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## Intragroup communication in intergroup conflict

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# **Intragroup Communication in Intergroup Conflict**

Influences on Social Perception and Cognition

Hedy Greijdanus

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# **Intragroup Communication in Intergroup Conflict**

Influences on Social Perception and Cognition

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*Voor Gert*



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# **CHAPTER ONE**

General Introduction:  
The Role of Intragroup Communication in Intergroup Conflict.



## Chapter One

### General Introduction: The Role of Intragroup Communication in Intergroup Conflict.

Although most people agree that intergroup conflict can have devastating consequences for the involved people and their environments, there is no consensus yet about what are the best ways to prevent escalation and foster intergroup conflict de-escalation. The aim of this dissertation is to contribute to the development of effective strategies to intervene in intergroup conflict by reducing negative intergroup perceptions, as part of a multidisciplinary research program on the theme of conflict and security (De Dreu, 2014; Evenblij, 2014). What processes and dynamics play a role in the escalation and de-escalation of conflict between groups? More specifically, why does intergroup conflict seem to flourish especially when groups do *not* interact? And how do some people come to have rigid (negative) views of others with whom they have never met? In this dissertation, I will argue that *communication within groups* in conflict is part and parcel of the escalation and de-escalation of intergroup conflict.<sup>1</sup>

Conflict between groups with divergent views and values seems inextricably related with human social life. Intergroup conflict exists at various scales. At a macro level, intergroup conflict may involve world-wide military conflicts between nations, major inter-nation stand-offs such as the cold war, or large-scale efforts of nations against perceived threats posed by outsiders such as the ‘war on terrorism.’ At a meso level, intergroup conflict may emerge within a country. For instance in The Netherlands, non-western immigrants – and in particular Moroccan-Dutch people – are stigmatized and discriminated against by native-Dutch people as anti-social criminals (see pilot study in Chapter 2; Dotsch, Wigboldus, & Van Knippenberg, 2011; Gordijn, Koomen, & Stapel, 2001; Van Prooijen & Coffeng, 2013). A micro-level intergroup conflict may exist within a city, neighborhood, or street. Typically, intergroup conflict is characterized by negative intergroup perceptions, such as stereotypes depicting Moroccan-Dutch people as criminals or students as noisy

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<sup>1</sup> In the general introduction and discussion chapters, I use the personal pronoun “I” but the research and ideas reported in the current dissertation have been developed in cooperation with my co-authors – as also indicated by the use of “we” in the empirical chapters.

litterers. In fact, if it is difficult or impossible to leave a social group, group members may embrace and romanticize negative perceptions of their own group in order to upgrade perceptions of the ingroup (e.g., Tajfel & Turner, 1979; Turner, 1975) – thereby escalating intergroup conflict (e.g., Kamans, Gordijn, Oldenhuis, & Otten, 2009). The core idea of the current dissertation is that intergroup perceptions are formed and transformed in small-scale conversations within social groups. This implies that intragroup communication lies at the heart of intergroup conflict (de-)escalation – and this is where we should intervene to improve intergroup relations.

The reason why intergroup conflict is so strongly influenced by conversations that occur within groups is that people tend to talk much more *about* “them” than *with* “them” (McPherson, Smith-Lovin, & Cook, 2001). Within the safe confines of their inner circle, members of families, groups of friends and groups at work are free to discuss their perceptions of an outgroup. The core assumption in this dissertation is that in such conversations, it is possible to escalate the perceptions of conflict, or to de-escalate conflict. One important factor in this is how “they” are discussed.

I can illustrate this with an example. Imagine a conversation on a family party of Henk and Ingrid. All guests are seated in a neat circle of chairs in the living room. When looking through the window after exchanging some complaints about the weather, they notice two Moroccan-Dutch boys walking on the street. Ingrid points to one of them and entertains her guests with an anecdote: “That boy lives at number 64, right across the street. Last week when I was leaning outside my bedroom window to smoke a cigarette, I saw a police car taking him away.” “Yes,” Henk adds, “Moroccan-Dutch people are 22 times more often suspected of property crimes involving violence and no other group relapses as frequently.”<sup>2</sup> While Ingrid’s initial comment referred to a unique individual, Henk associated the entire social category of Moroccan-Dutch people in abstract, generalizing terms with crime. In most normal settings where a particular group is discussed in this way, communicators seek to establish some form of consensus.

In the current dissertation, I examined the question of how such daily-life communications, that are often primarily intended to amuse rather than influence or persuade others (Condor, 2006), can serve to escalate or de-escalate intergroup

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<sup>2</sup> Literal quote from a PVV member of Dutch Parliament in a political Political debate at 5 April 2013, retrieved from <http://www.tweedekamer.nl/kamerstukken/detail?pid=2013D14320&did=2013D14320>

conflict. Our ultimate objective, in this, was to contribute to the development of interventions that might potentially de-escalate conflict. Imagine that you are one of Henk and Ingrid's party guests, and you would like to convince everyone that Moroccan-Dutch people are not by definition criminal. Would it strengthen your statement to tell an anecdote about a Moroccan-Dutch individual that does not confirm existing negative stereotypes? Or should you refer to general statistics about the entire social category that disconfirm this negative image? These are pertinent questions given that such intergroup perceptions – which develop through communication – set the stage for actual behavior. Therefore, I argue that a thorough understanding of communication in the context of intergroup conflict is essential for designing effective conflict interventions.

One additional reason for focusing on communication *within* groups is that insofar as the current literature on intergroup conflict and interventions has examined communication at all, it has examined almost exclusively the communication and interaction *between* groups in conflict. For instance, Allport's (1954) seminal work on *the nature of prejudice* has inspired several theories elaborating on the processes by which intergroup contact reduces prejudice. Whether focusing on the beneficial influences of de-categorization, salient categorization, or re-categorization, meta-analyses have demonstrated that positive intergroup contact typically reduces intergroup prejudice (Pettigrew & Tropp, 2006, 2008). However, intergroup communication is less influential than intragroup communication, mainly because perceptions – and in particular social perceptions of ourselves and others – are formed and transformed in interaction with those we trust (e.g., Echterhoff, Higgins, & Groll, 2005; Haslam, McGarty, & Turner, 1996; Postmes, 2003). Moreover, high-quality intergroup communication is rare even in situations that at first sight seem integrated (e.g., Dixon, Tredoux, Durrheim, Finchilescu, & Clack, 2008). Even though intergroup friendships can improve intergroup relations, in practice pre-existing ingroup bias and intergroup anxiety hinder the subsequent development of intergroup friendships (Levin, Van Laar, & Sidanius, 2003). In other words, ironically the individuals whose prejudiced attitudes might be most positively affected by intergroup contact tend to be the ones least likely to engage in high-quality intergroup interactions. Moreover, there seems to be no direct relation between factors facilitating intergroup communication, such as a society's proportion of immigrants, and intergroup conflict (cf. Postmes et al., 2014).

Together, this implies that other elements such as *intragroup* dynamics may play a pivotal role in intergroup conflict. My contention is that attention for intragroup processes can enrich our understanding of intergroup conflict by moving

beyond the intra-individual and intergroup factors traditionally studied in intergroup conflict research. The current dissertation hence explores several aspects of within-group dialogue in the context of intergroup conflict, with the ultimate goal to design and test intragroup communication-based interventions to de-escalate intergroup conflict.

This introduction will provide the theoretical background of the empirical research reported in the next chapters. I will begin answering a rather broad question: Why should communication in general influence individuals' perceptions and cognition? I will explore some main findings and theories that explain processes by which communication impacts on cognition. The second question I ask is: How does communication impact cognition? I will review research investigating what people talk about (i.e., communication *content*) as well as how they talk (i.e., *form* of communication). Specifically, this latter part addresses linguistic abstraction effects. Next, in addition to these rather static views of communicators as senders or receivers of information, what are the influences of *dynamic* intragroup interactions on individuals' perceptions and action intentions? To address this question, I will discuss previous findings investigating how small-scale conversations with fellow ingroup members influence individuals' perceptions and cognition. Finally, I will complete this theoretical background with a brief conclusion on the knowledge regarding influences of intragroup communication in intergroup conflict that has accumulated in these dispersed domains. All in all, I will argue that existing research implies that communication settings, in particular within social groups, seem a promising venue for interventions to de-escalate intergroup conflict.

## **Influences of Communication on Individuals' Cognition**

Our focus on the role of communication in intergroup conflict is supported by numerous findings showing that communication shapes individuals' perceptions. Since the early days of social psychology, several now classical papers have showed the susceptibility of individuals' perceptions to (accidental) social influence (e.g., classical papers on conformity in line length perception, Asch, 1956; on informational and normative influence, Deutsch & Gerard, 1955; on informal social communication, Festinger, 1950; on norm formation regarding autokinesis perceptions, Sherif & Cantril, 1946; and on group composition and social influence, Wilder, 1977). Indeed, several strands of research empirically support the notion that

social factors such as intragroup communication play a key role in the emergence of cognition, emotions, and behavior – outcomes that tend to converge in groups (for reviews, see Thompson & Fine, 1999; Yzerbyt, Dumont, Mathieu, Gordijn, & Wigboldus, 2006). In some cases perceptions may converge within groups because people feel that they should agree with others. For instance, perceptions of an apparently unambiguous physical reality (e.g., line lengths, Asch, 1956) should be identical. Convergence seems similarly inevitable if observers themselves are unsure of what they perceive (e.g., subjective social reality, Festinger, 1950, or illusional perceptions, Sherif & Cantril, 1946) or have a high need for cognitive closure (Kruglanski, Pierro, Mannetti, & De Grada, 2006). Moreover, group members even tend to effortlessly consensualize their views without any obvious pressure to do so (Tindale, Meisenhelder, Dykema-Engblade, & Hogg, 2001). Taken together, a broad body of research points to a more or less natural tendency for group members to converge in their cognitions, emotions (e.g., Smith, Seger, & Mackie, 2007), and behavior. In our view, this implies that negative intergroup perceptions fuelling intergroup conflict are formed and transformed mainly within groups.

How do people construct ideas about “us” and “them”? In forming an impression of their own ingroup, people may sometimes take their own personal attributes as “anchors” for how they see others (e.g., Otten, 2003; Van Veelen, Otten, & Hansen, 2013). But in many cases they will also listen to others in order to socially construct an idea of “us” that is somehow shared or consensual (e.g., Haslam, Oakes, Reynolds, & Turner, 1999; Haslam et al., 1998). Moreover, the self is clearly less useful as a blueprint for the construction of ideas about “them” – although contrasting may occur to distinguish (conflicting) outgroups from one’s ingroup – making it all the more likely that other sources of information will be consulted.

In the current dissertation, I emphasize the critical role of communication processes in this process of the formation and transformation of collectively held attitudes. Indeed, different domains of psychological science explain the social influence phenomena described above by reference to a range of processes that occur in intragroup communication. For instance in the domain of cognitive psychology, the situated cognition perspective holds that individuals’ perceptions and cognition emerge from interaction with their (social) environment (Norman, 1993; for reviews, see Levine, Resnick, & Higgins, 1993; Semin & Smith, 2013). One implication of this view is that individuals’ views and opinions develop in some form of dialogue with others. The key role of communication in the formation and



transformation of individuals' perceptions and cognition is more pronounced in several theories in the domain of social psychology that can be loosely categorized under the headings of shared reality (e.g., Echterhoff, Higgins, & Levine, 2009; Hardin & Higgins, 1996) and social identity theorizing (e.g., Postmes, Haslam, & Swaab, 2005; Reicher & Hopkins, 1996). Research along these lines reveals that our ideas and understanding of the world are informed by "horizontal" peer communication, in addition to "vertical" information transmission from the more to the less knowledgeable (Vygotsky, 1978). We talk with our peers not only to fulfil our epistemic needs (cf. Kruglanski et al., 2006) but we also turn to the social groups we affiliate with to guide our emotions and consequent behavior (e.g., Yzerbyt et al., 2006).

Groups that we affiliate with can influence individuals' thinking in two ways (Postmes, Spears, Lee, & Novak, 2005). First, top-down, deductive influence occurs when group members move towards the cognitions and behaviors that are considered normative and prototypical of the group. The second process, of bottom-up, inductive social influence occurs when individual group members build these group norms from their intragroup, interpersonal interactions and individual contributions. Of course, these processes can co-occur and influence each other. Communicating in a "right" or "wrong" way can in turn influence our acceptance in groups that we affiliate with (Assilaméhou & Testé, 2013; Douglas & Sutton, 2006). Communication provides a means by which group identification shapes how individuals should think, feel, and act in their daily lives. Using the terms of the interactive model of social identity formation, "communication provides the means of establishing how abstract characteristics (...) can be translated into a concrete situational norm that applies to actions within a specific context" (Postmes et al., 2005, p. 19). Communication with others thus enables us to (trans)form and validate cognition, emotions, and behavior. In other words, if we aim to design an intervention that alters conflicting groups' perceptions of each other, we should alter their communication about each other.

For the experiments reported in the current dissertation, I chose to focus on verbal, language-based rather than non-verbal communication. Although non-verbal communication and observation of others' behaviors can provide social information such as group norms (Cialdini, Reno, & Kallgren, 1990), people commonly rely on language-mediated communication especially for complex information (Kashima, Fiedler, & Freytag, 2008). In the current dissertation, I aimed to test language as an active *tool* to de-escalate in intergroup conflict rather than using it as a passive and

presumably objective measure of individuals' perceptions (cf. Sutton, 2010). Our approach thereby builds on a recently observed trend in the domain of language and social psychology, in which researchers aim to address the ways in which language *influences* cognition (Collins & Clément, 2012). Findings from this domain are discussed in the next sections.

## How Communication Influences Cognition: The Role of Communication Content

Having established that intragroup communication is central to the formation of ideas about outgroups, a natural question is *how* talking about outgroups shapes cognitions about problematic intergroup relations. I will describe some key findings regarding linguistic influences on cognition in the following two subsections, focusing on results that can help us design an effective, communication-based intervention to reduce intergroup conflict. This first section will focus in particular on the likely influence of communication *content*, and the next section considers the *form*.<sup>3</sup>

What people talk about influences what they come to believe. Few would contest that some native-Dutch people say that Moroccan-Dutch people are criminals *because* they hold negative intergroup perceptions. Yet the reverse can also be true; Saying that Moroccan-Dutch people are criminals can *cause* a speaker to form more negative intergroup perceptions. Therefore, intergroup conflict interventions that facilitate intragroup refutation of negative outgroup stereotypes should effectively improve intergroup perceptions rather than merely changing overt communication about a conflicting outgroup. It is important to focus such interventions on communication content, because people tend to focus their conversations on certain information at the expense of other information (e.g., Kashima, 2000; Klein, Tindale, & Brauer, 2008; Schaller, Conway, & Tanchuk, 2002). That is, individuals typically discuss stereotype-consistent aspects more than stereotype-inconsistent aspects (Kashima, 2000; Lyons & Kashima, 2001, 2003;

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<sup>3</sup> Although we acknowledge that communication content and form are not necessarily orthogonal factors, we deem this dichotomy useful for structuring our current literature overview because existing research has typically approached communication influences from either one of these perspectives (cf. Geschke, Sassenberg, Ruhrmann, & Sommer, 2010).

Ruscher, Cralley, & O'Farrell, 2005; for exceptions see Carnaghi & Yzerbyt, 2007; McIntyre, Lyons, Clark, & Kashima, 2004; Ruscher, Santuzzi, & Hammer, 2003). This happens mainly because stereotype-consistent information is more socially connective than stereotype-inconsistent information (Clark & Kashima, 2007).

The selectiveness of communication can profoundly influence cognitions such as those underlying intergroup conflict because it acts as a double-edged sword. That is, it shapes not only what receivers of communication think but also what senders of communication think. Indeed, spontaneous intragroup communication – which tends to be stereotype-consistent – may contribute to the maintenance of destructive stereotypes (e.g., Kashima, 2000; Lyons & Kashima, 2003). The content of communication may influence communicators' own perceptions and cognitions concerning the communication topic, mainly because people generally come to believe the things they say (Festinger & Carlsmith, 1959; Higgins & Rholes, 1979; Sedikides, 1990) or merely plan to say (i.e., anticipated communication; Pennington & Schlenker, 1999).

However, the phenomenon that people come to believe the things they say themselves is contingent on others' responses to them. People come to believe what they say especially when the audience validates the communicated information. For instance, describing a social target's ambiguous behaviors in negative terms to fit with an audience's negative view only biases communicators' memory for the target if the audience recognizes the target from this description – that is, if the communicated negative impression of the target is socially *validated* (Echterhoff et al., 2005; Hausmann, Levine, & Higgins, 2008). Additionally, social validation of individuals' (negative) impressions can emerge from intragroup consensualization of intergroup perceptions (Smith & Postmes, 2011). Taken together, these studies indicate that communication can strengthen or weaken individuals' perceptions of other people and outgroups, depending on whether or not it validates expressed views. In sum, prior research implies that interventions should encourage group members not only to discuss beneficial intergroup perceptions, but also to socially validate these by providing recognition and consensus

## How Communication Influences Cognition: The Role of Communication Form

An effective intergroup conflict intervention targeting intragroup communication should improve intergroup perceptions not only by intervening in *what* group members talk about, but also in *how* they talk.<sup>4</sup> As the quotes by Henk and Ingrid cited earlier in this chapter illustrate, communication can be concrete (e.g., recalling an anecdote about the Moroccan-Dutch boy who lives across the street) or abstract (e.g., referring to facts and figures concerning the entire social category). In the current dissertation, I deem this abstraction level of intragroup communication a crucial ingredient in an intergroup conflict intervention for two main reasons. First, abstraction level seems an important factor in whether or not stereotype-inconsistent communication results in improvement of negative intergroup perceptions. And second, as I will explain in more detail below, prior research suggests that group members seem able to control the abstraction level of their conversations about an outgroup (e.g., Douglas & Sutton, 2003). That is, it is both effective and feasible to target abstraction level of intragroup communication in an intergroup conflict intervention.

The importance of abstraction level can be gleaned from past research on linguistic abstraction. The distinction between concrete and abstract language has been elaborated in the linguistic category model (Semin & Fiedler, 1988, 1991). According to this model, language can be categorized in four stages ranging from concrete terms describing actual behavior (e.g., “The student picks up a beer can from the street.”) to more abstract statements implying stable characteristics (e.g., “The student is tidy”). Rather a lot of research has investigated the consequences of such abstract or concrete statements for intergroup perceptions (e.g., Assilaméhou, Lepastourel, & Testé, 2013; Maass, 1999; Pratto, Hegarty, & Korchmaros, 2008; Wigboldus, Semin, & Spears, 2000).

Should an intervention stimulate abstract or concrete intragroup communication about a target outgroup to realize intergroup conflict de-escalation? The existing literature offers somewhat mixed perspectives regarding which level of abstraction is most suited to changing intergroup cognitions. On the one hand, abstract (relative to concrete) linguistic descriptions are generally interpreted as more

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<sup>4</sup> This is a merely pragmatic dichotomy (cf. footnote 3).

dispositional of the target and less situation-specific (Werkman, Wigboldus, & Semin, 1999; Wigboldus et al., 2000; cf. Liberman & Trope, 2008; for a more nuanced relation between attributions and abstraction see Arcuri, Maass, & Portelli, 1993), more normative (Pratto et al., 2008), and more generalizable to the target's entire social group (Assilaméhou et al., 2013). In an intergroup conflict context characterized by negative stereotypes, it seems crucial to intervene in the abstraction level of communication because biased language use may bolster negative outgroup perceptions. That is, unexpected information that is stereotype-inconsistent (e.g., I met a student who is very tidy) is typically discussed more concretely – thereby presenting it as more rare – than expected, stereotype-consistent information such as littering students (i.e., a *linguistic expectancy bias*, Maass, 1999; Wigboldus, Semin, & Spears, 2006; see also Wenneker & Wigboldus, 2008; Karasawa & Suga, 2008; Maass, Milesi, Zabbini, & Stahlberg, 1995; Maass, Salvi, Arcuri, & Semin, 1989). This linguistic bias may allow people to maintain their beliefs, at least when they are confronted with information that is moderately (rather than extremely) inconsistent with their initial beliefs (Karpinski & Von Hippel, 1996). At first sight this evidence – that concrete (versus abstract) language suggests that an observation is atypical and not generalizable – seems to imply that concrete communication about stereotype-inconsistent individuals does not produce stereotype change. Instead, according to this literature at least, one should provide abstract disproof of the negative outgroup stereotype in order to improve intergroup perceptions.

But for different reasons, it can also be argued that communication is particularly likely to be impactful when it is concrete. Some research has indicated that concrete, detailed information is more vivid than abstract information and as a consequence may be perceived as more real (Hansen & Wänke, 2010). This leads to the opposite prediction and I will further investigate this apparent inconsistency in Chapter 4. However, before we draw conclusions regarding whether we should instruct group members to collectively disconfirm stereotypes via abstract or concrete communication, we should first consider whether targets of such an intervention would be capable of following these instructions in the first place.

Are communicators able to strategically use linguistic abstraction? Although biased language use may happen at least partially outside people's conscious awareness (e.g., Franco & Maass, 1996; Schnake & Ruscher, 1998; Von Hippel, Sekaquaptewa, & Vargas, 1997) and may be hard to suppress in daily-life conversations (Douglas, Sutton, & Wilkin, 2008), other evidence suggests that the answer is yes. Linguistic abstraction biases only emerge in messages with a

communicative function (Semin, Gil de Montes, & Valencia, 2003) and are moderated by motivational factors such as identity threat (Maass, Ceccarelli, & Rudin, 1996) and group norms regarding discrimination (Franco & Maass, 1999). These findings suggest that communicators can strategically deploy different linguistic abstraction levels to convey or conceal their attitudes regarding other people and groups (for overviews see Maass, 1999; Douglas, Sutton, & McGarty, 2008). Indeed, despite their trouble suppressing it, people are able to strategically *recruit* linguistic abstraction bias if they intend to influence their audience (Douglas & Sutton, 2003). Thus, it seems both effective and feasible to target abstraction level of intragroup communication to de-escalate intergroup conflict.

