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Measuring Intergroup Forgiveness: The Enright Group Forgiveness Inventory

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Abstract

Until recently, researchers operationalized and measured the psychological construct of forgiveness at the individual, rather than the group, level. Social psychologists started applying forgiveness to groups and examining the role intergroup forgiveness may have in conflict resolution and peace efforts. Initial attempts to define and measure forgiveness at the group level either assumed individual and group capacities were the same, or insufficiently described what intergroup forgiveness meant. We developed a new measure of intergroup forgiveness, and a novel group administration process, that operationalized the construct in a philosophically coherent way. Our conceptualization of intergroup forgiveness was rooted in what groups, as opposed to the individuals who compose them, have the capacity to do. We collected data on the psychometric properties of the measure with 595 participants in three different geographic and cultural settings. We assessed the factor structure, internal consistency, and validity of the measure. We also assessed a novel group-based method of administering the measure to better understand the relationship between group based reports and self-reports of intergroup forgiveness. The factor structure of the measure was supported, and the measure had strong internal consistency, as well as convergent and discriminant validity. The group administration process revealed important group dynamics and was not statistically different than a standard self-report administration; this finding has important implications for research and practice.

Keywords: *intergroup forgiveness, measurement, intergroup peace, group dynamics*

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Robert Enright, a faculty member at the University of Wisconsin-Madison and a board member of the International Forgiveness Institute, Inc., led a study group of researchers and students exploring the psychology of forgiveness. This group included scholars from around the world investigating different facets of forgiveness.

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Over the past 15-years researchers and peace advocates have argued that intergroup forgiveness can have an important role in resolving intergroup conflict and even facilitate reconciliation (e.g., Bright & Exline, 2012; Long & Brecke, 2003; Wenzel & Okimoto, 2015). In an effort to understand group dynamics and reduce intergroup conflict, social scientists are studying the relationships between intergroup forgiveness and variables such as apologies, intergroup contact, and ingroup identification (e.g., Hewstone, Cairns, Voci, Hamberger, & Niens, 2006; Van Tongeren, Burnette, O'Boyle, Worthington, & Forsyth, 2014; Wohl, Hornsey, & Bennett, 2012). Researchers are conducting these investigations around the world with groups that have different types of conflicts and different histories of injustice toward each other.

One critique of the growing literature on intergroup forgiveness is that much of it is based on the conceptualization and operationalization of interpersonal forgiveness (Roe, 2007). Enright et al. (2016) argued interpersonal forgiveness and intergroup forgiveness are different constructs and extending interpersonal forgiveness to groups can conflate individual and group capacities rendering the measurement of intergroup forgiveness inaccurate. We build on the work of Enright et al. (2016) by creating and testing a new measure of intergroup forgiveness that is designed to assess group behaviors rather than individual cognition and affect. Social psychologists and peace advocates need accurate measures of intergroup forgiveness to advance knowledge of intergroup dynamics, evaluate peace-building intervention efforts, and assess groups that might move from tension to active conflict. After we review the literature on intergroup forgiveness, we describe the development and psychometric tests of a new measure. Then, we discuss some of the ways in which researchers can use the measure and propose directions for additional research.

Intergroup Forgiveness

Injustices resulting from intergroup conflict can create anger and hate between groups which lead to cycles of violence and retaliation that can last for generations (McLernon, Cairns,

Hewstone, & Smith, 2004). These conflicts have significant implications for the groups involved, which include the destruction of property and cultural artifacts, the loss of life, and threats to the mental health of group members (Masco, 2013; McLernon & Cairns, 2001). Several scholars have suggested intergroup forgiveness could improve group relationships and mitigate the destructive consequences of intergroup conflict (Bright & Exline, 2012; Long & Brecke, 2003; Wenzel & Okimoto, 2015). We briefly review the conceptual and empirical exploration of intergroup forgiveness to provide a foundation for our discussion of measuring the construct.

Intergroup Conflict and Intergroup Forgiveness

Several authors have noted a change within the study of intergroup conflict from an emphasis on wrongdoing, guilt, and punishment to an emphasis on acknowledgement, healing, and relationship repair (Hamber, 2007; Nadler & Shnabel, 2015; Zehr, 2004). This shift in focus reveals an important role for intergroup forgiveness in intergroup conflict resolution. Three examples will provide context for our discussion of a new measure of intergroup forgiveness. First, Nadler and Shnabel (2015) put forward a model of reconciliation that has structural, relational, and identity related components. They argued social-emotional processes such as humiliation, vengeance, and shame create identity threats and block reconciliation. They went on to argue that apologies and the promotion of intergroup forgiveness are identity restoring and therefore facilitate reconciliation. Second, Long and Brecke (2003) developed a forgiveness model of reconciliation based on an examination of intra-and interstate conflicts. They suggested emotion has a central role in reconciliation following intrastate conflicts. They identified four components of a forgiveness-based model: truth telling, redefining social identities following the conflict, justice for victims, and a call for new amicable relationships between the groups. Finally, restorative justice approaches (e.g., Zehr, 2004) have been applied to peacemaking and conflict resolution efforts. For example, a restorative justice framework helped shape the mission of the Truth and Reconciliation Commission in South Africa. Restorative justice focuses on interpersonal relationships and assumes injustice is a violation of people and relationships, the injustices create obligations, and the most important obligation is to make right the wrong (Zehr, 2004). Intergroup forgiveness may be an outcome of restorative justice, or perhaps a precursor that opens people to the possibility of moving forward with restorative justice.

Research on Intergroup Forgiveness

A full review of the intergroup forgiveness research literature is beyond the scope of this paper. We provide a brief overview here to illustrate the types of questions researchers are asking and the settings in which they are working. Researchers have investigated many factors that could affect intergroup forgiveness. These include contact with an offending group, group emotions, in-group identity, and apologies. Van Tongeren et al. (2014) conducted a meta-analysis exploring nine predictors of intergroup forgiveness. Their meta-analysis included studies of both intrastate and interstate conflicts with participants from 20 different nationalities. Collective guilt and trust were strong mediators of intergroup forgiveness, while negative emotions and strong in-group identity were factors that limited intergroup forgiveness. Studying peace in Northern Ireland, Tam et al. (2008) investigated the predictors of intergroup forgiveness including: intergroup emotions, *infrahumanization* (the denial of human emotions to an outgroup), empathy, and intergroup contact. Tam et al. (2008) found anger and infrahumanization were negatively correlated with intergroup forgiveness and empathy was positively correlated with intergroup forgiveness. Manzi and González (2007) studied the effects forgiveness and reparation have on cognitive and emotional variables that could promote reconciliation. They found forgiveness was mainly predicted by two emotional variables, collective anger and guilt.

