Ferrara, 2014 (Chile) Frederking, 2015 (55 countries) Druckman & Wagner, 2016 (50 countries) <b>Rimé et al., 2011 (Rwanda)</b> <b>Kanyangara et al., 2007 (Rwanda)</b>	<b>Kanyangara et al., 2014 (Rwanda)</b> <b>Rettig, 2008 (Rwanda)</b> <b>Waldorf, 2013 (Rwanda)</b> <b>Selim &amp; Murithi, 2012 (Rwanda)</b>

*Note: studies which took place in Rwanda are indicated in bold font.*

### Overview of the present study

The present study took place between 2014 and 2016, 20-to-22 years after the 1994 Rwandan genocide perpetrated against the Tutsi, and 2-to-4 years after the end of the last Gacaca trials. We probed all three dimensions which have been previously related to transitional justice: public opinion, individual well-being, and social cohesion. We compared these as a function of (1) Gacaca involvement, by contrasting individuals who attended the trials, who attended and provided testimony, and who did not attend, and (2) personal involvement, by contrasting individuals belonging to the group targeted by the genocide (i.e., survivors) or not (i.e., neighbors). In all the analyses, we controlled for the extent of genocide-related negative consequences suffered by the participants.

## **Method**

### **Participants**

679 Rwandans participated in this study (342 females, mean age 37 years,  $SD = 7.4$ , age range 27-64 years). We used a convenience sample; participants were recruited through our research assistants and word of mouth, in Kigali (capital city of Rwanda) and several locations outside the capital city (Rubavu, Nyanza, Huye, Nyabihu, Mututu, Kibirizi, Ntarabana, Muyumbu, Nyamata, and Gisagara). Data collection took place during five visits to Rwanda (Jan. 2014, Aug. 2014, Feb. 2015, Aug. 2015, Aug. 2016). Sample size was not predetermined and we recruited as many participants as possible during each visit. There were three inclusion criteria: (1) being at least 30 years of age, (2) being able to speak and read Kinyarwanda, and (3) having been present in Rwanda at the time of the genocide. Our inclusion criteria meant that only participants who were literate could participate. The latter limitation was made necessary by material constraints, which did not allow us to perform questionnaires and cognitive tasks orally. Participants received 7000 RWF (about 9 \$US) as a compensation for their time.

Because the current policy in Rwanda discourages from directly asking participants their ethnic group (Tutsi or Hutu), and because group membership is a complex issue, we used an accepted indirect method to assess group identity. Participants reported if they belonged to “the group which was targeted by the genocide”. The sample consisted of 373 participants identifying with the targeted group (55.8%), which we refer to as survivors, and 212 participants not identifying with the targeted group (31.7%), which we refer to as neighbors. Survivors were overrepresented in our sample (55.8%) compared to the percentage in the Rwandan population (between 10 and 15%). Group membership was not disclosed by 83 participants (12.4%).

We used group membership as a moderator in the analyses reported below, on the assumption that the psychological impact of transitional justice may vary depending on whether or not one was targeted by the violence. In addition to group membership, we also measured the degree to which each individual reported objective negative consequences (see Stimuli and

Procedure) and their self-reported subjective victimhood (whether they “considered having been affected by the genocide”).

### **Stimuli and procedure**

The data presented here are part of a larger study which aimed to take a psychological snapshot of the Rwandan population, 20-to-22 years after the genocide. Testing sessions lasted between 2 and 3 hours and consisted of questionnaires and a battery of cognitive tests, notably verbal fluency, short-term memory, and reasoning. The results of the latter are presented in parallel publications (Caparos et al., 2018; Blanchette et al., 2018). Importantly, the groups who attended, testified, and did not attend the Gacaca did not differ on these cognitive variables.

During each testing session, five to seven participants were tested in parallel, all in the same room but scattered across the room to ensure anonymity, so that no participant could see what responses their peers were giving. Participants completed the two parts of the experiment (i.e., questionnaires and cognitive tasks) in a counterbalanced order. Instructions were always presented on screen. The first and last author of the current paper and one or two Rwandan research assistants (trained psychologists) were present during all testing sessions in order to offer guidance and support.