Despite the apparent consequences for intervening in intragroup dialogue about an outgroup, the research I have reported thus far has typically investigated communication in the form of stories and single sentences rather than actual *dynamic* intragroup conversations. To obtain a more complete picture of the applicability of an intergroup conflict intervention targeting interactive intragroup communication, I will now turn to research on actual intragroup interactions. The current dissertation sets out to intervene in actual communication within small groups. Hence, it is pivotal to know what previous research has revealed regarding influences of such dynamic intragroup communication settings on individuals' perceptions.

## Communication within Small Groups

In my view, for designing an effective intergroup conflict intervention it is essential to consider the influence of dynamic conversations in small groups of ingroup members on (de-)escalation of intergroup conflict. A large part of social life consists of interactions in small clusters of self-similar people (McPherson, Smith-Lovin, & Cook, 2001). People not only tend to spend their time with like-minded people but they are also heavily influenced in turn by the views and opinions of those with whom they spend their time. Small-scale conversations with ingroup members can therefore influence individual group members' thoughts and consequent behavior, whether for good or for bad. Existing literature on the effects of communication within small groups reveals the potential of intragroup communication to contribute to positive social change or to yield detrimental consequences for intergroup relations. Importantly for the current purpose, previous

findings imply that *not* intervening in intragroup communication may ultimately create the preconditions for intergroup conflict escalation.

As noted, the overarching aim of the experiments presented in the current dissertation is to contribute to the development of effective intergroup conflict interventions. Specifically, I aimed to find ways to use intragroup communication to improve negative intergroup perceptions. I am thus interested in the potential for intragroup dynamics to create positive social effects for individuals as well as their social environments. Previous small-group research bears witness of this potential. Intragroup interactions can have beneficial consequences for individual group members, for instance by creating a sense of belonging (Jans, Postmes, & Van der Zee, 2012). In addition, communication within small groups can also yield positive effects on a larger scale for one's own group, a disadvantaged outgroup, or even society at large. Several studies reveal that intragroup communication can be highly effective in bolstering individuals' commitment to positive social change. By talking with each other, people may become aware of shared suffering – thereby building a politicized identity that promotes collective action for social change (Simon & Klandermans, 2001). Moreover, consensualization within small groups increases engagement in collective action against unfair treatment of the ingroup (Stott & Drury, 2004).

But even if group members lack a politicized identity or are not members of the disadvantaged group, intragroup communication may strengthen collective action, for instance because people develop strong identification with others who share their opinions (*i.e.*, *opinion-based* groups; Bliuc, McGarty, Reynolds, & Muntele, 2007). McGarty, Bliuc, Thomas, and Bongiorno (2009) have suggested that communication within opinion-based groups can thus be used to bring about positive social change. Indeed, intragroup interaction in opinion-based groups has been shown to boost action against stigmatization of people with mental disorders (Gee, Khalaf, & McGarty, 2007) and support for a United Nations campaign that aims to provide clean water and sanitation for developing countries, especially for small groups that were primed with a moral outrage norm (Thomas & McGarty, 2009). Thus, communication within small groups seems a powerful tool in the (trans)formation of individuals' cognition and consequent behavior. This indirectly corroborates our conviction that changing intragroup communication about an outgroup may ultimately also be used to resolve intergroup conflict.

Yet for designing an intragroup communication-based intervention that advances beneficial effects one should also be aware of potential adverse effects.

Notwithstanding the rather positive picture of the influences of small-group conversations on group members' perceptions, intentions, and actions painted by the research described above, other research shows the flip side of the coin. For example, discussions with fellow ingroup members may also reveal lack of a consensual understanding of a collective "we" and expose discord about the existence of any unjust group-based suffering. Our previous research revealed that intragroup discord hinders acceptance of attempts at cooperation between conflicting groups – thereby thwarting intergroup conflict de-escalation (Greijdanus, Postmes, Gordijn, & Van Zomeren, 2015). Moreover, focus group research among Moroccan-Dutch adolescents in The Netherlands indicates that such dissensual intragroup communication may obstruct collective action intentions (Van Doorn, Prins, & Welschen, 2013). Obviously, a lack of positive social change can have detrimental influences for a community.

Even worse consequences for communities may follow when intragroup interactions boost commitment to *hostile* courses of action (Thomas, Smith, McGarty, & Postmes, 2010). For instance, intragroup interaction (as compared to individual decision making) can foster formation of norms that justify hostile treatment of an outgroup, which in turn results in more hostile behavior towards that outgroup (Smith & Postmes, 2009, demonstrated a phenomenon like this in an experimental game context). This result dovetails with the finding that intergroup interactions tend to be more competitive than interindividual interactions – especially when group members make group decisions and communicate freely (Wildschut, Pinter, Vevea, Insko, & Schopler, 2003). Moreover, in a real-world context, consensual intragroup communication about a negative immigrant stereotype validates this stereotype and creates a group norm that supports discrimination, which ultimately increases individual group members' intentions to discriminate against immigrants (Smith & Postmes, 2011). This is in line with other findings that intragroup communication can increase stereotypic perception of the ingroup as well as the outgroup (Haslam, Turner, Oakes, McGarty, & Reynolds, 1997). Although discussing outgroup stereotypes can yield positive outcomes such as support for collective action to cause social change (Stott & Drury, 2004), stereotypes and intergroup discrimination often tend to mutually reinforce each other (for an overview, see Dovidio, Hewstone, Glick, & Esses, 2010).



## Conclusion

Relatively little research has focused on the combination of processes within small groups and their consequences on (problematic) relations between groups (Dovidio, 2013). A recent literature review revealed a corresponding dichotomy: Research on intergroup conflict research has grown steadily over the last decades, whereas over the same period research on actual interactions within small groups has declined dramatically (Wittenbaum & Moreland, 2008). The authors conclude that “without work examining human interaction in small groups, much of the ‘social’ has been lost from social psychology” (p. 198). It thus seems timely to combine these two research topics in one single approach. I believe that in most situations intragroup and intergroup processes are interrelated in the sense that they often co-occur, interact, and mutually influence each other. For instance, *intergroup* negotiation may be conceived of as *intragroup* communication to the extent that it generates shared cognition (Swaab, Postmes, Neijens, Kiers, & Dumay, 2002). Thus, stating that intragroup and intergroup processes are mere opposites violates the phenomenology of everyday life. For this reason, I intend to address the apparent divide between intra- and intergroup processes that exists in scientific research (cf. Dovidio, 2013). Specifically, our current aim is to highlight the underrepresented role of intragroup communication in escalation and de-escalation of intergroup conflict.

In the previous subsections, I have provided a non-exhaustive overview of the broad literature on topics (implicitly) related to the impact of intragroup communication in intergroup conflict. I have reported several findings that I believe to have practical implications for intergroup conflict interventions. I will briefly recapitulate the key conclusions and implications. First, communication, especially within groups, influences individual group members’ private perceptions – an effect that has been found after mere preparation for communication. And relatedly, language actively influences cognition rather than being an objective measure to gauge perceptions. That is, the relation between saying and believing is bidirectional: What we say tends to convey our beliefs, but what we say also *influences* our beliefs. The implication for intergroup conflict interventions I deduced from these conclusions is that we should intervene in verbal communication *within* conflicting groups.

Second, the influence of intragroup communication on cognition depends both on the topics that group members discuss with each other and on whether or

not their conversation provides social validation of these issues. Moreover, intragroup discord (i.e., lack of social validation) undermines intergroup cooperation and collective action intentions to address intergroup inequality – thereby hindering the emergence of intergroup conflict de-escalation. This implies that an intervention aimed at de-escalating intergroup conflict should encourage consensual intragroup communication that disconfirms negative intergroup perceptions.

Third, other strands of research reveal that abstraction level of communication plays a key role in whether or not communicated pieces of information affect individuals' perceptions. Although communicators are able to strategically recruit abstraction biases in their language (i.e., an intervention instructing group members to talk abstractly or concretely about an outgroup is feasible) it is thus far unclear whether abstract or concrete communication would yield the highest impact. While some researchers argue that concrete communication is most effective because its vivid details make it seem more real, others contend that abstract communication is more influential because it enables generalization of conclusions to an entire social category. Hence, in the current dissertation I explored competing hypotheses regarding the optimal abstraction level of intragroup communication-based interventions in intergroup conflict.

Fourth and lastly, whereas the former studies have typically operationalized communication as (written) sentences or stories, research on actual *dynamic* intragroup interactions indicates that it can yield constructive as well as destructive consequences for intergroup relations. For instance, small-group interactions may facilitate stereotyping – thereby increasing support for social change (i.e., a positive effect) or discrimination (i.e., a negative consequence). I took from these findings that a proper intragroup communication intervention should be sufficient to yield significant changes in individual group members' intergroup perceptions and, hence, ultimately promote de-escalation of intergroup conflict. This renders staging intergroup contact between conflicting groups – which is quite effortful and potentially risky – unnecessary as a prerequisite for conflict de-escalation. Thus, I conclude from existing literature that a proper intervention aimed to reduce intergroup conflict should deal with – or rather, make use of – the power of intragroup communication.

## The Current Dissertation

In line with the preceding theoretical background, the aim of the current dissertation is to 1) investigate the thus far underrepresented role of intragroup processes in escalation and de-escalation of intergroup conflict – in order to 2) develop and test an intragroup communication-based intervention to de-escalate intergroup conflict. The first two empirical chapters serve as an empirical base that highlights influences of intragroup communication in intergroup conflict. The aim of the last empirical chapter is to translate this rather fundamental knowledge into a practical application by developing and testing actual interventions that target intragroup communication to de-escalate intergroup conflict.

In several studies divided over three empirical chapters, I explore various intergroup conflicts, ranging from mild (e.g., between students and non-students in Groningen) to more intense and hostile (e.g., between immigrants and native Dutch in The Netherlands). I thereby intend to shed some light on the relevance of intragroup communication as a both feasible and effective site for intergroup conflict interventions. Specifically, I highlight the influences of the content and form of intragroup processes on intergroup cognitions that ultimately define intergroup relations. Regarding the content of intragroup processes, this dissertation demonstrates that the broader intergroup context and the reasons behind intragroup discussions about an outgroup influence what kind of information group members share with each other. Moreover, the content of intragroup communication in turn affects intergroup perceptions. Concerning the form of intragroup processes, this dissertation reveals that group members' cognitive processing of outgroup-related information takes on a different form (i.e., becomes more abstract) once they anticipate intragroup communication about this information. And finally, it aims to show how we should shape the content and form of intragroup discussions about an outgroup to realize a promising intergroup conflict intervention. Thus, the current dissertation investigates communication content (stereotype-consistent or stereotype-inconsistent) and communication form (concrete or abstract) and applies the findings as building blocks for an intervention that de-escalates intergroup conflict through dynamic intragroup interactions.

In light of this objective, the empirical chapters draw upon several loosely related strands of research (e.g., combining a situated cognition perspective and social identity approach with concepts from construal level theorizing) to formulate

and test hypotheses regarding group members' conversations, ways of thinking, and consequent intergroup perceptions. Taken together, the current findings highlight the key role of intragroup processes in intergroup relations, and more in particular the significance of intergroup conflict interventions that directly target intragroup communication.

## Outline of empirical chapters.

**Chapter 2: Steeling ourselves.** The literature reviewed in the current chapter revealed that intragroup communication plays an important role in the (trans)formation of intergroup perceptions. Moreover, intergroup conflict research has predominantly focused either on staging intergroup contact or on small-scale, dynamic intragroup interactions. Yet little is known about the combination of these processes. Presumably, individuals will prepare for an organized encounter with a conflicting outgroup by conferring with their ingroup members. Does it matter whether group members engage in intragroup interaction rather than thinking things through on their own? Does anticipating of face-to-face contact with an antagonistic outgroup result in other intragroup communication than conversations between ingroup members who do not anticipate intergroup contact? And how do these potential differences in intragroup communication affect individual group members' intergroup perceptions? In Chapter 2 I intend to address these questions by investigating the effects of intragroup communication (vs. individual thought) and anticipated face-to-face intergroup contact (vs. no anticipated face-to-face intergroup contact) in members of a stigmatized group. This investigation concerns a relatively mild, local intergroup conflict, in which students are stereotyped by the non-student inhabitants of Groningen (*stadjers*) as intelligent and sociable, yet noisy litterers.

This chapter demonstrates the influence of the broader social situation on the content of intragroup conversations. Specifically, it reveals that small groups of group members who anticipate face-to-face contact with a conflicting outgroup tell more personal anecdotes about hostile intergroup contact than small groups that do not anticipate such intergroup contact. Relatedly, small-scale intragroup conversations in the context of imminent confrontation with a conflicting outgroup evoke intergroup anxiety-related discomfort. Furthermore, individuals steel themselves against anticipated intergroup contact by boosting their ingroup identification and engaging in social creativity (i.e., romanticizing meta-stereotypes)

but also by perceiving their ingroup as thinking more negatively of the outgroup. These steeling effects only occur if stigmatized group members anticipate face-to-face intergroup contact and have the opportunity to talk about this with each other. Together, these results support the idea that steeling is a defensive reaction to prepare for an anxiety-arousing intergroup confrontation. The implication is that the intragroup consequences of steeling are to increase ingroup solidarity and social creativity, whilst the intergroup consequences of this hardened stance may be an obstacle to conflict de-escalation. Moreover, if intergroup contact anticipation can elicit defensive steeling an intervention based on *intragroup* contact may be a way to circumvent this obstacle to conflict de-escalation.

One of the main conclusions I draw from Chapter 2 is that group members show divergent reactions to identical intergroup situations, depending on whether or not they engage in intragroup conversation. What underlying processes could have caused this effect on individuals' intergroup perceptions and cognitions? In the following empirical chapter I zoom in on one aspect of cognition that may differ between group members who do or do not talk with each other (i.e., abstraction level) and relate this to stereotyping, which is an important facet of many intergroup conflicts.

**Chapter 3: When abstraction does not increase stereotyping.** In Chapter 3 I address the question whether (anticipated) intragroup communication alters the perspective of individuals on intergroup relations. What are the cognitive consequences of preparing for intragroup communication about an outgroup? And how do these cognitive changes in turn affect the impact of stereotype-consistent and -inconsistent pieces of information on private intergroup perceptions? I reasoned that when people prepare communication with ingroup members, they prepare to share specific information (which may be stereotype-inconsistent) against the background of shared (abstract) knowledge. This implies that preparing for intragroup communication may enable abstract processing of information even of stereotype-inconsistent information, which is typically processed concretely. In line with this theorizing, I hypothesized and found that anticipated intragroup communication creates the conditions for stereotype-inconsistent information to be processed abstractly. A second aim of Chapter 3 was to examine and nuance the relation between abstract cognition and stereotyping. Generally researchers assume that there is a positive association between these two concepts. That is, people who think at an abstract level should stereotype others more than people who think at a

more concrete level. However, Chapter 3 reveals that abstract construal level increases stereotyping only if the construed information is stereotype-consistent. Thus, in this chapter I conclude that preparing for communication may be a key to stereotype change because it enables, through abstract construal, generalization of stereotype-inconsistency.

Regarding intragroup communication interventions in intergroup conflict, the findings of Chapter 3 raise the question of whether and how differences in abstraction level can be manipulated in intragroup communication to contribute to de-escalation of intergroup conflict. Additionally, can we combine the forces of communication form (Chapter 3) and communication content (Chapter 2) to de-escalate intergroup conflict? These questions illustrate the issues that I address in the subsequent empirical chapter.

**Chapter 4: Improving intergroup perceptions.** The final empirical chapter addresses the underlying question behind all experiments reported in the current dissertation. What are the influences of intragroup communication in escalation and de-escalation of intergroup conflict? More specifically, in this chapter I intend to apply the accumulated knowledge in practice; how can we put the findings regarding intragroup communication content and form into practice to reduce intergroup conflict? In Chapter 4 I therefore examine how the outcomes and conclusions of the preceding empirical chapters can be applied in interventions that target intragroup communication in order to de-escalate intergroup conflict. To recapitulate, Chapter 2 demonstrated that the content of intragroup communication can have detrimental consequences for individuals' intergroup perceptions – especially if group members anticipate an intergroup confrontation. Chapter 3 highlighted the role of abstraction level and revealed that abstract cognition does not inevitably increase outgroup stereotyping. These findings have several practical implications for designing intergroup conflict interventions. First, because staging an intergroup encounter may lead to defensive steeling reactions it may be more beneficial and feasible to target naturally occurring *intragroup* communications. And second, in designing an effective intervention, one should target the content of intragroup conversations as well as the abstraction level because both seem important factors in shaping group members' cognitions and perceptions that ultimately contribute to (de-)escalation of intergroup conflict.

One

Taking these notions into account, in Chapter 4 I describe a series of experiments in which I designed and tested an intergroup conflict intervention to improve intergroup perceptions through intragroup discussions in real groups. I provide converging evidence from three different intergroup conflict contexts, with natural intragroup interactions or using confederates, empirically demonstrating that abstract intragroup refutation of negative outgroup stereotypes is the most successful intervention to improve intergroup perceptions.

## **CHAPTER TWO**

Steeling Ourselves: Intragroup Communication while Anticipating Intergroup Contact Evokes Defensive Intergroup Perceptions.

*Note:* This chapter is based on Greijdanus, H., Postmes, T., Gordijn, E. H., & Van Zomeren, M. (2015). Steeling ourselves: Intragroup communication while anticipating intergroup contact evokes defensive intergroup perceptions. *Revision submitted for publication.*





## Chapter Two

### **Steeling Ourselves: Intragroup Communication while Anticipating Intergroup Contact Evokes Defensive Intergroup Perceptions.**

Although the term *intergroup conflict* instills the image of a clash between groups, paradoxically conflict flourishes when there is a lack of contact and groups do *not* interact (e.g., Pettigrew, Tropp, Wagner, & Christ, 2011). We propose that *intragroup* processes can help explain this phenomenon. Intragroup communication can shape intergroup perceptions, and may therefore be essential in conflict (de)escalation. The current research investigated how intergroup perceptions evolved in small groups that talked among each other about an anticipated face-to-face intergroup contact situation. In conflict situations where the outgroup holds negative views about the ingroup, such anticipation of contact may be threatening. We hypothesized that intragroup discussion may cause shared construal of anticipated contact as hostile but simultaneously offers members of stigmatized groups an opportunity to steel themselves (i.e., toughen up to defend themselves) in anticipation.

#### **Anticipating Intergroup Contact**

When and how intergroup contact reduces prejudice have been focal questions for the field at least since Allport (1954), if not before (see Pettigrew & Tropp, 2006, for a review). Meta-analyses have demonstrated that positive contact typically reduces intergroup prejudice (Pettigrew & Tropp, 2006). But it has also been noted that, in practice, positive contact between conflicting groups may be quite uncommon due to self-segregation (Dixon, Tredoux, Durrheim, Finchilescu, & Clack, 2008). One reason for this may be that intergroup contact can be threatening (Stephan & Stephan, 1985) particularly for stigmatized groups. Because expectations of problematic contact motivate avoidance of intergroup contact (Binder et al., 2009; Plant & Devine, 2003; Shelton & Richeson, 2005) interventions may involve organizing intergroup encounters. But what happens in the run-up to these arranged

meetings? Specifically, how do stigmatized group members prepare for an upcoming intergroup encounter?

Even though actual intergroup contact may be quite rare, it appears that thoughts that prepare individuals for how to behave in contact situations are readily activated. Indeed, priming with an outgroup activates not just stereotypes, but also concepts associated with the relationship that one entertains with that group (e.g., priming with gay men activates hostile behavior and priming with doctors activates patient behavior; Cesario, Plaks, & Higgins, 2006; Jonas & Sassenberg, 2006). The expectations and motivations with which group members approach intergroup contact are important factors in whether contact facilitates conflict de-escalation or escalation (Saguy & Kteily, 2014). When people anticipate interacting with a potentially antagonistic outgroup, various processes take effect. First, individuals are concerned with how outgroup members perceive them: Meta-stereotypes of how “they” think about “us” are activated (Vorauer, 2006; Vorauer, Main, & O’Connell, 1998). When these meta-stereotypes are negative, this can be threatening (i.e., evoke intergroup anxiety; Stephan & Stephan, 1985), intensify negative intergroup perceptions (Riek, Mania, & Gaertner, 2006) and foster self-defensive responses (Ellemers, Spears, & Doosje, 2002). Principally, if leaving such a stigmatized group is impossible or not desired group members may feel the urge to affirm or establish a positive feeling about the ingroup by upgrading perceptions of the ingroup, downgrading perceptions of the outgroup, or a combination of both. For example among other consequences, anticipated or actual devaluation may increase ingroup identification (Ellemers et al., 2002), outgroup derogation (Shelton, Richeson, & Vorauer, 2006), and *social creativity* – the re-valuation of negative traits attributed to the ingroup as positive (e.g., *Black is beautiful*, Tajfel & Turner, 1979; Turner, 1975). In both these processes of upgrading perceptions of the ingroup and of downgrading perceptions of the outgroup, we propose that intragroup communication plays a central role.

## The Role of Communication

Humans spend most of their time within their own ingroups (e.g., McPherson et al., 2001). And through communication in such fairly homogeneous intragroup settings, our understanding of reality (particularly social reality) is shaped (e.g., Echterhoff, Higgins, & Levine, 2009; Hardin & Higgins, 1996; Higgins, 1992;

Turner, 1991). This process is particularly important for understandings of “us” and “them,” which mainly acquire meaning through intragroup communication (e.g., Postmes et al., 2014). Through intragroup interactions, we piece together who we are and what we do (e.g., Turner, 1991; Thomas & McGarty, 2009) but also who “they” are, how they see us, and what we should do about them (e.g., Smith & Postmes, 2009, 2011). Thus group members actively construct and adjust a sense of shared social identity and consequent perceptions, norms, and attitudes (Postmes, Haslam, & Swaab, 2005; cf. Jans, Postmes, & Van der Zee, 2011, 2012).

