Mediation in Intergroup Conflict
The Role of Empathy Between Conflict Parties

Dissertation zur Erlangung des Doktorgrades der Naturwissenschaften (Dr. rer. nat.)
dem Fachbereich Psychologie der Philipps-Universität Marburg vorgelegt

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Marburg/Lahn im Dezember 2016
Originaldokument gespeichert auf dem Publikationsserver der Philipps-Universität Marburg
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Mediation in Intergroup Conflict: The Role of Empathy Between Conflict Parties
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Annahme der Arbeit: 15.02.2017

Diese Arbeit wurde gefördert durch ein Promotionsstipendium des DFG-Graduiertenkollegs „Gruppenbezogene Menschenfeindlichkeit“ (GRK 884) an den Universitäten Marburg und Bielefeld.
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1. INTRODUCTION

During the finishing stages of this dissertation, the world was talking about several intergroup conflicts and their often severe consequences. Most prominent in the media landscape of the years 2015 to 2016 was probably the civil war in the Syrian Arab Republic and the millions of people who had to flee their homes as a consequence (e.g., Ban, 2016). The United Nations High Commissioner for Refugees never recorded higher numbers of forced displacements than in the current situation: By the end of the year 2015, more than 65 million people were fleeing worldwide (UNHCR, 2016). Consequently, the number of registered refugees and asylum seekers in Germany reached an all-time high as well (e.g., BAMF, 2016). The reactions in the German population have been mixed so far: While on the one hand the participation in initiatives supporting refugees increased (Deutscher Spendenrat e.V., 2016), on the other hand, there was a dramatic rise of anti-immigrant activity, ranging from xenophobic demonstrations and hate speeches to violent attacks against refugees and their accommodations (e.g., Diehl, 2016; Chronik flüchtlingsfeindlicher Vorfälle, 2016; PRO ASYL, 2016). The opponents of immigration perceive a competition between Germans and refugees in regard to material resources and identity demarcations (e.g., Büchel et al., 2016). They fear, for instance, that refugees would burden the country’s budget for social benefits and that the Islam grows too influential in Germany (“Skepsis in der Flüchtlingsfrage wächst”, 2016; Wike, Stokes, & Simmons, 2016). As illustrated by the German example, not only the situation people fled from (such as the civil war in Syria), also the situation refugees face in the receiving countries can be described as intergroup conflict (see Paragraph 2.1; cf. Tajfel & Turner, 1979).

Intergroup conflicts often take a destructive course: They result in violent and harmful actions between conflict parties (cf. Deutsch, 1973). Accordingly, efforts to resolve conflicts in a peaceful way are thousands of years old (e.g., Besemer, 2009). In order to constructively resolve conflict, Deutsch (1973) recommended to “remove the blocks and distortions in the communication process so that mutual understanding may develop” (p. 383). Mediation1 is one form of conflict resolution, which aims at the facilitation of communication between conflict parties and, hence, at their mutual

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1 This dissertation discusses the intervention of conflict mediation and estimates its effects with the statistical procedure of mediation analysis. In order to use unambiguous wordings, we will use the term “mediation” or “conflict mediation” (here used synonymously) for the intervention and “mediator” for the intervening person. In contrast, we will use the term “statistical mediation” or “mediation analysis” for the statistical procedure and “mediator/mediating variable” for the variable transmitting a statistical effect.
understanding and empathy (e.g., Ballreich & Glasl, 2011; Bush & Folger, 2004; Montada & Kals, 2013).

This dissertation introduces mediation as potential intervention to alleviate intergroup conflict (Paragraphs 2.1 to 2.3). The results of evaluation research regarding the overall outcome as well as the underlying psychological process of mediation in intergroup conflict are portrayed in Paragraph 2.4. Several weaknesses regarding the validity and reliability of prior research indicate the need for further research. To overcome those research gaps, we conducted three experiments, which are presented in Paragraph 3. The presented results are discussed regarding their strengths and limitations in the context of research and practice of mediation in Paragraph 4.
2. **Theoretical and Empirical Background of Mediation in Intergroup Conflict**

2.1 **Intergroup Conflict**

In order to effectively conduct any intervention, practitioners ideally have an understanding of the problem they want to solve, as well as of the effective mechanisms to do so (e.g., Bronson, 2000; Rossi, Lipsey, & Freeman, 2005; Wagner, 2004). Hence, understanding intergroup conflict, its origins and developments should help mediators to solve them. Conflict in general is defined as incompatibility (or negative interdependence) of goals, interests, or activities of two or more parties (e.g., Bonacker & Imbusch, 1999; Deutsch, 1973; Smith & Mackie, 2007). Incompatibility means that, for example, the fulfillment of one party’s interests prevents the fulfillment of the other party’s interests (cf. Wagner & Gutenbrunner, 2016). Conflict parties can be individuals or groups. Following Brown (Brown, 2000, p. 3), we speak of a group when “two or more people define themselves as members of it and when its existence is recognized by at least one other”. Tajfel and Tuner (1979) defined intergroup conflict as perceived competition between groups. The perceived competition can result from scarce (material) resources (e.g., Sherif, Harvey, White, Hood, & Sherif, 1961). However, with their minimal group experiments, Tajfel, Billig, Bundy, and Flament (1971) showed that identifying with a group (ingroup) without any context of material dispute yet leads to a perceived competition with other salient groups (outgroups). Following this definition, for example the groups of (immigration-critical) Germans and refugees can be described to be in conflict with each other. The interests of the immigration-critical Germans, for example to exclude non-Germans from the society is negatively interdependent to many refugees’ interests to seek shelter in Germany.

The dynamics of conflict are further described within the general conflict model of Wagner (e.g., Wagner & Gutenbrunner, 2016). A simplified version of the model, highlighting the most relevant aspects for this research, is illustrated in Figure 1. Taking upon the conflict definition above, Wagner formulated the perceived negative interdependence of goals of two actors (individuals or groups) as starting point of the conflict process, which can result in harmful behavior among parties. Firstly, he specifies conditions (moderator variables), which influence the probability of harmful behavior. For example the power difference between conflict parties can allow the stronger party to prevent harmful actions of the weaker conflict party. Secondly, he describes underlying
processes (mediator variables), which can explain the occurrence of harmful behavior: Negative interdependence of goals can lead to the rationalization and thus to the reinforcement of harmful behavior. For example, by stereotyping the other, delegitimizing or denying the other’s position, and reducing empathy harmful actions against the other party can be rationalized. As we will elaborate later on, the knowledge of the underlying process of conflict escalation can help deducing the reversed process, which leads to the de-escalation of conflict.

![Diagram of the conflict model](image)

**Figure 1.** A simplified version of the general conflict model by Wagner (e.g., Wagner & Gutenbrunner, 2016)

In order to prevent conflicts from resulting in harmful actions, practitioners and researchers developed several interventions for conflict resolution (e.g., Bar-Tal, 2011; Deutsch, 2006). Among those interventions, such as arbitration, negotiation, or court decisions, mediation was often assumed to be the most adequate one (e.g., Cross & Rosenthal, 1999; Delgado, Dunn, Brown, & Lee, 1985; Dukes, 2004; Goldberg, 1989; Wissler, 1995). According to these sources, mediation is more effective and efficient (for example regarding costs and time), more likely to produce mutually satisfactory solutions, and more capable to restore the relation of conflict parties compared to other forms of conflict resolution.
2.2 CONFLICT MEDIATION

Conflict mediation is a structured intervention by an impartial mediator\(^2\), which aims at the conflict resolution by facilitating communication between two or more conflict parties (e.g., Kressel, 2006; Moore, 2003). Impartiality of the mediator means that she or he is not involved and does not take sides in the conflict. The general aim of mediation usually encompasses a mutually satisfactory solution of the conflict, an improvement (or satisfactory termination) of the relation of conflict parties, and an empowering and satisfactory mediation process (e.g., Bush & Folger, 2004; Herrman, 2006; Wall & Dunne, 2012). The specific aims of mediation and the activities a mediator undertakes to reach them depend on the respective conflict (e.g., Alexander, 2008). In some conflicts, like for example in families, among friends or colleagues, the aim with the highest priority is the restoration of the relation (e.g., Johnson & Johnson, 2002; Wall & Dunne, 2012; Wall, Stark, & Standifer, 2001). In other cases, especially when no future relation shall be maintained, such as in onetime business deals, the highest priority is agreeing on the most profitable solution regarding substantive terms (e.g., Hames, 2012). In order to meet the respective needs, different mediation styles were developed, which either focus mainly on the process and relation or on the substantive problem in a conflict (e.g., Alexander, 2008). In relation-oriented mediation styles, the mediators use mainly facilitative techniques, which means that they passively promote the participants’ perspectives and needs, and refrain from bringing in own ideas or standpoints. In problem-oriented mediation styles, mediators often use more directive techniques to actively guide participants to profitable conflict solutions. They evaluate upcoming ideas and often make own propositions for conflict solutions (cf. Riskin, 2003).

In general, mediators use various communication techniques derived mainly from psychotherapeutic, counseling, and negotiation practices. The complex mediation process is often described and structured with a number of phases. The various phase models in literature are all variants of the basic model differentiating four phases: 1) introduction, 2) conflict transformation, 3) search for solution, and 4) agreement (e.g., Besemer, 2009; Folberg & Taylor, 1984; Kressel, 2006). In the first phase, the conflict parties are familiarized with the mediation procedure and the mediator gains first insights into the conflict situation. In the second phase, the parties further elaborate on their perspective on

\(^2\) Mediation is conducted by single persons, two or more mediators (e.g., Love and Stulberg, 1996). When describing mediation in general, we refer to all of these different constellations without mentioning them individually.
the conflict, thereby ventilating some of the associated emotions, but also achieving a first understanding of the other side. Meanwhile, the mediator analyzes and successively clarifies the conflict situation. By asking pointed questions, she or he discovers feelings, interests and needs behind the positions in conflict and thus promotes a deeper understanding and empathy between parties. An adequate conflict solution, which satisfies the discovered needs of all parties, shall be determined in the third phase. Finally, the conflicting parties agree on a conflict solution and usually seal the agreement with a written or verbal contract. There are many factors of the mediation procedure, which can be assumed to contribute to its effectiveness (e.g., Galin, 2014; Goldberg, 2005; Goldberg & Shaw, 2007; Hiltrop, 1989). Within the present research, we draw upon the general conflict model (e.g., Wagner & Gutenbrunner, 2016) introduced above in order to deduce potential underlying psychological processes of successful conflict mediation.

2.2.1 Perspective Taking and Empathy in Conflict Mediation

As mentioned above, conflict and resulting harmful behavior is reinforced by its rationalization in front of the conflict parties themselves and a potential audience (e.g., Wagner & Gutenbrunner, 2016). One strategy of rationalization is the reduction of perspective taking and empathy in regard to the other conflict party. Perspective taking means adopting the anothers’ perspective cognitively (e.g., Goldstein, Vezich, & Shapiro, 2014), while empathy is the sympathetic emotional reaction to the presumed emotions of the other (cf. Stotland, 1969). The here used concept of empathy, which includes caring for the other’s welfare, was also referred to as empathic concern (e.g., Batson & Ahmad, 2009). It was distinguished from three other empathy components: the imagine-other perspective (imagining how an outgroup member feels), the imagine-self perspective (imagining how one-self would feel in her or his situation), and the emotion matching (feeling as the other feels; cf. Batson & Ahmad, 2009). Empathy was often assumed to be the consequence of the cognitive process of perspective taking (e.g., Cehajic, Brown, & Castano, 2008; Martinez, Stuewig, & Tangney, 2014).

Reducing perspective taking and therewith the cognitive representation of the other party’s view in conflict delegitimizes her or his position while strengthening the legitimacy of the own one (e.g., Deutsch, 1973). Reducing empathy and therewith blocking out the other’s emotions furthermore leads to social distance and enables harmful behavior against her or him (e.g., Cikara, Bruneau, & Saxe, 2011; Rubin, Pruitt, & Kim, 1994). Empathy reduction in conflict is often accompanied and reinforced by negative emotions like anger.
or fear (e.g., Halperin, Sharvit, & Gross, 2011; Teahan, 1975; Wagner & Gutenbrunner, 2016).

Considering these mechanisms of conflict escalation, many researchers assumed that restoring or initiating perspective taking and mutual empathy in conflict is needed to de-escalate conflict dynamics (e.g., Batson & Ahmad, 2009; Deutsch, 1973; Galinsky, Ku, & Wang, 2005; Nadler & Liviatan, 2006; Swart, Turner, Hewstone, & Voci, 2011; Wagner & Gutenbrunner, 2016). Accordingly, viewing the conflict from the other’s perspective and subsequently considering the corresponding emotions should reduce harmful behavior and improve the relation between conflict parties. That is why the support of mutual empathy was often declared as one main goal of conflict mediation (e.g., Ballreich & Glasl, 2011; Bush & Folger, 2004; Montada & Kals, 2013). The mediation procedure generally fosters dialogue and mutual understanding. Above that, mediators often apply specific perspective taking techniques, such as the Role Reversal or Controlled Dialogue, in order to further support mutual empathy (e.g., Johnson, 1971b; Johnson & Johnson, 2002; Montada & Kals, 2013; Rogers, 1952). Perspective taking techniques in mediation explicitly ask participants to put themselves in the shoes of the other conflict party. Within the perspective taking process, two roles can be distinguished: The perspective taker and the perspective giver (e.g. Johnson, 1971b). The person putting oneself in the other party’s shoes was labeled as perspective taker. The person whose perspective is taken (or whose shoes are tried on) can be labeled as perspective giver.

2.2.2 PERSPECTIVE GIVING AND FEELING HEARD IN CONFLICT MEDIATION

While the cognitive process of perspective taking was assumed to lead to the emotional reaction of increased empathy, the cognitive process of perspective giving was assumed to lead to the feeling to be heard and understood (e.g., Bruneau & Saxe, 2012; Cohen, 1951; Johnson, 1971b). Feeling heard is defined as the feeling to reach the other emotionally (cf. Bruneau & Saxe, 2012; Goldstein et al., 2014). Bush and Folger (2004) theorized that the feeling to be heard and recognized can be supported by mediation, and that it leads to improved relations between conflict parties as well as to conflict de-escalation. Hence, the improvement of relations due to perspective taking in mediation can be attributed to two parallel processes, via empathy and feeling heard (see also Figure 2, p. 18).
So far, we elaborated on mediation in general, disregarding whether it is applied in interpersonal or intergroup conflict. In the following, the specifics of applying mediation in intergroup conflict will be outlined.