The effect of an apology on intergroup forgiveness has received significant attention from researchers (Leonard, Mackie, & Smith, 2011; Wohl et al., 2012). Leonard et al. (2011) found that an apology from a transgressing group can reduce retribution and increase forgiveness from the victim group. They further identified anger and respect as mediators of the relationship between apology and forgiveness. In a series of studies Wohl et al. (2012) explored the emotions expressed in the content of apologies between groups. They found the degree to which a victim group forgives a transgressing group is related to the extent to which the victim group sees the transgressing group as capable of secondary emotions such as anguish.

Wenzel and Okimoto (2015) conducted a study with implications for restorative justice. They investigated the impact intergroup forgiveness had on perceptions of justice among victim groups. In two laboratory studies, in which the choice of a victimized group to forgive an offending group was manipulated, the authors found the participants whose ingroups forgave the offending groups perceived less injustice from the offending group than the victimized groups

who did not forgive the offending groups. Lower levels of perceived injustice had an indirect and positive effect on intergroup sentiments.

These studies provide general support for the models of reconciliation and restorative justice reviewed in the previous section. Relational and identity related variables (Nadler & Shnabel, 2015) have an important role in intergroup forgiveness. In addition, actions such as apologies and reparations can affect perceptions of justice, making reconciliation (Long & Brecke, 2003) and restorative justice (Zehr, 2004) efforts more successful.

Conceptualizing Intergroup Forgiveness

Researchers have put forward an important critique of the early intergroup forgiveness research; many studies simply extend the operationalization of interpersonal forgiveness to the group level (Roe, 2007). For example, McLernon et al. (2004) created the Group Enright Forgiveness Inventory by modifying the Enright Forgiveness Inventory, which measures interpersonal forgiveness. Respondents answered items such as, "I feel __ towards him/her/them." Although McLearn et al. (2004) included the plural term "them" to represent another group, the measure still assessed an individual's feeling toward the group rather than a group's feeling toward another group. Enright et al. (2016) argued the items would have been a better assessment of group forgiveness if they used a plural first-person pronoun such as "we" or "our," instead of the singular "I." Similarly, Kira et al. (2009) measured intergroup forgiveness by assessing an individual's level of forgiveness for a group. Studying intergroup forgiveness in Iraq following Saddam Hussein's regime, Kira et al. had items such as "I do not feel able to forgive those who participated with Saddam, even if my friends or family have invited me to do so." Other studies of intergroup forgiveness have also used assessments of the construct that assumed that groups have the capacities to think, act, and feel in the same ways that individuals do (e.g., Noor, Brown, Taggart, Fernandez, & Coen, 2010; Wohl & Branscombe, 2005). In addition to conflating individual and group capacities, these measures assume that averaging the scores from self-report measures across members of a group accurately represent a group score. This may not be true and should be tested empirically. For example, members of a group may agree that they have collective anger toward another group, but they may not all feel the anger with the same intensity.

Enright et al. (2016) argued that definitions and measures of forgiveness should not assume that individuals and groups have the same cognitive, behavioral, and emotional

capacities. They situate their argument in philosophical discussions of collective responsibility (e.g., Govier, 2002). The central question is whether or not collectives, as distinct from the members who compose them, can think, act, and feel in the same way individuals do. If a collective does not have a mind, like an individual, does it have the same cognitive or emotional processes? Enright et al., based on the work of Govier (2002) and Bright and Exline (2012), argued that individual capacities and group capacities differ and researchers interested in the application of forgiveness to groups need to operationalize and measure intergroup forgiveness in a way that reflects what groups can, and cannot, do.

Govier articulated the qualitative differences between the cognitive processes involved in individual decision-making and the group processes involved in collective decision-making. Group decision-making involves a governing body, that is recognized as having the authority to make decisions for the group, considering options, deliberating, and making a choice for the group. Bright and Exline (2012) described forgiveness between groups and provided a framework for differentiating forgiveness between groups from forgiveness between individuals. They posited forgiveness at the group level focuses on the behavioral dimensions of forgiveness rather than the emotional and cognitive processes of forgiveness. According to Bright and Exline, the behavioral aspects of forgiveness between groups have three purposes: stop the offense, realize the perpetrator's offense has ceased, and withhold retaliatory actions.

Following Bright and Exline (2012) and Govier (2002), Enright et al. (2016) defined and operationalized forgiveness in behavioral terms. They defined group forgiveness as, "acknowledging that a group has been unfairly wronged from another group, the wronged group collectively forgoes retribution and promotes forgiveness in its members by responding to the offending group with positive behaviors." (p. 159). Intergroup forgiveness was defined as a moral virtue, and differentiated from justice, reconciliation, justification, pardoning, and forgetting. Based on philosophical distinctions between individuals and groups and based on the scholarly literature on intergroup forgiveness, they then operationalized intergroup forgiveness in three broad behaviorally-based dimensions: a) creating group norms and shared values that foster forgiveness; b) proclamations, promises, and gestures of good will; and c) establishing structures for group behaviors that promote forgiveness.