Research on *extended* intergroup contact (Wright, Aron, McLaughlin-Volpe, & Ropp, 1997) illustrates the importance of this process. Through other ingroup members, people may learn about positive contact between ingroup and outgroup members. Such extended contact improves intergroup relations (e.g., Christ et al., 2010; Eller, Abrams, & Gomez, 2012; Mazziotta, Mummendey, & Wright, 2011). Multiple processes are involved: Extended contact lowers intergroup anxiety, but it also fosters positive norms concerning contact (Turner, Hewstone, Voci, & Vonofakou, 2008). It appears, then, that learning about others’ positive encounters with an outgroup member does not merely inform one’s perceptions of “them”, but also helps shape group norms about how to behave towards “them” (cf. Cialdini, Kallgren, & Reno, 1991; Haslam, McGarty, & Turner, 1996; Terry & Hogg, 1996).

However, when people anticipate having contact with potentially stigmatizing outgroups, one might hypothesize that they are not so likely to share positive stories but rather discuss past and future negative encounters. Studies of imagined intergroup contact indeed suggest that intergroup anxiety hinders the ability to imagine positive contact (Birtel & Crisp, 2012). This may be because intragroup communication typically emphasizes information that is consistent with shared perceptions (Imada & Yussen, 2012; Lyons & Kashima, 2001; see also Stasser & Titus, 1985). Anticipated intergroup contact may thus facilitate discussion of negative intergroup encounters if the anticipations are negative. Additionally, there may be a motivational component: Anticipated intergroup contact may be biased towards information that fosters coalition building *against* a conflicting outgroup (Lee, Gelfand, & Kashima, 2014). In sum, for various reason intragroup communication is more likely to dwell on personal anecdotes of intergroup hostility – and such anxiety-related information likely influences group members’ cognition more than anxiety-unrelated information (Reinecke, Rinck, & Becker, 2006) .

Once discussions involve negative examples of intergroup contact, for instance taking the form of anecdotes describing personal experiences with

intergroup hostility, this may increase the vividness of the threat posed by the outgroup, affecting group members' perceptions and promoting defensiveness (cf. Hansen & Wänke, 2010; Van Gelder, Hershfield, & Nordgren, 2013; Wilson & Brekke, 1994). Importantly, communication acts as a double-edged sword – not only shaping what receivers of communication think but also what senders of communication think. People generally come to believe the things they say (Festinger & Carlsmith, 1959; Higgins & Rholes, 1978; Sedikides, 1990) and forget information that is not discussed by themselves (cf. retrieval-induced forgetting; Anderson, Bjork, & Bjork, 1994) or their communication partners (Cuc, Koppel, & Hirst, 2007; for reviews see Stone, Coman, Brown, Koppel, & Hirst, 2012; Stone & Hirst, 2014). Accordingly, perceptions of the intergroup relationship may become more negative after sharing hostility anecdotes. But simultaneously, it is likely that the confrontation with others' negative stigmatizations will result in a positive reappraisal of the supposedly negative ingroup traits (i.e., a process of social creativity). This dual process of hardening attitudes towards “them” whilst boosting pride in “us” is what we refer to as *steeling* in this paper.

For this process of steeling to take effect, we expect that the anticipation of actual face-to-face intergroup contact plays a crucial role in determining whether such intergroup hostility anecdotes are indeed discussed or not. This is because anticipated face-to-face contact, especially between groups in conflict, is crucial to raise the threat levels and concerns that invoke these interactive group processes. In line with a conception of individuals' cognition as emergent in social contexts (e.g., Semin & Smith, 2013; Smith & Semin, 2004), it has often been argued and shown that the intergroup context in which intragroup interactions take place is one important factor that determines the directions in which perceptions develop (e.g., Drury & Reicher, 2000; Haslam, Oakes, McGarty, Turner, & Onorato, 1995; Stott & Drury, 2004; Hogg, Abrams, Otten, & Hinkle, 2004). Thus, in the current research we hypothesized that steeling is particularly likely when intergroup contact is anticipated and group members are provided with an opportunity to discuss the outgroup among themselves.

## Current Research

What are the conditions in which communication becomes an important factor in this process of steeling (in addition to the other processes already

mentioned above, e.g., Ellemers et al., 2002; Shelton et al., 2006)? Communication will likely exert less influence when intergroup relations have become entrenched, for example through socialization. Conversely, communication may exert greater impact when group members have something meaningful to share about the intergroup situation – in artificial groups, social sharing might therefore be less important than in existing groups (cf. Mullen, Brown, & Smith, 1992; Mullen, Migdal, & Hewstone, 2001). By using pre-existing groups in a real conflict and targeting fairly new members who have engaged in relatively little intragroup communication and socialization about this conflict, the current experiments sought to create an optimal environment to examine the influence of intragroup communication on steeling against intergroup hostility.

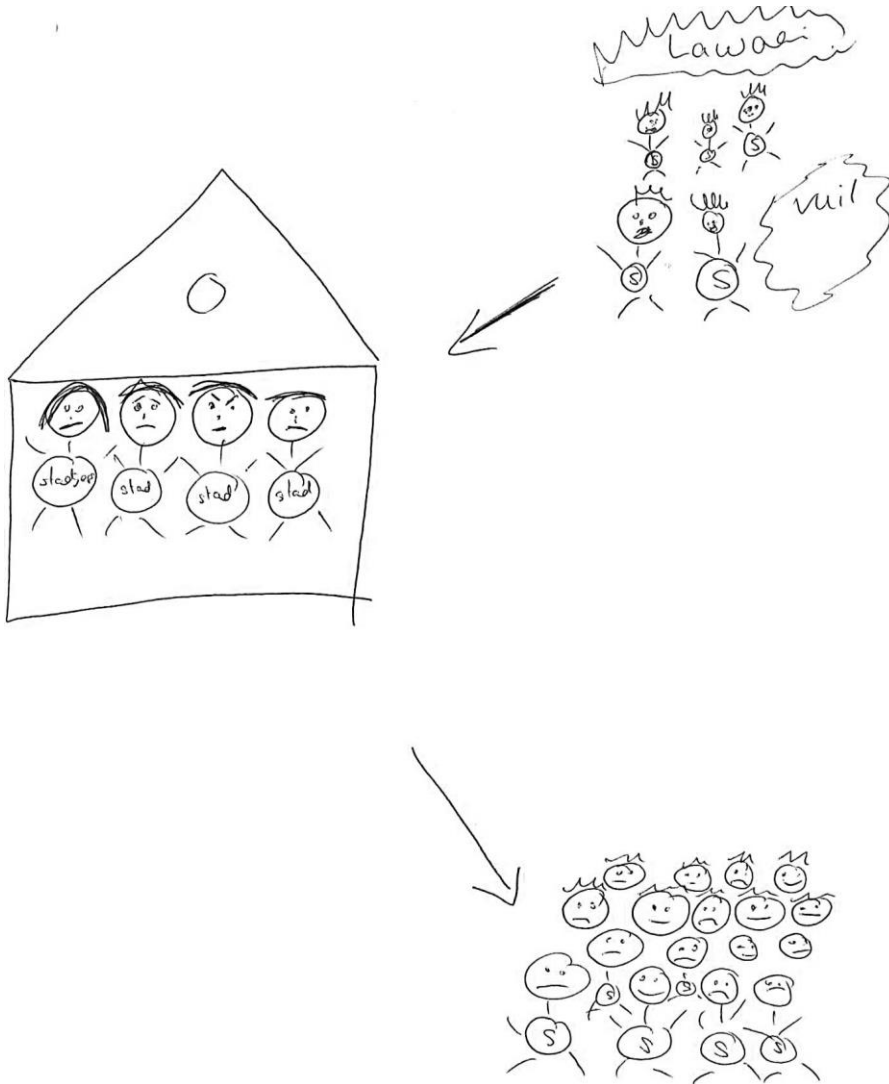
We examined effects of unconstrained intragroup communication in small groups (versus individual thought) and anticipated face-to-face intergroup contact (versus no anticipated face-to-face contact) on steeling. In this research, we invited real group members, engaged in a genuine intergroup conflict, into the laboratory. Linking research on intergroup conflict with shared reality and social identity, we hypothesized that intragroup communication while anticipating intergroup contact leads to activation of negative meta-stereotypes (rather than stereotypes) as group members construe contact as hostile and, consequentially, this communication results in steeling.

### **Intergroup conflict characteristics.**

In order to understand the nature of the experiments below, it is necessary to provide some background detail to the intergroup conflict which we examined. We focused on an actual conflict between students in Groningen and their outgroup “*stadjers*,” which is similar to the town-gown distinction that is common to many University cities. In Groningen, *stadjers* is a non-evaluative term for non-student city inhabitants that is also used by formal authorities. *Stadjers* stereotype students as intelligent and sociable, yet noisy litterers (see Figure 2.1). This intergroup distinction is relevant to students for several reasons. For instance, many streets in Groningen have a student inhabitant quatum and students have to find new housing if they are too many. The idea has also been voiced to relocate all students outside the city to reduce disorder and conflict. So for students the conflict is characterized by negative meta-stereotypes and social stigmatization of the ingroup as troublesome outsiders.

They are stigmatized in the very real sense of possessing “a social identity that is devalued in a particular social context” (Crocker, Major, & Steele, 1998, p. 505): Stadjers do not want them as their neighbors.

The reverse stereotype that students have about stadjers mostly appears to reflect the irritations that students cause (e.g., old-fashioned nags). It is also worth noting that the conflict between the groups may cause students to experience discomfort around stadjers but is unlikely to arouse strong feelings of (physical) threat (even though there are regular reports of violence against students which may be classified as intergroup violence). A student anticipating intergroup contact will probably expect to meet with prejudice and verbal hostility rather than aggression or violence.



**Figure 2.1.** Drawing by one of the participants in Experiment 2.1 (individual thought condition) in response to the instruction: *Form an impression of the situation between the Groningen students and stadjers* (i.e., non-student inhabitants). The figures on the top depict individual students with the words noise (*lawaai*) and dirt (*vuil*). The middle figures portray *stadjers* who seem troubled by the noise and dirt. The figures on the bottom represent a crowd of students, showing several unhappy faces. This drawing illustrates students' negative meta-stereotypes of being seen by non-student inhabitants as noisy litterers.



## Operationalizations of steeling.

We expected steeling to manifest itself in specific ways. As mentioned, steeling can consist of defensive “upgrading” of ingroup perceptions, downgrading outgroup perceptions, or both. Although these effects can manifest in several ways, we focus on three operationalizations of steeling.

First, students can enhance the *relative* positivity of the ingroup by reciprocating group-level negativity (cf. Minson & Monin, 2012). Our prediction was that students would raise more negative thoughts about the outgroup when communicating in a group whilst anticipating intergroup contact. Accordingly, participants should report more negative collective attitudes of the ingroup towards the outgroup—*we* do not like *them*. Thus, in the current conflict – which is dominated by an outgroup holding negative views of the ingroup rather than the reverse – we expected group members to counteract the negativity imbalance by expressing that the ingroup holds negative views of the outgroup as well. This is the first manifestation of steeling we focus on.

A second way in which steeling could manifest is social creativity (Turner, 1975). We operationalized social creativity by examining the valuation of *meta-stereotypes* – the valuation of the traits by which the outgroup stigmatizes the ingroup (cf. Kamans, Gordijn, Oldenhuis, & Otten, 2009). Such stigmata are often intended negatively, but during intragroup communication they can be reappropriated and romanticized (cf. identity performance, Klein, Spears, & Reicher, 2007). Thus, the second measure of steeling we included is that meta-stereotypes should become more positively valenced (or romanticized).

The third operationalization of steeling in the current research is ingroup identification. Prior research has shown that ingroup devaluation may increase ingroup identification (Ellemers et al., 2002, see also Branscombe & Schmitt, 1999). Accordingly, we expected that participants who anticipated face-to-face intergroup contact to report increased ingroup identification after intragroup communication.

## Control measures.

The function of steeling is the bolstering of the ingroup in preparation for a potential stand-off when contact is anticipated. Thus, steeling focuses primarily on “us”, not on “them”. Accordingly, perceptions of the outgroup should not be affected by steeling. We added various control measures to verify this.

As a first control measure, we gauged perceptions of the outgroup’s attitude towards the ingroup – which were presumably negative in the current conflict. Downplaying this source of anxiety is difficult because the threat may be hard to deny (cf. Ellemers, Van Rijswijk, Roefs, & Simons, 1997) – and if group members do manage to laugh away any suggestion of threat (as in groupthink; Janis, 1971), this may severely hamper their preparation for a subsequent hostile confrontation. Two additional control measures concerned participants’ valence judgments of stereotypic traits and their application of stereotypes to the outgroup. We included these as control measures because perceiving the outgroup as more stereotypical (e.g., old-fashioned) is unlikely to boost group members’ self-esteem or gear them up to face the confrontation. Finally, meta-stereotype application was included as a control measure to verify that students romanticize meta-stereotypes (i.e., social creativity) without simultaneously perceiving outgroups as having a more positive attitude towards them (cf. the outgroup’s attitude towards the ingroup as a control measure) or as applying fewer meta-stereotypes. These latter effects would not be effective steeling because overly positive expectations intensify negative affective reactions during the actual intergroup encounter rather than buffer against anticipated hostility.

## Summary.

To sum up, we hypothesized that intragroup communication while anticipating intergroup contact 1) leads group members to discuss personal experiences with ingroup-directed hostility and 2) activates negative meta-stereotypes, both of which consequentially result in 3) steeling against anticipated hostility. This steeling should manifest itself in 3a) more negative collective perceptions of the outgroup, 3b) more positive perceptions of meta-stereotypes, and 3c) increased ingroup identification. We also included various control measures on which we did not expect effects of anticipated contact (see below).

As mentioned, the intragroup communication resulting in steeling should create a shared reality of the anticipated face-to-face intergroup contact as hostile and uncomfortable, and activate negative meta-stereotypes. Communication content (i.e., presence of intergroup hostility anecdotes) and meta-stereotype activation should thus mediate the steeling effects. This is tested in Experiment 2.1. Furthermore, a follow-up Experiment 2.2 tested the impact of the taped discussions on listeners. We expected that listening to groups anticipating face-to-face intergroup contact would evoke more discomfort in a separate sample of participants belonging to the same ingroup than listening to ingroup members discussing the outgroup without anticipating direct intergroup contact.<sup>5</sup>

## Experiment 2.1

### Method

**Ethics statement.** This research was approved by the Ethical Committee Psychology of the University of Groningen (approval numbers: 09142-N, 10113-N, ppo-011-216). All participants provided their written informed consent.

**Participants and design.** One hundred and thirty-four students (51 men, age  $M = 19.87$ ,  $SD = 2.28$ ) were randomly assigned to a 2 (no anticipated face-to-face contact, anticipated face-to-face intergroup contact) X 2 (individual thought, intragroup communication) between-subjects design. For ease of interpretation, this design collapses three conditions lacking anticipated face-to-face contact. In the original (full) design, anticipated face-to-face intergroup contact was compared with: a) no intergroup contact, b) one-way written communication (sending the outgroup a message), or c) two-way written communication (sending a message and receiving one back). These conditions were designed to test whether anticipating intergroup communication in itself would have any effects (independently of anticipated *face-to-face* contact). Helmert contrasts indicated no differences between any of the control

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<sup>5</sup> We report all details of both experiments (all included and excluded participants, conditions, and variables).

conditions (a-c) on any of the measures reported,  $ps > .10$ . We thus simplified the design by collapsing the controls, statistically correcting for the different  $ns$ .<sup>6</sup> Important to note is that analyses of the full 4X2 design, as well as analyses uncorrected for sample size, generated similar patterns of results.

**Procedure.** The communication manipulation was similar to that of Smith and Postmes (2011). After giving informed consent, participants received written instructions to “form an impression of the intergroup situation,” through either a 5-minute discussion with students (*intragroup communication* condition) or individual paper-and-pencil thought-listing (*individual thought* condition).

In the *anticipated face-to-face contact* condition, participants formed this impression to prepare for a real-life intergroup discussion (of which no further details were provided). In the *no anticipation* control condition, they formed this impression without reference to face-to-face intergroup discussion. Subsequently, they individually filled out paper-and-pencil questionnaires including the focal dependent variables and some exploratory measures.<sup>7</sup> All participants started with a (meta-)stereotype activation questionnaire, then filled out questionnaires measuring steeling and control variables ending with a questionnaire on (meta-)stereotype valence, open-ended questions on participants’ thoughts on the research questions and hypotheses, and demographic questions. Finally, participants were debriefed. Audio recordings of the intragroup discussions were transcribed for analysis.

**Measures.** To measure hostility anecdotes, transcribed discussions were coded separately by the first author and a coder blind to the hypotheses and conditions. They coded whether (mild) intergroup hostility was mentioned (*hostility anecdotes*; 1 = someone reported a personal experience with hostile outgroup

<sup>6</sup> To correct for the different sample sizes per condition, corrected contrasts were computed for each of the four conditions as: Original contrast \* ( $N_{\text{total}} / (N_{\text{condition}} * \text{number of conditions})$ ).

<sup>7</sup> The exploratory measures gauged participants’ impressions of the intergroup situation (open-ended), perceived intergroup conflict, ingroup-outgroup overlap, inter- and intragroup distinctiveness, familiarity with and stereotypicality of discussion partners, consensualisation and validation of (meta-)stereotypes, and personal opinions on intergroup contact-related issues. Because these measures were exploratory, the current paper focuses on the steeling measures but details are available upon request.

members, 0 = no-one did this).<sup>8</sup> One example from the anticipated face-to-face contact condition was: “I always have quarrels with my upstairs neighbors about noise by day.” A participant in the no anticipation condition told: “The other day, there was hassle about parked bikes. It’s usually about that. It’s about bikes or about noise.” Because the presence or absence of such hostility anecdotes was rather straightforward coders were in 100% agreement and, hence, reliability statistics could not be computed.

The (meta-)stereotype activation questionnaire consisted of 28 incomplete words. Instructions were: “Below you see some incomplete words. Replace all dashes with one letter to create existing words. Provide the first correct solutions that come to mind.” – followed by an example and all items. Fourteen could be completed to stereotypes, another 14 to meta-stereotypes. All stimuli could also be completed to words not associated with the current intergroup context (e.g., \_ \_ \_ \_ *ruchtig* could be completed to *luidruchtig* [meta-stereotype: noisy], or *roemruchtig* [illustrious]). We obtained (meta-)stereotypes from a pilot study ( $N = 104$ ) in which students answered the open-ended questions “What do students think stadgers in general think of them?” and “What do students in general think of stadgers?”. The most frequently mentioned ( $> 20\%$ ) meta-stereotypes (noisy, arrogant, stuck up, social, partying, clever, lazy) and stereotypes (kind, lumpish, rigid, rough, nagging, old-fashioned, stupid) and synonyms (e.g., *intelligent*, *friendly*) were randomly interchanged in one questionnaire, and (meta-)stereotype activation was measured as the total number of words completed to (meta-)stereotypic traits (cf. Gilbert & Hixon, 1991; Gordijn, 2010). These word completion targets were not balanced for word frequency.

**Steeling.** We operationalized steeling with the measures *ingroup’s attitude towards the outgroup*, *meta-stereotype valence*, and *ingroup identification*.

The ingroup’s attitude towards the outgroup concerned individual group members’ perceptions of this attitude as measured with the question “How positive or negative do you think students in general view stadgers?” on a scale from -3 (*negative*) to 3 (*positive*).

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<sup>8</sup> We chose this 0/1 coding scheme rather than counting anecdotes within discussions because typically one participant shared a hostility anecdote, eliciting sympathizing reactions by others.

Meta-stereotype valence was measured using scales gauging participants' individual evaluation of (meta-)stereotypes from -3 (*negative*) to 3 (*positive*). Meta-stereotype valence thus measured participants' *personal* evaluations of these traits, which may vary regardless how they think the outgroup evaluates these traits (i.e., independently of the outgroup's attitude towards the ingroup).

Identification was measured using a multi-component measure (Leach et al., 2008; overall Cronbach's  $\alpha = .90$ ) on a 7-point scale. Because effects on each component were broadly similar, we only report the aggregate score.

***Control measures.*** As mentioned above, at least in the current intergroup conflict steeling is an ingroup-centered process and accordingly perceptions of the outgroup need not be affected by it. Accordingly, we added several control measures on which we did not expect effects: the *outgroup's attitude towards the ingroup*, *stereotype valence*, *stereotype application*, and *meta-stereotype application*.

The outgroup's attitude towards the ingroup and stereotype valence were measured similar to the steeling measures of, respectively, the ingroup's attitude towards the outgroup and meta-stereotype valence.

Stereotype application was measured with seven stereotypes (e.g., "Old-fashioned: To what extent do *you* think this characteristic applies to the outgroup?" 1 *absolutely not* to 7 *absolutely*), randomly interchanged with seven meta-stereotypes as fillers. The meta-stereotype application measured comprised seven meta-stereotypes (e.g., "Noisy: To what extent do you think the *outgroup* applies this characteristic to students?") and seven stereotypic fillers.

## Results

The open-ended questions about research questions and hypotheses revealed that participants were unaware of the expected results. Within-condition Mahalanobis distance analyses revealed no outliers.

**Analytic strategy.** Because participants were nested within discussion groups with intraclass correlations in communication conditions ranging from .002 (for meta-stereotype valence) to .317 (for meta-stereotype application), data were

analyzed with multilevel regressions in HLM (Raudenbush, Bryk, & Congdon, 2004).<sup>9</sup> For comparing intragroup communication and individual thought, participants in the individual thought condition were divided into nominal groups (i.e., participants went through the procedure described earlier individually, but data were clustered within randomly assigned groups for multilevel analyses). This procedure resulted in a final sample of 27 groups of two to three students in this condition, equal to the intragroup communication condition.