### **Questionnaires**

The questionnaires, written in French or English, were based on questionnaires previously used in Rwanda (Arnold, 2011; Brounéus, 2010; Pham et al., 2004) and were translated in Kinyarwanda by two independent translators. Questions appeared in the same, fixed order, for all participants. Each question appeared on the top half of the screen and the proposed answers, identified by a 0-to-8 digit, appeared on the bottom half of the screen. Participants responded by pressing a digit key on the laptop keyboard. For each question, there was the possibility not to respond by pressing the ‘9’ key (for “I prefer not to respond”). Questions are presented in full in the Supplemental Material.

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*Transitional justice.* Participants reported if they ever had (1) attended a Gacaca trial, and (2) given a testimony during a Gacaca trial. Some participants reported never having attended the Gacaca but having given a testimony (N=55). Because of the incongruity of their answers, they were removed from further analysis. The remaining participants (1) had never attended the Gacaca (N=229), (2) had attended the Gacaca trials without testifying (N=275), or (3) had attended the Gacaca trials and testified (N=120). We used these three groups as the main independent variable, which we name Gacaca involvement (see Results section below).

Participants reported their level of agreement with four statements related to the Gacaca (e.g., “people now feel better thanks to the Gacaca”) using a 7-point Likert scale (with “(1) I absolutely disagree”, “(4) I neither agree nor disagree”, and “(7) I absolutely agree” as anchors). The four responses were averaged and transformed into percentages to obtain a mean ‘Gacaca opinion’ score, which ranged from “0%” (very negative opinion) to 100% (very positive opinion), where a score above 50% indicates an overall positive opinion of the Gacaca.

*Negative consequences of the genocide.* Participants reported whether they had (“Yes”, scored ‘1’) or had not (“No”, scored ‘0’) experienced nine negative consequences linked to the genocide (e.g., having a close parent who was killed during the genocide). We calculated a negative-consequence score that ranged from zero (no negative consequence) to nine (maximal level of negative consequences). Participants also indicated their “subjective victimhood” by reporting whether they “estimated having been affected by the genocide” (yes/no; we used this measure as an alternative independent variable in analyses presented in Supplemental Material).

*Psychological health.* Participants filled the Posttraumatic Stress Disorder Checklist – Civilian, translated in Kinyarwanda (PCL-C; Blanchard, Jones-Alexander, Buckley, & Forneris, 1996). They reported how much they had been affected by 17 PTSD-related symptoms during the past week, from one (not at all) to five (extremely). The symptoms were related to intrusions (e.g., intrusive flashbacks and recurring dreams), avoidance/numbing (e.g., feelings of detachment and emotional numbness), or hyperarousal (e.g., irritability or outbursts of anger).

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Participants also filled a Kinyarwanda-translated version of the 10-item Hopkins Depression Symptom Checklist (HDSC; Derogatis et al., 1974). They used a scale ranging from zero (not at all) to three (extremely) to evaluate the self-relevance of a set of depression symptoms (namely, worry, sadness, melancholy, suicidal thoughts, loneliness, feeling of guilt, loss of appetite, loss of sexual interest, loss of interest in daily activities, and loss of hope).

*Openness to reconciliation.* Participants filled an openness to reconciliation questionnaire made of three subscales (Caparos et al., 2018): coexistence, forgiveness, and trust and security. Four statements measured participants' opinions about coexistence between former rivals (e.g., "In the future, for the good of our country, we need to welcome those who will come back amongst us after having served a sentence following the Gacaca trials"). Three statements measured trust and security (e.g., "It is necessary to be on alert with others, even with neighbors and friends."). Four statements measured participants' forgiveness disposition (e.g., "I have succeeded in forgiving those who have hurt me."). Participants used a 7-point Likert scale to indicate how much they agreed with each item (with "(1) I absolutely disagree", "(4) I neither agree nor disagree", and "(7) I absolutely agree" as anchors). Responses were averaged and transformed into percentages to obtain a mean 'openness-to-reconciliation' score, which ranged from "0%" (not at all open to reconciliation) to 100% (completely open to reconciliation).