The Enright Group Forgiveness Inventory

Based on the conceptual work of Enright et al. (2016), we propose a new measure of intergroup forgiveness, the Enright Group Forgiveness Inventory (EGFI) that is based on what groups, as opposed to the individuals who compose them, can do. We developed an inventory which has 56 items across seven subscales; the subscales align with the broad operationalization Enright et al. created. Each subscale has eight items, four are positive, and four are negative. The Motivation-as-Valuing subscale measures a group's motivation and values regarding forgiveness, peace, and friendliness toward the other group. Sample items include: *my group is motivated to have peace toward the other group* and *my group is motivated to destroy the other group*. The Behavioral Norms of Forgiveness subscale measures a group's encouragement or expectation regarding acting on forgiveness toward the other group. Sample items include: *my group encourages dialogue with the other group* and *my group encourages us to neglect the other group*. The Proclamation subscale assesses a group's expression of forgiveness, happiness, satisfaction, good relationships, and moral opinion regarding the other group. Sample items include: *my group proclaims the importance of good relations with the other group* and *my group proclaims the worthlessness of people from the other group*. The Promise subscale evaluates a group's promise of respect, support, cooperation, and morally good will toward the other group. Sample items include: *my group promises to respect the existence of the other group* and *my group promises to never compromise the other group*. The Behavioral Gestures of Good Will subscale assesses a group's current behaviors demonstrating satisfaction and friendliness toward the other group. Sample items include: *my group is diplomatically friendly toward the other group* and *my group avoids the other group*. The Establishment of Social Structures subscale measures a group's establishment of organizations, political structures, unwritten laws, restrictions, opportunities, and group activities regarding forgiveness toward the other group. Sample items include: *my group establishes organizations to protect the other group* and *my group puts in place restrictions which do not allow positive relationships with members of the other group*. Finally, the Educational Initiatives subscale measures a group's acknowledgement of the importance of forgiveness education and initiatives to teach forgiveness in schools and families. Sample items include: *my group emphasizes forgiveness education in schools toward the other group* and *my group does not have a plan in place for forgiveness education toward the other group*.

A modified Delphi technique (Sandford & Hsu, 2007) was used to develop items. The lead author generated items for the EGFI based on the definition and description of group capacities in Enright et al. (2016). Fifteen graduate students in a seminar on the psychology of forgiveness then judged the face validity of the items. Revisions were made and then the items were presented to a panel of experts, 12 doctoral students conducting research on the psychology of forgiveness. Again, minor revisions were made to the items. To establish content validity, the 12 doctoral students served as raters of each item. Each student read the items and independently rated them as either reflecting a particular subscale or not. A "not sure" response was also included. Each item had to have more than 50% of the raters agree it reflected a subscale in order to be included in the current scale.

Similar to the Enright Forgiveness Inventory (Enright & Rique, 2004), there are five questions at the end of the scale (items 57-61) that are intended to assess pseudo-group-forgiveness or false forgiveness. *Pseudoforgiveness* occurs when a person denies or condones injustice (Augsburger, 1981). We included items 57-61 because it is important to detect whether people are engaging in genuine forgiveness or pseudoforgiveness and exclude their responses if they are engaging in something other than forgiveness.

Participants completing the EGFI rate their agreement with each item on a 6-point scale ranging from 1 (*strongly disagree*) to 6 (*strongly agree*). The inventory is scored by summing the individual items. The negative worded items are reverse scored. Total scores range from 56-336 with higher scores indicating greater forgiveness. Items 57-61 are assessed by participants using the same six-point scale as items 1-56. After summing these items, researchers would remove participant scores from the data analysis if the total for the pseudoforgiveness scale were 20 or higher. These scores indicate participants are not engaging in genuine forgiveness.

For this study, we translated the inventory into Mandarin Chinese and Slovene. Native speakers of each language who were also conversant in English translated the scale into their respective languages. They then had someone else, also competent in both languages, back-translate the scale into English. Final adjustments were made by comparing the original English versions and the back-translated English versions.

We administered the scale using the following procedure. All participants completed the scale privately in a self-report format. Then, we randomly assigned participants from a particular group into groupings of approximately 6-8 (Cummings, Huber, & Arendt, 1974; Ziller, 1957).

Each grouping completed the scale based on group consensus for each item. We referred to this as the "group unit" score. We used this method of administering the scale so that each "group unit" score actually represented a group assessment of forgiveness. This strategy addressed the critique that the self-report methodology used to measure interpersonal forgiveness could misrepresent the group construct. Although the groups were a collection of individuals, group "behaviors" were not necessarily a reflection of the average sentiment of individual constituents. Some individuals may have exerted greater influence than others. Our strategy captured these effects and allowed us to compare a group-based assessment of forgiveness with traditional self-report assessment of forgiveness.

Methods

Participants

Much like interpersonal forgiveness, intergroup forgiveness is not possible without a history of conflict that would cause at least one group to feel treated unfairly. Thus, we selected countries, or groups of people within a country, that have historical conflicts that remain salient today. The total sample included 595 participants (226 men, 368 women, and 1 non-binary gender). Participants indicated an age range in which they belonged. For the sample as a whole: 465 participants were between 18-25 years old, 55 were between 26-35 years old, and 75 participants were over 35 years old. The total sample was composed of six subsamples in three geographic locations with different cultural contexts. One group of participants was recruited from Asia with one subsample from Mainland China and the other from Taiwan. One group of participants was recruited from Slovenia and contained subsamples from two different political parties with a history of violence toward each other. Similarly, one group of participants was recruited from the United States. This group had two subsamples, a group of White Caucasian participants and a group of African American participants.

The subsamples were chosen intentionally so that the psychometric properties of the proposed scale could be assessed across cultural contexts and across different types of conflict. The injustices experienced by the groups within each world zone were not equivalent across the two conflicting groups. For example, the forced enslavement and systemic oppression of African Americans by White Caucasians is not the same as the perceived injustices White Caucasians report experiencing from African Americans. An asymmetry exists in the injustices and suffering the two groups have experienced. What was important for the selection of the subgroups was that

tension existed between the groups and both groups had a sense that the other group was unjust, even if it is a subjective perception rather than an objective reality.

The samples from Mainland China and Taiwan had 120 (38 men and 82 women) and 128 (64 men and 64 women) participants, respectively. The participants were recruited from students attending a university in Beijing and a university in Taiwan. Announcements were sent to students; anyone who wanted to participate was instructed to contact the researchers. The researchers tried to recruit students across grade levels. All participants from China, 120, were between 18-25 years old. In the Taiwanese sample, 127 participants were between 18-25 years old and one participant was between 26-35 years old. People from Mainland China and Taiwan have had long-term conflict over issues related to disputed territory. The Taiwanese have experienced forced assimilation and violence. The assertion of independence by Taiwan has angered China and threated China's desire for control and national unity.