We expected one cell mean (i.e., intragroup communication while anticipating intergroup contact) to differ from the others. In such a non-crossover interaction, omnibus *F*-tests may erroneously suggest absence of the hypothesized pattern (Bobko, 1986). Therefore we used hypothesis-specific, planned contrasts (Strube & Bobko, 1989; cf. Rosnow & Rosenthal, 2002; Elias, 2004). To test the hypothesis that intragroup communication while anticipating intergroup contact would instigate steeling, this condition was compared with the remaining conditions using a Helmert contrast (contrast1). There were two control contrasts to investigate two alternative hypotheses. To test for the influence of individual thought while anticipating intergroup contact on steeling, this condition was compared with both intragroup communication and individual thought without anticipated face-to-face contact (contrast2). A third contrast compared steeling after intragroup communication without anticipated face-to-face contact with steeling after individual thought without anticipated face-to-face contact (contrast3).

The estimated HLM models for the (meta-)stereotype activation, steeling, and control measures were:

$$\text{Level-1: } Y = \beta_0 + r$$

$$\text{Level-2: } \beta_0 = \gamma_{00} + \gamma_{01} * (\text{contrast1}) + \gamma_{02} * (\text{contrast2}) + \gamma_{03} * (\text{contrast3}) + \mu_0$$

*Y* represents the dependent variable (i.e., one of the steeling or control measures),  $\beta$  is the individual-level regression coefficient,  $\gamma$ s are group-level regression coefficients, and *r* and  $\mu$  respectively are the individual-level and group-level errors.

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<sup>9</sup> One-tailed, Bonferroni-corrected tests generated similar results as the conservative two-tailed tests reported here.

We conducted multilevel analyses to test for effects of hostility anecdotes on steeling and control measures. A dummy variable (hostility anecdotes) indicated whether or not groups shared hostility anecdotes.<sup>7</sup>

The estimated HLM models were:

$$\text{Level-1: } Y = \beta_0 + r$$

$$\text{Level-2: } \beta_0 = \gamma_{00} + \gamma_{01} * (\text{hostility anecdotes}) + u_0$$

Again,  $Y$  represents the dependent variable,  $\beta$  the individual-level regression coefficient,  $\gamma$ s group-level regression coefficients, and  $r$  and  $u$  respectively the individual-level and group-level errors.

**Intragroup communication content.** Because there was no communication content to analyze in the individual thought conditions, all analyses in this subsection concern the intragroup communication conditions. One discussion was not recorded, hence the final sample consisted of 26 discussions. Group-level Pearson's  $\chi^2$ -test revealed that 83% of groups anticipating intergroup contact shared hostility anecdotes, compared to 30% of control groups,  $\chi^2(1) = 5.38, p = .02$ .

Results of multilevel analyses indicated that in those groups where hostility anecdotes were shared, group members perceived their ingroup's attitude towards the outgroup more negatively,  $t(24) = -2.14, p = .04$ , identified more strongly with their ingroup,  $t(24) = 3.04, p < .01$ , and romanticized meta-stereotypes more,  $t(24) = 1.89, p = .07$ , than in the other groups. There were again no significant influences on the complementary control measures outgroup's attitude towards the ingroup and stereotype valence,  $ps > .69$ .<sup>10</sup>

**Activation of (meta-)stereotypes.** There were no significant effects on meta-stereotype or stereotype activation,  $ps > .20$ , possibly due to differences in word frequency between (meta-)stereotypic and unrelated solutions. On average, participants completed 5.97 stimuli to meta-stereotypes ( $SD = 1.95$ ) and 5.06 to

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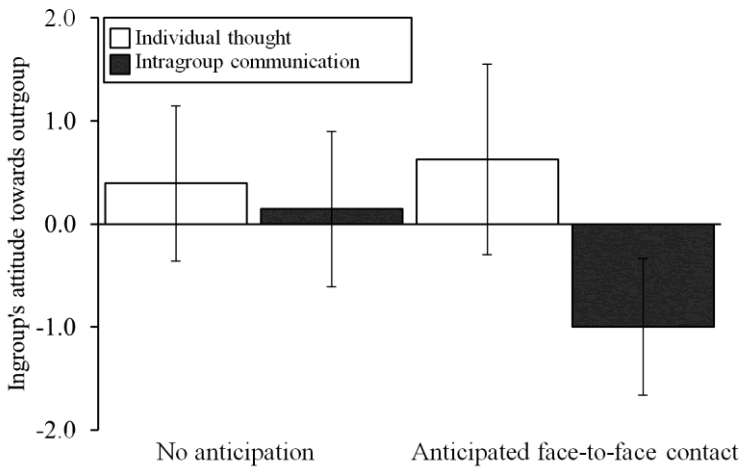
<sup>10</sup> Analyses with *hostility anecdotes* as predictor were statistically corrected for the different numbers of groups that did or did not communicate about these experiences (cf. Footnote 6). Uncorrected analyses generated similar results.



stereotypes ( $SD = 2.11$ ). Because there was no effect on meta-stereotype activation, we did not test its hypothesized mediating role in stealing.

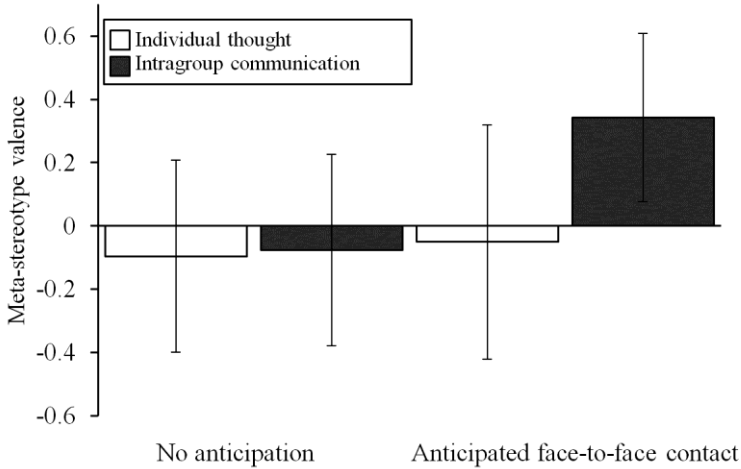
**Steeling.** For an overview of within-condition means and standard errors of all steeling and control measures, see Table 2.1.

Figure 2.2 shows the effects on the ingroup's attitude towards the outgroup. Results support the hypothesis that when intergroup contact is anticipated, the opportunity for intergroup communication leads to more negative perceptions, compared with the other conditions,  $t(50) = -3.66, p = .001$ . As expected, the control contrasts were non-significant,  $ps > .34$ . In line with the nature of the current intergroup conflict, participants' average rating of the ingroup's attitude towards the outgroup *overall* did not significantly differ from zero (i.e., neither positive nor negative), overall intercept = 0.17,  $t(53) = 1.33, p = .19$ .



**Figure 2.2.** Effects of intragroup communication and anticipated face-to-face intergroup contact on ingroup's attitude towards the outgroup. Error bars represent 95% confidence intervals, scale ranged from -3 (*negative*) to 3 (*positive*). Intragroup communication while anticipating face-to-face intergroup contact (contrasted to the other three conditions) leads to more negative perceptions of the ingroup's attitude towards the outgroup.

Figure 2.3 shows the effects on meta-stereotype valence. Hypothesis tests indicated, in line with expectations, that intragroup communication while anticipating intergroup contact yielded more positive evaluations of meta-stereotypes,  $t(50) = 2.96, p < .01$ . As expected, the control contrasts were non-significant,  $p_s > .35$ .<sup>11</sup> On average, meta-stereotype valence did not differ from zero ( $M = -0.04$ ),  $t(53) = -0.75, p = .46$ .

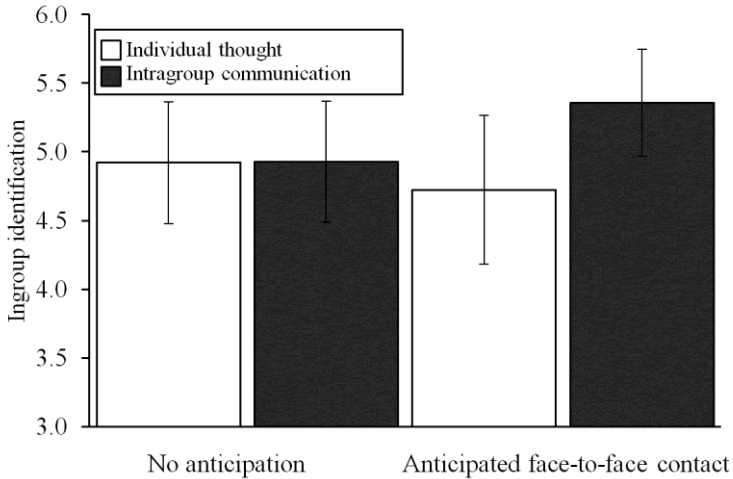


**Figure 2.3.** The effects of intragroup communication and anticipated face-to-face intergroup contact on meta-stereotype valence. Error bars represent 95% confidence intervals, scale ranged from -3 (*negative*) to 3 (*positive*). Intragroup communication while anticipating face-to-face intergroup contact (contrasted to the other three conditions) leads to romanticization of meta-stereotypic traits.

Figure 2.4 shows the effects on identification. In line with expectations, intragroup communication while anticipating intergroup contact led participants to identify more strongly with their ingroup,  $t(50) = 2.19, p = .03$ . As expected, the

<sup>11</sup> Split analyses revealed that communication while anticipating intergroup contact yielded more positive evaluations of positive meta-stereotypes,  $t(50) = 2.32, p = .02$ , and less negative evaluations of negative meta-stereotypes,  $t(50) = 2.96, p < .01$ . Control contrasts were non-significant,  $p_s > .25$ .

control contrasts were non-significant,  $ps > .56$ . Participants' average ingroup identification was above-midpoint (overall intercept 4.95,  $t(53) = 21.93, p < .001$ ).



**Figure 2.4.** The effects of intragroup communication and anticipated face-to-face intergroup contact on identification. Error bars represent 95% confidence intervals, scale ranged from 1 to 7. Intragroup communication while anticipating face-to-face intergroup contact (contrasted to the other three conditions) increases group members' identification with their ingroup.

**Control measures.** Consistent with the nature of the current intergroup conflict, participants perceived negative attitudes of the outgroup towards their ingroup (overall intercept -0.98),  $t(53) = -9.55, p < .001$ . As expected, none of the contrasts affected this control measure,  $ps > .10$ . As hypothesized, none of the contrasts affected stereotype valence,  $ps > .43$ . On average, participants valued stereotypes negatively (overall intercept -0.84),  $t(53) = -17.42, p < .001$ . Intragroup communication while anticipating intergroup contact unexpectedly led participants to apply more stereotypes to the outgroup,  $t(50) = 2.77, p < .01$ . As hypothesized, the first control contrast did not significantly affect stereotype application,  $p > .05$ , but the second control contrast indicated that participants applied more stereotypes to the outgroup after intragroup communication without anticipated face-to-face contact than after individual thought without anticipated face-to-face contact,  $t(50) = 2.16, p = .04$ . And finally, as hypothesized none of the contrasts affected the control measure meta-stereotype application,  $ps > .25$ .

Thus, anticipating intergroup contact changes intergroup perceptions that can be utilized to buffer against anticipated intergroup hostility only after intragroup interaction. Besides isolated effects on stereotype application, no such effects emerged on intergroup perceptions that cannot strengthen defensive steeling.

**Table 2.1**

*Means and Standard Errors (in Brackets) for Steeling and Control Measures*

	No face-to-face intergroup contact anticipation		Anticipated face-to-face intergroup contact	
	Individual thought	Intragroup communication	Individual thought	Intragroup communication
<b>Steeling measures</b>				
IG's attitude towards OG <i>scale range -3-3</i>	0.39 (0.38)	0.14 (0.38)	0.62 (0.47)	-1.00 (0.34)***
Meta-stereotype valence <i>scale range -3-3</i>	-0.10 (0.15)	-0.08 (.15)	-0.05 (.19)	0.34 (0.14)**
Ingroup identification <i>scale range 1-7</i>	4.92 (0.23)	4.93 (0.23)	4.73 (0.28)	5.36 (0.20)*
<b>Control measures</b>				
OG's attitude towards IG <i>scale range -3-3</i>	-1.17 (0.34)	-0.79 (0.34)	-0.68 (0.42)	-1.27 (0.30)
Stereotype valence <i>scale range -3-3</i>	-0.82 (0.17)	-0.84 (0.17)	-0.80 (0.20)	-0.99 (0.15)
Stereotype application <i>scale range 1-7</i>	3.85 (0.24)	4.21 (0.24)*	4.35 (0.30)	4.70 (0.21)**
Meta-stereotype application <i>scale range 1-7</i>	5.32 (0.20)	5.38 (0.19)	5.41 (0.24)	5.57 (0.17)

*Note.* IG = ingroup, OG = outgroup.

\* Helmert contrast comparing this condition to all conditions to the left  $p \leq .05$ .

\*\* Helmert contrast comparing this condition to all conditions to the left  $p \leq .01$ .

\*\*\* Helmert contrast comparing this condition to all conditions to the left  $p \leq .001$ .

**Mediation analyses.** We hypothesized that hostility anecdotes would mediate the effects of anticipating face-to-face intergroup contact on steeling. To investigate this, we first estimated the effects of anticipated face-to-face contact on

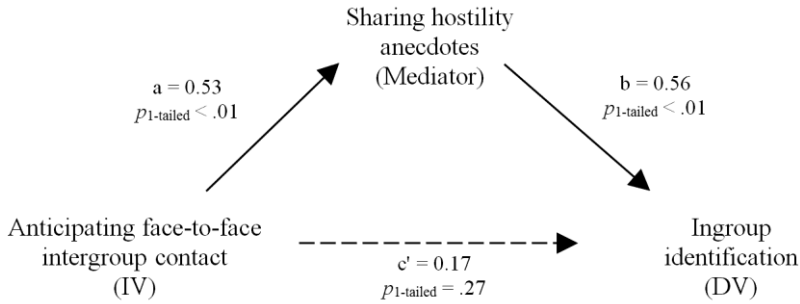
the steeling measures within the intragroup communication condition.<sup>12</sup> The effects were again significant for ingroup's attitude towards the outgroup,  $t(24) = -2.71, p = .01$ , meta-stereotype valence,  $t(24) = 2.69, p = .01$ , and marginally significant for identification,  $t(24) = 1.79, p = .09$ . Subsequently, we estimated the effects of hostility anecdotes (the proposed mediator) on these three steeling variables, while controlling for the effect of anticipating direct intergroup contact (the independent variable). When entered together with hostility anecdotes, the effect of anticipating face-to-face contact on identification was no longer significant,  $t(23) = 0.65, p = .52$ , while the effect of hostility anecdotes was still significant,  $t(23) = 2.46, p = .02$ . There were no significant effects of hostility anecdotes on ingroup's attitude towards the outgroup or meta-stereotype valence,  $ps > .25$ . These results suggested a 2-2-1 multilevel mediation from group-level anticipated face-to-face contact, via group-level hostility anecdotes, to individual-level identification. However, they are inconsistent with models assuming that talking about intergroup hostility mediates the relation between anticipated face-to-face contact and ingroup's attitude towards the outgroup or meta-stereotype valence.

Because Mplus is better equipped to test multilevel mediation, we conducted a 2-2-1 mediation analysis with one-tailed hypothesis tests using multilevel structural equation modelling (MSEM; Preacher, Zyphur, & Zhang, 2010) in Mplus to estimate mediation pattern suggested by the HLM estimations. The indirect effect of anticipated face-to-face contact on identification via hostility anecdotes was marginal,  $b = 0.30, 90\% \text{ CI } [-0.01, 0.60], p_{\text{one-tailed}} = .05$ .<sup>13</sup> Although this finding should be interpreted with caution because of the small sample size and the marginal significance, it is consistent with the hypothesis that anticipating intergroup contact encourages group members to share anecdotes about experiences with ingroup-directed hostility, which in turn enhances steeling on ingroup identification (see Figure 2.5). Thus, intragroup communication while anticipating face-to-face intergroup contact apparently facilitates aspects of defensive steeling because this anticipated contact is construed as relatively hostile.<sup>14</sup>

<sup>12</sup> These analyses were corrected for the different *ns* per cell resulting from the post-hoc design simplification (cf. Footnote 6).

<sup>13</sup> Following Preacher et al. (2010) we report one-tailed MSEM analyses, all other test results are two-tailed.

<sup>14</sup> Because *ingroup's attitude towards the outgroup, meta-stereotype valence, and identification* showed similar patterns, we exploratively tested for possible 2-1-1 multilevel mediations with a group-level independent variable (the contrast specified above) in Mplus (Muthén & Muthén, 2008)



**Figure 2.5.** Mediation analysis. A multilevel structural equation modelling 2-2-1 mediation analysis with one-tailed hypothesis tests (Preacher et al., 2010) estimated a marginal indirect effect of independent variable (IV) anticipated face-to-face contact on dependent variable (DV) identification via hostility anecdotes,  $b=0.30$ , 90% CI [-0.01, 0.60],  $p_{\text{one-tailed}}=.05$ . Although they should be interpreted with caution, depicted estimated coefficients are consistent with a mediational model in which intragroup communication with (versus without) anticipated face-to-face intergroup contact encourages group members to share anecdotes about their personal experiences with ingroup-directed hostility, which in turn enhances ingroup identification.

## Experiment 2.2

Experiment 2.1 showed that intragroup communication while anticipating intergroup contact leads to steeling. The finding that discussing intergroup hostility anecdotes marginally mediated some of these effects suggests that steeling is a defensive reaction to anticipated (somewhat hostile) contact. Sharing such anecdotes presumably raises feelings of discomfort. The interpretation of steeling as a defensive response to reduce the (mild) discomfort posed by imminent intergroup contact seemed supported by null results on most control variables that lacked analogous potential to be used as defensive tools. But better still would be to have measured

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using the syntax suggested by Preacher et al. (2010). However, no clear evidence of mediation was found,  $p_{\text{one-tailed}} > .05$ . Thus, there is no consistent evidence that any of the questionnaire variables may have mediated the effects.

discomfort and threat in reaction to the intragroup discussions directly. Thus, we conducted a follow-up experiment.

In Experiment 2.2, new participants (from the same ingroup) listened to the discussions of Experiment 2.1. Afterwards, they answered questions about the outgroup. The key dependent variables were emotions displaying intergroup discomfort. If steeling is indeed defensive, we hypothesized that discomfort levels should be higher (although possibly still mild) among participants who listened to those group discussions that resulted in steeling.<sup>15</sup> Specifically, we predicted more discomfort among participants who listened to discussions from the anticipated face-to-face contact condition in Experiment 2.1, compared with participants who listened to discussions from the no anticipation condition. We measured outgroup-related discomfort as well as actual threat. Because the emotion-evoking potential of outgroups depends on their salient characteristics and the current outgroup was not truly (physically) dangerous, effects might be stronger for the former (cf. Dijkster, 1987; Dijkster, Koomen, Van den Heuvel, & Frijda, 1996). Thus, we expected that listening to ingroup members preparing collectively for an intergroup confrontation causes participants to experience discomfort rather than severe threat.

## Method

**Participants and design.** Forty-one students (16 men, age  $M = 22.93$ ,  $SD = 1.94$ ) were randomly assigned to a no anticipation (control) condition or an anticipated face-to-face contact condition.

**Procedure.** The experiment was presented on computers using Qualtrics. After providing informed consent, participants were invited to imagine participating

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<sup>15</sup> In the current view, individuals need to actively engage in intragroup communication in order to effectively steel themselves against anticipated intergroup hostility. Although listening to audio-recordings of intragroup communication may simulate communication effects to some extent (cf. effects of video-recorded communication; Smith & Postmes, 2011), we did not expect adequate levels of steeling in participants who merely listened to intragroup communication. Hence, we expected discomfort among participants who listened to ingroup members collectively anticipating an intergroup confrontation (i.e., those group discussions that resulted in steeling).

in Experiment 2.1. To ensure that any effects would be due to differences in communication alone, participants were blind to experimental condition: The procedure made no reference to intergroup contact. There were two conditions: Participants listened to a recording from either the anticipated face-to-face contact condition in Experiment 2.1 or the no anticipation condition. Within conditions, all Experiment 2.1 recordings were randomly assigned to participants. Finally, participants filled out an intergroup anxiety measure (including discomfort-related items) and some exploratory measures, demographic and control questions, and were debriefed.<sup>16</sup>

**Measures.** An 11-item scale distinguished two intergroup anxiety components: *Discomfort* (“I feel uncomfortable / uneasy in the presence of stadgers”) and *threat* (“I feel threatened / anxious in the presence of stadgers”) on a scale from 1 (*strongly disagree*) to 7 (*strongly agree*). These items were randomly alternated with items for exploratory investigation of anxiety (e.g., “I feel self-conscious / good in the presence of stadgers”).

Control questions measured whether participants were students, whether they had participated in Experiment 2.1, how strongly they identified with students and with the outgroup, both single-item measures on a scale from 1 (*Absolutely not*) to 7 (*Absolutely*), how well participants heard the audio recording, on a scale from 1 (*The conversation was completely inaudible to me*) to 7 (*The conversation was clearly audible to me*), and how vividly they could imagine being part of the conversation, on a scale from 1 (*It did not feel as if I was one of the students in the conversation at all*) to 7 (*It felt very strongly as if I was one of the students in the conversation*).

## Results

**Analytic strategy.** Several confirmatory factor analyses were conducted in the R package Lavaan (Rosseel, 2012) to investigate whether discomfort and threat constituted two correlated, yet different factors of intergroup anxiety or were better

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<sup>16</sup> The exploratory measures included intergroup conflict intentions, a textual social and a pictorial social distance measure. Because these measures did not show significant effects, the results will not be discussed here but details are available upon request.



represented as a single measure. Multivariate analyses of variance were used to check comparability of the two conditions and to test the hypotheses 1) that recordings of ingroup members anticipating intergroup contact would instigate more discomfort than recordings without such anticipation, and 2) that this effect would not occur for intergroup anxiety related threat.