*Socio-demographics.* Participants reported (a) the size of their household (score from '0' to '7'), (b) their wealth (scored from '1', "very modest", to '7', "very wealthy"), (c) their religiosity (scored from '0', "God plays no role in my daily life", to '3', "God plays a very important role in my daily life"), and (d) their education level (scored '0', "Incomplete Primary school", '1', "Primary school", '2', "Secondary school", or '3', "University course").

### **Ethics**

Conducting a study on genocide and transitional justice in Rwanda requires fundamental ethical considerations. This study was approved by the Ethics Committee of Université du Québec à Trois-Rivières in Canada (ethical approval number CER-14-206-08-02.09). In

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Rwanda, the research project was ethically and methodologically reviewed and approved by the National Ethics Committee of Rwanda (ethical approval number 042/RNEC/2014), the National Unity and Reconciliation Commission, and the National Commission for the Fight against Genocide, the three authorities from which permission was required for such a study. Because of the vulnerability of the population tested and the sensitivity of the topic, close discussions were held during the extent of the project to minimize the risks for the participants. Procedures were put in place to manage possible negative reactions. At the end of the testing session, all participants were invited to express their views on the study. The great majority of participants expressed extremely positive feedback about the experience. Data were completely anonymous, in that each data file was identified solely using a participant number. As soon as a participant had left the testing location, his/her data file could not be traced back to his/her identity.

### **Analyses**

We were interested in relationships between Gacaca involvement (did not attend, attended, testified) and the four following dependent variables: (1) opinion of the Gacaca, (2) PTSD symptoms, (3) Depression symptoms, and (4) openness to reconciliation, in the groups of survivors and neighbors. We ran analyses of variance on the different dependent variables, using Gacaca involvement and Group as independent variables, while controlling for the effect of Negative consequences of the genocide (score ranging from 0 to 9) by entering this factor as a continuous covariant in the analyses. Significant main effects and interactions were explored using Bonferroni-corrected pairwise contrasts.