2.3 MEDIATION IN INTERGROUP CONFLICT

Mediation is applied in various fields of intergroup conflict. The fields of labor conflict, environmental conflict, or international conflict are among the most prominent ones. In intergroup conflicts, usually only representatives and not the entire groups take part in the mediation process (e.g., Pruitt, 2011; an exception being the mediation with entire teams in organizational contexts, e.g., Morgan & Tindale, 2002; Thompson, Peterson, & Brodt, 1996). In labor conflicts, typically, members of the organized labor unions represent the interests of employees against members of the employers’ association (who in turn are representing the interests of the employers; e.g., McKersie & Cutcher-Gershenfeld, 2009). In environmental conflicts, representatives of many different interest groups are usually invited to a mediation process. For example, in the mediation to solve the conflict related to the Frankfurt airport expansion in the late nineties, representatives of the airport operator Fraport AG, the private and public economy, labor unions, the regional communes, various ministries, environmental associations and local initiatives were approached (e.g., Busch, 2000). In the mediation of international conflict, usually high officials, like prime ministers, ministers of foreign affairs, and high-ranking leaders of the military represent whole nations when negotiating with each other (e.g, Kriesberg & Dayton, 2012).

The prototypical mediations in intergroup conflicts are official (or formal) mediations between official group representatives. Especially in international or ethnic conflicts, very often unofficial (or informal) mediations between unofficial group members accompany official mediations or are organized independently (e.g., Burton, 1969; Fisher, 1983; Kelman, 2003). In the Middle East conflict for instance, numerous mediated encounters within the civic society of Israel and Palestine as well as the communities of Jewish and Arab Israelis took place (e.g., Kelman, 1998, Kelman, 2005; Maoz, 2010). Here, group representatives are often elite private citizens (e.g., parliamentarians, former military officers, or journalists) or random group members like school pupils (e.g., Kelman, 2005; Maoz, 2010; Pruitt, 2011; Raisch, 2016). Beyond that, unofficial mediations are conducted in many intergroup conflicts of lower public interest, as for example between working groups or living communities (e.g., Loschelder, 2013).
Since in intergroup conflicts usually not the entire conflict parties – the groups – are participating in the mediation process, the question arises whether the positive effects of mediation will only affect the participating group members or the represented groups as well. The answer to the question is a slightly different one for the cases of official and unofficial mediation: A conflict solution, which group representatives agreed on in an official mediation, usually has an immediate effect on the represented groups. Examples would be the agreed wages in labor conflict, a peace agreement in international conflict, or the realization of a construction project in environmental conflict. As official mediation procedures often are furthermore medially transmitted to the other group members (cf. Amaral, 2014; Shinar, 2000; Wolfsfeld, 1997), improved relations of the group representatives should moreover translate to more positive attitudes between groups (cf. Batson, Polycarpou et al., 1997; Ortiz & Harwood, 2007; Pettigrew, 1997; Wright, Aron, McLaughlin-Volpe, & Ropp, 1997). Positive effects of unofficial mediation, on the other hand, are assumed to transmit via “chains of intermediaries”, that is the communication between different group members (Pruitt, 2011, p. 271). In order to make the impact as strong as possible, Kelman (2010) for example invited politically involved group members to mediation, hoping for a positive influence on the political debate and decisions. Yet, as will be elaborated upon in the next paragraph, monitoring such influences on groups and evaluating the effectiveness of mediation in intergroup conflict generally faces several challenges (e.g., Chataway, 2004; Kelman, 2008).

2.4 EVALUATION OF MEDIATION IN INTERGROUP CONFLICT

2.4.1 MEDIATION EVALUATION AND THE ISSUES OF INTERNAL AND EXTERNAL VALIDITY

With the institutionalization of mediation practices in western societies the call for systematic evaluations came along (e.g., Carnevale & Pruitt, 1992; Rose, 1952). In order to estimate its effectiveness, researchers have approached mediation both in the field and in the laboratory (e.g., Carnevale & Pruitt, 1992; Esser & Marriott, 1995). The field and the laboratory research on mediation, both have their strengths and weaknesses. The respective methodology as well as some relevant findings will be introduced before we evaluate the results in regard to their validity.

The majority of the evaluation studies on mediation so far has been conducted in the field (Esser & Marriott, 1995). Here, naturally occurring mediations, in existing (real) conflicts, with realistic lengths, in their usual settings, and implemented by professional mediators have been surveyed. The information, whether a mediation was successful
(mostly indicated by its conclusion with an agreement) has been typically obtained either by retrospectively asking mediators or by reviewing documented mediation cases (e.g., Hedeen, 2004). Very often, a number of mediation cases have been cumulated in order to calculate the agreement rate, meaning the percentage of mediations ending with an agreement relative to all cases under investigation (e.g., Herrman, 2006). In the field of intergroup conflict, mediation was shown to lead to an agreement, for instance, in 74% of the investigated environmental conflicts (LaPlant Turkiewicz & Allen, 2014), in about 60% of the investigated labor conflicts (Bingham, Kim, & Summers Raines, 2002; Hiltrop, 1989), in 39% of the investigated international conflicts (Bercovitch & Fretter, 2007), and 63% of the investigated civil wars (DeRouen, Bercovitch, & Pospieszna, 2011). However, without a control group, it is unclear how many of these conflicts would have been solved without mediation as well. Hence, the conflict resolution cannot be causally attributed to the implementation of mediation. In other words, the internal validity of the results is threatened (cf. Shadish, Cook, & Campbell, 2002).

The internal validity can be increased within experimental designs (e.g., Shadish, Cook, and Campbell 2002). Yet, field experiments, so far, have been extremely rare (e.g., Dukes, 2004; Wall & Dunne, 2012). This can be partly explained by the concerns of mediators to withhold a presumably helpful cure for conflict by (randomly) assigning some cases to the control instead of the treatment (mediation) condition (e.g., Kelman, 2008). Even waiting group designs, where the control group receives the treatment later, have been usually rejected, as conflicts can cause considerable harm during the time the control group is required to wait. In the context of intergroup conflict, the rare exceptions of field studies with control groups applied a quasi-experimental design and compared conflict cases, which were treated with mediation or other means under hardly comparable conditions (e.g., Dukes, 2004). In the context of international conflict, for instance, usually the most escalated conflicts are mediated, often when other methods like negotiation without a mediator failed (e.g., Bercovitch & Fretter, 2007). Without a randomized allocation to the experimental conditions, the influence of third variables, such as the level of conflict escalation, cannot be controlled (cf. Shadish et al., 2002).

In order to evaluate mediation within experimental designs, and therewith allow causal attributions to the implementation of mediation, the scientists in the tradition of negotiation research have brought mediation into the laboratory. In this research tradition, the above mentioned ethical concerns have been answered by simulating conflicts instead of investigating existing ones. By simulating conflicts also a sufficient number of cases can
be obtained more easily. The simulations often have picked up themes from international or labor conflict and have dealt with fictive money, land, or abstract value points (cf. Carnevale & Pruitt, 1992; Fisher, Grant, Hall, Keashly, & Kinzel, 1990; Loschelder & Trotschel, 2010; Yilmaz, Oren, & Ghasem-Aghaee, 2006). In order to furthermore control potential influences of third variables when realizing the experimental conditions (and probably also to save money) usually very short, standardized and simplified mediation procedures have been conducted by lay or computerized mediators (e.g., Rubin, 1980; Salmon et al., 2013; Loschelder & Trotschel, 2010). For instance, mediation has been operationalized by one single statement of a neutral third-party: a non-binding suggestion for a conflict solution after either listening to the conflict parties or reviewing their position on the basis of written documents (e.g., Hiltrop & Rubin, 1982; Johnson & Tullar, 1972; Keashly, Fisher, & Grant, 1993). In other cases, randomly assigned student participants took up the job of the mediator after 20 minutes time of familiarizing with the concept of mediation and the current conflict case (e.g., Loschelder & Trotschel, 2010; Loschelder, 2013).

Most often, mediation has been compared to negotiation without a mediator (e.g., Carnevale & Pruitt, 1992). In the context of intergroup conflict, mediation was shown to lead to more agreements, higher joint profits, less impasses, and a better relation between group members than mere negotiation (Druckman, Druckman, & Arai, 2004; Loschelder & Trotschel, 2010; Loschelder, 2013). The superiority over mere negotiation is plainest when the negotiating group representatives have stronger role obligations or accountability (Bartunek, Benton, & Keys, 1975; Vidmar, 1971). A more directive mediation style is furthermore adequate when conflict parties are less willing to concede, are less open, and have less trust in the other party (Salmon et al., 2013). However, lacking real involvement with the conflict by parties, limited proficiency of the mediators as well as a decreased vividness and reactivity to specific case characteristics in their mediations have been criticized to reduce the generalizability of the experiments’ results to real-world mediations (Esser & Marriott, 1995; Ruble & Cosier, 1982). In other words, the external validity of the results has been questioned (cf. Shadish et al., 2002).

In sum, one can resume that both approaches to evaluate mediation so far have their strengths and weaknesses. While field research on mediation produced results of high external but low internal validity, the situation is reversed in laboratory research. Research attempting to investigate mediation in intergroup conflict under the strong consideration of
both the internal and the external validity of its results is lacking so far (e.g., Pruitt, 2011; Wall & Dunne, 2012).

2.4.2 **Measuring Mediation Success and the Issue of Construct Validity**

In the evaluation of mediation, the agreement rate has been the most common operationalization of mediation success (e.g., Hedeen, 2004; Herrman, 2006; LaPlant Turkiewicz & Allen, 2014). This can be explained by its accessibility and convenience. However, the agreement rate has been criticized to lack construct validity to indicate a successful mediation process (e.g., Hedeen, 2004; LaPlant Turkiewicz & Allen, 2014). McGillis (1997), for example, pointed out that a mediation’s potential to restore the conflict parties’ relationship, to increase mutual understanding, to resolve some, but not all, of the conflict issues, or to move parties towards a later resolution of the conflict can be classified as success, but may not be captured by an agreement. Even without a resulting contract, a mediation might still have a valuable and important impact on the conflict and its resolution (see also Bush & Folger, 2004; Kelman, 2006). Vice versa, reaching an agreement does not guarantee that a conflict is solved, that the conflict parties are satisfied, or that their relation is improved. Hence, assessing whether the relation between conflict parties improved due to mediation has been suggested as an alternative method to capture mediation success (e.g., Bush & Folger, 2004; Hedeen, 2004). In the specific context of intergroup conflict, the potential to reduce prejudice and to increase positive intergroup attitudes can be assumed to be a meaningful indicator for improved relations (e.g., Amy, 1983; Cross & Rosenthal, 1999; Paluck, 2012; Troja, 2001).

2.4.3 **Evaluation Research and the Issue of Reliability**

Besides the issues of validity, also a low or unknown reliability of variable measurement can threaten the quality of research results. For example, the effect of mediation could be underestimated because of a low reliability of the success measurement. Structural equation modeling offers a solution for that by accounting for the unreliability of measures. It allows corrected and therefore more adequate effect estimations (e.g., Brown, 2006). Still, up to now, structural equation modeling has not been very common in evaluation research in general (e.g., Guffler, Thörner, Gutenbrunner, Pohl, & Wagner, 2016; Russell, Kahn, Spoth, & Altmaier, 1998). We do not know of any study, which has evaluated conflict mediation using structural equation modeling to calculate effects.
2.4.4 Evidence for Empathy and Feeling Heard as Psychological Processes

Apart from the overall effectiveness of mediation in intergroup conflict, also the underlying psychological process of successful mediation is relevant: In order to optimize mediation, it is important to know, what makes mediation successful (e.g., Bronson, 2000; Haynes, Mecke, Bastine, & Fong, 2012). In the following, we review empirical research on mutual empathy and the feeling to be heard as potential steps in the successful resolution of intergroup conflict. The conceptualization of intergroup empathy and feeling heard as underlying psychological processes of conflict resolution due to mediation entails various assumptions (see also Figure 2, p. 18): First, mediation leads to an increased intergroup empathy and feeling to be heard. Second, these feelings lead to more positive intergroup attitudes.

The psychological process of increased empathy. Although the support of empathy between conflict parties has often been considered an important aim of mediation and (e.g., Ballreich & Glasl, 2011; Bush & Folger, 2004; Montada & Kals, 2013), there is no scientific empirical indication that empathy actually achieves that aim. Nevertheless, there is a considerable body of research in neighboring fields, which supports the hypothesis that empathy contributes to a successful process of conflict resolution. In the following, we will outline the findings of three important research traditions: a) negotiation research, b) the empathy-altruism hypothesis, and c) the intergroup contact hypothesis. Very often, the research on empathy has been intermingled with research on perspective taking. We will present results for both concepts.

a) Several studies have investigated the effect of perspective taking and empathy in negotiations without facilitating mediator. In the context of simulated intergroup conflict, Johnson (1967; 1971a; 1971b) investigated the perspective taking technique of Role Reversal. In his studies, he asked negotiators to present the “viewpoint and feelings of the other [party] in an accurate, warm, and authentic way” (Johnson, 1971b, p. 321). This intervention led to an increased understanding and more positive intergroup attitudes between the conflict parties (Johnson, 1967; 1971a; 1971b). In the context of simulated interpersonal conflicts Galinsky, Maddux, Gilin, and White (2008) furthermore instructed negotiators to either show perspective taking or empathy to one another and compared those conditions with a control participants, who did not receive any instruction in this regard. They found perspective taking to increase the agreement rate, joint outcome, and the probability to find a creative solution. However, induced empathy did not have as
clearly positive effects: A slightly higher agreement rate and joint outcome did not achieve significance. Still, participants who were interacting with an empathic negotiation partner were more satisfied than participants with a perspective taking or neutral negotiation partner. In other studies on interpersonal negotiations, perspective taking was shown to avoid impasses and to overcome egoistic impediments to an agreement (e.g., Drolet, Larrick, & Morris, 2010; Galinsky & Mussweiler, 2001; Moran & Ritov, 2007; Trötschel, Hüffmeier, Loschelder, Schwartz, & Gollwitzer, 2011). In sum, the findings of negotiation research point to the positive effects of perspective taking and mutual empathy for conflict resolution. However, there are only few studies in the context of intergroup conflict and no studies on the potential of a mediator to facilitate the process.

b) In the research tradition of the empathy-altruism hypothesis, Batson and his colleagues provided evidence that empathy leads to more helping and liking of a person in need (e.g., Batson, 1991; Batson, Sager et al., 1997). Within their typical experimental setup, they induced empathy by asking participants to take the perspective of a person in distress. When the distress of a person was linked to her or his group membership, empathizing with the group member (e.g., a homeless person) was shown to lead to more positive attitudes in regard to the entire group (e.g., the group of the homeless; cf. Batson & Ahmad, 2009; Batson, Polycarpou et al., 1997; Pittinsky & Montoya, 2016). Hence, these studies deliver valuable support for the assumption that empathizing with an outgroup member in the mediation of intergroup conflict would lead to more positive attitudes toward the whole group. However, the question remains open, whether mediation is capable of facilitating empathy between the participating group members.

c) In the context of intergroup relations, another longstanding research tradition has delivered valuable empirical evidence for the importance of perspective taking and empathy: The research on the intergroup contact hypothesis. Allport (1954) stated that contact between members of different groups reduces their mutual prejudices. Hundreds of studies have supported this hypothesis so far (Pettigrew & Tropp, 2006). One of the most popular assumptions for the psychological process underlying the improvement of intergroup relations was mutual perspective taking and empathy, which the group members develop in intergroup contact (e.g., Pettigrew & Tropp, 2008). Within their meta-analysis, Pettigrew and Tropp (2008) confirmed this assumed indirect effect. As mediation in intergroup conflict can be described as a specific form of intergroup contact, these results are a strong support for our assumed underlying psychological process for conflict resolution. Still, the structured procedure, the mediating third-party, the application of
communication techniques, and the explicit focus on the conflict in mediation differs from most contact interventions or naturally occurring intergroup contact. Therefore, empirical evidence for the specific context of conflict mediation is still needed.