**Data preparation.** Prior to analyses, we removed one participant who indicated that the audio recording was inaudible, leaving 20 participants per condition. All participants confirmed that they were students and that they had not participated in Experiment 2.1. There were no differences between conditions in identification with students ( $M = 5.20$ ,  $SD = 1.16$ ),  $F(1,38) = 1.20$ ,  $p = .28$ ,  $\eta_p^2 = .03$ , or with the outgroup ( $M = 3.05$ ,  $SD = 1.40$ ),  $F(1,38) = 2.62$ ,  $p = .11$ ,  $\eta_p^2 = .07$ . Another MANOVA indicated that participants in both conditions heard the conversation on the audio tapes equally well ( $M = 5.10$ ,  $SD = 0.24$ ),  $F(1,38) = 1.09$ ,  $p = .30$ ,  $\eta_p^2 = .03$ , and imagined themselves participating in the conversation to a similar extent ( $M = 3.93$ ,  $SD = 0.25$ ),  $F(1,38) = 0.26$ ,  $p = .62$ ,  $\eta_p^2 = .01$ .

Mahalanobis distance analyses revealed no multivariate outliers. One univariate outlier on discomfort in the no anticipation condition deviated more than 1.5 interquartile ranges from the condition mean and was removed. The two-factor model representing discomfort and threat as related yet distinct facets of anxiety provided a good fit,  $\chi^2(1) = 2.14$ ,  $p = .14$ , CFI = .99, SRMR = .02. Although these explorative results should be interpreted with caution because of the small sample size, this model fit the data better than the one-factor model,  $\chi^2_{diff} = 12.86$ ,  $p < .001$ .

**Discomfort and threat.** As expected, a MANOVA revealed that participants in the anticipated face-to-face contact condition experienced more (although still mild) discomfort ( $M = 2.90$ ,  $SD = 1.35$ ) than participants in the no anticipation condition ( $M = 2.16$ ,  $SD = 0.78$ ),  $F(1,37) = 4.33$ ,  $p = .04$ ,  $\eta_p^2 = .11$ , whereas all participants experienced threat to the same extent ( $M = 2.03$ ,  $SD = 1.06$ ),  $F(1,37) = 0.82$ ,  $p = .37$ ,  $\eta_p^2 = .02$ . Thus, listening to ingroup members anticipating face-to-face intergroup contact evoked more discomfort than listening to intragroup conversations without anticipated face-to-face contact. This supported the nature of steeling after intragroup communication as a defensive reaction to prepare for an uncomfortable intergroup confrontation.

## General discussion

The current experiments investigated the influences of intragroup communication and anticipating intergroup contact on intergroup perceptions and intergroup discomfort. In Experiment 2.1, content analyses of the discussions revealed that anticipating intergroup contact leads individuals to share more anecdotes about intergroup hostility, rather than to imagine positive intergroup contact. Thus, although experimental work has suggested that individually imagined contact may have some benefits (e.g., Crisp, Husnu, Meleady, Stathi, & Turner, 2010), negative concerns emerged in *spontaneous* intragroup discussions in a contentious context when group members expected to actually meet with the outgroup. Multilevel analyses indicated that intragroup communication – but not individual thought – while anticipating intergroup contact leads to steeling: Participants develop an impression that the outgroup is collectively devalued, they romanticize meta-stereotypes, and identify more strongly with their ingroup. Tentative estimations from mediation analyses were consistent with the assumption that sharing hostility anecdotes boosts individuals' subsequent ingroup identification. Thus, small groups that anticipated face-to-face intergroup contact collectively constructed a shared reality of the outgroup as relatively hostile and – as an apparent, partial consequence – steeled themselves against a negative intergroup confrontation. This finding extends the elaborated social identity model (e.g., Drury & Reicher, 2000) by revealing that individuals may reposition their social identity and corresponding social perceptions in reaction to an outgroup's *anticipated* reactions to the ingroup, well before actual outgroup behavior takes place.

Of theoretical interest is the finding that steeling only occurred in groups collectively anticipating a real-life discussion with an antagonistic outgroup. Like communication without anticipation of intergroup contact, intragroup communication while anticipating more *indirect* forms of intergroup contact (i.e., sending or mutual exchange of written messages) did not cause group members to steel themselves against an uncomfortable intergroup encounter. The difference between anticipation of dynamic intergroup interaction and more static forms of communication (i.e., mere sending or receiving) complements classical research on communication roles and cognitive tuning. Whereas Zajonc (1960) established that different cognitive structures are activated by communicators who primarily anticipate receiving versus sending information, the present findings indicate that

some cognitive changes may only emerge when people anticipate a dynamic succession of sending *and* receiving information.

One explanation for this is that anticipating a real-life intergroup discussion involves anxiety-arousing elements that are not or less present in indirect contact (e.g. Kirschbaum, Pirke, & Hellhammer, 1993; Allen, Kennedy, Cryan, Dinan, & Clarke, 2014). Another explanation involves anonymity. The need for steeling may be stronger when facing real-life contact because written messages may be exchanged anonymously and, hence, arouse less discomfort and threat. Moreover, although previous research suggests that mere outgroup priming may be sufficient to activate intergroup interaction-related behavior (e.g., Cesario et al., 2006), Experiment 2.1 showed that participants only brought up hostility anecdotes if they anticipated an intergroup interaction. This discrepancy may be due to the fact that Cesario and colleagues (2006) used subliminal priming of outgroups. Additionally, the emergence of hostile versus benevolent behavior in their studies was moderated by participants' implicit attitudes towards the outgroup, which were not measured in the current experiment. These speculations remain to be tested empirically. Nonetheless, the current results reveal a consistent pattern of steeling in group members who talked in small groups while anticipating real-life intergroup contact – which is, ironically, the kind of contact in most studies on intergroup contact as an intervention (Pettigrew & Tropp, 2006).

It is noteworthy that steeling effects were also witnessed in increased ingroup identification. This effect was not found in some previous studies (e.g., Smith & Postmes, 2011, Studies 1-3), where participants did *not* anticipate meeting with the outgroup. Additionally, unexpected effects were found on stereotype application. Although we did not conceive of stereotype application as steeling, in some situations stronger application of stereotypic traits may help group members to prepare for an upcoming intergroup interaction. For instance, perception of outgroup members as extremely persistent naggers may have helped Experiment 2.1 participants to prepare for the worst – a coping strategy that renders harm from disappointment unlikely. Future research could explore this.

Although participants who engaged in intragroup communication while anticipating intergroup contact judged meta-stereotypic traits more positively, they did not perceive the outgroup's attitude towards the ingroup to be more positive. This pattern is consistent with social creativity, in which group members reject and reverse the negative valence of meta-stereotypes applied to their group (e.g., Tajfel & Turner, 1979). Although Experiment 2.1 did provide evidence for romanticization of

meta-stereotypes, the hypothesized role of meta-stereotype *activation* in anticipating intergroup contact was not supported – possibly due to the method used to gauge activation of meta-stereotypes.

Null findings in Experiment 2.1 on control variables provide some additional checks on the assumption that the steeling process is mainly focused on rallying the ingroup by rousing the anxieties surrounding the immanent intergroup contact. This interpretation was empirically strengthened by Experiment 2.2, which revealed that listening to the intragroup discussion from the anticipated face-to-face contact condition of Experiment 2.1 incited more intergroup anxiety-related emotions (in this intergroup context, discomfort) than the no anticipation condition. This effect emerged even though participants themselves did not anticipate contact. Lee, Gelfand, and Kashima (2014) showed that people are more motivated to tell distorted stories about intergroup conflicts in which their friends are involved, for instance by blaming the outgroup and exonerating the ingroup. The current research additionally shows that narratives supporting outgroup blame (i.e., anecdotes about the outgroup's hostility) may be combined with romanticization rather than denial of blameworthy characteristics. Moreover, both investigations demonstrate the power of intragroup narratives in a relatively neutral and arbitrary laboratory setting – thereby pointing to the potential for truly devastating effects on intergroup conflict escalation in richer and more powerful real-world situations. Taken together, the present research shows that when groups anticipate intergroup contact, the ability to have an ingroup discussion leads to accentuation of uncomfortable thoughts about intergroup contact and consequent steeling against the anticipated intergroup hostility.

At first blush, the transformation of individual group members' perceptions after intragroup discussion seems consistent with group polarization (e.g., Myers & Lamm, 1976). For two reasons however, the current results cannot be explained as straightforward polarization effects. One is that we found an effect of intragroup communication *provided that* group members anticipated face-to-face intergroup contact, rather than a main effect of communication. In addition, the romanticization effects were for negative meta-stereotypes to become *less* negative (i.e., a shift more consistent with depolarization). Overall, the steeling effects are reminiscent of the psychological function of groupthink, defined as “mutual enhancement of self-esteem and morale” (Janis, 1971; p. 88). An imminent confrontation with an antagonistic outgroup requires immediate decisions regarding the course of action, increasing pressure towards consensus and hence facilitating

groupthink. Some steeling effects indeed echo aspects of the groupthink processes described by Janis. For instance, romanticization of negative meta-stereotypes may emerge because “victims of groupthink believe unquestioningly in the inherent morality of their ingroup” (Janis, 1971; p. 86). But on balance steeling appears to be something qualitatively different. Janis (1971, p. 86) states that “laughing together about a danger signal, which labels it as a purely laughing matter, is a characteristic manifestation of groupthink.” As this research has shown, steeling centers on the opposite response of defensive toughening up to face the enemy. In other words, the small group discussions in this research had effects that, in many ways, ran opposite to those predicted by groupthink (for similar findings see Aldag & Fuller, 1993; Turner & Pratkanis, 1998).

These findings are more consistent with saying-is-believing effects (Higgins & Rholes, 1978) than with polarization or groupthink. That is, sharing hostility anecdotes increased group members’ believe in outgroup hostility, which led them to steel themselves. Moreover, when anticipating an intergroup discussion, group members may plan to resist the uncomfortable experience of unilateral condemnation by the outgroup by intending to communicate certain messages rather than others. For instance, they may plan to express their appreciation of meta-stereotypic traits and to stress that the ingroup is not that fond of the outgroup either. Such intentions of what group members plan to say also influence their perceptions (Pennington & Schlenker, 1999). Thus, the tone and content of anticipated intergroup communication may play a role in the manifestation of steeling in individuals’ intergroup perceptions. Steeling seems an additive effect of what is actually said in intragroup conversations (i.e., hostility anecdotes) and what group members plan to say during intergroup contact. Future research may disentangle these two influences.

The fact that intragroup communication in anticipation of intergroup contact led to more negative intergroup perceptions of the outgroup suggests that ingroup norms may have changed as a result of the discussion. More particularly, the perception of what the ingroup believes of the outgroup is essentially a descriptive norm: “We do not like them” (Cialdini et al., 1991). This is also revealed in the content analysis, where anticipated face-to-face contact sparked the sharing of anecdotes about personal experiences with (mild) outgroup hostility. Just as observation of positive intergroup contact can improve intergroup relations by validating a positive social or shared reality (cf. Echterhoff, 2010; Higgins, 1992; Turner, 1991) and providing a positive group norm (Haslam et al., 1996; Terry &

Hogg, 1996; Wright et al., 1997), anecdotes describing negative intergroup contact may deteriorate intergroup relations by negative norm setting. Extended contact (i.e., learning about others' positive intergroup contact) improves intergroup relations by amongst other processes reducing intergroup anxiety (Turner et al., 2008). Experiment 2.2 suggested its negative counterpart: Intragroup communications among those who anticipated face-to-face intergroup contact with a hostile outgroup *increased* (mild) intergroup discomfort among an ingroup audience who were unaware of that contact was imminent.

Together, the findings from Experiments 2.1 and 2.2 open interesting venues for future research. For example, the impact of a mental representation (such as a particularly hostile outgroup) on perceptions and behavior depends on its motivational relevance (Eitam & Higgins, 2010). Several previous studies have demonstrated that goal fulfillment decreases the accessibility of related constructs (Förster, Liberman, & Higgins, 2005; Hedberg & Higgins, 2011). In the current research, steeling apparently served the goal to adequately prepare for an uncomfortable confrontation with an antagonistic outgroup. This implies that group members who effectively steeled themselves against anticipated hostility should experience reduced intergroup anxiety. Indeed after successful steeling or after successfully withstanding an outgroup's insults and accusations, promotion-focused group members might even inhibit the mental representation of the outgroup as potentially threatening in order to free cognitive resources for performing the next task (cf. Hedberg & Higgins, 2011). Future research could explore these issues.

One possible limitation of the current manipulations is that participants may have construed the anticipated face-to-face intergroup contact differently across conditions. People who prepare individually for a discussion with ingroup and outgroup members may be preoccupied with how ingroup members expect them to behave, whereas individuals who prepare for intergroup contact during intragroup communication might instead discuss what "they" will do and how "we" should react. Consequently, the former may construe the anticipated interaction as less intergroup, which leads them to experience less intergroup discomfort or threat and, hence, refrain from steeling themselves. Although this would be consistent with our explanation, we did not measure participants' construal of the anticipated discussion and so we cannot be entirely certain this was the case. Future research should address this.

To conclude, this research provides new insights into how intergroup perceptions change during intragroup communication. The findings extend the

existing intergroup conflict literature, which primarily focuses on intra-individual and intergroup processes. *Intragroup* processes are also pivotal because they shape individual perceptions (cf. Echterhoff, 2010; Hardin & Higgins, 1996; Turner, 1991) and set the stage for intergroup behavior (Postmes & Smith, 2009). Spontaneous intragroup communication when anticipating intergroup contact evokes (mild) intergroup discomfort and may lead people to subsequently steel themselves against anticipated hostility rather than to open their minds and hearts for constructive intergroup contact. Thus, intragroup processes may partially explain why groups can experience severe conflict even when they never meet.

## CHAPTER THREE

When Abstraction Does Not Increase Stereotyping: Preparing for Intragroup Communication Enables Abstract Construal of Stereotype-Inconsistent Information.

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## Chapter Three

### **When Abstraction Does Not Increase Stereotyping: Preparing for Intragroup Communication Enables Abstract Construal of Stereotype-Inconsistent Information.**

Imagine that you work in a department of about 50 people. One of your colleagues is a tall, muscular man called Bob. Bob has tattoos, likes football, beer, and fast cars. Then one day, Bob buys a little Chihuahua, Fluffy, which he starts carrying around in a purse. Chances are that Bob's new behavior would be discussed among colleagues. Conversations that take place in these contexts illustrate how people use communication with close others to make sense of the world around them (e.g., Echterhoff, 2010; Higgins, 1992; Turner, 1991). Such intragroup communication may be especially important for stereotype-relevant outgroup information, because this concerns how "we" view "them." Stereotype-inconsistent information, such as masculine Bob exhibiting feminine behavior, is often treated as an exception that cannot be generalized to the entire social category (tall, muscular, tattooed men). But at the same time, these stereotypes are not fixed forever: They can gradually change, for example when it becomes more acceptable for men to cry. In such cases, stereotype-inconsistent information *is* seen as generalizable and construed *abstractly* as a characteristic that masculine men may display. This suggests that abstract construal level (i.e., a focus on general, context-independent representations; Trope & Liberman, 2003) does not necessarily facilitate stereotype maintenance.<sup>17</sup>

The aim of the present research was to demonstrate that engaging in communication induces an abstract construal level. We thus seek to connect the literatures concerning shared reality (finding common ground; e.g., Clark & Marshall, 1981; Kashima, Klein, & Clark, 2007) and construal level (abstract cognitions; Trope

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<sup>17</sup> Social cognition researchers frequently use terms such as *abstract cognition*, *global processing*, and *high-level construal* interchangeably. Correspondingly, Rim, Uleman, and Trope (2009, p. 1088) defined high-level construal as "a focus on the abstract, global, and superordinate features." For sake of clarity, *abstract* (versus *concrete*) *construal level* in this paper consistently refers to the mental state of processing information globally (versus locally) and engaging in abstract cognition, whereas *abstract construal* refers to the resultant cognitive representations (i.e., by adopting an abstract construal level, people can construe information abstractly).

& Liberman, 2003, 2010) by showing that construal level is an instance of *socially situated* cognition. Furthermore, we build on previous work linking abstract cognition and stereotyping (e.g., Fiske & Neuberg, 1990; Maass, Milesi, Zabbini, & Stahlberg, 1995; Wigboldus, Semin, & Spears, 2000) and hypothesized that preparing for intragroup communication may lead to abstract, generalizing construal of stereotype-*inconsistent* information, which does not increase stereotyping. This is somewhat counterintuitive, given that abstract construal level has often been associated with stereotype-*consistency*. Nevertheless, we believe that this fits in a socially situated cognition perspective, conceiving of cognition as emergent in dynamical interaction with the social situation.

### Why Communication Induces Abstract Cognition

Cognition is socially situated. In other words, cognition emerges in continuous interaction with dynamic environmental aspects such as communicative contexts, social goals, and interpersonal and intergroup relations. This implies that individuals' (social) cognitions typically emerge in interpersonal interaction (Echterhoff, Higgins, & Levine, 2009; Hardin & Higgins, 1996; Semin & Smith, 2013; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987). In contexts of perpetuated intergroup conflict, meaningful interpersonal interactions predominantly take place with members of one's ingroup. That is, because self-segregation frequently hinders contact between groups in conflict, elaborate social interaction with conflicting outgroup members is relatively rare (e.g., Dixon, Tredoux, Durrheim, Finchilescu, & Clack, 2008) and less influential (e.g., Echterhoff, Kopietz, & Higgins, 2013; Haslam, McGarty, & Turner, 1996; Postmes, 2003). Intragroup communication can therefore have important consequences, for instance by shaping intergroup perceptions and, hence, behavior (e.g., Chapter 2; Postmes et al., 2014; Postmes, Haslam, & Swaab, 2005; Smith & Postmes, 2009, 2011). We are more likely to be exposed to the opinions of ingroup rather than outgroup members, and this will bias our perceptions of "*them*".

But there is also a more subtle bias that affects communication. Specifically, we argue that the social situation of interaction – which is experienced when one is communicating or preparing to communicate – already slightly alters individual cognition by influencing the way in which the individual construes (social) objects.

That is, the social situation of communication influences *how* individuals think because communication invokes specific cognitive processes.

Communication and cognition require a certain level of abstraction in order for communication partners to understand each other. Successful communication involves processes such as making inferences about communication partners (Higgins, 1992), perspective taking (Echterhoff et al., 2009), interactive alignment (Garrod & Pickering, 2009), and finding a common ground (Clark & Marshall, 1981; Kashima et al., 2007). Connecting these notions to construal level theory (Trope & Liberman, 2003, 2010), we point out that processes facilitating establishment of a shared reality (e.g., perspective taking, common ground seeking) involve abstract cognition (cf. Jost, Ledgerwood, & Hardin, 2008). Hence, we propose that proper mental preparing for forming a shared impression of information (i.e., preparing for intragroup communication) requires adopting an abstract construal level.

In sum, we argue that construal level can be conceived of as an instance of socially situated cognition. Abstract-level cognitions are required in order to successfully engage in dynamic interaction with another person, and therefore the communication context affects construal level (cf. Jiga-Boy, Semin, & Clark, 2013).

### **Disentangling Abstraction and Stereotyping**

A somewhat counterintuitive implication of this line of reasoning is that preparing for communication should enable abstract construal of *all* information, regardless of its stereotypicality. Specifically, when people prepare for communication, they are preparing to share a specific piece of information (which may be stereotype-inconsistent) with others against the background of shared knowledge (which is abstract and often stereotypical). This implies that when people receive a stereotype-consistent piece of information, they can process it abstractly irrespective of whether they prepare to communicate this information or not. When they receive stereotype-inconsistent information, however, they would often adopt a concrete construal level, because at this level inconsistent information is easier to make sense of. But when these people are preparing to communicate stereotype-inconsistent information, they need to adopt a more abstract construal level in order to make sense of this information within the context of the *shared* knowledge of themselves and the other person. In other words, individuals tend to construe stereotype-consistent information abstractly, whereas they tend to construe

stereotype-inconsistent information concretely *unless* they intend to form a shared interpretation with peers. Thus, engaging in communication (i.e., preparation for forming a shared reality) about stereotype-inconsistent information can lead to abstract construal of stereotype-inconsistency instead of mere stereotyping.

The literature indeed suggests that if stereotype-inconsistent information can be processed abstractly, this would foster stereotype change rather than stereotype maintenance. For example, due to its focus on within-group similarity, abstract construal level may increase the perceived fit between an accessible category and a deviant target (cf. Förster, Liberman, & Kuschel, 2008; Friedman, Fishbach, Förster, & Werth, 2003), culminating in a less stereotypical perception of the social category. Indeed, alteration of abstract cognitions such as stereotypes requires abstract disconfirmation (Paik, MacDougall, Fabrigar, Peach, & Jellous, 2009). The hypothesis that abstract construal level may cause generalization of stereotype-inconsistency to the group is supported by findings that communicators use abstract language to convince their audience of specific impressions (Douglas & Sutton, 2003; Fiedler, Bluemke, Friese, & Hofmann, 2003; Wenneker, Wigboldus, & Spears, 2005), which indeed causes generalized interpretations (Assilaméhou, Lepastourel, & Testé, 2013; Semin & De Poot, 1997; Wigboldus et al., 2000). But prior research has not hitherto put these pieces together and shown that communication about stereotype-inconsistency can attenuate the link between abstraction and stereotyping.

### Overview of Present Research

Two experiments examined a) the effects of preparing for intragroup communication and stereotypicality of information on construal level and b) the influences of stereotypicality and construal level on stereotyping.<sup>18</sup> The experiments examined different intergroup contexts in order to enhance ecological validity of the findings. Putting the different elements of the theories discussed above together, we tested three specific hypotheses.