## **Results**

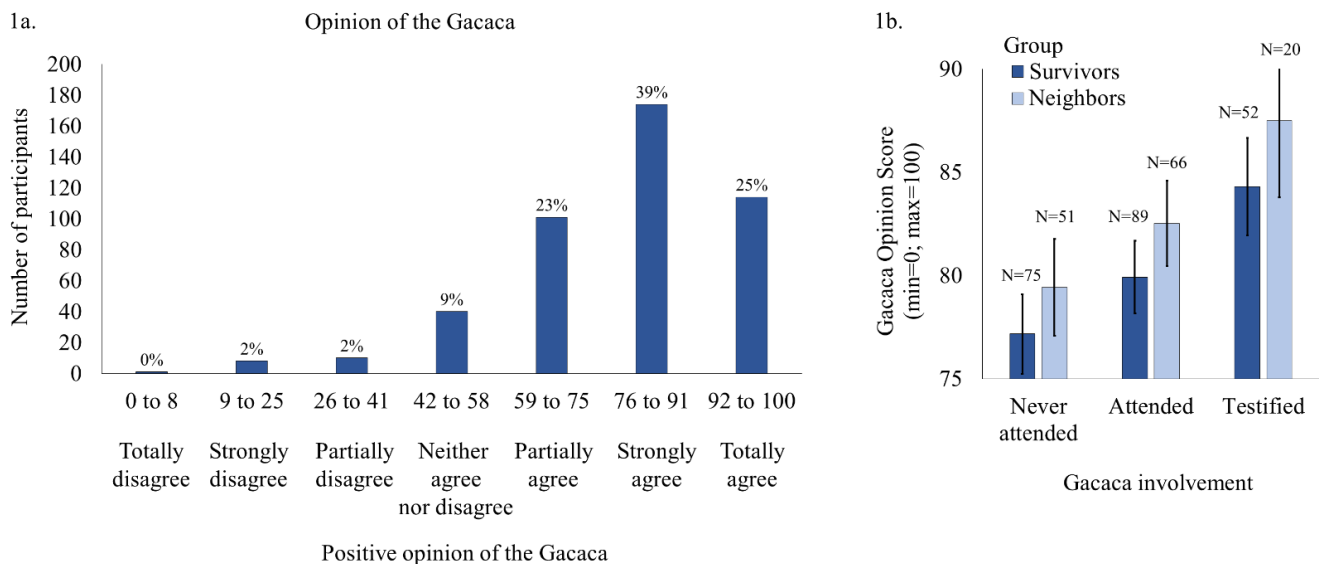
### **Opinion about the Gacaca**

We first wanted to examine whether opinions of the Gacaca trials were overall favorable or unfavorable. Global scores were calculated in terms of percentages where scores below 50% corresponded to answers closer to the “I absolutely disagree” anchor, reflecting more unfavorable opinions, and scores above 50% corresponded to answers closer to the “I absolutely

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agree” anchor, reflecting more favorable opinions. We used a one sample t-test to determine whether the average opinion significantly differed from 50% (which would correspond to a neutral opinion of the Gacaca trials). The mean opinion score was significantly higher than 50% ( $M = 80.3\%$ ,  $SD = 17.8$ ),  $t(448) = 35.9$ ,  $p < .001$ . A large majority of participants (87%) had a generally positive opinion of the Gacaca (see Figure 1a).”

We used an ANCOVA to compare opinion scores as a function of Gacaca involvement (did not attend, attended, or testified) and Group (survivors, neighbors), while controlling for the effect of Negative consequences of the genocide (score ranging from 0 to 9). Both the main effects of Gacaca involvement,  $F(2,346) = 3.9$ ,  $p = .022$ ,  $\eta_p^2 = .022$ , and Group,  $F(1,346) = 4.6$ ,  $p = .031$ ,  $\eta_p^2 = .013$ , were significant (see Figure 1b). Neighbors had more positive opinions of the trials than survivors, and participants who testified reported more positive opinions than participants who did not attend the trials ( $p = .030$ ). The other pairwise comparisons were not significant ( $ps > .200$ ). The interaction between Gacaca involvement and Group was not significant,  $F(2,346) = 0.1$ ,  $p = .922$ ,  $\eta_p^2 < .001$ .



**Figure 1.** Distribution of Gacaca mean opinion scores across the sample (1a). Effect of Group and Gacaca involvement on opinion scores (1b). Error bars represent Standard Error of the Mean (SEM).



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Finally, there was a significant effect of Negative consequences of the genocide,  $F(1,346) = 8.4, p = .004, \eta_p^2 = .024$ , such that participants who had suffered worse consequences reported more positive opinions than those who had suffered milder consequences.