In conclusion, the research outlined above suggests that mutual empathy is an important underlying process for conflict resolution and improved intergroup relations. Furthermore, empathy can be purposefully induced or supported by interventions, like contact or perspective taking techniques. However, none of the studies above investigated mediation as intervention to trigger this psychological process.

The psychological process of feeling heard. In the context of mediating interpersonal conflict one study investigated the feeling to be heard: Kaiser and Gabler (2014) showed that feeling heard by the other party in mediation is associated with successful conflict resolution. In the context of intergroup conflict no such study exists. While there is generally a rich research body on perspective taking and empathy, perspective giving and feeling heard was hardly researched at all (e.g., Goldstein et al., 2014). The few existing studies focused on the effects of perspective giving. In the context of intergroup relations, Bruneau and Saxe (2012) found witnessing the other take the own perspective within structured dialogues to increase positive intergroup attitudes. With six further experiments in the context of a (feigned) interpersonal online dialogue, Goldstein, Vezich, and Shapiro (2014) found perspective giving to lead to an increased liking of the other. The little research on perspective giving and feeling heard points to the assumed processes described above. However, further evidence in the field of mediation in intergroup conflict is strongly needed.

In order to shed some more light on the process of effective conflict mediation, not only the participants’ reactions, but also the mediation procedure should be addressed. Reviews of the past decades on mediation research have noted a strong need for the evaluation of the specific components, which are part of the complex mediation procedure (e.g., Wall & Dunne, 2012; Wall, et al., 2001). Mediation, for example, usually brings conflict parties to the negotiation table. Furthermore, the negotiations of conflict parties are facilitated by a mediator. Finally, the mediator applies various communication techniques. So far, it is unknown, which of these exemplary mediation components are effective and which are not (e.g., Wall & Dunne, 2012). Following the terminology of psychotherapy and counseling (cf. Wampold, 2001), we will refer to potentially operating mediation aspects as “factors” hereafter.
2.4.5 **Summary of the Addressed Research Gaps**

Mediation is regularly applied in various fields of intergroup conflict. Its effectiveness to alleviate intergroup conflict has been investigated in the field as well as in the laboratory. However, while the field studies so far are highly externally valid, they mostly have no control groups and therefore lack internal validity. Laboratory experiments, on the other hand, usually apply the highest standards of internal validity, but have been criticized to miss external validity, as they mostly implement strongly reduced mediation procedures in simulated conflicts. Mediation evaluation providing results of high external and internal validity is missing so far. A further critique touches upon the construct validity of mediation evaluation in field and laboratory alike: Most studies use the agreement rate as operationalization of mediation success. But, the mere research focus on the agreement (or non-agreement) can overlook valuable processes triggered by mediation. Therefore, the improvement of the relation of conflict parties has been suggested as success operationalization instead. In the context of intergroup conflict, more positive intergroup attitudes are commonly used as indicator for improved intergroup relations. Finally, evaluation research generally faces the challenge of the unreliability of its measures. Structural equation modeling accounts for the measurement error and consequently provides a valuable tool for reliable effect estimations. However, it is still rarely applied in evaluation research. In sum, it was one aim of the present research to evaluate mediation (with a facilitative relation-oriented style) in intergroup conflict with a strong focus on the internal, external and construct validity as well as the reliability of its results.

Besides the overall effectiveness, the process of mediation in intergroup conflict was the second focus of the present research. While there exists much, but criticizable research on the overall effectiveness of mediation, there is hardly any evaluation research on the mediation process. As a consequence, little is known about which mediation factors are effective. Furthermore, it is unknown how mediation improves the conflict parties’ relation. Conflict theory as well as empirical studies in neighboring fields have pointed to two underlying psychological processes: Mutual empathy and the feeling to be heard between conflict parties. As a consequence, it was the aim of this research to provide some pioneer evidence on the effectiveness of specific mediation factors as well as on the underlying psychological process of mediation in intergroup conflict.
3. The Present Research

Within three experiments, we investigated the effectiveness of facilitative relationship-oriented mediation in intergroup conflict. We evaluated the effects of the whole mediation procedure, the effects of the facilitating mediator, and finally the effects of the application of perspective taking techniques in mediation. As outcome measure, we focused on the improved relation of conflict parties. More specifically, we measured the positive intergroup attitudes of the group members. We furthermore investigated how mediation supports conflict resolution. We focused on mutual empathy and feeling heard as two psychological processes behind the increase of positive intergroup attitudes in conflict. Our research hypothesis encompassed a number of causal assumptions, which are indicated by the paths in Figure 2. According to our assumption: mediation increases positive intergroup attitudes (path c). The effect is explained by two underlying psychological processes: an indirect path via intergroup empathy (path a*b) and an indirect path via the feeling to be heard (path x*y). This implies that mediation increases intergroup empathy (path a) and intergroup empathy, in turn, leads to more positive intergroup attitudes (path b). Parallel, we assumed that mediation furthermore generates a situation, where parties feel heard by each other (path x) and this feeling in turn leads to more positive intergroup attitudes (path y). Before we integrally evaluate the combined value of the present three studies in the light of prior research, we briefly outline the research question, the context, and the methodology of each study individually.

![Figure 2. Model of the main hypothesis of the present research](image-url)
In Study 1, we tested the hypothesis that mediation increases positive intergroup attitudes via increased intergroup empathy. Within a pretest-posttest control group design, we compared mediation with the intervention of individual problem solving in the structural conflict between international and domestic university students in Germany. In that conflict, unequally distributed resources, like access to information or familiarity with the working language German, lead to partly negative interdependent interests between the groups. We invited 164 students in small international-German student groups (ca. 2 international and 2 German students per run) and asked them to generate “culture fair examination regulations” as a conflict solution. Ideas for the solution were either generated individually (in 20 control runs of individual problem solving) or in a mediation (in 21 experimental runs).

In Study 2, we evaluated the effect of one crucial mediation factor: the facilitating mediator. We did so by comparing mediation with mere negotiation (without a mediator) in a pretest-posttest control group design. Again, we hypothesized increased positive intergroup attitudes and an underlying psychological process via intergroup empathy. For the experiment, 89 female student participants were introduced to the simulation of a conflict between roommate groups. They were invited to the laboratory in pairs and either negotiated the distribution of some household items on their own (24 control runs) or with the help of a mediator (21 experimental runs).

In Study 3, we finally evaluated the potential of perspective taking techniques in mediation to increase positive intergroup attitudes. Again, we used a pretest-posttest control group design. This time, we investigated both assumed underlying psychological processes: via mutual empathy and the feeling to be heard. As conflict context, we made the actual intergroup conflict between Germans and refugees salient. We invited German students who expressed the interest to restrict immigration to Germany and confronted them with a refugee, in fact a confederate, who expressed the interest to open German boards for immigration without limitations. All 103 German participants were asked to discuss their ideas on German migration policies with the refugee. The pairs were either mediated with the use of perspective taking techniques (51 experimental runs) or they were mediated without these techniques (52 control runs).

Study 1 and 2 are described in the first manuscript: Gutenbrunner, L., Schwarz, M., & Wagner, U. (2016). Mediation in Intergroup Conflict: The Role of Mutual Empathy.

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3 From originally 92 participants, three participants were excluded from the analysis because of interruptions in the experimental procedure. Further details on the sampling procedure can be found in Manuscript #1.
Manuscript submitted for publication. Study 3 is described in the second manuscript: Gutenbrunner, L., & Wagner, U. (2016). Perspective taking techniques in the mediation of intergroup conflict. *Peace and Conflict: Journal of Peace Psychology, 22*(4): 298-305. We furthermore report some additional findings, which slightly expand our main research questions and are not addressed in the manuscripts. Table 1 gives an overview of the investigated mediation factors, variables, statistical procedures, as well as the conflict settings of each study.
### Table 1. Context, dependent, and methods of the three experiments

<table>
<thead>
<tr>
<th>Context Setting</th>
<th>Variables</th>
<th>Study Design</th>
<th>Analysis Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Real Conflict Between Germans and Germans</td>
<td>Variable 1 (VARIABLE 1)</td>
<td>Independent Variable</td>
<td>SEM (Structural Equation Modeling)</td>
</tr>
<tr>
<td>Simulated Conflict</td>
<td>Interpersonal Mediation Analysis</td>
<td>Compensatory Model Analysis</td>
<td>SEM (Structural Equation Modeling)</td>
</tr>
<tr>
<td>Multiple Group</td>
<td>Mediation Analysis</td>
<td>Exogenous Mediation Model</td>
<td>SEM (Structural Equation Modeling)</td>
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<td>SEM</td>
<td>Mediation Analysis</td>
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<td>SEM (Structural Equation Modeling)</td>
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Note: All studies were conducted with a pretest-posttest control group design. $V_1 = \text{Variable 1}$ was also measured in the pretest.
In sum, we advanced prior research by evaluating mediation in intergroup conflict with strong focus on the validity and reliability of our results. Within our studies, high internal validity was ensured by applying an experimental design with controlled procedures (Study 1-3). Additionally, the external validity of our results was comparably high due to applying professionally conducted semi-structured mediation procedures (Study 1-3) in a real instead of a simulated intergroup conflict (Study 1, Study 3). We furthermore advanced the construct validity of the operationalization of mediation success by abandoning the often-used agreement rate and focusing on positive intergroup attitudes instead (Study 1-3). Finally, we used structural equation modeling, which allowed reliable effect estimations (Study 1-3). With our research, we moreover reacted to the repeated call for research on the mediation process. We did so by not only evaluating the whole mediation procedure, but also the effect of the mediator and of specific mediation techniques. What is more, we investigated, how mediation works. We focused on mutual empathy as well as the feeling to be heard as processes underlying successful mediation in intergroup conflict.

Each single of our three studies entailed a strict test for only parts of our research hypothesis. However, taken together, the three studies provided a strong test for the whole underlying psychological process via mutual empathy. In Studies 1 and 2, we tested whether mediation leads to more positive intergroup attitudes (path c in Figure 2, p. 18) and intergroup empathy (path a) within an experimental design, which is the most rigorous test for causality (cf. Shadish et al., 2002). In the two studies, the assumed path b was modelled on the basis of correlational data. In study 3, we experimentally manipulated mutual empathy by using perspective taking techniques in mediation and, therewith, conducted a rigorous test for path b. Hence, with the three studies together, we used an experimental causal chain design (cf. Spencer, Zanna, & Fong, 2005) to investigate our research hypothesis. By firstly experimentally manipulating the predictor and secondly experimentally manipulating the mediator variable, the causal chain design allows a powerful test of the causal assumptions of statistical mediation hypotheses (Spencer et al., 2005). In the following, the two manuscripts as well as some additional analyses are presented.
3.1 MANUSCRIPT #1


Submitted on December 18, 2016 to the Journal of Conflict Resolution.
Mediation in Intergroup Conflict: The Role of Mutual Empathy

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We thank Carmen Rocio Cañavate, Christopher Jakob, and Judith Raisch for their great help in realizing the experiment as well as Therese Wiemer and Caroline Woderich for comments on earlier versions of the paper. This study was financially supported by the DFG research training group *Group-Focused Enmity* of the Universities of Marburg and Bielefeld (GRK 884).

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Word count: 10156
Abstract

We conducted two experimental studies to evaluate mediation in intergroup conflict. We found that mediation increases positive intergroup attitudes compared to individual problem solving ($N = 164$) and negotiation without a third-party ($N = 89$). The effects were statistically mediated via intergroup empathy. Contrary to the expectations, negotiation led to better results in joint outcomes for the conflict parties. The discrepancy between the relational and economic outcomes in Study 2 could reflect the specific focus of the applied facilitative relation-oriented mediation style. The experimental designs of the studies and drawing on professional mediators in a real intergroup conflict increased the internal and the external validity of our results. Analyzing our data by structural equation modeling furthermore allowed reliable effect estimations.

*Keywords:* mediation, intergroup conflict, empathy, evaluation
Mediation in Intergroup Conflict: The Role of Mutual Empathy

Millions of refugees every year remind us in a tragic way how severe the consequences of intergroup conflict can be. Conflict between groups exists not only in such dramatic manifestations. It is present in our everyday life, for instance between organizations, sports teams, or political parties, and is often expressed in the form of prejudices, discrimination and violence.

Intergroup Conflict and its Mediation

Conflict in general is defined as (perceived) incompatibility of interests, goals, or activities of two or more parties (individuals or groups; e.g., Deutsch 1973; Smith and Mackie 2007). Intergroup conflict exists, when the competition occurs between groups (Tajfel and Turner 1979), for example about scarce material resources (Sherif et al. 1961) or values and identities (Tajfel 1978; Wagner and Gutenbrunner 2016).

Mediation is a promising intervention to resolve or alleviate intergroup conflict (Pruitt 2011). Mediation is defined as negotiation, which is facilitated by a neutral third-party, the mediator (e.g., Carnevale and Pruitt 1992). Mediation styles can be categorized into two main groups, the problem-solving and the process or relation-oriented styles (e.g., Alexander 2008; Haynes, Haynes and Fong 2004). The problem-solving styles focus more on the material subject of the conflict. Mediators usually apply more directive mediation techniques: They actively guide participants through the process, partly evaluate their ideas and make own propositions for the conflict solution. Relation-oriented styles on the other hand emphasize mostly the relation of conflict parties. Mediators here usually apply more facilitative techniques: They are more passive, facilitate mainly the participants’ voices, and refrain from bringing in own ideas and
standpoints (cf. Riskin 2003). With our research, we investigate a facilitative relation-oriented mediation style.