First, participants encountering stereotype-*inconsistent* information while preparing for communication will adopt a more abstract construal level than

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<sup>18</sup> We report all details of both experiments (all included and excluded participants, conditions, and variables).

participants who interpret this information individually. This hypothesis is based on previous evidence that successful communication – and therefore even mere preparation for communication – requires processes involving *abstract* cognition. Second, participants encountering stereotype-*consistent* information while preparing for communication will not adopt a more abstract construal level than participants who interpret this individually. This expectation is consistent with previous findings that stereotype-consistent information does not draw perceivers' attention to specific details and, hence, is construed abstractly (e.g., Maass et al., 1995). And third, abstract construal of stereotype-consistent information will increase stereotyping relative to concrete construal of stereotype-consistent information, whereas with stereotype-inconsistent information no positive relation between construal level and stereotyping will emerge. That is, if abstract construal level causes generalization of currently present information (Assilaméhou et al., 2013; Semin & De Poot, 1997; Wigboldus et al., 2000), abstract construal of stereotype-*inconsistency* should not increase stereotyping. If anything, abstract construal might decrease stereotyping (i.e., generalization of stereotype-inconsistency to the social category; cf. Förster et al., 2008; Friedman et al., 2003). Finding evidence for this prediction would nuance the common assumption that abstract construal level in general increases stereotyping (e.g., Fiske & Neuberg, 1990; Maass et al., 1995; Wigboldus et al., 2000).

## General methods

### Participants and Design

Participants in Experiment 3.1 were 104 students (85 women;  $M_{\text{age}} = 20.38$ ,  $SD = 4.21$ ), and there were 83 students (57 women;  $M_{\text{age}} = 20.02$ ,  $SD = 1.83$ , one unknown) in Experiment 3.2, all from the University of Groningen. In both studies, they were randomly assigned to four conditions crossing impression formation (individual thought, preparing for communication) with stereotypicality of outgroup information (stereotype-consistent, stereotype-inconsistent) between participants.<sup>19</sup>

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<sup>19</sup> Originally, we also included two additional intragroup communication conditions in Experiment 3.2, in which we intended to stage an online chat conversation with ingroup members. However, because it took much more time than anticipated to fill all the cells of

Although at face value this appears to be a usual two-by-two design, a closer look suggests that it should not be analyzed as such. Specifically, stereotype-consistent and -inconsistent pieces of information about the same outgroup likely differ on more than mere stereotypicality. Even if stereotypicality is manipulated and conditions assignment is random (i.e., participants in all cells are probabilistically equal) other differences may confound with the effect of interest (i.e., treatments in cells may differ systematically on unintended aspects; cf. Shadish, Cook, & Campbell, 2002). For the current research, this implies that we could not use the construal level of participants who read stereotype-consistent information as a baseline against which to test the construal level of participants who read stereotype-inconsistent information.

For instance, stereotype-inconsistent information about a conflicting outgroup may arouse positive affect because it counters an unpleasant expectation or *negative* affect because it threatens intergroup distinctiveness, which may in turn shift participants' construal level (e.g., Derryberry & Reed, 1998; Frederickson & Branigan, 2003; Gasper & Clore, 2002). This deems direct comparison between stereotype-consistent and -inconsistent conditions (i.e., main effect of stereotypicality and stereotypicality by impression formation interaction) inappropriate. Presenting participants with identical information that is stereotype-consistent for outgroup A and -inconsistent for B would not solve this, because groups differ on multiple dimensions (e.g., Lickel, Hamilton, Wierzchowska, Lewis, Sherman, & Uhles, 2000) and this influences construal level related processes such as cognitive organization of group information (Sherman, Castelli, & Hamilton, 2002). The current solution was to conduct two experiments with different stereotype-(in)consistent descriptions about different outgroups. Additionally, planned contrasts tested the effects of individual thought versus preparing for communication *within* the stereotype-consistent and -inconsistent conditions.

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this extended design these two conditions were closed before reaching acceptable sample sizes (stereotype-consistent chat condition  $n = 13$ , stereotype-inconsistent chat condition  $n = 12$ ). The chat conditions seemed to qualify best for deletion because these conditions were not truly interactive (i.e., based on prerecorded movies of reactions by alleged other participants appearing in a chat window) and hence presumably less convincing than the other conditions. Moreover, the hypotheses for the chat conditions were similar to those for the preparing for communication conditions, and the remaining four conditions enabled testing exactly the same contrasts as in Experiment 3.1.

## Procedure

Both studies were similar in setup and conducted online. After providing informed consent, participants read an instruction to manipulate preparing for intragroup communication. The text stated that for this investigation of individual (or shared) impression formation of news, participants would read newspaper articles and provide their impressions. Additionally, participants in the preparing communication condition read that they would form a shared impression with other participants on an online forum. Subsequently, participants read one (Experiment 3.2) or two (Experiment 3.1) fictitious newspaper articles. The aim of the first article in Experiment 3.1 was to reinforce the impression of the target outgroup (employees) as distinct from the ingroup (students). Because the target outgroup in Experiment 3.2 (Moroccan-Dutch adolescents) was unambiguously distinct from the ingroup, this first step was not included in Experiment 3.2. The second (or, in Experiment 3.2, only) article contained the manipulation of stereotypicality by describing outgroup members behaving stereotype-consistently or stereotype-inconsistently.

After reading the article(s), as part of the manipulation participants provided their impression of the newspaper article containing the stereotypicality manipulation and were shown an animated bar indicating the progress of sending their answer to the responses database (individual thought) or to the online forum on which they would later discuss the information with others (preparing communication). The following screen explained to participants that they would download other participants' responses to check the connection with the database (individual thought) or with the forum (preparing communication). After a screen illustrating the alleged progress of downloading data, all participants were provided with three reactions of fictitious fellow participants, two of which mentioned a stereotype-(in)consistent aspect of the newspaper article.<sup>20</sup> In Experiment 3.2, these responses were preceded by the participants' own responses to increase credibility of the other reactions. Hence, the (fictitious) reactions served as reminders to all participants in both the individual thought and the preparing communication conditions that the article was (in)consistent with the stereotype of the outgroup.

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<sup>20</sup> The screens indicating the progress of sending and receiving reactions were in fact movies constructed to reinforce the impression of a link with a database or forum and, hence, the acceptance of the fictitious reactions as stemming from actual other participants.



In the next phase, all participants filled out visual perception tasks as an unobtrusive measure of construal level. This task was introduced as a measure of “visual impression formation” to complement the measures of “textual impression formation.”<sup>21</sup> Subsequently, participants answered a stereotyping measure and some exploratory measures.<sup>22</sup> In the final stage of the experiments, participants indicated their familiarity with persons in the newspaper articles, answered open-ended questions concerning the newspaper articles, the other participants’ reactions, their thoughts on the research questions and hypotheses, and multiple-choice manipulation checks on the impression formation task and the outgroup members’ stereotype-relevant behaviors.<sup>23</sup> This was followed by an online debriefing with room for comments or questions, ethnic background measures (Experiment 3.2), and finally a question on how seriously participants answered the questionnaire.

### Experiment 3.1

#### Materials

**Impression formation manipulation.** Preparing for communication was manipulated with the following text: “*Shared impression formation of news*. This study

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<sup>21</sup> We deemed these visual tasks to gauge construal level more suitable for the current experiments than common language-based methods (e.g., Semin & Fiedler, 1988). People utilize different linguistic abstraction levels depending on their communication goals (e.g., Wenneker et al., 2005), yet the current research aimed to measure a more purely cognitive abstraction level, preferably not contaminated by (linguistic) content-related processes such as motivations to convey one message rather than another. The use of perceptual tasks seems justified by several findings corroborating the link between perceptual and conceptual scope (i.e., construal level; see Förster et al., 2008). Hence, participants entered their reactions as part of the manipulation (cf. Footnote 20); We analyzed construal level using visual tasks instead of textual input.

<sup>22</sup> The exploratory measures gauged open-ended stereotyping, outgroup entitativity, application of outgroup-stereotypic traits to the ingroup and to the outgroup relatively to the ingroup, perceived intergroup conflict, intergroup emotions, outgroup power and status, meta-stereotype valence, and personal need for structure. Because these measures did not show significant effects, the results will not be discussed here but details are available upon request.

<sup>23</sup> Because of theoretical reasons (see Footnote 21) and the wide variety in responses to open-ended questions on the newspaper articles and other participants’ reactions (ranging from attempts to actual recitation of content to general descriptions such as “relatively detailed”), we did not analyze these.

is about perception of events in newspaper articles. You will be provided with two articles. Please read these carefully. We are interested in how people jointly form an impression of newspaper articles. After reading, you will receive the descriptions of other participants and provide your impression of the articles. Subsequently, you will discuss this together on an online forum.” The individual thought text was identical except that *shared* and *jointly* were changed into *individual(y)*, the reference to other participants was removed, and the last sentence stated that participants would answer questions rather than referring to online interaction.

**Reinforcement of intergroup boundaries.** The target outgroup consisted of employees in Groningen. The distinction between this outgroup and the ingroup of students in Groningen was reinforced in a fictitious newspaper article describing fierce competition for houses in Groningen between the student youth on the one hand and employees and their families on the other hand. Thus, the aim of this article was to contrast the ingroup of students – some of whom may have a moonlight job – against the outgroup of grown-up, serious employees with “real” jobs.

A manipulation check in an unrelated student sample (after removal of four high school pupils, final  $N = 36$ ; 24 women, 1 missing;  $M_{\text{age}} = 19.00$ ,  $SD = 1.03$ , 1 missing) revealed that students answered the question “To what extent are students and employees in Groningen two distinct groups?” on average with 4.92 ( $SD = 1.05$ ) on a scale from 1 (*absolutely not*) to 7 (*absolutely*). This answer was significantly higher than the neutral scale midpoint,  $t(35) = 5.23$ ,  $p < .001$ . Thus, employees indeed constituted a distinct outgroup to students.

**Stereotypicality manipulation.** Stereotypicality was manipulated in the periphery of a newspaper article about employees (i.e., the target outgroup) finding a historic treasure. In the stereotype-consistent article, a group of colleagues stumbled upon the treasure while walking home after a long afternoon of boring office meetings. The stereotype-inconsistent article was identical, except that they were walking home after a night out.

A manipulation check (same unrelated sample as previous manipulation check) confirmed that participants who read stereotype-inconsistent information judged the article to be less consistent with the stereotype about employees (stereotypicality measure  $N = 3$ , Cronbach’s  $\alpha = .87$ ;  $M_{\text{inconsistent}} = 3.98$ ,  $SD = 0.98$ )

than participants who answered the same questions about the stereotype-consistent article ( $M_{\text{consistent}} = 4.13$ ,  $SD = 0.99$ ),  $F(1,34) = 10.07$ ,  $p < .01$ .

**Construal level measure.** The construal level measure consisted of four items, displayed on separate screens, depicting a target figure and two other figures with radio buttons, accompanied by the question: "Which of the two options is most similar to the figure above?" For each item, the abstract answer option was more similar to the general image of the target figure, whereas the concrete answer option was more similar to its specific details (see Figure 3.1). We counted abstract answers. Hence, scores could range from 0 (entirely concrete) to 4 (entirely abstract).



Which of the two options is most similar to the figure above?



**Figure 3.1.** Example item of the Experiment 3.1 measure of construal level. The left object is the concrete construal level answer option, the right object is the abstract construal level option.

**Stereotyping measure.** Stereotyping was measured with the question “To what extent do the following descriptions apply to employees in Groningen?” followed by a random order of 10 stereotypic traits (*boring*, *bourgeois*, *frivolous* [reverse-coded], *lazy* [reverse-coded], *patronizing*, *pedantic*, *predictable*, *responsible*, *spontaneous* [reverse-coded], *well-mannered*; Cronbach’s  $\alpha = .51$ ) and 18 warmth and competence related fillers (e.g., *competent*, *warm*). Answer options ranged from 1 (*absolutely not*) to 7 (*absolutely*).

## Results and Discussion

Prior to analyses, one participant who indicated not having participated seriously (1 at a scale from 1 *not at all seriously* to 7 *entirely seriously*) and showed no variance at the dependent variables was deleted. The open-ended questions on research questions and hypotheses revealed that participants were unaware of the expected results. On the multiple-choice manipulation check, one participant (in the individual, stereotype-consistent condition) indicated not to remember whether the employees in the second newspaper article found a treasure after boring office meetings or a night out. Deletion of this participant's data resulted in a final sample of 102 students (85 women;  $M_{\text{age}} = 20.37$ ,  $SD = 4.24$ ).<sup>24</sup> Within-condition Mahalanobis distance analyses revealed no multivariate outliers on construal level and the subscales of stereotyping with  $p < .001$ .

**Construal level.** Overall, participants who anticipated communication had a marginally significantly higher construal level,  $M = 2.86$ ,  $SD = 1.07$ , than participants who did not anticipate communication,  $M = 2.42$ ,  $SD = 1.21$ ,  $F(1,100) = 3.72$ ,  $p = .06$ ,  $\eta_p^2 = .04$ .

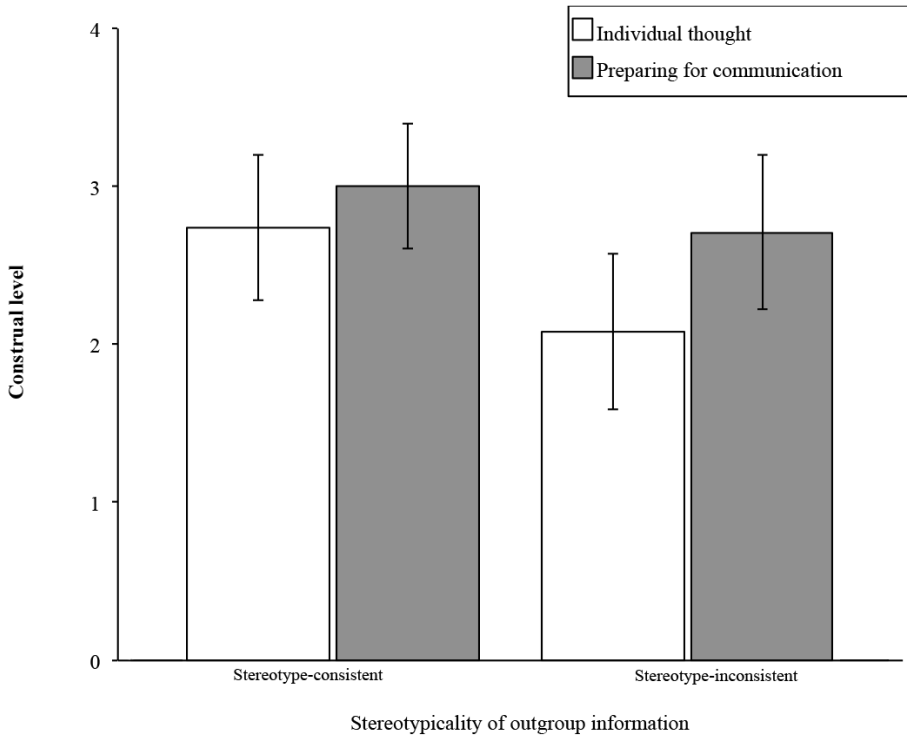
To test the hypothesis that participants encountering stereotype-inconsistent information while preparing for communication construe this more abstractly than participants interpreting this information individually, the preparing communication and individual thought conditions were compared within the stereotype-inconsistent condition. To test for the influence of preparing for communication when encountering stereotype-consistent information, a control contrast compared these within the stereotype-consistent condition. The former, experimental contrast was

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<sup>24</sup> The multiple-choice manipulation check of the impression formation was answered correctly by 83% of participants in the individual thought conditions but by only half of the participants in the preparing for communication conditions ( $n$  stereotype-consistent = 17 out of 26 participants,  $n$  stereotype-inconsistent = 11 out of 24). However, all of the participants who incorrectly indicated that they received instructions to form an individual impression did provide reactions by other participants in response to the open-ended questions. Thus, the high number of incorrect manipulation checks in the preparing for communication conditions seemed to be an artifact of the question phrasing. Although these participants anticipated forming a shared interpretation, by the time they reached the manipulation checks at the end of the experiment, they had not actually engaged in shared impression formation. Hence, we did not exclude participants who failed this manipulation check.

expected to be significant whereas the latter, control contrast was not. Planned contrasts comparing the effects of impression formation within the stereotypicality conditions showed the hypothesized effects (see Figure 3.2). Participants who processed stereotype-inconsistent information while preparing for communication had a more abstract construal level ( $M = 2.71$ ,  $SD = 1.16$ ) than participants who read the same information and formed an individual interpretation ( $M = 2.08$ ,  $SD = 1.19$ ),  $t(98) = 1.96$ ,  $p = .05$ . As hypothesized, the control contrast showed no effect of impression formation on construal level for participants who read stereotype-consistent information (overall  $M = 2.87$ ,  $SD = 1.07$ ),  $t(98) = 0.84$ ,  $p = .40$ . This implies that the contrast in the stereotype-inconsistent condition qualified the marginally significant main effect of impression formation on construal level. Thus, supporting a conception of construal level as an instance of socially situated cognition, stereotype-inconsistent information prompts a more abstract construal level in perceivers who anticipate intragroup communication about this information than in perceivers who do not anticipate this. When encountering stereotype-consistent information, all perceivers adopt an equally abstract construal level regardless of anticipated intragroup communication.

**Stereotyping.** We hypothesized that the positive effect of construal level on stereotyping would occur for stereotype-consistent information and not for stereotype-inconsistent information (i.e., no *crossover* interaction; *reversal* of the effect of construal level). Because hypotheses were at the level of simple effects, omnibus  $F$ -tests of main effects and interactions may lead to erroneous conclusions and, hence, we used hypothesis-specific planned contrasts (cf. Bobko, 1986; Strube & Bobko, 1989; Rosnow & Rosenthal, 2002; Elias, 2004). To address the hypotheses that 1) abstract construal of stereotype-consistent information would lead to more stereotyping than concrete construal, whereas 2) this effect would not occur with stereotype-inconsistent information, we regressed the stereotyping subscale with employees' stereotypic traits on construal level within the stereotype-consistent and -inconsistent conditions. There were no significant effects of construal level on stereotyping with stereotype-consistent,  $b = -0.03$ , 95% CI [-0.14, 0.08],  $p = .57$ , and stereotype-inconsistent information  $b = -0.05$ , 95% CI [-0.18, 0.08],  $p = .46$ , possibly due to the low reliability of the stereotyping subscale.



**Figure 3.2.** Mean construal levels in Experiment 3.1. As hypothesized, the planned control contrast (left) was not significant, whereas the experimental contrast (right) comparing the effects of impression formation within the stereotype-inconsistent condition was significant. Error bars depict 95% confidence intervals, entire scale range is shown.

## Experiment 3.2

The aims of Experiment 3.2 were twofold. First, we intended to replicate, in a different intergroup context, with a more conventional measure of construal level, the finding that participants who prepare for intragroup communication construe stereotype-inconsistent information at a more abstract level than participants who form an individual interpretation. We chose Moroccan-Dutch adolescents – an outgroup with a better-known, stronger stereotype.

The second aim was to investigate the link between abstract construal level and stereotyping more thoroughly. Experiment 3.1 did not provide evidence for this relation overall or within the stereotype-consistent condition, despite ample research linking more abstract construal level with increased stereotyping (e.g., Fiske & Neuberg, 1990; Gilbert & Hixon, 1991; Maass et al., 1995; McCrea et al., 2012). There are several possible explanations for this lack of effect. For instance, although a manipulation check did confirm that the outgroup in Experiment 3.1 (employees) was perceived as distinct from the ingroup (students), the intergroup boundaries are highly permeable. Students will likely have quite close interpersonal connections with some employees (e.g., their parents) and they will probably become employees themselves after graduation. Moreover, the manipulation check was quite suggestive in asking participants about differences between students and employees. The same question focusing on intergroup similarities might have revealed substantial overlap between the groups. Thus, students may perceive employees as a relatively close outgroup. Another explanation is that students may not have perceived the information in the newspaper articles as relevant for the traits measuring stereotyping of employees. Stereotypicality was manipulated in the periphery of a positive story about outgroup members finding a treasure. Although only one participant failed the manipulation check about the stereotype-(in)consistent behavior described in the newspaper article, the positive main storyline may have outshined the salience or relevance of this marginalized behavior, or the described behaviors did not match the stereotyping measure. Thus, even if participants did remember reading about employees drinking in a bar all night this may not have affected their perceptions of employees as pedantic and patronizing. Experiment 3.2 addressed these issues by using Moroccan-Dutch adolescents as an outgroup. In the Netherlands, this group constitutes a more natural outgroup, with more well-known (negative) stereotypes and clearly impermeable intergroup boundaries. Additionally, stereotypicality was manipulated centrally in the storyline of fictitious newspaper articles, and the stereotyping measure matched the article content.

## Method

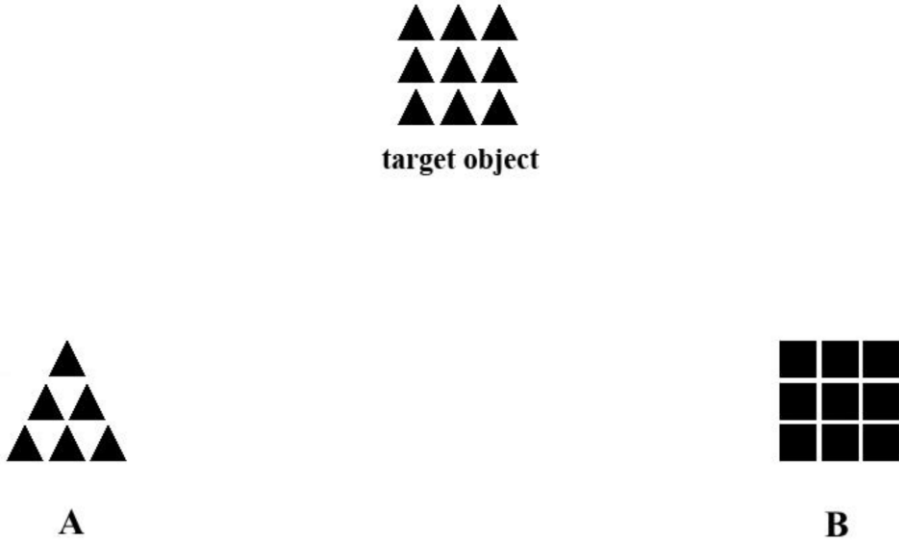
**Impression formation manipulation.** Preparing for communication and individual thought were manipulated as in Experiment 3.1, except that Experiment 3.2 instructions referred to one instead of two newspaper articles.