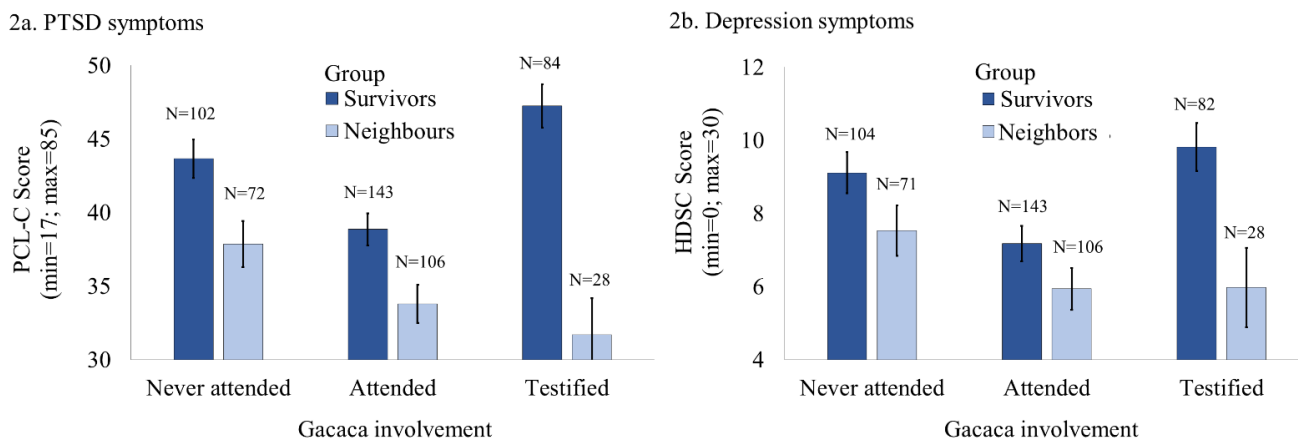
### Individual well-being

We used an ANCOVA to compare PTSD symptoms (measured using the PCL-C questionnaire) as a function of Gacaca involvement (did not attend, attended, or testified) and Group (survivors, neighbors), while controlling for the effect of Negative consequences of the genocide. Both the main effects of Gacaca involvement,  $F(2,528) = 5.4, p = .005, \eta_p^2 = .020$ , and Group,  $F(1,528) = 17.2, p < .001, \eta_p^2 = .031$ , were significant. The interaction between the two variables was also significant,  $F(2,528) = 3.9, p = .022, \eta_p^2 = .014$  (see Figure 2a). We explored the origin of this interaction by testing the effect of Gacaca involvement in each group. In both survivors and neighbors, those who had attended the Gacaca presented lower levels of PTSD symptoms than those who had not ( $p = .027$  and  $p = .096$ , respectively). In contrast, while survivors who attended presented lower levels of symptoms than survivors who testified ( $p = .001$ ), neighbors who attended presented equivalent levels of symptoms than neighbors who testified ( $p = .861$ ).

We investigated further the difference between survivors who attended and survivors who testified, given that the latter had reported higher levels of negative consequences than the former (see Socio-demographic section). We created attendance and testimony groups of survivors pair-matched on their negative consequence score. The two groups each included 77 participants, and the mean negative consequence score for each group was  $M=5.7 (SD=1.7)$ . PTSD symptoms remained lower in survivors who attended the Gacaca ( $M=33.7, SD=11.6$ ) compared to survivors who testified ( $M=45.5, SD=14.1$ ),  $t(76) = 5.7, p < .001, d = .94$ . This sub-analysis confirmed that the difference between those who attended and those who testified was not due to a difference in negative consequences.

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Finally, there was a significant effect of Negative consequences of the genocide,  $F(1,527) = 49.2$ ,  $p < .001$ ,  $\eta_p^2 = .085$ . Those who had suffered worse consequences reported higher levels of PTSD symptoms than those who had suffered milder consequences.



**Figure 2.** Effect of Group and Gacaca involvement on levels of PTSD symptoms (2a) and depression symptoms (2b). Error bars represent SEM.

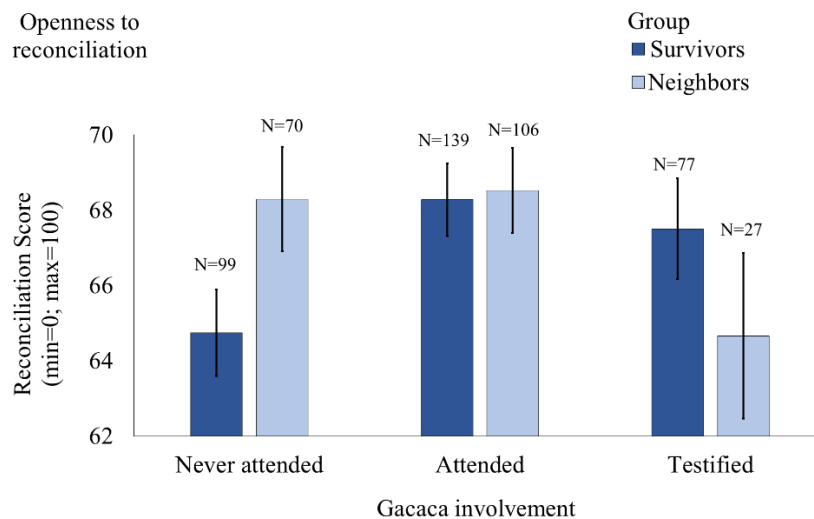
We also compared depression symptoms, measured using the HDSC questionnaire, as a function of Gacaca involvement (did not attend, attended, or testified) and Group (survivors, neighbors), while controlling for the effect of Negative consequences of the genocide (score ranging from 0 to 9). The main effect of Gacaca involvement was significant,  $F(2,527) = 4.5$ ,  $p = .012$ ,  $\eta_p^2 = .017$  (see Figure 2b). Individuals who attended the Gacaca presented lower levels of symptoms than both those who did not attend ( $p = .006$ ) and those who testified ( $p = .087$ ). There was no significant difference between those who did not attend and those who testified ( $p = 1.0$ ). There was also a trend for a significant main effect of Group,  $F(1,527) = 2.8$ ,  $p = .096$ ,  $\eta_p^2 = .005$ , whereby survivors presented higher levels of depression symptoms than neighbors. The interaction between Gacaca involvement and Group was not significant,  $F(2,527) = 0.9$ ,  $p = .389$ ,  $\eta_p^2 = .004$ . Finally, there was a significant effect of Negative consequences of the genocide,  $F(1,527) = 44.7$ ,  $p < .001$ ,  $\eta_p^2 = .078$ , such that those who had suffered worse consequences reported higher levels of depression symptoms than those who had suffered milder consequences.