In order to optimize the intervention of conflict mediation generally, it is important to know, which psychological processes are relevant for conflict resolution. Many mediation practitioners considered mutual empathy between conflict parties to be an important aim of mediation (e.g., Bush and Folger 2004; Montada and Kals 2013). To achieve that aim, various perspective taking techniques for mediation were described (e.g., Fisher, Ury, and Patton 2011; Mayer and Boness 2005; Montada and Kals 2013).

Empathy in Conflict Mediation

Empathy is defined the sympathetic emotional reaction to the presumed emotions of the other (cf. Gutenbrunner and Wagner 2016; Stotland 1969). The conceptualization of empathy, we draw upon here, was also described as feeling for the other or empathic concern (e.g., Batson and Ahmad 2009). Empathy was assumed to be the result of perspective taking, the cognitive adoption of the other’s view (e.g., Cehajic, Brown, and Castano 2008; Martinez, Stuewig, and Tangney 2014).

In conflict, empathy is often reduced for several reasons. In order to legitimize the own position and to achieve one’s goals, the perspective, emotions, and legitimacy of the other conflict party are denied (e.g., Rubin, Pruitt, and Kim 1994). Accompanied by negative emotions like anger or fear, conflict parties distance themselves from one another (e.g., Halperin, Sharvit, and Gross 2011; Rubin et al. 1994). In addition, the reduction of empathy leads to conflict escalation. If reduced empathic concern is a reason for negative conflict escalation, an increase in empathy should help to deescalate conflict. Accordingly, empathy was assumed to relativize the own position in favor of an increased understanding and more positive feelings toward the other
(e.g., Nadler and Liviatan 2006; Swart et al. 2011; Wagner and Gutenbrunner 2016). In fact, in contexts other than conflict mediation, empathy was shown to support a feeling of closeness, helping and liking of one another, as well as to facilitate social interaction and conflict resolution (e.g., Aron et al. 1991; Batson 1991; Chartrand and Bargh 1999; Galinsky et al. 2008; Trötschel et al. 2011). In the context of intergroup conflict, empathy towards an individual outgroup member was shown to increase positive attitudes regarding the entire outgroup (Batson et al. 1997).

There is hardly any research on the role of empathy in the mediation of intergroup conflict. We know only of one study of Gutenbrunner and Wagner (2016), which evaluated the effect of perspective taking techniques in mediation. They found higher levels of empathy regarding an outgroup member to explain the improved relation after perspective taking in mediation. Apart from that study, most of the research so far focused on the overall evaluation of mediation in intergroup conflict instead of the underlying psychological process.

Mediation Evaluation in Intergroup Conflict

The longstanding tradition of mediation practice in intergroup conflict, as for example in labor conflict (e.g., Rose 1952), was accompanied by a considerable research body, striving to evaluate the procedure (Wall and Dunne 2012; Wall and Lynn 1993; Wall, Stark, and Standifer 2001). Most of the studies evaluated mediation in the field. They for example found that 74% of the mediations in environmental conflicts ended with an agreement (agreement rate; LaPlant Turkiewicz and Allen 2014). The agreement rate after mediation was estimated to be lower in labor conflicts (about 60%, e.g., Bingham, Kim and Summers Raines 2002; Hiltrop 1989) or international conflict and civil war (39-63% Bercovitch and Fretter 2007; DeRouen, Bercovitch, and Pospieszna 2011). Fewer studies, furthermore, evaluated mediation in a laboratory setting.
They mostly compared mediation to negotiation without a third-party in simulated intergroup conflicts, often inspired by the arena of labor bargaining and international relations. Mediation, have been shown for instance, to produce more agreements, less partial impasses and higher joint outcomes for conflict parties than mere negotiation (e.g., Druckman, Druckman, and Arai 2004; Loschelder and Trötschel 2010; Loschelder 2013). Mediation furthermore improved the relation of outgroup members in conflict (e.g., Gutenbrunner and Wagner 2016; Loschelder 2013).

Methodological Problems of Prior Evaluation Research

Prior mediation evaluation was criticized for a number of shortcomings (e.g., Cross and Rosenthal 1999; Esser and Marriott 1995; Wall and Dunne 2012). First, research on mediation so far has mostly estimated the agreement rate as index of mediation effectiveness (e.g., Herrman 2006). However, the mere focus on the agreement (or non-agreement) can overlook valuable processes triggered by mediation (e.g., Herrman 2006; LaPlant Turkiewicz and Allen 2014; d’Estrée et al. 2001). The improvement of the conflict parties’ relation is one of the suggested alternative success criteria, especially for mediation based on a facilitative relation-oriented style (e.g., Bush and Folger 2004). In the context of intergroup conflict, the potential to increase positive intergroup attitudes (and to reduce prejudice) can be assumed to be a meaningful indicator for improved relations between groups (e.g., Cross and Rosenthal 1999; Paluck 2012).

Second, besides the operationalization of success, the one-group posttest-only design (cf. Shadish, Cook, and Campbell 2002) of most field studies has threatened the internal validity of previous results: Without control groups, it remains unclear how many conflicts would have been resolved without mediation (e.g., Wall and Dunne 2012). Only a comparison of treatment/mediation groups with control groups enables causal inferences about the impact of mediation on conflict resolution (cf. Shadish et al. 2002).
Treatment-control group comparisons have been commonly made in laboratory research on mediation effectiveness. The experimental design is generally considered as gold standard for investigating causal relations. However, third, laboratory mediation research so far was criticized for missing external validity (e.g., Cross and Rosenthal 1999). Many of the highly standardized and simplified mediation procure have been conducted by lay or computerized mediators in the context of simulated conflict scenarios (e.g., Rubin 1980). This implies that decreased real involvement in the conflict by parties as well as limited proficiency, vividness, and reactivity to specific case characteristics by the mediators might reduce the generalizability to real-world mediations (e.g., Cross and Rosenthal 1999).

Fourth, a low or unknown reliability of variable measurement can threaten the quality of research results. For example, the effect of mediation could be underestimated because of the restricted reliability of the success measurement. Structural equation modeling offers a solution for that by accounting for the unreliability of measures (e.g., Brown 2006). It allows corrected and therefore more adequate effect estimations. Nevertheless, up to now, such an evaluation procedure has not been applied for studies about mediation.

Finally, as criticized by Wall and colleagues (2012; 2001), there is a tremendous lack of knowledge regarding the effectiveness of specific aspects of the mediation procedure. Consequently, it is for example unknown, which actions of the mediators actually increase the probability of mediation success. Following the terminology of the research on psychotherapy and counseling, we refer to the potentially operating aspects as factors in mediation. In the complex mediation procedure, for example the factor of negotiation between conflict parties, the facilitation of this negotiation by a mediator, or the application of various mediation techniques can be distinguished.
With the present research we aim at addressing the methodological problems described above.

The Present Research

With the present two studies, we evaluated the potential of facilitative relation-oriented mediation to increase positive intergroup attitudes in conflict. Firstly, we evaluated the mediation procedure by comparing mediation with individual problem solving. In our second study, we focused on the specific factor of third-party facilitation and compared mediation with negotiation without a mediator. We investigated the potential of mediation to trigger the psychological process of empathy enhancement between conflict parties. We therefore analyzed intergroup empathy as a (statistical) mediator variable for effective mediation.\(^2\) With our research, we aimed at producing highly internally valid effects without losing concern for the external validity. The experimental design of our studies as well as the controlled conditions in the laboratory allowed highly internally valid effect estimations. We moreover supported the external validity of our studies by having a professional mediator applying a semi-structured mediation procedure (e.g., broadly following a script and asking the same questions, but individually paraphrasing the specific answers of participants) of 35-60 minutes in a real intergroup conflict. Finally, the use of structural equation modeling allowed a reliable calculation of effect sizes.

Study 1

Within our first study, we pursued the research question whether mediation leads to more positive intergroup attitudes than individual problem solving in intergroup conflict. We moreover expected the increased positive intergroup attitudes to be statistically mediated by increased intergroup empathy.
The intergroup conflict we incorporated in our first study was the structural conflict between international and domestic university students in Germany. Opportunities and resources, like access to information, familiarity with the working language German, or social networks, are unequally distributed between these two groups to the disadvantage of international students. One can assume that, as a result, international students achieve lower grades at university (e.g., He and Banham 2011; Li, Chen, and Duanmu 2010). While the international students’ interest in this asymmetric conflict is to achieve a fair grading and overcome intercultural difficulties, it is the interest of the Germans to hold on to their privileges. In regard to several issues, the interests of the two groups are negative interdependent to each other, meaning that the fulfillment of one party’s interests prevents the fulfillment of the other party’s interests (cf. Wagner and Gutenbrunner, 2016). For instance, many international students would prefer English as working language in university, while many German students mostly prefer courses in their native language. Hence, the situation can be described as conflictual and negative intergroup attitudes between foreign and autochthonous students can occur as a consequence (e.g., Bobo and Hutchings 1996). In order to find conflict solutions here, we invited mixed international-German encounter groups to the laboratory.

Methods

Participants

Students were eligible to be “international” if they were born and went to school in another country than Germany. Students were eligible to be “German” when they had no migration background (i.e. parents and grandparents were born in Germany). German students were not invited when they had studied or worked abroad. The data of one international student was
excluded afterwards, as he refused to get involved in the encounter. After exclusion, $N = 164$
students of a German university participated: Eighty-three international students (majors: 37% linguistics, 15% health sciences, 10% social sciences, 8% natural sciences, 7% cultural sciences, 7% economics, 7% technical sciences, 9% other; mean age 24 years, $SD = 3.49$ years; 69% female) from 32 regions (32% Asia, 25% Arab countries, 15% Russia, 12% Europe, 10% Latin America, 7% others) and 81 German students (majors: 31% social sciences, 28% health sciences, 12% economics, 10% natural sciences, 9%, cultural sciences, 5% linguistics, 5% others; mean age 23 years, $SD = 4.44$ years; 56% female) participated.

**Procedure**

Sampling procedure

All enrolled undergraduate students of a German university were invited via e-mail list, flyers, and posters to participate in a discussion about “fair grading at the university”. The intergroup conflict between international and German students was not mentioned before students came to the laboratory. Incentives for participation were 20€ or course credits. Before participating, students had to complete a questionnaire entailing the inclusion/exclusion criteria (e.g., nationality; migration background; times abroad, longer than one month). Out of 594 interested students, 104 were international students and 247 were German students (without migration background or experience abroad). From all 104 international students we invited, 84 (80%) agreed to and actually came to the laboratory appointment. In the bigger German sample often more students were available for each laboratory appointment. That is why we could aim at a gender balance when inviting German students. Apart from that we decided by chance, who was invited. Eighty-one (33%) of them agreed and actually came to the laboratory appointment.
Design and experimental procedure

The study was conducted in a pretest-posttest control group design with 21 experimental and 20 control runs. Subjects participated in small group encounters (2-7 participants per laboratory run; average encounter size $M_{\text{Encounter Size}} = 4.53$), consisting of international ($M_{\text{International}} = 2.28$) and German ($M_{\text{German}} = 2.25$) students. Before each run, the experimenter decided randomly which experimental condition to deliver. For practical reasons, randomization could not be fulfilled entirely: In order to enable participants in the experimental condition to represent their respective group interests in a situation of an equal status, at least two members of each group should be present. Accordingly, the experimenter decided to switch to the control condition in six sessions, when less than two members of one party appeared. Thus, 98 (51 international and 47 German) students were in the experimental and only 66 (32 international and 34 German) students were in the control group. The experimental and control groups did not differ significantly regarding age, gender, major of studies, or positive intergroup attitudes in the pretest. Moreover, the group size had no effect on the intergroup attitudes or intergroup empathy in the posttest. Still, to account for non-significant pretest-differences in intergroup attitudes, we controlled for it statistically.

The laboratory session lasted about two hours. After participants had been welcomed, everybody introduced herself or himself. Participants were told that, due to a new directive of the European Union against discrimination in the educational system, the university was developing new examination regulations to mitigate the structural inequality between international and German students. Therefore, “student focus groups” composed of international and German students were initiated to generate ideas for the conflict solution: “culture fair examination regulations”. The ideas for such regulations could encompass all kinds of aspects of student life.
that influence the grading of academic achievements. International and German students were told to represent the interests of their respective groups.

To prepare for their conflict positions, the two groups discussed about 15 minutes separately among each other first. For that purpose, they were each given a bilingual (German and English) information sheet containing a summary of the background information. To make the divergent underlying group interests (e.g., regarding the working language and an equal treatment) salient, the information sheet outlined two possible conflict solutions, which supposedly were developed by prior encounter groups: 1. English as a universal teaching language at German universities and 2. adjustment of the academic achievements of international students by generally elevating their grades. After the separate discussion the pretest questionnaire, including demographics and positive intergroup attitudes, was presented.

In the next phase, the experimental manipulation was implemented: For about one hour, the participants were asked to generate ideas for the conflict solution, a culture fair examination regulation. Ideas were either generated in a mediation process (experimental condition) or individually by each student (control condition) and were fixed on a specifically prepared answering sheet. In the experimental condition, one form was used for the whole group, whereas in the control condition each student had her or his own form. Two statements had to be elaborated on: 1. “With culture fair examination regulations, I would like to achieve the following goals”, and 2. “The goals mentioned above are achieved with the following means”.

At the end, the posttest questionnaires, assessing positive intergroup attitudes, intergroup empathy, and perceived demand characteristics, were completed. Participants were then informed about the research question and study background and monetary or course credit rewards were handed over.
Experimental manipulation

In the experimental group, a facilitative relation-oriented mediation style was applied by a female professional mediator (the experimenter and first author, who had completed a 360-hour mediation training). The mediator followed a semi-structured mediation procedure with three phases: 1. Introduction (about 30 minutes), 2. Conflict transformation (about 15 minutes), and 3. Search for a solution (about 15 minutes). In the introduction phase, the mediator asked questions and revealed the conflicting positions as well as the interests and needs behind them. In the conflict transformation phase, the mediator facilitated mutual understanding between both parties by asking to take one another’s perspective and to elaborate more when participants lacked understanding so far. The third phase consisted of searching for and (if possible) agreeing on conflict solutions. Conflict solutions, or ideas for culture fair examination regulations, were documented in written form when all participants could agree on them. The mediator never expressed own ideas or evaluated proposed solutions.