The samples from Slovenia had 93 participants in each group. The samples were obtained by both convenience and snowball sampling. One of the researchers sent an announcement about the study to a list of faculty and students at a Slovenian university. Recipients were invited to complete the research questionnaires and asked to invite their friends and relatives to participate. The two groups in Slovenia were defined in political terms (left and right) but have a history of deep ideological and political differences that resulted in civil war following World War II. The violence included the extrajudicial postwar killings of militiamen who fought communist-led partisan troops alongside the German occupying forces. In Slovenia, there has been a long history of using the left / right political division for classifying these social and political groups. Today the left and the right groups often oppose each other on issues including transitional justice, the legal definition of the family, attitudes toward the Catholic Church, and the exhumation of mass graves and killing sites. Both groups have suffered injustice from each other. The "left" group had 35 men and 58 women; 45 participants were between 18-25 years old, 28 were between 26-35 years old, and 20 participants were over 35 years old. The "right" group had 43 men and 50 women; 18 participants were between 18-25 years old, 23 were between 26-35 years old, and 52 participants were over 35 years old.

The samples from the United States were a group of 64 African Americans (17 men and 47 women) and a group of 97 White Caucasian Americans (29 men, 67 women, 1 non-binary gender). Undergraduate students were recruited from two universities. In the African American

group 60 participants were between 18-25 years old, 3 were between 26-35 years old, and one participant was over 35 years old. In the White Caucasian group 95 participants were between 18-25 years old and two participants were over 35 years old. African Americans have experienced a long history of injustice from White Caucasian Americans including slavery and systematic legal, social, and economic discrimination. These historical injustices have become more prominent today, as the changing social and political landscape has once again put issues of race, justice, and equality at the forefront of American social activism. Despite historical context and power imbalance, White Caucasians report injustice coming from the African American communities due to perceptions of job discrimination (The Harvard T. H. Chan School of Public Health, National Public Radio, & Robert Wood Johnson Foundation, 2017) and perceptions of safety resulting from racial stereotypes (Todd, Thiem, & Neel, 2016).

Measures

Participants completed a set of instruments that included a general demographic questionnaire and eight assessment instruments. The demographic questionnaire asked participants to report their age group, gender, family income, and marital status. Table 1 summarizes the participants' age and gender in each subsample.

Table 1

Summary of Participant Demographic Characteristics

	Age	Total	China	Taiwan	Slovenia Left	Slovenia Right	US African American	US White American
Age	18-25	465	120	127	45	18	60	95
	26-34	55		1	28	23	3	
	35 and over	75			20	52	1	2
Gender	Male	226	38	64	35	43	17	29
	Female	368	82	64	58	50	47	67
	Other	1						1

Measures of interpersonal forgiveness, hope, fear and anger, prejudice, social identification, and social desirability were included to assess the validity of the intergroup forgiveness scale. Anger, prejudice, and social identification were selected because these variables were associated with intergroup forgiveness in previous research (Van Tongeren et al., 2014; Tam et al., 2008). We

chose measures of these variables that are appropriate for evaluating intergroup relationships. The other instruments have been used to validate interpersonal measures of forgiveness. The group process questionnaire was used to assess group decision making.

Intergroup forgiveness. We assessed intergroup forgiveness using the newly-developed Enright Group Forgiveness Inventory (EGFI) described in this article. Participants completed this scale in both a self-report format and in a group format, as described in the procedures section. The directions for completing the scale included a general prompt for respondents to think of a group that acted unfairly toward the respondents' group. In this study, we wanted participants of each in-group to think about the same out-group when completing the scale. So, the directions were edited to prompt the respondents to focus on a particular intergroup conflict. At the end of the EGFI, we included a one-item measure of intergroup forgiveness. This item was intended to be part of the validity assessment and followed a procedure used in the development of an interpersonal measure of forgiveness (Enright, Rique, & Coyle, 2000). In the results section and data tables, this is referred to as the EGFI 1-item scale.

Interpersonal forgiveness. The interpersonal dimension of forgiveness was measured with the Enright Forgiveness Inventory (EFI, Enright et al., 2000). The EFI is a 60-item self-report measure that includes three subscales. The EFI uses a 6-point scale, possible responses range from 1 (*Strongly Disagree*) to 6 (*Strongly Agree*). Sample items for each of the three subscales included: "I feel positive toward him or her (the offender)," "Regarding the person (offender) I do or would show friendship," and "I think he or she (offender) is worthy of respect." Total scores range from 60 to 360 with high scores representing high levels of forgiveness. The EFI has strong psychometric properties with adults and adolescents. The scale has high validity (Enright et al., 2000) and reliability; internal consistency was 0.90 or higher and test-retest reliability ranged from 0.67 to 0.91 (Enright & Fitzgibbons, 2000). In this study, Cronbach's alpha reliability was .94. The EFI often contains a one-item assessment of forgiveness that is not part of the actual scale. This item has been used as a validity check for the EFI and we included it in our study so that we could use it to assess convergent validity of the intergroup scale. In the results section and data tables, this is referred to as the EFI 1-item scale.

Hope. Hope was measured with the Trait Hope Scale (Snyder et al., 1991). This scale had 12 items in which respondents rated their answers on a scale from 1 (*Definitely False*) to 8 (*Definitely True*). There were two subscales, Pathways and Agency. A sample item from the

Pathways subscale was, “I can think of many ways to get out of a jam.” A sample item from the Agency subscale was, “I energetically pursue my goals.” Total scores were calculated by summing the scores of the two subscales. Each subscale has four items and four of the 12 scale items were not included in the total score. Scores ranged from 0-64 with higher scores representing higher levels of hope. In this study, the reliability of this scale was .64.

Fear and anger. Fear and anger were assessed using scales developed by Mackie, Devos, and Smith (2000). These scales examined emotional reactions to an out-group. Each scale contained four items that used a 7-point scale ranging from 1 (*not at all*) to 7 (*extremely*). An example item from the Fear scale was, “To what extent does the other group make you feel … worried.” An example item from the Anger scale was, “To what extent does the other group make you feel… furious.” High scores represent high levels of fear and anger. In this study the reliabilities of the Fear and Anger scales were .90 and .94 respectively.