### Social cohesion

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We used an ANCOVA to compare reconciliation scores, as a function of Gacaca involvement (did not attend, attended, or testified) and Group (survivors, neighbors), while controlling for the effect of Negative consequences of the genocide. While neither the main effect of Gacaca involvement,  $F(2,511) = 1.7, p = .186, \eta_p^2 = .007$ , nor that of Group,  $F(1,511) = 0.1, p = .717, \eta_p^2 < .001$ , was significant, there was a trend for an interaction between the two variables,  $F(2,511) = 2.5, p = .085, \eta_p^2 = .010$  (see Figure 3). We explored the origin of this interaction by testing the effect of Gacaca involvement in each group. Survivors who did not attend the Gacaca had lower reconciliation scores than those who attended ( $p = .048$ ), and the latter had equivalent scores to those who testified ( $p = 1.0$ ). In contrast, neighbors had equivalent reconciliation scores (all  $ps > .200$ ), whether they attended, testified, or did not attend.

Finally, there was a significant effect of Negative consequences of the genocide,  $F(1,511) = 4.1, p = .042, \eta_p^2 = .008$ . Those who had suffered worse consequences reported lower reconciliation scores than those who had suffered milder consequences.



**Figure 3.** Effect of Group and Gacaca involvement on reconciliation scores. Error bars represent SEM.

### Socio-demographics and genocide exposure

The socio-demographic information concerning the sample is presented in Supplemental Material. Survivors reported more severe negative consequences of the genocide ( $M = 5.2, SD = 1.9$ ) than neighbors ( $M = 3.7, SD = 2.2$ ). Nevertheless, the latter group scored relatively high

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(average of 3.7 on a scale ranging from 0 to 9), showing that some of the neighbors were also affected by the genocide. With regard to subjective victimhood, survivors more often reported “having been affected by the genocide” (76%) compared to neighbors (36%). These percentages show that not all survivors considered that they suffered as a result of the genocide (e.g., some of them were able to flee to foreign countries during the early stages of the genocide), and not all the neighbors considered that they were spared from the genocide (e.g., some of them lost close family members who belonged to the targeted group, or were targeted for not supporting the genocidal political agenda). Additional analyses, reported in the Supplemental Material, were performed using subjective victimhood as a moderator, instead of group membership. The results of these alternative analyses were overall similar to the results presented below.

We used an ANCOVA to compare the negative consequences of the genocide and the socio-demographic variables as a function of Gacaca involvement (did not attend, attended, or testified; see Table 2). Negative consequences of the genocide were related to Gacaca involvement,  $F(2,609) = 11.6, p < .001, \eta_p^2 = .037$ . Participants who had testified reported having been exposed to more genocide-related events ( $M=5.3, SD=2.0$ ) than participants who had attended the Gacaca without testifying ( $M=4.3, SD=2.2, p < .001$ ). The latter group did not differ significantly from participants who had not attended the Gacaca ( $M=4.2, SD=2.1, p = 1.0$ ).