In the control condition, participants generated conflict solutions individually, but sitting in the same room.

Measurement

Data were collected with paper-pencil questionnaires. Both groups, international and German students, answered nearly identical bilingual (German and English) questions. German students were asked for positive intergroup attitudes and intergroup empathy in regard to international students and vice versa. To save time, we asked only for parts of the variables in the pretest. Thus, we assessed demographics and positive intergroup attitudes in the pretest and positive intergroup attitudes, intergroup empathy, and the perceived demand characteristics in the posttest (in the presented orders).
Positive intergroup attitudes. The attitudes towards international/German students were measured with a feeling thermometer (adapted from Campbell 1971; Wright et al. 1997). The two items (pre $\omega = .82^5, r = .71$; post $\omega = .84, r = .72$) were answered on a 101-point semantic differential. The maxima of the item “How do you evaluate the group of international/German students as a whole?” were labeled 0 very negative to 100 very positive. The maxima of the item “In general, how would you describe your feelings towards international/German students?” were labeled 0 very cold to 100 very warm. In order to prevent convergence problems in the statistical analyses (cf. Muthén and Muthén 1998–2012), the answering format was divided by ten (resulting in the range 0.0 – 10.0).

Intergroup empathy. Here, intergroup empathy is understood as the sympathetic emotional reaction to the presumed emotions of the outgroup (cf. Gutenbrunner and Wagner 2016). The three items ($\omega = .78$) were adapted from Batson (1991): “When thinking about international/German students, I feel: sympathetic; softhearted; compassionate”. The 6-point answering scales ranged from 1 (not at all) to 6 (extremely). Higher values indicated higher levels of intergroup empathy.

Perceived demand characteristics. To make sure that potential effects of the mediation were not only caused by increased perceived demand characteristics in the experimental condition, for example due to expectations of the mediator, we developed three items ($\omega = .78$): “I believe that I was expected to have a certain opinion.”, “I had the feeling that we were urged in a certain direction.”, and “I let the guidance [the experimenter and mediator] influence my opinion.”. The 6-point answering scales ranged from 1 (strongly disagree) to 6 (strongly agree). Higher values indicated higher perceived demand characteristics.
Statistical methods

Hypothesis testing

We analyzed our data with structural equation modeling using Mplus v7.2 (Muthén and Muthén 1998–2014). To test the statistical mediation hypothesis, we used the robust bootstrapping method (Efron 1979). Significance is given when 0 is not included in the confidence intervals (CI).

As our data were obtained by cluster sampling (students participated in encounter groups and not individually), the assumption of independence of observations was violated (cf. Muthén and Satorra 1995). In consequence, the probability of higher similarity within and significant variance between clusters, indicated by a higher intraclass correlation (ICC, ρ [rho]) and design effect (deff), was increased. When ρ is above the critical value of ρ = .050, or the design effect is above deff = 2, it is advisable to specify models for each level or to calculate corrected standard errors (e.g., Maas and Hox 2005; Muthén and Muthén 1998–2012). Within our data set, all design effects (deff = 1.10 to deff = 1.17) and with the exception of one item (with ρ = .058) all ICCs (ρ = .034 to ρ = .044) were below the critical value. Thus, we conducted the analyses on the basis of individual data. Additional multilevel analyses obtained equal results.

Preliminary analyses

Our data-set contained up to 2% missing data in various items. The MCAR-test by Little (1988) revealed that the missings were distributed completely at random (χ² = 26.08, df = 38, p = .928), which allowed their imputation (cf. Schafer and Graham 2002). Missing data was imputed with the maximum likelihood estimation of Mplus v7.2.
The construct validity of our dependent measures was analyzed by calculating a simultaneous latent confirmatory factor analysis (CFA) for the intergroup empathy and intergroup attitudes items in order to show the accuracy and the distinctness of the two included latent factors (cf. Brown 2006). The overall very good model fit ($\chi^2_{corr} = 3.17; df = 4; p = .530; CFI = 1.00; RMSEA = .00; SRMR = .02^7$) confirmed the assumed two-factor measurement model. Another criterion for distinct factors is the correlation of latent variables $r \leq .80$ (Brown 2006). With $r = .59 (p < .001; \text{see Table 1})$, the distinctness of intergroup empathy and positive intergroup attitudes was further confirmed. The high correlation of the pre- and posttest measure of positive intergroup attitudes ($r = .95, p < .001$) indicated a strong stability of the construct over the small time period of about one hour.

--- Table 1 about here ---

The meaningful comparison between groups requires measurement equivalence, the “comparability of measured attributes across different populations” (Davidov et al. 2014, 58). The question is in other words, whether groups have an equivalent understanding of the measured variables. We tested measurement equivalence for the experimental and control group as well as for international and German students. Our two-factor measurement model reached the highest level of scalar measurement equivalence between experimental and control group ($\chi^2_{corr} = 15.33; df = 17; p = .572; CFI = 1.00; RMSEA = .00; SRMR = .10$) as well as between international and German students ($\chi^2_{corr} = 16.20; df = 18; p = .579; CFI = 1.00; RMSEA = .00; SRMR = .10$).^8

To rule out alternative explanations for increased levels of expressed intergroup empathy or positive intergroup attitudes, we tested whether the measures were affected by the size of the encounter groups or perceived demand characteristics. The indirect effects of the experimental
condition via group size and perceived demand characteristics on intergroup attitudes and intergroup empathy were not significant.

**Results**

An illustration of the structural equation model to test our hypothesis is shown in Figure 1 (item loadings are not presented). Our hypothesis was confirmed: The mediation procedure increased positive intergroup attitudes (marginally significant total effect: $b = 0.18$, $SE = .10$, $\beta = 0.07$, 90% CI [0.02, 0.35]). The effect was statistically mediated via intergroup empathy (significant indirect effect: $b = 0.11$, $SE = .06$, $\beta = .04$, 95% CI [0.02, 0.30]). The total effect was reduced to non-significance when the statistical mediator was accounted for (direct effect: $b = 0.07$, $SE = .10$, $\beta = .03$, 95% CI [-0.15, 0.25]). The full model had a very good model fit ($\chi^2 = 11.13; df = 13; p = .600; CFI = 1.00; RMSEA = .00; SRMR = .03$). All mediations were completed with an agreement.

--- Figure 1 about here ---

**Discussion**

With Study 1, we provided first evidence that mediation between members of groups in conflict leads to more positive intergroup attitudes than individual problem solving. Differing from most of the studies so far (cf. Herrman 2006), we focused on the relation between conflict parties as criterion for mediation success. Partly accountable for more positive intergroup attitudes was an increased feeling of empathy towards the other group. With this finding, we shed first light on the psychological process behind mediation in intergroup conflict. By experimentally evaluating professionally conducted mediation in a real intergroup conflict, we provided internally as well as externally valid results. Structural equation modeling beyond that
delivered information of high reliability. However, the professional mediator of Study 1 was also the experimenter and researcher. Hence, although we controlled for the effect of perceived demand characteristics, a more subtle form of an experimenter effect cannot be ruled out (cf. Rosenthal 1966). In our second study, we aimed at compensating some of the shortcomings of our first study.

**Study 2**

With our second study, we intended to zoom into the mediation process and investigated the contribution of the mediating person when compared to negotiation without a facilitating third-party. In study 2, we simulated the intergroup conflict. We included a measure of participants’ involvement in the conflict simulation. Including this variable allowed the differentiation between a more or less realistic conflict implementation. To avoid experimenter effects, the roles of the experimenter and mediator were separated. The professional mediator was furthermore blind to the research question. That is why we refrained from measuring perceived demand characteristic in Study 2. Finally, to avoid memory influences we used different item combinations of the same measurement instrument in pretest and posttest. Under such optimized conditions, we aimed at replicating the hypothesis that mediation increases positive intergroup attitudes due to its potential to increase intergroup empathy. The structure of the conflict simulation additionally allowed a quantitative measure of the joint outcome gained by the two parties. Consistent with prior research, we expected the joint outcome to be higher after mediation than after negotiation (e.g., Loschelder 2013).
Methods

Participants

Eighty-nine undergraduate students (majors: 61% psychology, 15% education, 9% business studies, 7% social sciences, 8% others; mean age 22 years, SD = 2.88 years; 92% were German, 8% of different nationalities) participated. Since gender influences the negotiation process and outcome (e.g., Mazei et al. 2015), we avoided unnecessary error variance in the dependent variable by inviting only female participants. We excluded three participants of the former sample of 92 because of interruptions in the experimental procedure.

Procedure

Sampling procedure

All undergraduate students of a German university, who were registered in an e-mail list for the participation in experiments in exchange for course credits, were invited. Out of 120 interested students, 92 (77%) could arrange and actually came to the laboratory appointment. For each laboratory run, two participants were invited.

Conflict simulation

We adapted the well-established conflict simulation of Loschelder and Trötschel (2010). The face-to-face, multi-issue, distributive negotiation task links to the living environment of students and creates a slightly escalated conflict between two roommate groups. Participants were asked to imagine that they had been living in an apartment with six other students until the landlord terminated the previous tenancy agreement. As a consequence, they had to move from the former bigger apartment to two smaller apartments. Consequently, two new roommate groups
had been formed. In order to adapt the simulation to many real world conflicts, we constructed
the groups as unequal in size and power: one apartment had room for two (minority) and one
apartment had room for five (majority) inhabitants. According to the instructions, the minority
group had less financial means than the majority group. Participants negotiated in dyads: one
member of each group. They were instructed to represent the interests of their respective group
when agreeing on the distribution of household items, which had been acquired together: A stove
(worth 350€), a dishwasher (worth 210€), a refrigerator (worth 150€), a washing machine (worth
130€), a microwave (worth 100€), a coffee machine (worth 40€), and a set of dishes (worth 20€).
Both group members were supposed to pursue the highest possible value for their own group.
They were told that items they cannot agree upon will be left to the landlord for a price far below
the objects’ value. To increase the involvement in the role play and create a more vivid
experience of the conflict, the prior escalation of the conflict and the associated emotions were
further elaborated. It was explained that the minority group had already taken the refrigerator, the
stove, and the set of dishes to use it until the conflict was solved. The majority group responded
with anger and distanced themselves from the minority group. In consequence, the minority
group felt excluded by the others and under pressure due to their financial limitations.

Research design and experimental procedure

The study was conducted within a pretest-posttest control group design. We measured
positive intergroup attitudes based on the information of the described conflict scenario prior to
the experimental manipulation to be able to control for potential pretest differences. To avoid
any test effects due to the short time period between pre- and posttest, we used different item
combinations of the same scale – the semantic differential of Wright and others (1997) – before
and after the experiment. The procedure was successfully implemented within 45 runs (21
Experimental and 24 control runs; from the originally planned 24 experimental runs, two were canceled because participants did break the appointment, and one run was interrupted. Before a run began, it was randomly decided whether participants took part in the experimental (mediation) or control (negotiation) condition.

The entire laboratory session lasted about 1.5 hours. After being welcomed by the experimenter (male, second author), participants were brought into separate rooms to receive the written instructions for the negotiation task as well as background information of the simulated conflict and their role characters. Following the recommendations of Loschelder and Trötschel (2010), we increased the level of identification with the groups by asking participants to write down the imagined names of their roommates, how they would like to spend the first evening in their new apartment, and finally to describe the character of their new roommate group by choosing from a number of attributes. After about 15 minutes to familiarize with the conflict and the own role, participants answered the pretest questionnaire, assessing demographics and positive intergroup attitudes (on the basis of the simulation information). Subsequently, participants had a maximum of 35 minutes to solve their conflict under the respective experimental condition. When the time was up, the experimenter asked the negotiators to cooperatively count and each note their joint outcome. They were again brought into the separate rooms to answer the posttest questionnaire, assessing joint outcome, positive intergroup attitudes, intergroup empathy, and involvement in the simulation. Finally, participants were debriefed, thanked, and given their reward in the form of course credits.

Experimental manipulation

The simulated intergroup conflict was either negotiated without the help of a third-party in the control condition or was mediated by a professional mediator (male, who had completed a
200-hour mediation training) in the experimental condition. The mediator, as in Study 1, applied a facilitative relation-oriented mediation style – following the same semi-structured mediation procedure with three phases. The length and focus of the phases was slightly adjusted to the present conflict simulation. After the first phase, the introduction (about 15 minutes), the mediator applied the perspective taking technique of Controlled Dialogue in the second phase, the conflict transformation (about 10 minutes). Within the Controlled Dialogue, conflict parties are asked to shortly elaborate on the position of the other party before responding to it (e.g., Gutenbrunner and Wagner 2016; Rogers 1952). In the third phase (about 10 minutes), the mediator supported the conflict parties to find and agree on a conflict solution. In the control condition, participants negotiated the conflict issues by themselves. Participants of both conditions were prepared for the mediation/negotiation using the same words within the instructing material. They were told it was of importance to first understand the positions and aims of the conflict, to then understand the background of the other’s position, and finally to commonly search for a mutually satisfactory solution. In this way, we parallelized the discussed contents in both conditions, so that the presence or absence of the mediating third-party was the only manipulated factor in the experiment.

Measurement

Data were collected with digitalized questionnaires before and after the experimental manipulation in the laboratory. We assessed positive intergroup attitudes and demographics in the pretest. The joint outcome, intergroup empathy, positive intergroup attitudes, and the involvement in the conflict simulation were assessed in the posttest (in the presented order).

Positive intergroup attitudes. As elaborated above, we used different adapted item combinations of the semantic differential by Wright and colleagues (1997) in pre- and posttest to
assess positive intergroup attitudes. Participants were asked to “describe, how you feel about the other roommate group at this moment” before and after the experiment. To describe the feelings items with a 6-point answering scale with labeled maxima were presented. The pretest included the following three items ($\omega = .79$): \textit{positive to negative} [recoded], \textit{cold to warm}, and \textit{respect to contempt} [recoded]. Since participants did not know each other before, in the pretest they based their attitudes on the information from the conflict simulation. The posttest included the following four items ($\omega = .84$): \textit{friendly to hostile} [recoded], \textit{disgust to admiration, negative to positive}, and \textit{cold to warm}. All items were coded or recoded reaching from negative to positive.

\textbf{Intergroup empathy.} Empathy was measured with the same three item scale ($\omega = .83$) as in Study 1, but in regard to the other roommate group.