Prejudice. Prejudice was assessed using the Blatant and Subtle Prejudice Scale (Pettigrew & Meertens, 1995). This was a 10-item scale in which respondents rated their agreement on a 5-point scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). The blatant dimension of prejudice had two components: a) threat and rejection and b) anti-intimacy. The subtle dimension of prejudice had three components: a) the defense of traditional values, b) the exaggeration of cultural differences, and c) the denial of positive emotions. Sample items included: “_____ (add out-group) have jobs that _____ (add in-group) should have.” and “_____ (add out-group) should not put themselves where they are not wanted.” Low scores on this scale represented high levels of prejudice. In this study, the scale reliability was .53.

Social identification. The degree to which people identified with a group was assessed using the Social Identification Scale (van Zomeren, Spears, Fischer, & Leach, 2004). This scale had three items. A sample item was, “I feel connected to other _____ people.” An identity was put in the blank, “White” or African American” for example. Respondents rated their agreement on a 7-point scale ranging from 1 (*not at all*) to 7 (*very much*) with higher scores representing stronger identification. In this study, the scale reliability was .89.

Social desirability. Social desirability was measured with the Marlow Crowne Social Desirability Scale (Crowne & Marlow, 1960). This is a 33-item, *True-False*, inventory that assessed the likelihood people answered questions in a socially acceptable way as opposed to a truly honest way. The more socially desirable responses a participant had on the scale, the more

the respondent was concerned with social approval and conforming to societal conventions. A sample item was, “I am always courteous, even to people who are disagreeable.” Respondents can be grouped based on the number of socially desirable answers they provide. In this study, the scale reliability was .75.

Group process questionnaire. We assessed the degree to which the group unit answers on the group forgiveness scale reflected each individual’s answers by asking participants about the group process. This instrument was not used to validate the scale, but rather to evaluate the group process of completing the instrument. The scale had 14 items and the participants rated their agreement with each item on a 6-point scale ranging from 1 (*Strongly Disagree*) to 6 (*Strongly Agree*). Sample items included, “The group responses submitted accurately represent the opinions of my small group,” “My opinion was influential in this small group process,” and “All group members equally participated in the group process.”

Procedures

This study was approved by the Institutional Review Boards of the universities in which data collection was coordinated. When participants responded to recruitment announcements and fliers, they were provided a link to a web-based portal that contained electronic versions of each instrument except the group process questionnaire. After providing consent, participants completed the electronic assessment instruments. Then participants attended a group session where they were randomly assigned to a group of 6-8 participants within their in-group identity (e.g., Mainland Chinese). The group units then completed the EGFI. Before leaving, the participants completed the group process questionnaire individually.

To ensure the participants completed the EGFI while focusing on the intergroup conflict of interest, the directions prompted the participants to focus on a specific out-group. For example, in the sample from the United States that had African Americans and White Caucasians, the directions for the African American sample read:

> We are all members of different kinds of groups within our communities. Sometimes groups encounter conflicts with other groups. When this happens each group has a decision to make: How do we as a group respond to the other group for the injustices? There is a history of White Americans oppressing African Americans in this country through slavery, segregation, and other prejudices to the present day. We ask you to think of this issue when you fill out the questions here regarding White Americans as a group.

Consider your group and the other group in relation to this situation as described above. The prompt for the White Caucasians read:

> We are all members of different kinds of groups within our communities. Sometimes groups encounter conflicts with other groups. When this happens each group has a decision to make: How do we as a group respond to the other group for the injustices? White Americans as a group have experienced tensions with African-Americans over issues of violence and safety. We ask you to think of this issue when you fill out the questions here regarding African-Americans as a group. Consider your group and the other group in relation to this situation as described above.

Similarly, we prompted the Chinese and Taiwanese participants to focus on the conflict between China and Taiwan, and the sample from Slovenia to focus on left and right political groups to cue a particular in-group and out-group identification when completing the EGFI.

Analysis

We performed three analyses on the data. First, we examined the underlying factor structure of the EGFI using exploratory factor analysis (EFA) in Mplus version 7.2 (Muthén & Muthén, 1998-2013). We used the oblique geomin rotation and the mean- and variance-adjusted weighted least squares estimation for the EFA. As recommended by Hu and Bentler (1999), model fit was evaluated using the Chi-square statistics (χ^2), the Comparative Fit Index (CFI), the Tucker-Lewis Index (TLI), the Root Mean Square Error of Approximation (RMSEA), and the standardized root mean square residual (SRMR). Values higher than 0.90 for CFI and TLI, 0.05 or lower for RMSEA, and 0.08 or lower for SRMR signify acceptable model fit (Byrne, 2009; Hu & Bentler, 1999). Second, we assessed the Cronbach's Alpha internal consistency and convergent and discriminant validity of the intergroup forgiveness scale. Third, we compared the self-report scores on the EGFI to the group unit scores.

Results

Exploratory Factor Analysis

We report the overall and subsample means and standard deviations for each measure in Table 2. We conducted exploratory factory analysis (EFA) for both the EGFI in the group format (Group-Report EGFI) and the EGFI in the individual-self format (Self-Report EGFI) from five- to seven-factor solutions, as shown in Table 3. For the two EGFI formats, the seven- factor solution met all the criteria for an adequate factor analytic solution: for the Group-Report EGFI

(χ^2 = 1391.73, p = 0.000, CFI = 0.97, TLI = 0.96, RMSEA = 0.04, SRMR = 0.05); and for the Self-Report EGFI (χ^2 = 2914.64, p = 0.000, CFI = 0.98, TLI = 0.97, RMSEA = 0.05, SRMR = 0.02).