Table 2

*Study sample broken down by the different socio-demographic variables*

	Gacaca involvement		
	Did not attend M (SD)	Attended M (SD)	Testified M (SD)
Objective genocide exposure (min=0; max=9)	4.2 (2.1)	4.3 (2.2)	5.3 (2.0)
Gender (% women)	56 (0.5)	48 (0.5)	49 (0.5)
Age (years)	35 (6.6)	36 (7.0)	40 (8.9)
Family size (min=1; max=7)	2.4 (2.0)	2.6 (2.1)	3.1 (2.2)
Wealth (min=1; max=7)	2.7 (1.1)	2.8 (1.2)	2.7 (1.2)
Importance of God (min=0; max=3)	2.3 (0.8)	2.3 (0.8)	2.3 (0.8)

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Education (min=0; max=3)	1.8 (1.0)	1.8 (1.0)	1.6 (1.0)
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\* $p < .05$

In addition, participants who had testified were older ( $M=40$  yrs,  $SD=8.9$ ) than participants who had attended Gacaca without testifying ( $M=36$  yrs,  $SD=7.0$ ),  $F(2,615) = 15.7$ ,  $p < .001$ ,  $\eta_p^2 = .048$ . Finally, family size also differed significantly across participants,  $F(2,614) = 5.0$ ,  $p = .007$ ,  $\eta_p^2 = .016$ , such that participants who had testified tended to live in larger households ( $M=3.1$  yrs,  $SD=2.2$ ) than participants who had attended the Gacaca without testifying ( $M=2.6$  yrs,  $SD=2.1$ ,  $p=.095$ ). None of the other group differences were significant.

### Discussion

This study aimed to provide some insight into the long-term psychological impact of transitional justice. We examined the psychological correlates of participating in the Gacaca tribunals – which occurred in Rwanda after the 1994 genocide perpetrated against the Tutsi. Data collection took place 20-to-22 years after the genocide and 2-to-4 years after the end of the trials. Contrary to previous studies that had documented mainly negative impacts of the Gacaca and other transitional justice programs, we observed that individuals who participated in the Gacaca generally showed greater levels of psychological well-being and attitudes, both towards the trials themselves and social cohesion.

In our sample, more than 85% of participants expressed positive opinions of the Gacaca, showing an overwhelming approval of the trials. This was true both in participants who were and were not targeted by the genocide. This result contrasts with previous data showing opposition to the trials (e.g., Burnett, 2008). It is possible that the trials generated some levels of resentment and incomprehension in their early stages and that a certain amount of time was necessary to allow them to be accepted by the population. Participants' opinions may have been boosted by desirability effect and/or for fear of going against official political discourse. However, such positive bias also applies to other studies (e.g., Burnett, 2008). In addition, in the present study, participants knew that their responses were completely anonymous, and they provided their

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response using a computer keyboard, isolated from their pairs' gaze. Such setting should have attenuated any response bias.

We note that our sample is not representative of the Rwandan society as a whole. Our participants were more educated than the average Rwandan, and it would be necessary to include non-educated participants to create a more exhaustive snapshot of the opinion of the Rwandan society. In any case, the results of the present study do not provide any evidence for negative opinions about the Gacaca, neither in victims of the genocide nor in non-victims.

The results showed that participants who reported having attended the trials presented more favorable opinions of the Gacaca than those who did not attend. Because this study did not measure opinions before and after attendance, it is impossible to conclude whether this finding reflects a positive effect of Gacaca involvement on opinion, or whether those who had a positive attitude towards the trials beforehand were more likely to attend. However, the results do not appear to support the idea that participating in the justice program had a negative impact on public opinion.

The second important finding of this study was that participants who belonged to the targeted group, survivors, reported lower levels of PTSD and depression symptoms when they had attended the Gacaca without testifying, compared to when they had not participated in the trials, or when they had attended and testified. Thus, for survivors, Gacaca involvement was beneficial only when there was no testimony. This finding was not driven by a confounding effect of genocide exposure. In participants who belonged to the non-targeted group, neighbors, the pattern of results was less clear, but appeared to show a beneficial effect of Gacaca involvement in both participants who testified and did not testify.