\textbf{Joint outcome.} Like Loschelder and Trötschel (2010), we used the joint outcome, which here is the value in Euro achieved by both parties together, as an additional indication of the effectiveness of mediation and negotiation. The more household items were agreed on, the higher was the joint outcome. The participating dyads were asked to cooperatively count and each note their joint outcome immediately after ending their (mediated) negotiations.

\textbf{Involvement.} To acquire whether participants took the role play seriously and immersed themselves in the simulation we included one item: “How strongly did you immerse yourself in the conflict?” The 6-point answering scale was labeled with the maxima \textit{not at all} to \textit{very strongly}. 
Statistical methods

Hypothesis testing

Again, we used structural equation modeling to test our hypothesis. Like in Study 1, the design effects in Study 2 were all below the critical value of 2 (deff = 1.09 to deff = 1.29). However, as the ICCs were all above the tolerable value of ρ = .050 (ρ = .094 to ρ = .293), we accounted for non-independency by using the TWOLEVEL-command of Mplus v7.2. The model testing the hypothesis regarding positive intergroup attitudes was specified on the individual level (level 1). The model regarding the joint outcome was specified on the level of negotiation dyads (level 2). Since this analytical method cannot be combined with the bootstrapping method, we tested the hypothesis of Study 2 on the bases of p-values.

Preliminary analyses

Our data-set did not contain any missing data. The very good model fit indices of a CFA, including all items of intergroup attitudes and intergroup empathy, again confirmed the measurement model with two latent factors (χ²_ corr = 8.38; df = 13; p = .818; CFI = 1.00; RMSEA = .00; SRMR = .04). Again, the distinctness was additionally supported by a correlation of r = .67 (p < .001) between latent intergroup empathy and positive intergroup attitudes (see Table 2).

--- Table 2 about here ---

Scalar measurement equivalence between experimental and control group (χ²_ corr = 39.72; df = 38; p = .393; CFI = 0.99; RMSEA = .03; SRMR = .21) and between minority and majority group (χ²_ corr = 42.43; df = 38; p = .286; CFI = .98; RMSEA = .05; SRMR = .33) was obtained for the measurement model described above.
It turned out that mediation took nearly twice as long as negotiation without a third-party
($M_{\text{experimental}} = 29.63$ minutes, $SD = 3.29$, $M_{\text{control}} = 17.45$ minutes, $SD = 7.05$, $t[68] = -10.51$, $p = .000$). To rule out the *alternative explanation* that potential effects on intergroup empathy, intergroup attitudes, or the joint outcome occurred due to the prolonged interaction of conflict parties in mediation, we modeled duration as a statistical mediator. None of the indirect effects were significant.

**Results**

The hypothesis regarding positive intergroup attitudes was confirmed for those participants who took the conflict simulation serious. Within a moderated (statistical) mediation, we tested effects for the interaction term of experimental condition and involvement. For involved participants, mediation increased positive intergroup attitudes towards the other group (marginally significant total effect for the interaction term: $b = 0.35$, $SE = .19$, $\beta = .59$, $p = .059$). The effect was statistically mediated via intergroup empathy (significant indirect effect: $b = 0.27$, $SE = .13$, $\beta = .46$, $p = .032$), which reduced the total effect to non-significance (direct effect: $b = 0.08$, $SE = .15$, $\beta = .14$, $p = .587$). The full model showed a good model fit ($\chi^2_{\text{corr}} = 58.22$; $df = 54$; $p = .323$; $\text{CFI} = .99$; $\text{RMSEA} = .03$; $\text{SRMR} = .06$) and is presented in Figure 2. There was no main effect of the experimental condition on intergroup empathy or positive intergroup attitudes (see also Figure 2): only the interaction term achieved significance.

--- Figure 2 about here ---

All (mediated and unmediated) negotiation dyads reached an agreement. Against our expectation the joint outcome in the mediation condition was significantly lower than in the negotiation condition ($M_{\text{experimental}} = 817.62$; $M_{\text{control}} = 991.49$, $b = -174.13$, $SE = 65.57$, $\beta = -.40$, $p = .000$).
There was no significant interaction with the participants’ involvement in the conflict simulation ($F[4, 82] = 0.96, p = .432$).

**Discussion**

Mediation in intergroup conflict leads to more positive intergroup attitudes via increased levels of intergroup empathy. Data showed that the mediator has a positive effect on intergroup attitudes over and above the effects of mere negotiation. We achieved these results with strong concerns for the internal as well as the external validity, for example by letting a professional mediator do the job without being aware of the research question. That way, we reduced the probability of experimenter expectancy effects in the direction of our research hypothesis.

Surprisingly, the joint outcome of the simulated negotiation task indicated an inferiority of mediation in regard to economic measures: Participants agreed on more items and, hence, profited more in negotiations without a mediator. We can only speculate about the causes here: The result could indicate that mediation in general is superior in regard to relation outcomes, but inferior in regard to economic outcomes when compared to mere negotiation. In our study, we realized a facilitative relation-oriented mediation style. Yet, other mediation styles like the problem-solving ones might have led to more profitable outcomes than the facilitative relation-oriented mediation style. So far, there is only little and inconclusive research on the effects of different mediation styles (e.g., Wall and Kressel 2012). The adequacy of a specific mediation style might also differ regarding the type of conflict. Salmon and colleagues (2013) for instance showed that for open, trusting participants, who are willing to concede, a facilitative mediation style is more effective than a directive mediation style. This result relates well to the theory of conflict escalation, according to which facilitative mediation styles are adequate in less escalated conflicts and directive mediation styles are adequate in highly escalated conflicts (e.g., Glasl
1982; 2012). The conflict in our study had a low level of escalation and the fact that the conflict was simulated might have led to even less destructive conflict dynamics. Hence, one could speculate that in a simulated conflict with a low escalation level, even the applied facilitative relation-oriented mediation style was already too directive, which makes the negotiation without a third-party the more effective strategy regarding economic outcomes.

**General Discussion**

Two experimental studies support the hypothesis that mediation with a facilitative relation-oriented style increases intergroup empathy, which then leads to more positive intergroup attitudes in intergroup conflict. In our first study, we evaluated mediation (entailing negotiations well as the mediating third-party) comparing it to individual problem solving. In the second study, we evaluated the factor of the mediator by comparing mediation with negotiation without a facilitating mediator.

Our laboratory studies add to prior evaluation research by focusing not only on the internal but also on the external validity of results. The latter was enhanced by the context of a real intergroup conflict and professional mediators conducting a semi-structured mediation procedure of 35-60 minutes. Calculating structural equation models furthermore enabled reliable effect estimations. Following our results, practitioners should feel encouraged to further facilitate an empathic understanding between conflict parties by using perspective taking techniques in mediation in order to transform intergroup conflict.

Nevertheless, several limitations of our studies point to aspects future research could address: First, we approached the balance between internal and external validity with a strong focus on the internal validity. Thus, it would be a worthy aim of future research to approach the
balance from the other side and, for instance, compare different forms of conflict resolution or apply waiting control group designs to evaluate mediation in the field.

Second, we assumed intergroup empathy to cause more positive intergroup attitudes within the mediation process. However, in the here presented studies the relation between intergroup empathy and more positive intergroup attitudes was analyzed only on the basis of correlational data. In order to establish causality between the two variables an experimental manipulation of intergroup empathy would be more adequate (e.g., Shadish et al. 2002).

Although the study of Gutenbrunner and Wagner (2016) delivered strong support for the causal direction in the context of mediating intergroup conflict, further research should replicate the sparse findings so far.

Third, the unexpected superiority of negotiation regarding the economic outcome inspires more research on the effects of different mediation styles (see also Wall and Kressel 2012).

Finally, we welcome future research to also investigate processes other than mutual empathy between conflict parties. For example, several authors point to the importance of building trust in intergroup conflict (e.g., Kelman 2005; Kramer and Carnevale 2003). Mediation is a complex procedure, which is worth being studied further to enable a deeper understanding as well as an optimization of the mediation practice.
References


### Tables & Figures

Table 1. Zero-Order Correlations of Latent Variables, Means and Standard Deviations

<table>
<thead>
<tr>
<th>Latent variable</th>
<th>1</th>
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<th>3</th>
<th>M</th>
<th>SD</th>
<th>Range</th>
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</thead>
<tbody>
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<td>.95***</td>
<td>.44**</td>
<td>68</td>
<td>16</td>
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<td>—</td>
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<td>70</td>
<td>16</td>
<td>0-100</td>
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<tr>
<td>3. intergroup empathy</td>
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<td>—</td>
<td>3.81</td>
<td>0.89</td>
<td>1-6</td>
<td></td>
</tr>
</tbody>
</table>

*Note. N = 164

**p < .01, ***p < .001.*
Table 2. Zero-Order Correlations of Latent Variables, Means and Standard Deviations

<table>
<thead>
<tr>
<th>Latent variable</th>
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<th>3</th>
<th>M</th>
<th>SD</th>
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<td></td>
<td>4.26</td>
<td>0.93</td>
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</tbody>
</table>

*Note. N = 89; all answering scales ranged from 1-6.
***p < .001.
Figure 1. Structural equation model, testing the statistical mediation effect of conflict mediation on positive intergroup attitudes via intergroup empathy. Standardized (Beta) effects are presented. Effects were controlled for pretest attitudes. For reasons of clarity, measurement models and control variables are not presented. $N = 164$ participants, $J = 41$ clusters. EG = experimental group (mediation), CG = control group (individual problem solving). $^+p < .10$. $^{**} p < .01$. 
Figure 2. Structural equation model, testing the statistical mediation of the interaction term of experimental condition and involvement on positive intergroup attitudes via intergroup empathy. Standardized (Beta) effects are presented. Effects were controlled for pretest attitudes as well as for non-independence of observations (individual participants nested in negotiation dyads). For reasons of clarity, measurement models and control variables are not presented. $N = 89$ participants; $J = 45$ clusters. EG = experimental group (mediation), CG = control group (negotiation).

$^+p < .10$. $**p < .01$. $***p < .001$. 
1. By manipulating the variable of interest (treatment, e.g., mediation versus negotiation) as well as similarly controlling for all other variables by standardizing the procedure and randomly allocating cases to either the experimental or the control group, effects on an outcome variable (e.g., conflict resolution) can be causally attributed to the treatment (e.g., mediation) with a very high probability (cf. Shadish et al. 2002).

2. To capture the underlying processes that transmit the relation of a cause and a consequence, the statistical mediation analysis is the standard procedure (e.g., Rucker et al. 2011). The idea is to analyze how much of the assumed causal relation is explained by an assumed mediator variable (e.g., MacKinnon 2008).

3. We invited groups of 4-7 students. But due to breaking of appointments in fact groups of 2-7 students came to the laboratory.

4. The experimental procedure was thoroughly pretested to empirically induce the adequate time frame and to make sure student participants could relate to the conflict issues.

5. We analyzed our data with latent variable modeling, which adjusts the measurement error and provides reliable effect estimations. Still, we report the ratio of the true score variance in relation to the total variance for each scale with the reliability coefficient omega (\( \omega \); e.g.,
McDonald 1999; calculated with the Mplus-syntax of Yang and Green 2011). McDonald’s omega can be interpreted like Cronbach’s alpha, but is less biased (e.g., Dunn, Baguley and Brunsden 2011).

6. ICC is defined as variance between clusters relative to the total variance \( \rho = \frac{\sigma^2_{\text{between cluster}}}{\sigma^2_{\text{between cluster}} + \sigma^2_{\text{within cluster}}} \). The design effect furthermore takes the cluster size into account, is less conservative, and was suggested to be more accurate (e.g., Muthén and Satorra 1995). It is defined as \( \text{def} = 1 + (\text{average cluster size} - 1) \times \rho \).

7. To evaluate the model fit, we used the chi-square test \( \chi^2_{\text{corr}} \) (corrected with the maximum likelihood mean adjusted estimator [MLR], which is robust to non-normality [Muthén and Muthén 1998–2012]) and the goodness-of-fit indices Comparative Fit Index (CFI), Root Mean Square Error of Approximation (RMSEA), and Standardized Root Mean Square Residual (SRMR). A good model fit is indicated when \( \chi^2_{\text{corr}} \) is not significant with a \( p \geq .05 \), CFI \( \geq .97 \), RMSEA \( \leq .05 \), and SRMR \( \leq .05 \) (Schermelleh-Engel 2003, 52).

8. Three hierarchically ordered levels of measurement equivalence were differentiated and tested stepwise: 1) Configural equivalence is given, when the factor structure does not differ significantly between groups, 2) metric equivalence requires equal factor loadings, and 3) scalar or strong equivalence is given, when indicator intercepts are equal between groups (e.g., Davidov et al. 2014; Meredith 1993).
9 For binary predictors, we used the STDY-standardization procedure for Mplus v7.2, which is not biased by the non-meaningful and small standard deviation of binary predictors (cf. Muthén and Muthén 1998–2012).

10. As the bootstrapping procedure is robust against non-normality, Mplus does not provide the MLR correction for the $\chi^2$-value in combination with bootstrapping.

11. Randomization should preclude pretest differences. However, in a relatively small sample randomization might not balance all characteristics of the participants.

12. Again, the procedure was thoroughly pretested to empirically induce the adequate time frame and mediation techniques in the given conflict simulation.

13. None of the results were significantly different in the minority or majority group.
3.1.1 ADDITIONAL ANALYSES: MULTIPLE GROUP COMPARISON OF MINORITY AND MAJORITY

In both studies of Manuscript #1, the conflicts were characterized by a power asymmetry: The majority was advantaged while the minority was disadvantaged. In Study 1, compared to the international student minority, the majority group of German students had, for example, the advantage of familiarity with the working language German. In Study 2, the simulated conflict comprised a larger roommate group with more financial means than the smaller roommate group. Bruneau and Saxe (2012) pointed out that different psychological processes lead to more positive intergroup attitudes for minority and majority groups in conflict with each other. While perspective taking and empathy is mainly relevant for majority groups, perspective giving and feeling heard has a stronger relevance for minority groups. They argued that minorities have often a minor political representation and their historical narratives are less present in the societal discourses (see also Salomon & Cairns, 2010). As a consequence, majority members can learn novel information from taking the perspective of minority groups (see also Galinsky, Magee, Ena Inesi, & Gruenfeld, 2006). The minority on the other hand is confronted with the majority perspective on a regular basis. Thus, perspective taking does not provide many new experiences. But for marginalized minority groups, perspective giving as well as being heard and recognized are often of higher importance (see also Halabi, 2004). In the two experiments by Bruneau and Saxe (2012), in fact, perspective taking was a stronger predictor for positive intergroup attitudes for the majority than for the minority. Perspective giving, on the other hand, was a stronger predictor for the minority than for the majority. The findings were consistent in both contexts investigated, Mexican immigrants and White Americans (in the United States) as well as Palestinians and Israelis. Based on these findings, we pursued the additional research question whether the underlying psychological process of empathy had the same relevance for the minority and majority groups in our studies. Unfortunately, we did not consider the feeling to be heard in the first two studies.