Table 2

Means and (Standard Deviations) for Each Measure

	Overall	China	Taiwan	Slovenia Left	Slovenia Right	US African American	US White American
Self-Report EGFI	226 (43)	272 (39)	218 (36)	216 (33)	208 (32)	210 (38)	218 (40)
Group-Report EGFI	236 (31)	274 (17)	233 (19)	225 (33)	211 (26)	225 (18)	236 (22)
EFI	264 (52)	297 (34)	256 (40)	230 (41)	220 (45)	263 (49)	310 (36)
Hope	69 (9)	65 (8)	65 (7)	72 (9)	70 (8)	76 (10)	71 (6)
Prejudice	45 (8)	42 (3)	43 (3)	54 (12)	50 (9)	42 (5)	39 (4)
Anger	11 (6)	7 (4)	12 (5)	13 (6)	15 (7)	12 (6)	6 (3)
Fear	11 (6)	7 (4)	12 (5)	13 (6)	14 (6)	11 (6)	8 (5)
Identity	17 (4)	20 (2)	19 (3)	12 (5)	15 (4)	18 (3)	18 (3)
Social Desirability	15 (5)	15 (4)	12 (4)	17 (5)	16 (6)	18 (5)	15 (5)
EGFI 1-Item	3 (1)	3 (1)	2 (1)	3 (2)	3 (1)	2 (1)	3 (1)
EFI 1-Item	4 (1)	4 (1)	3 (1)	3 (1)	3 (2)	3 (1)	4 (1)

Note. EGFI = Enright Group Forgiveness Inventory, EFI = Enright Forgiveness Inventory

Table 3
Model Fit Indices for the Group-Report and Self-Report EGFI

Group-Report					
Solution	Chi-Square Test (*df*)	CFI	TLI	RMSEA (90% CI)	SRMR
5-factor	1718.67** (1270)	0.93	0.92	0.06 (0.05, 0.06)	0.07
6-factor	1547.38** (1219)	0.95	0.94	0.05 (0.04, 0.06)	0.06
7-factor	1391.73** (1169)	0.97	0.96	0.04 (0.03, 0.05)	0.05
Self-Report					
Solution	Chi-Square Test (*df*)	CFI	TLI	RMSEA (90% CI)	SRMR
5-factor	3777.64** (1270)	0.97	0.96	0.06 (0.06, 0.06)	0.03
6-factor	3228.27** (1219)	0.97	0.97	0.05 (0.05, 0.06)	0.03
7-factor	2914.64** (1169)	0.98	0.97	0.05 (0.05, 0.05)	0.02

Note. **$p < .001$; *df*: degrees of freedom; CI: confidence interval; CFI and TLI are recommend greater than 0.90; RMSEA less than 0.05; and SRMR less than 0.08.

Internal Consistency and Validity

We assessed the internal consistency of the new measure by calculating Cronbach's Alpha for the scale as a whole and for each subscale. Because participants completed the EGFI in a group format and as an individual self-report measure, we calculated the internal consistency of the measure for both administration formats. The results are reported in Table 4.

Table 4

Cronbach's Alpha for the Group-Report and Self-Report EGFI

Group-Report EGFI	**Alpha**	**Items**	**# of Groups**
Total Scale	.93	56	114
Motivation	.72	8	114
Proclamation	.67	8	114
Promises	.68	8	114
Good Will	.84	8	114
Social Structures	.72	8	114
Norms	.56	8	114
Education	.67	8	114
Self-Report EGFI	**Alpha**	**Items**	**# of Participants**
Total Scale	.97	56	594
Motivation	.75	8	594
Proclamation	.81	8	594
Promises	.82	8	594
Good Will	.91	8	594
Social Structures	.76	8	594
Norms	.88	8	594
Education	.86	8	594

The internal consistency of the total scale in both the group and individual formats were very strong, above .90. The internal consistency of the subscales was not as strong in the group format as in the individual format. In the group format one subscale had an alpha above .80, five

subscales ranged between .67 and .72, and one subscale was below .60. In the individual format, five subscales had alphas above .80 and two ranged between .75 and .76.

We found evidence for the face validity and content validity of the EGFI when developing the items for the scale as described earlier. We tested the convergent and discriminant validity of the scale by correlating it with other scales. We report the results of these correlations in Table 5.

Table 5

Intercorrelation Matrix

	Self-Report EGFI	Group-Report EGFI	EFI Total	Hope	Prejudice	Anger	Fear	Identity	Social Desirability	EGFI 1-Item	EFI 1-Item
Self-Report EGFI	1.00										
Group-Report EGFI	.43**	1.00									
EFI Total	.41**	.38**	1.00								
Hope	-.16**	-.15**	-.02	1.00							
Prejudice	-.03	-.22**	-.27**	.09*	1.00						
Anger	-.33**	-.30**	-.70**	.11**	.12**	1.00					
Fear	-.18**	-.23**	-.48**	.08*	.16**	.64**	1.00				
Identity	.26**	.27**	.24**	-.09*	-.36**	-.10*	-.12**	1.00			
Social Desirability	.05	.01	.00	.21**	.14**	-.04	-.04	-.10*	1.00		
EGFI 1-Item	.39**	.22**	.17**	-.15**	.18**	-.25**	-.14**	.00	.06	1.00	
EFI 1-Item	.16**	.17**	.45**	-.05	-.06	-.41**	-.25**	.03	.02	.39**	1.00

Note. ** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).
EGFI = Enright Group Forgiveness Inventory, EFI = Enright Forgiveness Inventory

The EGFI has both appropriate convergent and discriminant validity. The group and individual formats of the scale correlate with each other ($r = 0.43$, $p = 0.01$), with the interpersonal measure of forgiveness ($r = 0.38$, $p = 0.01$ and $r = 0.41$, $p = 0.01$ respectively), and with the one-item measures of forgiveness at the end of the EFI ($r = 0.17$, $p = 0.01$ and $r = 0.16$, $p = 0.01$ respectively) and EGFI ($r = 0.22$, $p = 0.01$ and $r = 0.39$, $p = 0.01$ respectively). We did find a negative correlation with the Trait Hope Scale ($r = -0.15$, $p = 0.01$ and $r = -0.16$, $p = 0.01$ respectively), which was not what we expected for convergent validity. The measure of hope correlated with social desirability ($r = 0.21$, $p = 0.01$), so we may not have obtained a good assessment of participants' hope. On the discriminant side of validity, both the group and individual formats of the EGFI had negative correlations with anger ($r = -0.30$, $p = 0.01$ and $r = -0.33$, $p = 0.01$ respectively) and fear ($r = -0.23$, $p = 0.01$ and $r = -0.18$, $p = 0.01$ respectively). The group format of the EGFI also had a negative correlation with prejudice ($r = -0.22$, $p = 0.01$). The negative correlation was expected because low scores on the prejudice scale indicated greater prejudice. The intergroup measure of forgiveness did correlate with social identity ($r = 0.27$, $p = 0.01$ and $r = 0.26$, $p = 0.01$ respectively), indicating group membership was salient for intergroup forgiveness. The EGFI did not correlate with social desirability ($r = 0.01$, and $r = 0.05$).