Amongst all recent psychology studies of transitional justice in post-conflict societies (see Introduction), this is the first report of a positive link between transitional justice exposure and psychological health. Notably, negative links have previously been reported in three studies which took place in Rwanda. One factor that differentiates this study from previous ones is the

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time which has elapsed between Gacaca involvement and measures of affective health. Our results may indicate that the positive impact of Gacaca attendance on psychological health requires sufficient time (i.e., several years) before it can express itself. While Gacaca exposure may initially reopen traumatic wounds (Brounéus, 2010; Funkeson et al., 2011; Kanyangara et al. 2007), for instance by promoting the re-experiencing of sensory-based memories (Ehlers & Clark, 2000), it may ultimately allow psychological closure, by supporting a deeper conceptual processing of the traumatic event. Nevertheless, in the case of survivors, this appeared to be the case only in those who had attended the Gacaca without testifying. The positive relationship between Gacaca exposure and psychological health is therefore a mitigated one, and it appears that in individuals most exposed to trauma, the process of testifying may cancel any long-term positive effect of transitional justice on mental health.

In sum, although the results of this study diverge from previous studies in that they do not replicate a negative relationship between transitional-justice exposure and mental health/emotional well-being, the positive correlates of transitional justice are most visible in participants who did not testify. These results thus add to a body of literature showing that truth telling in and of itself is not sufficient to promote psychological healing (e.g., Brounéus, 2010; Rimé, 2009), and that post-conflict transitional justice may need to incorporate psychological support for testifiers, in order to cancel the negative impact of truth telling.

Our results also show important links between participation in the Gacaca and social cohesion. Survivors who attended the Gacaca, whether they testified or not, reported being more open to reconciliation than survivors who did not attend. These results suggest that the Gacaca may have helped promote the socio-psychological change necessary for reconciliation (Bar-Tal, 2009; Mukashema, & Mullet, 2010). The positive correlation between Gacaca attendance and social cohesion was observed only in survivors, and not in (non-targeted) neighbors. This group difference was not the result of a baseline difference given that, overall, survivors and neighbors had equivalent levels of openness to reconciliation scores. Reconstructing social cohesion may

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be more costly for victims of the violence, and so they may benefit more from the justice process. While this interpretation is tentative, the results of this study suggest that, in Rwanda, transitional justice does not represent a threat to reconciliation, but that positive effects may be limited to those who were targeted by the violence.

In summary, with this study, we provide evidence of positive correlates of the Gacaca in Rwanda, two to four years after the end of the trials. Contrary to what has been reported in earlier studies, our data support the idea that the Gacaca have left a positive impact, with 85% of the sample reporting a favorable opinion of the trials. In addition, individuals who attended without testifying presented lower PTSD and depression symptoms. Finally, survivors who attended and those who testified reported higher openness to reconciliation than those who did not attend. Although this study is cross-sectional and does not allow drawing causal conclusions, it does not support the idea that transitional justice may have had a negative psychological impact in Rwanda. Nevertheless, some of the positive effects were not observed in participants who testified, suggesting that psychological support may be required to help testifiers recover from their truth-telling experience, and to allow them to benefit from transitional justice exposure as much as non-testifiers.

Studies conducted several years after transitional justice has ended are important. They provide a long-term view of the impact of justice on post-conflict reconstruction. The Gacaca in Rwanda were of an unprecedented scale in the history of humanity. Our results support the idea that such large-scale transitional justice is useful and should be promoted in future post-conflict contexts. However, special attention should be provided to individuals who give testimonies, to allow them benefit from transitional justice as much as those who do not testify.



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**Appendix:** The data reported in this manuscript were collected as part of a larger data collection. Findings from the data collection have been reported in separate manuscripts. MS1 focuses on the relationship between openness to reconciliation, on the one hand, and reasoning, verbal fluency, and PTSD symptoms, on the other. MS2 focuses on the relationship between short-term memory and trauma exposure/PTSD. The present manuscript focuses on transitional justice, a variable which was not considered in our previous work, and it does not focus on cognitive health, which was the subject of the two previous studies.