**Stereotypicality manipulation.** Stereotypicality was manipulated in two basically identical newspaper articles about Moroccan-Dutch adolescents (the target outgroup) who formed a kick boxers group (stereotype-consistent condition) or an artists collective (stereotype-inconsistent condition). Stereotypicality was thus manipulated centrally, in the core of the text, rather than peripherally as in Experiment 3.1.

A post-hoc manipulation check in an unrelated sample (after removal of one Arabic participant, final  $N = 37$ ; 30 women;  $M_{\text{age}} = 18.81$ ,  $SD = 1.45$ ) revealed that native Dutch adolescents who read stereotype-inconsistent information judged the article to be less consistent with the stereotype about Moroccan-Dutch adolescents (stereotypicality measure  $N = 3$ , Cronbach's  $\alpha = .83$ ;  $M_{\text{inconsistent}} = 2.65$ ,  $SD = 0.93$ ) than participants who answered the same questions about the stereotype-consistent article ( $M_{\text{consistent}} = 4.93$ ,  $SD = 0.92$ ),  $F(1,35) = 52.36$ ,  $p < .001$ .

**Construal level measure.** The construal level measure was a 12-item scale based on Kimchi and Palmer's (1982) global-local focus test (see Figure 3.3). We counted abstract answers. Hence, scores could range from 0 (entirely concrete) to 12 (entirely abstract).



**Figure 3.3.** Example item of the Experiment 3.2 measure of construal level (based on Kimchi & Palmer, 1982). The accompanying question was: “Look at the target object. Is it most similar to object A or to object B?” Object A is the concrete construal level answer option, object B the abstract construal level option.

**Stereotyping measure.** Stereotyping was measured with the question “To what extent do the following descriptions apply to Moroccan adolescents in the Netherlands?” followed by seven Moroccan-Dutch stereotypes that matched the behavior in the stereotype-consistent article (*aggressive, asocial, criminal, macho, provocative, rebellious, and unwanted*; Cronbach’s  $\alpha = .87$ ) randomly alternated with two traits that matched the behavior in the stereotype-inconsistent article (*artistic, creative, r = .77,  $p < .001$* ), and 21 fillers based on warmth, competence, and Moroccan-Dutch stereotypes that did not relate to the behaviors in the articles (e.g., *warm, competent, lazy*). Answer options ranged from 1 (*absolutely not*) to 7 (*absolutely*).

## Results and Discussion

Prior to analyses, one participant who indicated not having participated seriously (1 at a scale from 1 *not at all seriously* to 7 *entirely seriously*) and showed no variance on stereotyping was deleted. Data of one other participant were deleted

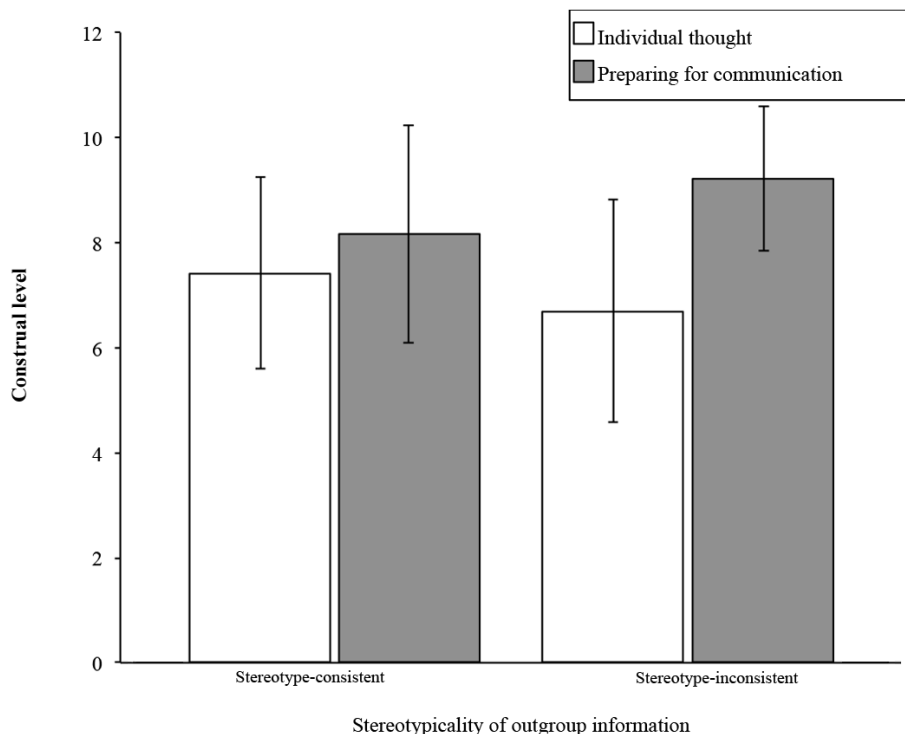
because she indicated to know a person mentioned in the fictitious newspaper article. The open-ended questions on research questions and hypotheses revealed that participants were unaware of the expected results. On the multiple-choice manipulation check, one participant (in the individual, stereotype-inconsistent condition) indicated not to remember whether the Moroccan-Dutch adolescents founded a club for kick boxers or artists. Deletion of this participant's data resulted in a final sample of 80 participants (55 women;  $M_{\text{age}} = 21.03$ ,  $SD = 2.70$ , one unknown).<sup>25</sup> Within-condition Mahalanobis distance analyses revealed no multivariate outliers on construal level and the stereotyping subscales with  $p < .001$ . The analytic strategy, using contrasts, was the same as for Experiment 3.1.

**Construal level.** As in Experiment 3.1, participants who anticipated communication had a marginally significantly higher construal level,  $M = 8.75$ ,  $SD = 3.62$ , than participants who did not anticipate communication,  $M = 7.13$ ,  $SD = 4.15$ ,  $F(1,78) = 3.49$ ,  $p = .07$ ,  $\eta_p^2 = .04$ .

Planned contrasts comparing the effects of impression formation within the stereotypicality conditions showed the hypothesized effects. Participants who read stereotype-inconsistent information while preparing for intragroup communication construed this more abstractly ( $M = 9.23$ ,  $SD = 3.12$ ) than participants who read the same information and formed an individual interpretation ( $M = 6.69$ ,  $SD = 3.98$ ),  $t(76) = 1.97$ ,  $p = .05$  (see Figure 3.4). As expected, there was no such effect for participants who read stereotype-consistent information (overall  $M = 7.74$ ,  $SD = 4.22$ ),  $t(76) = 0.61$ ,  $p = .54$ . Thus, again, the contrast in the stereotype-inconsistent condition qualified the marginally significant main effect of preparing for communication.

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<sup>25</sup> The multiple-choice manipulation check of the impression formation was answered correctly by 78% of participants in the individual thought conditions but by only half of the participants in the preparing for communication conditions ( $n$  stereotype-consistent = 9 out of 18 participants,  $n$  stereotype-inconsistent = 12 out of 22). However, all of the participants who incorrectly indicated that they received instructions to form an individual impression did provide reactions by other participants in response to the open-ended questions, hence, we did not exclude participants who failed this manipulation check (cf. footnote 24).



**Figure 3.4.** Mean construal levels in Experiment 3.2. As hypothesized, the planned control contrast (left) was not significant, whereas the experimental contrast (right) comparing the effects of impression formation within the stereotype-inconsistent condition was significant. Error bars depict 95% confidence intervals, entire scale range is shown.

**Stereotyping.** Because we hypothesized that the effect of construal level on stereotyping would occur for stereotype-consistent information and not for stereotype-inconsistent information (i.e., no crossover interaction), we again used hypothesis-specific planned contrasts. To address the hypotheses that 1) abstract construal of stereotype-consistent information would lead to more stereotyping than concrete construal, whereas 2) this effect would not occur with stereotype-inconsistent information, we regressed stereotyping on construal level within the stereotype-consistent and -inconsistent conditions. As hypothesized, results indicated a significant effect of construal level on application of Moroccan-Dutch stereotypes with stereotype-consistent information,  $b = 0.07$ , 95% CI [0.01, 0.14],  $p = .03$ , but

not with stereotype-inconsistent information  $b = -0.01$ , 95% CI [-0.11, 0.08],  $p = .81$  (see Table 3.1). However, there were no significant effects on application of stereotype-inconsistent traits (overall  $M = 3.79$ ,  $SD = 1.12$ ) in the stereotype-consistent and -inconsistent conditions,  $ps > .46$ . Thus although there were no significant effects of abstract construal of stereotype-inconsistent outgroup behavior, participants who construed stereotype-consistent outgroup behavior abstractly applied more stereotypes to this outgroup than participants who construed identical information concretely. As expected, the level at which participants construed stereotype-inconsistency did not predict stereotyping. These results suggest that abstract construal level does not inevitably increase stereotyping. Indeed, stereotype-inconsistency can apparently disrupt this highly conventional association between construal level and stereotyping.

**Table 3.1**

*Regressions of Stereotyping on Construal level, Separately for Stereotype-Consistent and Stereotype-Inconsistent Information*

Model	Regression results				
	<i>B</i>	<i>SE</i>	$\beta$	$R^2\Delta$	$F\Delta$ ( <i>df</i> )
Stereotype-consistent information				0.11	4.68(1,40)*
Intercept	4.42**	0.30			
Construal-level	0.07*	0.03	.32		
Stereotype-inconsistent information				0.00	0.06(1,36)
Intercept	4.78**	0.42			
Construal-level	-0.01	0.05	-.04		

\*  $p < .05$ ; \*\* $p < .001$ .

## General discussion

The current experiments show that perceivers construe stereotype-inconsistent information abstractly (i.e., interpret observations as context-independent and

generalizable) when anticipating intragroup communication. Additionally, Experiment 3.2 showed that stereotype-inconsistency attenuates the positive relation between abstract construal level and stereotyping. These findings are in line with the notion that preparing for intragroup communication enables abstract construal of outgroup information, irrespective of its stereotypicality, because successful communication requires *abstract* cognition (e.g., finding a common ground, Clark & Marshall, 1981).

Furthermore, integrating this rationale with the notion that stereotype-consistent information may lead to abstract construal and stereotype-inconsistency to concrete construal (e.g., Maass et al., 1995), we hypothesized and found that stereotype-consistency is construed abstractly whether or not perceivers anticipate social sharing. Conversely, and in line with expectations, stereotype-*inconsistent* information is construed concretely unless perceivers expect to share this information. We found this effect with presentation of stereotype-relevant information both central in and peripheral to the storyline of a text, in two different intergroup contexts, using two different construal level measures. Thus, the current findings attest to the notion that group members strive for a shared reality within their social group. That is, preparing for communication with ingroup members elevates construal level, which is a precondition for the emergence of successful social sharing. This interpretation is consistent with a socially situated cognition perspective (e.g., Semin & Smith, 2013). Specifically, construal level emerges in continuous interaction with the (social) situation (cf. Jiga-Boy et al., 2013).

We note that both experiments focused on *intragroup* communication about *intergroup* perceptions. In such settings, people tend to rely on the ingroup for the validation of stereotypes and perceived intergroup relations (Echterhoff et al., 2013; Haslam et al., 1996; Postmes, 2003) and validity is inferred from the degree to which these perceptions are socially shared. Such validation necessitates an abstract construal level, in other words. But importantly, there are many other communication situations that involve different topics and communication goals. These different situations may require a focus on context-specific details and, hence, induce *concrete* construal level. For instance, people talking about a concert they just attended may focus on specific details (i.e., the way the guitarist played that one special riff). This implies that the tendency for communication to induce abstract construal level is not universal but heavily dependent on communication content and context.

One intriguing question for future research would be to consider how the present effects are moderated if people prepare to communicate with other groups than their own ingroup. Here, different theoretical perspectives may offer contradictory predictions. For instance, intragroup communication may be argued to either elevate or lower construal level compared to intergroup communication, depending on one's conception of how these communication contexts influence construal level. Because the motivation for shared reality is typically stronger with ingroup than with outgroup members (i.e., influence of social situational characteristics), social and shared reality theories would predict that preparing for communication only mitigates the lowering effect of stereotype-inconsistency on construal level if one prepares for *intragroup* communication. Nonetheless, the psychological distance point of departure characterizing most prior work on construal level would yield the exact opposite prediction. One could argue that intragroup situations involve closer interpersonal ties (i.e., *another* influence of social situational characteristics) and, hence, preparing for communication with ingroup members would prompt group members to construe information more concretely than when their prospective communication partner would belong to an outgroup. These divergent connotations of both theories are an interesting venue for future research.

Nonetheless, the current research confirms that communications in which “we” form an impression of “them” induce abstract construal level. One reason to concentrate on such intragroup communications is that they are so omnipresent. Various strands of research demonstrate that in many situations of intergroup conflict, interactions with members of the outgroup tend to be quite rare and superficial (e.g., Dixon et al., 2008; Moody, 2001; Sigelman, Bledsoe, Welch, & Combs, 1996). This means that any intervention aiming to improve intergroup relations by intervening in intergroup communications would first have to set up such intergroup encounters. Moreover, this could be especially risky because *negative* intergroup contact may have stronger influences on intergroup relations than positive contact (Barlow et al., 2012; cf. Stark, Flache, & Veenstra, 2013). The current findings point to the potential effectiveness of targeting intragroup communication in intergroup conflict reduction interventions, which might be easier and more effective when it is especially hard to establish intergroup contact.

Regarding the implications for intergroup conflict, we hypothesized that because abstraction leads to generalization rather than mere stereotyping, abstract construal of stereotype-*consistent* information should increase stereotyping compared

to concrete construal whereas abstract construal of stereotype-*inconsistent* information should not increase (perhaps even decrease) stereotyping. Indeed, Experiment 3.2 demonstrated that stereotype-inconsistency can interrupt the conventional positive association between construal level and stereotyping. Specifically, abstract construal level intensifies stereotyping but only if the input one is construing consists of stereotype-consistent information. This relation disappears when people construe stereotype-inconsistent information. These findings nuance the common assumption that abstract cognition is equated with stereotyping (e.g., Fiske & Neuberg, 1990; Maass et al., 1995; Wigboldus et al., 2000).

### Interpreting Differences between Studies

For both experiments, we had to provide stereotype-consistent and -inconsistent information and it is impossible to counterbalance this information in such a way that these two conditions can be confirmed. Indeed, post-hoc tests confirmed that in Experiment 3.1, individual interpretation of stereotype-inconsistency was associated with more concrete construal level compared to all other conditions,  $t(98) = -9.25, p < .001$ . In Experiment 3.2, however, construal level was relatively abstract when participants prepared for communication about stereotype-inconsistency,  $t(76) = 11.05, p < .001$ . Thus, at this specific level, the two experiments showed somewhat different results.

To explain this difference, we point out that it is consistent with the outgroup information provided in both experiments. In Experiment 3.1 participants read about employees partying like students: When outgroup members show such ingroup-like behavior this may threaten distinctiveness (e.g., Jetten, Spears, & Postmes, 2004) and decrease construal level compared to nonthreatening stereotype-consistent information. Conversely, in Experiment 3.2 participants read about Moroccan Dutch founding an artists collective: This may have caused native Dutch to feel more positive affect and thereby raised construal level for the stereotype-inconsistent conditions. Indeed, affective differences are known to shift construal level (e.g., Derryberry & Reed, 1998; Frederickson & Branigan, 2003; Gasper & Clore, 2002), suggesting that the baseline differences between the stereotype-consistent and -inconsistent conditions were different across studies. It is interesting to speculate whether future research can resolve this issue. One could measure affect, but such a measure could only partially address the problem. One could also



conceive of an experiment that would use identical information, but that varies groups so that it is stereotype-consistent for one outgroup and -inconsistent for another. Here one would introduce a new potential problem, because groups are likely to differ on multiple dimensions (e.g., Lickel et al., 2000), which may influence construal level (cf. Sherman et al, 2002). In sum, we are unsure whether this problem can be avoided entirely.

## Limitations and Future Directions

The finding that individuals tend to construe stereotype-inconsistency concretely unless they prepare for intragroup communication may have important implications for the literature on stereotype change. Although the results showed that perceivers can construe stereotype-inconsistent information abstractly (i.e., interpret this as generalizable) when anticipating intragroup communication, and that stereotype-inconsistency attenuates the positive relation between abstract construal level and stereotyping, they did not show direct evidence that abstract construal of stereotype-inconsistent information leads to *less* stereotyping than concrete construal. One may deduce from this that abstract construal level promotes generalization, but that stereotype-inconsistent information (e.g., that a feared, aggressive outgroup produces outstanding artists) might simply not be readily generalizable. However, research on linguistic abstractness suggests otherwise. That is, abstract communication facilitates generalization (Assilaméhou et al., 2013; Semin & De Poot, 1997; Wigboldus et al., 2000) even of information that deviates from existing (e.g., stereotypical) knowledge (Fiedler et al., 2003). The lack of decreased stereotyping after abstract construal of stereotype-inconsistent information could be explained by the fact that the current stereotype-inconsistent information was not truly *counter*-stereotypical; expressing artistic aspirations does not necessarily preclude outgroup members from being aggressive. Anticipated communication about information that by definition implies *less* stereotypical characteristics of outgroup members may more effectively reduce such negative stereotyping. Hence, the positive relation between construal level and stereotyping may reverse in some settings, rendering induction of abstract construal level a promising intervention to reduce prejudice.

We should also consider an alternative explanation for the finding that abstract construal of stereotype-inconsistent information does not increase

stereotyping. Abstract construal level may induce conformity to self- or ingroup-central norms and values (Ledgerwood, Trope, & Chaiken, 2010; Luguri, Napier, & Dovidio, 2012; Torelli & Kaikati, 2009). Clearly, stereotype-inconsistent information may increase awareness of the overgeneralizing aspects of stereotypes, thereby activating a norm not to stereotype (i.e., to appear unprejudiced). Because we did not measure norms, this explanation cannot be tested with the current data. Nonetheless, this interpretation supports our general conclusion that construal level emerges in interaction with the social situation and, hence, abstract construal is not necessarily twinned with stereotyping. Future research should further investigate the interplay between construal level, norms, and stereotypicality. This may be particularly relevant because abstract construal level may stimulate prejudice by increasing perceived social distance between groups, or instead harmonize intergroup relations due to its focus on similarities (Förster, 2009; Förster et al., 2008).

Similarly, there could be an alternative explanation for the finding that engaging in intragroup communication elevates construal level. For instance, at first glance accuracy goals may seem an additional plausible explanation; when people are not motivated to form an accurate impression they rely on heuristics, whereas they focus on information details when they are motivated to be accurate (Petty & Cacioppo, 1986). In the current studies, participants may have been more motivated to be accurate when expecting intragroup communication, which would have led them to concentrate more on details (i.e., concrete construal level). However, the results showed the opposite effect that preparing for communication increased construal level. Thus, the most plausible explanation for the present findings seems to be that preparing for communication induces abstract construal level due to anticipation of social sharing.

## Conclusion

The current findings connect shared reality and common ground literatures with construal level theory by showing that preparing for creating shared reality and finding a common ground leads individuals to adopt an abstract construal level. Our findings contribute to the literature by showing that (a) preparing for communication facilitates abstract construal of stereotype-inconsistent information (i.e., construal level is socially situated) and (b) only abstract construal of stereotype-*consistent* information leads to stereotyping (which nuances the more general presumption held

by numerous researchers that abstract construal increases stereotyping). Thus, we showed that individuals generally construe stereotype-consistent information abstractly, whereas they construe stereotype-inconsistency concretely unless they expect shared interpretation.

# **CHAPTER FOUR**

Improving Intergroup Perceptions: Abstract and Concrete Intragroup  
Communication About Stereotypes.



## Chapter Four

### Improving Intergroup Perceptions: Abstract and Concrete Intragroup Communication About Stereotypes.

Many situations of pervasive intergroup conflict are characterized by lack of substantial positive intergroup contact. Group members tend to self-segregate even in everyday situations in which outgroup members are present (Dixon & Durrheim, 2003; Dixon, Tredoux, Durrheim, Finchilescu, & Clack, 2008). One reason may be that anticipating problematic contact can motivate avoidance of intergroup interactions (Binder et al., 2009; Plant & Devine, 2003). Consequentially, interactions with members of conflicting outgroups tend to be ephemeral and superficial (Moody, 2001; Sigelman, Bledsoe, Welch, & Combs, 1996). Any intervention aiming to de-escalate intergroup conflict by intervening in intergroup communications would involve the struggle of organizing intergroup encounters. Staging intergroup encounters could be perilous because negative intergroup contact may more strongly influence intergroup perceptions than positive contact (Barlow et al., 2012; but see Stark, Flache, & Veenstra, 2013). Moreover, most part of our social life occurs with ingroup members (McPherson, Smith-Lovin, & Cook, 2001) and these interactions are more significant than intergroup conversations for crafting shared perceptions (e.g., Echterhoff, 2014; Postmes et al., 2014).

Therefore, the current research investigated the potential effectiveness of targeting *intragroup* communication in intergroup conflict interventions. We are interested in two aspects of such communication: The content (i.e., stereotype-confirming or -disconfirming) and the abstraction level. Previous research suggests that concrete information about negatively stereotyped outgroups is more likely to influence individuals' cognitions because its vividness makes it seem more real (e.g., Hansen & Wänke, 2010). However, other research suggests that because negative stereotypes are abstract cognitions, they can only be effectively disconfirmed at an abstract level (e.g., Paik, MacDougall, Fabrigar, Peach, & Jellous, 2009). Although stereotype change research seems to rely by default on providing stereotype-inconsistent exemplars (Paik et al., 2009), one can deduce several competing hypotheses from the literature regarding what sort of intragroup communication most strongly affects intergroup perceptions. The aim of the present research was to

test these alternative hypotheses and thereby shed light on the most effective intragroup intervention to improve intergroup perceptions.