METHODS. In order to test whether the underlying psychological process of increased intergroup empathy was equally relevant for the minority and the majority, we conducted a multiple group comparison for the tested structural model. We have already established measurement invariance between groups (see Manuscript #1). That means, we assured that minorities and majorities had the same understanding of the measured
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concepts. To furthermore test whether the structural model comprising the assumed relations between the latent variables was equally adequate for the minority and majority groups, we proceeded stepwise (cf. Christ & Schlüter, 2010): Firstly, we calculated the structural model without equality constraints between groups, allowing groups to have differently strong paths in the model. Next we calculated a model where the paths were constrained to be equal in size. Finally, we compared the fit of the two models (with and without equality constraints) to the data using the Chi-square difference test. The test indicates whether the constrained model shows a significantly worse fit to the data than the unconstrained model. In our case, a significant Chi-square difference test would mean that the underlying psychological process of intergroup empathy was differently relevant (or true) for the minority and majority groups.

RESULTS. For the context of international and German students, we tested the structural model assuming that mediation increases positive intergroup attitudes via increased intergroup empathy (see Figure 1 of Manuscript #1). The fit of the constrained model ($\chi^2_{corr} = 32.87; df = 27; \ p = .201; \ CFI = .97; \ RMSEA = .52; \ SRMR = .10^{4}$) was slightly worse than the fit of the unconstrained model ($\chi^2_{corr} = 26.58; df = 24; \ p = .324; \ CFI = .99; \ RMSEA = .04; \ SRMR = .07$). The Chi-square difference test was marginally significant ($\chi^2_{corr} = 6.45; df_{\Delta} = 3; \ p = .092$). The smaller Chi-Square contribution from the German student majority ($\chi^2 = 13.67$) compared to the international student minority ($\chi^2 = 19.21$) indicated a better fit for the German subsample.

In the context of the simulated conflict between roommate groups, we compared the same structural model as before, but with the moderator of simulation involvement (see Figure 2 of Manuscript #1). The difference between the fit of the constrained model ($\chi^2_{corr} = 67.11; \ df = 73; \ p = .672; \ CFI = 1.00; \ RMSEA = .00; \ SRMR = .11$) and the unconstrained model ($\chi^2_{corr} = 63.31; \ df = 66; \ p = .571; \ CFI = 1.00; \ RMSEA = .00; \ SRMR = .06$) was not significant ($\chi^2_{corr} = 3.97; \ df_{\Delta} = 7; \ p = .783$).

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4 As in Manuscript 1, we used the chi-square test $\chi^2_{corr}$, (corrected with the maximum likelihood mean adjusted estimator [MLR], which is robust to non-normality [Muthén and Muthén (1998–2012)]), and the goodness-of-fit indices Comparative Fit Index (CFI), Root Mean Square Error of Approximation (RMSEA), and Standardized Root Mean Square Residual (SRMR) to evaluate the model fit. A good model fit is indicated when $\chi^2_{corr}$ was not significant with a $p \geq .05$, CFI $\geq .97$, RMSEA $\leq .05$, and SRMR $\leq .05$ Schermelleh-Engel, Moosbrugger, and Müller (2003, p. 52).
DISCUSSION. The multiple group comparison delivered mixed results. In Study 1, the model testing empathy as underlying psychological process of conflict resolution was marginally significantly more adequate for the German student majority than for the international student minority. However, the group difference was not replicated in the simulated conflict in Study 2. Still, it is possible that missing experiences of being a minority in real life might have hindered the participants’ realistic simulation and emotional involvement with the minority role. Thus, in sum our results point in the same direction, but cannot consistently confirm prior research (cf. Bruneau & Saxe, 2012). A further investigation of the subject in the future is indicated. By systematically analyzing different needs and psychological processes in the mediation of asymmetric conflicts, future research could provide valuable information for mediators (see also Nadler & Shnabel, 2015, Shnabel & Nadler, 2008).
3.2 MANUSCRIPT #2


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3.2.1 ADDITIONAL ANALYSES: CHANGE OF INTERGROUP EMPATHY AND INTERGROUP ATTITUDES

In Manuscript #2, our main goal was to evaluate the effects of perspective taking techniques within mediation. Participants in both conditions took part in a mediation process – the experimental group with perspective taking techniques and the control group without perspective taking techniques. Consequently, we did not formulate a hypothesis or draw any conclusion regarding the effectiveness of mediation as such. Still, the fact that we measured the German participants’ attitudes and empathy towards the group of refugees before and after mediation allowed us to describe the change of both variables over time. Drawing on the results from Study 1 and Study 2, we would expect an increase of positive intergroup attitudes and intergroup empathy in the experimental and control condition due to mediation. However, without a non-mediation condition, the causation of a possible change by mediation cannot be tested.

METHODS. In order to test pre-post differences of intergroup attitudes and intergroup empathy, we calculated a latent change model for each variable (cf. Geiser, 2011). In latent change modeling (a specific form of structural equation modeling) a latent difference score between measurement points is calculated. To test whether significant change in a variable occurred, the difference score is tested against zero. As a precondition, longitudinal measurement equivalence must be given. With the basic latent change model, the difference between pre- and posttest is analyzed for the whole data sample. Applied in experimental designs, the change is tested for the combined sample of experimental and control group. In order to furthermore detect potential differences between the trajectories of experimental and control group, we additionally modelled a path from the experimental condition to the difference score (cf. Guffler, 2016). In our case, we therewith could answer the question, whether mediation with perspective taking techniques had a stronger positive impact on intergroup attitudes and intergroup empathy than mediation without perspective taking techniques. The latent change model we calculated is presented in Figure 3.
RESULTS. For positive intergroup attitudes strict scalar longitudinal measurement equivalence was given ($\chi^2_{\text{con}} = 3.61; \ df = 3; \ p = .307; \ CFI = .99; \ RMSEA = .04; \ SRMR = .08$). The difference (for experimental and control condition combined) between intergroup attitudes in the pretest ($M_1 = 6.53, \ SD = .17$ on a scale of 1-10) and the posttest ($M_2 = 7.28, \ SD = .17$) was significant ($M_{2-1} = 0.75, \ SE = .14, \ p < .001$). The change was not significantly stronger in the experimental condition (effect from the experimental condition [experimental = 1, control = 0] on the difference score: $b = 0.21, \ SE = .28, \ \beta = .16, \ p = .461$).

Also for intergroup empathy, strict scalar longitudinal measurement equivalence was given ($\chi^2_{\text{con}} = 13.18; \ df = 12; \ p = .356; \ CFI = 1.00; \ RMSEA = .03; \ SRMR = .09$). The difference between intergroup empathy in the pretest ($M_1 = 4.12, \ SD = .11$ on a scale of 1-6) and the posttest ($M_2 = 4.60, \ SD = .09$) was significant ($M_{2-1} = 0.48, \ SE = .11, \ p < .001$). Again, the change was not significantly stronger in the experimental condition ($b = 0.03, \ SE = .05, \ \beta = .16, \ p = .838$).

DISCUSSION. Although positive intergroup attitudes and intergroup empathy were not differentially affected by the experimental manipulation of perspective taking techniques, the participants of both experimental conditions showed higher values after mediation. With the test for longitudinal measurement equivalence, we excluded the
possibility that the change was caused by a different understanding of the measured concepts (e.g., due to lower item difficulties) over time. Still, we cannot rule out context effects or other factors explaining the results. While the pretest questionnaire was answered at home, the posttest questionnaire was answered in the laboratory. Therefore, the demand characteristics to answer in a socially desirable manner might have been higher in the posttest. The results can only be interpreted as a hint pointing to the replication of mediation effects on intergroup attitudes and intergroup empathy. Ideas for future research, such as the inclusion of a third control group without mediation are discussed in Paragraph 4.2.1.
4. GENERAL DISCUSSION

4.1 SUMMARY OF FINDINGS

With three experiments in three different contexts, we confirmed our hypothesis that facilitative relation-oriented mediation increases positive attitudes between groups in conflict. While most of the prior research on mediation effectiveness lacked either internal or external validity, we evaluated mediation with strong concerns for both. Applying experimental designs under controlled conditions supported the internal validity of our results. Having professional mediators conduct semi-structured mediations in real conflicts supported the external validity of our results (cf. Shadish et al., 2002). By applying other success measures than the common agreement rate, we furthermore increased the construct validity (cf. McGillis, 1997). While in our studies the agreement rate did not differentiate between experimental and control condition, we could detect differences in intergroup relations. Finally, by conducting structural equation modeling, we increased the reliability of our results (cf. Brown, 2006).

So far, most of the mediation research focused only on the overall outcome of mediation (e.g., Wall & Dunne, 2012; Wall et al., 2001). As a consequence, little is known about which factors of the complex mediation procedure are effective. Nevertheless, this information would be very important for mediation practitioners and researchers alike in order to optimally conduct and improve the mediation intervention (e.g., Haynes et al., 2012; Wall et al., 2001). Thus, we did not only evaluate the effects of mediation globally, but also investigated different mediation factors. Firstly, we delivered evidence that a facilitating mediator contributes to an increase of positive intergroup attitudes over and above the effect of mere negotiations. What is more, we found that the use of perspective taking techniques in mediation makes a difference: Subjects participating in Controlled Dialogue and Role Reversal liked the other outgroup member more than subjects who were mediated without those techniques. We furthermore found that mutual empathy transmits the described effects.

With the three studies, we used an experimental causal chain design (cf. Spencer et al., 2005), which applies the most rigorous test for causality – the experimental design (cf. Shadish et al., 2002) – in the test of statistical mediation hypotheses. Therewith, we provided strong evidence for the psychological process we assumed: Mediation increases mutual empathy between conflict parties and therewith supports more positive intergroup attitudes and liking. With our third study, we furthermore suggested that not only empathy
for the other, but also feeling heard by her or him supports conflict resolution. This finding added to the severely understudied field of perspective giving (cf. Goldstein et al., 2014). Generally, our results shed valuable first light on the psychological processes of effective mediation in intergroup conflict (cf., Pruitt, 2011; Wall et al., 2001).

However, two results were unexpected: Firstly, the joint outcome of the negotiators in the simulated conflict in Study 2 was higher in the negotiation condition than in the mediation condition. We speculated the lower joint outcome in the mediation condition to be a specific result of the applied facilitative relation-oriented mediation style (see also Manuscript #1). This style, unlike others, focuses mainly on the process and the relation between conflict parties (cf. Alexander, 2008). In order to achieve the most profitable outcome, the application of a problem-oriented mediation style, mainly focusing on solving the material cause of a conflict, might have been more appropriate. Nevertheless, while the few existing studies in fact point in that direction, more research on the specific effects of different mediation styles is needed to formulate substantiated interpretations of our results (cf. Wall & Kressel, 2012).

Secondly, the positive effects of perspective taking techniques in Study 3 were restricted to the individual group members involved in the study and did not generalize to more positive attitude regarding the whole outgroup. This could be explained by the low typicality of the outgroup member (cf. Wilder, 1984, see also Manuscript #2). However, as was shown in Paragraph 3.2.1., we found hints for increased positive intergroup attitudes and stronger intergroup empathy due to mediation in general. In order to provide advice for mediators in intergroup conflicts, future research should investigate possibilities to make the group membership more salient in perspective taking techniques. However, mediators should be careful not to stigmatize their participants (cf. Potsch-Ringeisen & Schondelmayer, 2007).
4.2 LIMITATIONS AND FUTURE DIRECTIONS

The specific limitations of each of the studies were thoroughly discussed within the respective manuscripts. Here, we will only address those limitations which are common to all studies or which concern the integrated synopsis of the results.

4.2.1 SIMULTANEOUS TEST OF MEDIATION FACTORS

Within the here presented research, we tested the effects of mediation as a whole, the effects of the facilitating mediator, and the effects of specific mediation techniques. We did so by creating in large part similar experimental conditions, with the investigated factor being the only difference between experimental and control condition. When we investigated mediation as a whole, we compared it with another procedure to resolve conflicts: Individual problem solving. The facilitating mediator was evaluated by comparing mediation with negotiation without a mediator. Finally, for investigating the effects of perspective taking techniques, we compared mediation including them with mediation without them. A more rigorous test than the one we conducted would have been possible by including all four conditions in one experiment: individual problem solving, negotiation without a mediator, mediation without perspective taking techniques, and mediation including perspective taking techniques. A combined test within one setting would have allowed a more differentiated estimation of the contribution of each factor – including the ones which served as control condition, such as negotiation. However, with the realization of high standards regarding the external validity practical boundaries came along. In our first study, for example, we invited members of two groups in conflict: International and German students. As the group of international students is relatively small and difficult to approach, it would have been impossible to achieve a sufficient number of encounters to implement four different experimental conditions. Testing our hypothesis in three different conflict contexts furthermore increased the external validity of our results and proved them to be replicable. In the present research, we attached greater importance to the external validity of the results than to the comparative estimation of the effectiveness of all included factors. Nevertheless, conducting a combined test for all four conditions and therewith sensitively detect, which factor makes a significant difference in intergroup conflict, would be a valuable future extension to our research.
4.2.2 COMPROMISE BETWEEN INTERNAL AND EXTERNAL VALIDITY

As described above, prior field research on mediation provided results of high external, but lower internal validity. Laboratory research, on the other hand, provided results of high internal but lower external validity. Between the poles of highly externally valid field research and highly internally valid laboratory experiments, our research tended to the latter. The internal validity of our results was high due to a controlled experimental design. Compared to prior laboratory research on mediation we furthermore provided highly externally valid results: the comparatively long mediation procedure was conducted by a professional mediator and partly in real intergroup conflicts. Still, several aspects deviated from the typical mediation in the real-world practice. For instance, our mediations were initiated for the purpose of research only. In reality, the conflict parties themselves or third-parties usually initiate a mediation in order to alleviate the level of suffering a conflict creates (e.g., Bercovitch & Fretter, 2007; Pruitt, 2011). Moreover, only in Study 1 we fully relied on real conflict parties. In Study 3, we had one real party and one confederate (in a real conflict), while in Study 2 we worked with a fully simulated conflict. Overall, we would like to encourage future research to replicate the presented findings with an even stronger focus on the external validity – ideally without compromising to the disadvantage of the internal validity of results. Field experiments, for example, combine the benefits of high internal as well as high external validity (c.f. Shadish et al., 2002; Wall & Dunne, 2012). However, as elaborated above, a randomized allocation to conditions as well as waiting control group designs are often rejected by mediators for ethical reasons. In the following, a number of study designs are presented, which allow the meaningful investigation of causal assumptions in the field without the necessity to withhold the mediation treatment.