Self-Report and Group-Report Comparisons

We compared self-report EGFI scores with the group-report EGFI scores in order to understand if the perceptions of individuals within a group regarding the group's level of forgiveness were consistent with group consensus about the group's level of forgiveness. We compared the self-report scores and group-report scores for the sample as a whole and for each of the subsamples using t-tests. We conducted t-tests at the subgroup level because we wanted to assess the difference between self-report and group-report scores across different groups and different types of conflict separately. Only one test was significant. For the sample as a whole, the group-report EGFI was higher than the self-report EGFI (t (707) = 2.43, $p = 0.02$). None of the subsample tests were significant (China t (139) = 0.31, $p = 0.76$; Taiwan t (146) = 1.85, $p = 0.07$; Slovenia Right t (111) = 0.42, $p = 0.68$; Slovenia Left t (111) = 1.14, $p = 0.26$; US African American t (76) = 1.43, $p = 0.16$; US White American t (113) = 1.86, $p = 0.07$).

Finally, we assessed the participants' perceptions of the group administration of the EGFI. We think it is worth noting the following statements had over 50% of the participants indicating agreement or strong agreement and less than 5% indicating disagreement or strong disagreement: "The group responses submitted accurately represent the opinions of my small group," "The group responses submitted accurately represent my personal opinions," and "My opinion was influential in this small group process." In addition, the following two statements had more than 68% of the participants indicating disagreement or strong disagreement with less than 8% indicating agreement or strong agreement, "I did not care how our group responded to this questionnaire," and "I was uncomfortable participating in the group survey." As would be expected in any group discussion, participants indicated group members did change their opinions; 55% agreed with the statement, "At least 1 individual was persuaded to change their minds by another group member."

Discussion

Summary of Findings and Use of the Measure

As the study of intergroup conflict resolution has focused on healing and relationship repair, scholars have indicated intergroup forgiveness may have an important role in peace and reconciliation (e.g., Long & Brecke, 2003; Nadler & Shnabel, 2015). In this study, we addressed a measurement issue in the emerging research on intergroup forgiveness. Past research has extended measures of forgiveness between individuals to groups. Enright et al. (2016) argued this practice conflates individual and group capacities. We developed a new scale of intergroup forgiveness that is based on a definition of forgiveness between groups and is operationalized using group behaviors rather than individual cognition and emotion. We developed items for the scale and then examined the psychometric properties of the scale with a sample of participants from three different geographic regions. We also developed a method of administering the measure in a group format to understand if group consensus scores differed from answers obtained from a traditional self-report administration.

The psychometric properties of the scale were strong. The factor structure of the EGFI was supported by EFA for both the group-report and the self-report administrations of the scale. In both the group-report and the self-report, the internal consistency reliability was high, 0.93 and 0.97 respectively. The subscale internal consistency was not as high for the group administration as it was for the individual administration. This is not surprising given multiple

perspectives shaped the answers in the group administration. Group consensus on each item may not be as consistent as a single individual answering the items. Although we think some refinement of the subscales is warranted, the subscales performed well enough for researchers and practitioners to have confidence the items are measuring the same construct. One exception is the subscale on norms promoting forgiveness, which had an alpha level below 0.60 in the group administration.

The intergroup forgiveness scale also demonstrated good convergent and discriminant validity. The EGFI was positively correlated with other measures of forgiveness and with constructs associated with intergroup forgiveness in previous research. In addition, the EGFI was negatively correlated with constructs found to have an inverse relationship with intergroup forgiveness in past research. The correlation between the EGFI and the prejudice scale should be interpreted with caution as the prejudice scale had low reliability in this study. The correlations are small to medium in size. The similarity of findings across the subsamples, with different conflicts, languages, and cultures provides evidence of generalizability across groups. Taken together these results suggest the EGFI is a reliable and valid measure of intergroup forgiveness.

We piloted a group administration of the EGFI to learn more about the difference between a group response and individuals' perception of their group's responses. Groups were created through random assignment and the group members completed the EGFI as a collective by discussing each item and agreeing on a response. The groups likely had varied and complex dynamics between the individual members that affected their responses. Some groups may have had individuals with dominating personalities and other groups may have engaged in groupthink. In both cases the opinions of some members may have been muted. However, the groups did not need to engage in democratic decision-making to accurately represent their group's forgiveness. Dominating personalities, groupthink, and other group dynamics are part of group decision-making, whether in research studies or in society at-large. Neighborhoods, social organizations, and societal institutions all have some people who exert more influence on group opinions than others. The validity of the group process used in this study did not depend on equal input from all of the 6-8 group members. The group process questionnaire indicated the group process worked well. Participants reported their views were important in forming the groups decisions. Participants also indicated that group members changed their minds about items as a result of the

group process. This is what we would expect in a group; people would influence, and be influenced by, others.

The group procedure for administering the EGFI allowed us to compare consensus based EGFI scores to self-report EGFI scores. It is possible the group score is a better representation of intergroup forgiveness than an individual's assessment of their group's forgiveness. This is important to explore because one of the limitations of current intergroup forgiveness measures identified by Enright et al. (2016) is that they assume that an accurate group score is the average of many self-report scores from individuals within a group. Based on the results of this initial study, we cannot say that the one administration format, group versus individual self-report, is more accurate than the other. The self-report format is easier to administer than the group format. It is possible that the self-report EGFI is a sufficient representation of a group score and is an appropriate assessment of group forgiveness. The self-report EGFI had higher internal consistency reliabilities than the group-report EGFI. In addition, the convergent and discriminant validity of the self-report administration was similar to the group-report administration. When directly comparing the self-report scores to the group-report scores there was only one significant difference. For the sample as a whole, the self-report scores were significantly lower than the group-report scores. Although the difference suggests the two different administrations produce different results, the difference was not observed in any of the subsamples. As can be seen in Table 2, in each subsample the average EGFI score in the group administration of the scale was a couple points higher, and the standard deviation was equal or smaller, than the self-report administration. From a practical standpoint, the 10-point difference, out of 336 possible points, observed in the sample as a whole might not be meaningful. Arranging the group administration of the instrument could be challenging for peace advocates who are working with conflicting groups. In these cases, the self-report administration will likely be the preferred mode of assessing levels of intergroup forgiveness.

This scale can be used to assess where and when to intervene with conflicting groups, and to evaluate the effectiveness of conflict resolution efforts. Practitioners involved with peace efforts need a conceptually accurate and psychometrically sound measure of intergroup forgiveness to assess groups that might begin or resume active conflict. According to the United Nations, conflict often re-emerges between warring countries about 10 years after the previous conflict ended (Rosenblum-Kumar, 2008). We recommend the EGFI as a tool to assess where

groups have been unjust to one another and could benefit from conflict reduction efforts. For example, Liberia had several ethnic groups (the Krahn, Gio, and Mano) in civil war in the early 2000's (Broderick, 2007). An accurate measure of intergroup forgiveness could assess which groups were the least resentful and most open to forgiveness. Knowing which of the previously warring subgroups were open to forgiving would allow peace workers to initiate interventions promoting forgiveness in schools, families, and other social organizations. In addition, the EGFI could be used to assess when to intervene. If the instrument was administered regularly in conflict zones, positive changes might signal a readiness to engage in intergroup forgiveness.

After establishing a baseline intergroup forgiveness score, the EGFI could be used to assess interventions. As conflict resolution interventions are implemented, motivations for peace, gestures of good will, proclamations of happiness, and other dimensions of intergroup forgiveness should increase. When evaluating intergroup forgiveness scores, three patterns might be particularly important to watch. First, a low intergroup forgiveness score with a small standard deviation suggests consensus that the group is not forgiving toward the other group. This group could be the most likely to re-ignite conflict and could be the group with which to intervene. Second, a low intergroup forgiveness score with a large standard deviation could suggest that the group does not have consensus regarding forgiveness and anger toward another group but might have subgroups of individuals who would start future violence. Third, a community could have a high intergroup forgiveness score and a small standard deviation. This group could be a model for peace that could promote peace within the larger society.

Future Research and Conclusions

Social scientists should conduct additional research with the EGFI in several areas. First, additional research on the measure itself is important. Researchers need to know the test-retest reliability of the instrument. Although researchers need a scale with test-retest reliability, we would not expect temporal consistency over long periods, particularly if conflict escalated. In addition, confirmatory factor analysis (CFA) should be conducted in a new sample to further validate the structure of the scale; CFA would identify items that could be removed in order to shorten the scale and make administration easier. Researchers should also continue to investigate the group administration compared to the self-report administration. Researchers interested in intergroup peace should not assume that the method of measuring a group level construct is the same as the method of measuring an individual psychological construct. Until individuals'

perceptions of their group's forgiveness are understood in greater detail, we caution researchers and peace workers that group-report and self-report scores could differ and could therefore affect intervention decisions.

It is important to note that our sample was composed of mostly young college-aged adults and that we used convenience and snowball sampling methods. The age of the participants may have had an impact on our results. Future research on the scale should investigate the EGFI psychometric properties with additional age groups. Developmental and generational differences in the way people understand intergroup conflict might exist. For example, there are differences in the collective memory of intergroup conflict and injustice based on age (Rimé, Bouchat, Klein, & Licata, 2015). Researchers should verify the psychometric properties of the EGFI with other age groups and should consider age when establishing scale norms. The sampling procedures also limit the generalizability of the findings. The samples may not have accurately captured the heterogeneity of views each subgroup had regarding the group conflict.

Second, additional research should use the EGFI to understand how intergroup dynamics affect contentious groups. Scholarly work in this area shows intergroup contact, apology, and group identity have an impact on intergroup forgiveness (Leonard et al., 2011; Tam et al., 2008; Van Tongeren et al., 2014). The EGFI was designed specifically to measure group level forgiveness; using it to study mediators and moderators of intergroup relationships could add to our understanding of conflict resolution. Existing research on forgiveness between individuals could inform research questions in this area. For example, Aquino, Tripp, and Bies (2006) explored offense type as a predictor of forgiveness, and Booth, Park, Zhu, Beauregard, Gu, and Emery (2018) examined characteristics of workgroups that can affect forgiveness between individual members of the workgroup. Both studies could be used to develop group level hypotheses about the relationship between conflict type and severity and levels of intergroup forgiveness. Similarly, Bobocel (2013) studied the relationship between perceptions of procedural justice and individual forgiveness. The EGFI could be used in a similar way to explore the relationship between justice and forgiveness at the group level.

Third, the impact *intragroup* dynamics have on intergroup forgiveness should be studied in greater detail. We included the group process questionnaire as an initial evaluation of the group administration of the EGFI. The data from this questionnaire suggest important questions, but do not provide answers. Participants simply rated their agreement on items related to the

group process; open ended questions, or interviews, would have provided greater insight into the internal group decision-making. Internal group processes could influence intervention strategies intended to change group decisions and behaviors. Research designed specifically to investigate group processes on group behavior change is needed.

Finally, the EGFI should be used as an assessment tool to evaluate progress when groups go through interventions such as peace and reconciliation commissions. The EGFI can assess change in forgiveness from pre to post intervention and advance our understanding of effective interventions. Forgiveness, or unforgiveness, can occur at the interpersonal and intergroup levels simultaneously (Bright & Exline, 2012). In order to truly understand the impact of interventions, researchers should assess changes in both individuals' forgiveness of an offending outgroup and a victim group's forgiveness of an offending group.

This study attempted to address a conceptual gap in the intergroup forgiveness literature. As researchers have applied forgiveness to groups, measures of interpersonal forgiveness have been extended to the group context. These measures are assessing an individual's forgiveness of a group rather than a group's forgiveness of another group. Accurate measurement of both types of forgiveness is important for understanding health and wellness following group conflict. Our findings suggest the EGFI is a reliable and valid measure of intergroup forgiveness. This new measure can facilitate the work of peace advocates and researchers.

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