In order to assess causality aside from experiments, longitudinal designs have been often proposed (e.g., Cole & Maxwell, 2003). For instance, the autoregressive cross-lagged model allows estimating and inter-relating the trajectories of different variables (e.g., Selig & Little, 2012). Two or more variables have to be measured at two or more times. Firstly, the stability of each variable is represented by the autoregressive paths (paths a-b in Figure 4). Additionally, the causal chain of different variables can be tested with the cross-lagged paths (paths c-d). Accordingly, it can be tested, whether one variable predicts another variable over time while controlling for the reversed causal chain. The autoregressive cross-lagged model could for example be applied to investigate the causal chain of increased positive intergroup attitudes and intergroup empathy in mediation. Both
variables could be measured after two or more mediation sessions to explore the following question: Does the intergroup empathy, which is increased in an earlier stage of mediation, predict more positive intergroup attitudes at a later stage of mediation (path c) or are positive intergroup attitudes increased first and cause increased feelings of intergroup empathy (path d)? In Figure 4, such autoregressive cross-lagged model for two measurement points is illustrated.

![Diagram](image-url)

**Figure 4.** Autoregressive cross-lagged model for intergroup empathy and intergroup attitudes at two measurement points (t1 and t2).

However, the autoregressive cross-lagged model is most appropriate for survey research and was not originally designed in order to evaluate interventions (cf. Selig & Little, 2012). Modeling an intervention as predictor is not envisaged. Therefore, the model can be very useful to investigate and inter-relate various effects of mediation over time, but is not feasible to evaluate mediation as such.

Another type of longitudinal designs was developed in the field of pedagogical behavior modification. The so called single-case research designs were specifically developed for single or small groups of cases (e.g., Shaughnessy, Zechmeister, & Zechmeister). In those designs, a baseline level of a quantifiable criterion is determined and changes after the implementation of an intervention are monitored. When changes follow the systematic variation of the intervention, a causal relation to it is induced. For example, in the “reversal design”, the intervention is intermittently implemented and paused. The quantified criterion is assumed to vary (e.g., increase and decrease) in accordance with the intervention. With a criterion, which is not assumed to diminish a
“changing criterion design” can be applied. In that design, an intervention is intensified successively and a corresponding stepwise increase (or decrease) in the outcome variable is expected (e.g., Rost & Buch, 2010, p. 614). The meaningful application of such designs requires a quantifiable outcome, which reacts sensitively to the implementation, intermission or changing dosage of an intervention. In the context of conflict mediation, one possible application could be the test, whether conflict parties abide to an agreed conflict solution (e.g., visitation times with the children after divorce mediation). Furthermore, conflict solutions sometimes have to be adapted or optimized after a while. In these cases a changing criterion design could be applied to monitor whether participants follow the agreed adaptations of the conflict solution.

A similar idea as in the single-case research designs is pursued within time series models (cf. Box, Jenkins, Reinsel, & Ljung). Time series are streams of data, commonly used, for example, in opinion polls, stock trajectories, or weather observations. Within these models, trends and systematic changes in one variable can be related to another variable, for example indicating external events. Such analyses could be applied, for instance, to retrospectively correlate the developments in international relations or violent conflicts with the implementation of mediation interventions.

While field experiments would be the most efficient way to evaluate mediation with a strong focus on the internal and external validity of results, the described longitudinal designs provide a valuable alternative to work on various research questions. However, as all the described research approaches have their limitations, their respective application should be considered carefully in order to produce meaningful results.

4.2.3 LIMITATIONS OF MEDIATION IN INTERGROUP CONFLICT

Finally, we would like to highlight some limitations and potential risks of the subject of our research itself – the mediation of intergroup conflicts. Firstly, mediation tends to personalize conflicts. That means that mediation often searches for the origin of a conflict in the involved individuals or groups, and not in a potentially problematic social system or contextual structure, which can be the cause of conflict as well (e.g., Gesigora & Heck, 2015). In that unfavorable case, mediation stabilizes and maintains a deficient system by smoothing its symptomatic manifestations. For example, in organizations, mediation in its usual form aims at reducing the friction, which occurs between persons or groups. When the conflict consistently arises due to a specific organizational architecture, a
more fundamental change would be adequate to solve the problem (e.g., Gesigora & Heck, 2015).

The blind spot of mediation just described, was addressed as potential deficiency in the organizational context (e.g. Gesigora & Heck, 2015). In the political arena, it was sometimes presumed to be a strategic move: The environmental mediation around the Frankfurt airport expansion in the late nineties, for example, was criticized to be (misused as) an instrument of power (e.g., Geis, 2001). Critics suspected the “Mediation, eine Zukunftregion im offenen Dialog” [mediation, a promising region in open dialogue] in fact to be not an open and honest offer for talks, but a mean to silence the opposition and to push through the already decided plans for the airport expansion (e.g., Busch, 2000). Another example was the Truth and Reconciliation Commission (TRC) after the abolition of apartheid in South Africa (cf. Posel & Simpson, 2002). Truth commissions were often described as a specific form of mediation (e.g., Davis, 2014). The TRC in South Africa was initiated in 1994 with the aim to investigate politically motivated crimes during apartheid and, therewith, support reconciliation and transitional justice (cf. Posel & Simpson, 2002). However, by focusing only on individual crimes during this period, “systemic processes of subordination, racism, and oppression”, as integral feature of the apartheid regime itself, were not problematized (Andrews, 2004, p. 1166). For example, forced removals of the black population were not considered a subject of the TRC. According to Mamdani (2001), the reason for that is that forced removals were not considered illegal under apartheid either. Therewith, the TRC made “little distinction between what is legal and what is legitimate, between law and right” (Mamdani, 2001, p. 58). Although in a different context, the structure of the argument regarding the Frankfurt mediation and the TRC in South Africa is the same: It was described not to tackle ongoing problematic structures of racism and oppression in South Africa, but to silence critics by providing a pseudo solution (e.g., Andrews, 2004).

In order to judge what is right and wrong, legitimate or not, a moral authority, acting from a normative stance, is needed. Such normative positioning deviates from the usual neutral and absent role of a mediator. However, in the arena of international mediation, mediators with authority and partly moral, partly own agendas are not uncommon (e.g., Bercovitch & Fretter, 2007). The extension of a mediator’s functions could also be a solution in the organizational or other social contexts. In organizations, for example, a mediator has to make own observations and analyses in order to uncover potential systematic problems and cannot rely solely on the elaborations of the conflict
parties. In fact, in the organizational context the concept of a mediator-consultant was long ago developed and recommended (e.g., Fisher, 1983; Wall et al., 2001).

A second critique touches upon a similar issue, but focuses mainly on the procedure of mediation itself and less on its context. Compared to court hearings mediation is a more informal procedure (e.g., Delgado et al., 1985; Scutt, 1988; Wing, 2009). It is, for example, not executed in public, fewer procedural rules are applied, and conflict parties are allowed to speak for themselves and with each other (instead of attorneys having their statements in front of the judge). Furthermore, the decision control for a conflict solution lies in the hands of the parties themselves. The informality and the consequential efficiency and flexibility was mostly considered an advantage of mediation over court trials (e.g., Delgado et al., 1985). However, it was also criticized to open a window for racism and other biases the involved individuals might hold (e.g., Delgado et al., 1985; Scutt, 1988). In the formalized legal system, several mechanisms are supposed to prevent prejudiced court decisions: for instance, the rules to derive and argue a decision, the diverse composition of the jury in the American system, as well as public supervision. Without those formal rules, prejudices of mediators and conflict parties as well as subtle power structures, like for example varying rhetoric abilities of conflict parties, might lead to conflict solutions to the disadvantage of minority members (e.g., Wing, 2009). In order to minimize the risk of discrimination in mediation Wing (2009), for example, suggested to compose mediator teams of minority and majority members and to foster an equal treatment of the conflict parties, for example by ensuring equal speaking times. However, Delgado and colleagues (1985) argued that in situations where discrimination is most likely (e.g., when one party lacks language proficiency) and no effective means to counteract inequality exist (e.g., no translator is available), court hearing should be preferred to mediation.

Thirdly, several circumstances make the failure of mediation in general very likely (e.g., Montada & Kals, 2013): For example, when conflict parties have incompatible or illegitimate demands, have limited accountability or capability to make decisions, or conflicts have reached extreme levels of escalation, mediation faces its limitations.

The here presented research supports the notion that mediation is a valuable tool to foster social peace, improve (intergroup) relations and to de-escalate conflict. It can reduce painful costs, avoid harm, improve the situation of individuals and groups and sometimes even save lives (e.g., Bercovitch & Fretter, 2007; DeRouen et al., 2011; Druckman et al., 2004; Loschelder, 2013). Nonetheless, mediators should be aware of the risks and
limitations of the intervention. In the context of inequality and discrimination, mediation should be implemented with caution. Mediators can try to balance power asymmetries within the process or expand their responsibility in order to detect and change dysfunctional social systems. Mediators should also be capable of recognizing situations where an increased awareness or enlarged mediator responsibility is not enough to prevent harmful consequences, and hence refraining from mediation entirely is advisable. More research is needed to investigate potential limitations, risks and side-effects of mediation as well as opportunities to constructively overcome them.

4.3 CONCLUSION

The current research tested the theory-driven hypothesis that mediation improves the conflictual intergroup relations due to its potential to trigger intergroup empathy. With three experiments in three different conflicts, we presented strong evidence in accordance with the just described causal assumption. Some evidence further indicated the feeling to be heard by the other party, to be a second underlying psychological process of successful conflict mediation. In order to investigate which mediation factor is relevant, we did not only evaluate the effects of the mediation procedure as a whole, but also the effects of the mediator over and above the effect of mere negotiation. Moreover, we evaluated the application of perspective taking techniques in mediation. In sum, it appears well founded to encourage practitioners to apply mediation (with perspective taking techniques) in intergroup conflict aiming at improved intergroup relations.

Our research points toward several directions how to further investigate mediation in intergroup conflict: We discussed various possibilities to evaluate mediation with internally valid designs without losing concern for the external validity of results. Moreover, we strongly recommend extending our research by for instance investigating the effects of specific mediation styles or comparing the psychological processes and needs for minority and majority groups in mediation. Considering the divide of researchers investigating mediation in the field and in the laboratory, as well as the divide of mediation research and practice, we hope for a more cooperative and dialogical, shortly, a more mediation-like, approach to mediation in the future. Experience has shows that both sides can learn from each other and that cooperation is a profitable endeavor for all involved.

Zusammenfassung


Mit der vorliegenden Arbeit möchten wir einen Beitrag leisten, die oben ange deuteten Forschungslücken zu bearbeiten. Im Rahmen dreier Experimente untersuchten wir die Effektivität von Mediation in Intergruppenkonflikten. Wir gingen dabei der Fragestellung nach, ob erstens Mediation als Ganzes, zweitens der Faktor der Mediatorin/des Mediators und drittens der Einsatz von Perspektivübernahmetechniken die positiven Intergruppeneinstellungen im Konflikt fördern. Wir untersuchten weiterhin die Hypothese, dass die Verbesserung der Intergruppenbeziehung über erhöhte Empathie zwischen den Konfliktparteien sowie das Gefühl, gehört zu werden, vermittelt wird.

In Studie 1 (N = 164) untersuchten wir die Wirksamkeit von Mediation im Vergleich zu individuellem Problemlösen im strukturellen Ressourcen-Konflikt zwischen internationalen und deutschen Studierenden. Dabei wurden Gruppen von etwa vier Personen mit jeweils zwei internationalen und zwei deutschen Studierenden eingeladen, um Lösungsideen für die negativ interdependente Interessenslage (z.B. in Bezug auf die Unterrichtssprache) zu entwickeln. In der Experimentalgruppe wurden die Lösungsideen in einem professionell medierten Dialog, in der Kontrollgruppe durch individuelle Überlegungen generiert. Es zeigte sich, dass Studierende, die an einer Mediation teilgenommen hatten, signifikant positivere Einstellungen gegenüber der jeweils anderen Gruppe äußerten. Dieser Effekt wurde statistisch durch erhöhte wechselseitige Empathie vermittelt (siehe Manuskript #1).

In Studie 2 (N = 89) untersuchten wir die spezifische Wirksamkeit der Mediatorin/des Mediators als zentraler Bestandteil von Mediation. Wir verglichen daher Mediation mit Verhandlungen ohne vermittelnde Drittpartei. Mit Hilfe eines simulierten Konfliktes zwischen Wohngemeinschaften (je vertreten durch eine Repräsentantin) ließ
sich der Befund replizieren, dass Mediation die Intergruppeneinstellungen verbessert. Andermals wurde der Effekt über ein gesteigertes Maß an wechselseitiger Empathie vermittelt (siehe Manuskript #1).

In Studie 3 (N = 103) untersuchten wir die Hypothese, dass Perspektivübernahmetechniken in der Mediation die wechselseitige Empathie sowie das Gefühl, gehört zu werden, erhöhen und damit zu positiveren Intergruppeneinstellungen führen. Im Interessenskonflikt zwischen Geflüchteten und Deutschen hinsichtlich grenzpolitischer Fragen wurden 51 Mediationen mit Perspektivübernahmetechniken sowie 52 Mediationen ohne Perspektivübernahmetechniken durchgeführt. Die signifikant verbesserte Beziehung zum Outgroup-Mitglied wurde wieder statistisch über ein erhöhtes Maß an Empathie vermittelt. Es zeigte sich jedoch kein Effekt auf die Einstellungen gegenüber der gesamten Gruppe der Geflüchteten (siehe Manuskript #2).


Während jede einzelne der drei Studien nur einen Teil des angenommenen Kausalzusammenhangs experimentell überprüfte, kann man sie gemeinsam im Sinne eines

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References


References


References


Danksagung

ANGABEN ZUR PERSON

Dipl.-Psych. Lisa Gutenbrunner

Zum Schutz der personenbezogenen Daten, ist in der elektronischen Version kein Lebenslauf enthalten.
ERKLÄRUNG DER AUTORIN


Die Dissertation wurde in der jetzigen oder einer ähnlichen Form noch bei keiner anderen Hochschule eingereicht und hat noch keinen sonstigen Prüfungszwecken gedient.

_____________________  ________________________
Ort, Datum             Lisa Gutenbrunner