## The Impact of Intragroup Communication on Cognition

Several strands of literature suggest that individuals' perceptions and cognitions emerge through communication and interaction (e.g. Echterhoff, Higgins, & Levine, 2009; Hardin & Higgins, 1996; Semin & Smith, 2013; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987). Rather than concentrating on “vertical” information transmission between the more and the less knowledgeable (e.g., Vygotsky, 1978), these theorists state that people also rely on “horizontal” peer communication, especially with (ingroup) others similar to the self (e.g., Echterhoff, Kopietz, & Higgins, 2013; Haslam, McGarty, & Turner, 1996; Postmes, 2003).

Such horizontal, intragroup communication may be especially influencing perceptions of intergroup relations, because these social perceptions of “us” and “them” merely exist by virtue of their social sharedness. Indeed, intergroup perceptions and resultant behavior norms typically develop and transform when “we” communicate about “them” (e.g., Haslam, Turner, Oakes, McGarty, & Reynolds, 1997; Kashima, 2014; Lyons, Clark, Kashima, & Kurz, 2008; Postmes et al., 2014; Smith & Postmes, 2011). Thus, the content of communication within social groups seems to shape the intergroup perceptions people act upon. For instance, if small groups discuss their personal experiences with hostile intergroup encounters this leads to anxiety and fosters defensiveness (Chapter 2). Relatedly, we assume that discussing why a negative outgroup stereotype is true (false) yields more negative (positive) intergroup cognitions and attitudes.

However, less is known about possible influences of the *form* that this intragroup communication takes. Previous research suggested that group members are more open to intergroup cooperation provided that intragroup interactions are harmonious (Greijdanus, Postmes, Gordijn, & Van Zomeren, 2015). This implies that a successful intervention to improve intergroup perceptions should facilitate harmonious intragroup communication that aims at collective refutation of negative outgroup stereotypes. As a next step, the current research focused more in-depth on effects of the form of intragroup communication. Specifically, would an abstract or a concrete level of intragroup communication be more powerful in changing individuals' perceptions?

## The Power of Concrete versus Abstract Communication

An effective intragroup communication-based intervention to improve intergroup perceptions should comprise an optimal combination of stereotype disconfirmation and abstraction level. But the literature is inconclusive regarding what the optimal strategy would be. We deduced four competing hypotheses: The vividness hypothesis, generalization hypothesis, abstract-disconfirmation hypothesis, and the interaction hypothesis.

### Competing hypothesis 1: Vividness hypothesis.

Based on previous findings, it could be argued that an intervention aimed at de-escalating intergroup conflict through intragroup communication should make use of concrete communication. For instance, concrete, detailed information is more vivid than abstract, general information and therefore people perceive it as more real (Hansen & Wänke, 2010). Thus, “the traditional strategy in the stereotyping literature” to change stereotypic beliefs has been to present people with information about individual outgroups members who disconfirm the stereotype (Paik et al., 2009, p. 113). For instance, one might hear that “Mohammed Raji Elilah is a hard-working, competent, and warm driving instructor.” Relatedly, interventions that provide concrete details about positive intergroup contact have been shown to reduce prejudice. This happens when people observe a fellow ingroup member engaging in a close friendship with an outgroup member (i.e., vicarious or extended intergroup contact; Wright, Aron, McLaughlin-Volpe, & Ropp, 1997) or when they imagine having a pleasant intergroup interaction themselves (i.e., imagined intergroup contact; Crisp & Turner, 2009). However, a recent meta-analysis on imagined contact showed mixed evidence for the role of concreteness (Miles & Crisp, 2014). Studies that instruct people to mentally simulate details of the context in which they interact with a (fictitious) outgroup member more strongly affect intergroup perceptions than studies that lack such instructions. However, other factors related to concreteness (e.g., the amount of detail about the outgroup target, the time group members spend imagining contact) did not reveal significant effects. Thus, there is inconclusive empirical support for this *vividness hypothesis*, that concrete, vivid intragroup communication that confirms negative outgroup stereotypes should



worsen intergroup perceptions, whereas concrete communication that disconfirms stereotypes should improve perceptions.

### **Competing hypothesis 2: Generalization hypothesis.**

Interestingly (and perhaps not unrelated to the mixed evidence), there is also a literature that one could deduce the exact opposite prediction from: That abstract communication is more effective at changing intergroup perceptions. Linguistic abstraction facilitates generalized interpretation and inference of the conveyed information as context-independent (Assilaméhou, Lepastourel, & Testé, 2013; Semin & De Poot, 1997; Wigboldus, Semin, & Spears, 2000). Abstract, generalizing words (e.g., *always, everyone*) signal that a communicated piece of information cannot be dismissed as minor (Pomerantz, 1986). Of importance for the current research, communicators also strategically use abstraction to encourage generalization of information that deviates from prior knowledge, such as stereotypes (Douglas & Sutton, 2003; Fiedler, Bluemke, Friese, & Hofmann, 2003; Wenneker, Wigboldus, & Spears, 2005). Indeed, to modify abstract cognitions such as stereotypes one needs abstract disconfirmation (Paik et al., 2009). For example one might learn concrete evidence that “As a group, Moroccans tend to be competent.”

The fact that one can contest and debate the appropriateness of negative stereotypes by discussing them abstractly implies that abstraction per se does not automatically lead to the application of a negative stereotype (cf. Greijdanus, Postmes, Gordijn, & Van Zomeren, 2014; Chapter 3 of this dissertation), even though abstraction and negativity about the outgroup may often coincide (e.g., Fiske & Neuberg, 1990; Maass, Milesi, Zabbini, & Stahlberg, 1995). Research on abstraction level of cognition provides additional support for the supposed beneficial influences of abstraction on intergroup perceptions. That is, insofar abstract communication maps onto abstract cognition it may harmonize intergroup relations due to its focus on (intergroup) similarities (Förster, Liberman, & Kuschel, 2008). However, abstract cognition may also foster prejudice because it tends to increase perceived social (intergroup) distance (Liberman & Trope, 2008). Taken together, there is mixed evidence for this *generalization hypothesis*, that abstract, generalizing intragroup communication disproving negative outgroup stereotypes should improve intergroup perceptions, whereas abstract communication that confirms stereotypes should worsen perceptions.

### **Competing hypothesis 3: Abstract-disconfirmation hypothesis.**

To make things even more complex, the literature suggests two alternative hypotheses in addition to the vividness hypothesis and the generalization hypothesis, predicting interactions between abstraction level (i.e., communication form) and the stereotype-(dis)confirming nature of intragroup discussions (i.e., communication content). First, according to the *abstract-disconfirmation hypothesis*, abstraction level is likely to influence whether stereotype disconfirmation will have an effect on reducing stereotyping (Paik et al., 2009). That is, stereotype-disconfirming information may be discounted as an uninformative exception unless it is communicated abstractly (cf. Fiedler et al., 2003). Contrarily, stereotype-confirming information (whether communicated concretely or abstractly) should not influence individuals' perceptions because it does not add anything new to already existing knowledge, i.e., it confirms what we already know.

### **Competing hypothesis 4: Interaction hypothesis.**

Finally, according to the full *interaction hypothesis* one can similarly predict that abstract stereotype disconfirmation is more effective than concrete disconfirmation. However, stereotype-confirming information may also have an effect when it enlivens negative outgroup stereotypes with vivid, concrete communication (cf. Hansen & Wänke, 2010). That is, concrete stereotype confirmation is more influential than abstract confirmation.

In sum, in the current research we compared four competing hypotheses regarding influences of intragroup communication on intergroup perceptions: The *vividness hypothesis* states that concrete, vivid intragroup communication should be most influential in changing intergroup perceptions. Conversely, the *generalization hypothesis* predicts the most influence of abstract, generalizing communication. The *abstract-disconfirmation hypothesis* holds that for stereotype-confirming information there should be no difference between concrete and abstract communication, whereas stereotype-disconfirming information should be communicated in an abstract, generalizing manner to realize the largest effect. Finally, the *interaction hypothesis* implies that concrete stereotype-confirmation and abstract stereotype disconfirmation are most influential in individuals' intergroup perceptions. A comparative test of these four competing hypotheses could contribute to

development of an intragroup communication-based intervention in intergroup conflict.

## Overview of Present Research

The present research tests the applicability of an intervention targeting intragroup communication (i.e., circumventing practical issues of self-segregation in intergroup conflict; Dixon et al., 2008) to improve intergroup perceptions regarding a (mildly) conflicting outgroup. Three experiments examined the effects of intragroup communication about stereotypes on individuals' cognitions about the outgroup. Experiment 4.1 focuses on stereotypes about elderly people, Experiment 4.2 on Moroccan adolescents and Experiment 4.3 on non-native Dutch adolescents. We were interested in the content (i.e., stereotype-confirming, stereotype-disconfirming) and form (i.e., concrete level, abstract level) that intragroup communication should have. There are multiple ways in which communication could tend more towards either end of the concrete-abstract continuum. As we were interested in developing an intervention, we manipulated the abstraction level of communication rather than measuring it (e.g., Semin & Fiedler, 1988). Based on the premise that cognition and communication at a concrete level involve rich details of specific instances whereas an abstract level provides generalizations that transcend specific contexts, we decided to operationalize the level of intragroup communication in the following ways. Concrete communication focused on describing actual examples of behaviors of individual outgroup members that (dis)confirmed stereotypes. Abstract communication entailed collective stereotype-(dis)confirmation based on general group characteristics of the entire outgroup as a social category. Because intragroup harmony may be a precondition for intergroup harmony (Greijdanus et al., 2015), all intragroup communication in the current research (i.e., abstract, concrete, stereotype-confirming, and stereotype-disconfirming) was aimed at building intragroup consensus.

In Experiments 4.1 and .42, we tested the above-mentioned four competing hypotheses in natural intragroup discussions (Experiment 4.1) and with a confederate (Experiment 4.2) in three different intergroup contexts. Additionally, Experiment 4.3 tested the influences of concrete and abstract stereotype disconfirmation in natural intragroup discussions (i.e., potential, feasible

interventions to improve intergroup perceptions) against a neutral baseline condition.

## Experiment 4.1

The aim of Experiment 4.1 was to test four competing hypotheses regarding the influences of stereotype-(dis)confirming intragroup communication on intergroup perceptions (i.e., vividness, generalization, abstract-disconfirmation, and interaction hypotheses). As a first test of these hypotheses we focused on natural dialogue among adolescents about their outgroup elderly people, because the only slightly negative perceptions of this target group should be relatively malleable. The interventions consisted of instructions manipulating stereotype-(dis)confirmation and abstraction level of intragroup communication without further manipulations once discussions had started.

### Method

**Participants and design.** Eighty-two students from the University of Groningen (54 women;  $M_{\text{age}} = 21.95$ ,  $SD = 5.17$ ) were randomly assigned to four conditions of a two-by-two between-participants design crossing communication level (concrete, abstract) with communication aim (stereotype-confirmation, stereotype-disconfirmation).

**Materials.** All materials were provided on paper. *Stereotype-(dis)confirmation* and *communication abstraction* were manipulated via group instructions to spend five minutes discussing why the negative stereotype that elderly people (i.e., the target outgroup) are forgetful, boring, and old-fashioned is true [false], as proven by behaviors of individual elderly people (concrete communication) or by general characteristics of the elderly (abstract communication). To stimulate task engagement, the bottom of the instructions page provided room to list the top three most illustrative behaviors or characteristics as part of the manipulation.

*Stereotype application* was measured with 10 statements (“Elderly people are [trait]”, 1 *Absolutely not* - 7 *Absolutely*) referring to negative or positive traits. *Intergroup*

*attitudes* were measured as cognitive, affective, and social proximity components (cf. Rojas, Lozano, Navas, & Pérez, 2011). Cognitive judgments were measured with six items (e.g., “What do you think of the values of elderly people (how they educate their children, equality between men and women, role of religion in their lives, etcetera)?”, 1 *Very bad* - 7 *Very good*), affective reactions with eight items (e.g., “How strongly do you in general feel admiration for elderly people?”, 1 *Not at all* - 7 *Very strongly*), and attitudes regarding social proximity with three statements (e.g., “If I could choose, I would have elderly friends”, 1 *Strongly disagree* - 7 *Strongly agree*).<sup>26</sup>

The questionnaire ended with manipulation checks, a measure of conversation ease (“How did the conversation go?” 1 *Very difficult* - 7 *Very easy*), demographics (age, gender, nationality), and a debriefing.<sup>27</sup>

**Procedure.** After providing informed consent, participants received the group discussion instructions and engaged in a small-group interaction with two or three fellow students. In the next phase, the dependent measures and demographic questions were administered individually. Finally, participants were debriefed.

**Analytic strategy.** Because participants were nested within discussion groups, data of all experiments were analyzed with multilevel regressions in HLM (Raudenbush, Bryk, & Congdon, 2004). We used planned contrasts to test four competing hypotheses. All hypotheses translate to two simple effects comparing concrete with abstract confirmation and concrete with abstract disconfirmation, respectively. According to the *vividness hypothesis*, 1) concrete confirmation of (negative) stereotypes should yield more negative intergroup perceptions than abstract confirmation, and 2) concrete disconfirmation should yield more positive intergroup perceptions than abstract disconfirmation. Conversely, the *generalization hypothesis* states that 1) abstract stereotype confirmation should yield more negative intergroup perceptions than concrete confirmation, and 2) abstract stereotype

<sup>26</sup> We added *aversion* to the original affective subscale. Items that seemed inappropriate for the outgroup elderly people (e.g., referring to their work, intergroup romantic relations) were not included in intergroup attitude measures.

<sup>27</sup> We also measured participants’ emotional reactions and behavioral intentions. Because these variables are not of primary interest to the current focus on intergroup perceptions, we do not report these here. Overall there was strongest support for the abstract disconfirmation hypothesis. Further information is available upon request.

disconfirmation should yield more positive intergroup perceptions than concrete disconfirmation. The *abstract disconfirmation hypothesis* predicts 1) no difference between concrete and abstract stereotype confirmation, and 2) that concrete disconfirmation should yield more positive intergroup perceptions than abstract disconfirmation. Finally, based on the *interaction hypothesis* one would expect that 1) concrete stereotype confirmation should be more negative than abstract confirmation, whereas 2) abstract disconfirmation should be more positive than concrete disconfirmation. The umbrella term *intergroup perceptions* in these hypotheses denotes all dependent variables (e.g., stereotype application, intergroup attitudes). To test these hypotheses, concrete confirmation, abstract confirmation, concrete disconfirmation, and abstract disconfirmation were coded respectively as -1 1 0 0 (planned contrast 1) and 0 0 -1 1 (planned contrast 2). The estimated HLM models were:

$$\text{Level-1: } Y = \beta_0 + r$$

$$\text{Level-2: } \beta_0 = \gamma_{00} + \gamma_{01} * (\text{contrast1}) + \gamma_{02} * (\text{contrast2}) + u_0$$

$Y$  represents the dependent variable (higher means more positive intergroup perceptions),  $\beta$  is the individual-level regression coefficient,  $\gamma$ s are group-level regression coefficients, and  $r$  and  $u$  respectively are the individual-level and group-level errors. The hypothesized patterns were:

Vividness:  $Y_{\text{concrete confirmation}} < Y_{\text{abstract confirmation}}, Y_{\text{concrete disconfirmation}} > Y_{\text{abstract disconfirmation}}$

Generalization:  $Y_{\text{concrete confirmation}} > Y_{\text{abstract confirmation}}, Y_{\text{concrete disconfirmation}} < Y_{\text{abstract disconfirmation}}$

Abstract disconfirmation:  $Y_{\text{concrete confirmation}} = Y_{\text{abstract confirmation}}, Y_{\text{concrete disconfirmation}} < Y_{\text{abstract disconfirmation}}$

Interaction:  $Y_{\text{concrete confirmation}} < Y_{\text{abstract confirmation}}, Y_{\text{concrete disconfirmation}} < Y_{\text{abstract disconfirmation}}$

## Results

Because the manipulations were successful (i.e., more correct than incorrect manipulation checks in both levels of both manipulations,  $ps < .001$ ), data of 11

participants who failed at least one manipulation check were removed. Although this variable was not of primary interest for the current research focus, data of one participant with extremely high intergroup anxiety (univariate outlier with  $p < .001$ ) were deleted to prevent distorted results. Mahalanobis distance revealed no multivariate outliers with  $p < .001$ , leaving 70 cases for analysis (49 women;  $M_{\text{age}} = 22.00$ ,  $SD = 5.49$ ). Planned contrasts indicated that participants in the concrete confirmation condition had somewhat less easy group conversations than participants in the abstract confirmation condition,  $t(21) = -1.82$ ,  $p = .08$ , while abstraction level did not influence conversation ease of collective stereotype disconfirmation,  $t(21) = 1.11$ ,  $p = .28$ . To control for possible influences of conversation ease, this variable was entered group-mean centered at the individual level and grand-mean centered at the group level (both Level-1 and Level-2 main effects and Level-1 by Level-2 interaction). The estimated HLM models were:

$$\text{Level-1: } Y = \beta_0 + \beta_1 * (\text{conversation ease}^a) + r$$

$$\text{Level-2: } \beta_0 = \gamma_{00} + \gamma_{01} * (\text{contrast1}) + \gamma_{02} * (\text{contrast2}) + \gamma_{03} * (\text{conversation ease}^b) + u_0$$

$$\beta_1 = \gamma_{10} + \gamma_{11} * (\text{conversation ease}^b) + u_1$$

All symbols are defined as previously described, <sup>a</sup> means group-mean centered, and <sup>b</sup> means grand-mean centered.

Multilevel analyses on stereotype application provided converging support for the abstract disconfirmation hypothesis (see Table 4.1). Abstract stereotype disconfirmation led to application of more positive,  $t(20) = 3.30$ ,  $p < .01$ , and marginally less negative traits,  $t(20) = -1.87$ ,  $p = .08$ , than concrete disconfirmation. In line with this hypothesis, there were no such effects for stereotype confirmation,  $ps > .59$ . Results on intergroup attitudes regarding social proximity further supported the abstract disconfirmation hypothesis. Abstract disconfirmation increased acceptance of social proximity between groups compared to concrete disconfirmation,  $t(20) = 2.87$ ,  $p = .01$ . In line with this hypothesis, there was no such effect for stereotype confirmation,  $t(20) = -0.78$ ,  $p = .45$ . There were no significant effects on cognitive or affective attitude components,  $ps > .15$ .

**Table 4.1**

*Experiment 4.1 Estimated Marginal Means and Standard Errors (in Brackets) of Intergroup Perceptions by Communication Aim and Communication Level Corrected for Conversation Ease.*

*Note.* < and > indicate (marginally) significant planned contrasts comparing the

	Stereotype confirmation		Stereotype disconfirmation	
	Concrete	Abstract	Concrete	Abstract
<b>Stereotyping</b>				
Positive	4.32 (0.21) =	4.33 (0.25)	4.21 (0.22) <	5.04 (0.16)
Negative	4.19 (0.33) =	4.27 (0.41)	4.20 (0.35) >	3.45 (0.27)
<b>Intergroup attitudes</b>				
Social proximity	4.42 (0.30) =	4.14 (0.36)	3.91 (0.31) <	4.79 (0.24)
Cognitive judgments	4.29 (0.27) =	4.15 (0.34)	4.42 (0.28) =	4.70 (0.22)
Affective reactions	5.47 (0.29) =	5.32 (0.35)	5.17 (0.30) =	5.58 (0.23)

effects of communication level (concrete, abstract) within both communication aims (stereotype confirmation, disconfirmation). Contrasts denoted = are non-significant.

## Discussion

The findings in Experiment 4.1 support the abstract disconfirmation hypothesis over the other three competing hypotheses (i.e., vividness, generalization, interaction). Talking among “us” about “their” stereotype-inconsistent group characteristics seems to have beneficial influences on 1) our attitudes regarding mingling our social lives with theirs, and 2) positive and negative traits we apply to them. However, the effects of abstraction level of communication seem to be less consistent in small group interactions among “us” that focus on confirming negative outgroup stereotypes. The positive effect of abstract disconfirmation only emerged on the social proximity subscale of intergroup attitudes and not on the cognitive and affective components. Likewise, abstract disconfirmation affected application of positive traits more strongly than negative trait application. There are several possible explanations for the emergence of abstract disconfirmation effects on this subset of measures. For instance, the content of the current intragroup discussions may have matched more with some aspects of intergroup attitudes than with others. This is in line with research indicating that attitudes are more easily changed after persuasive messages that match the cognitive or affective basis of attitudes (e.g., Fabrigar &



Petty, 1999; Sherman & Kim, 2002). The abstract disconfirmation manipulation may have primarily affected positive traits because the aim was to generate positive outgroup traits or because it concerned the relatively positive outgroup of elderly people. Although these underlying explanations cannot be tested with the current data, Experiment 4.1 overall provided initial evidence indicating that abstract disconfirmation could improve intergroup perceptions.

## Experiment 4.2

As a next step in testing the potential applicability of abstract stereotype disconfirmation within groups as an intervention to improve intergroup perceptions, Experiment 4.2 aimed to replicate the results from Experiment 4.1 in a more conflictual intergroup context. We chose Moroccan-Dutch adolescents because stereotypes about this group are strong and mainly negative in The Netherlands (Dotsch, Wigboldus, & Van Knippenberg, 2011; Gordijn, Koomen, & Stapel, 2001; Van Prooijen & Coffeng, 2013). However, this target outgroup may pose a potential problem in the concrete communication conditions, which require listing positive outgroup individuals. Native Dutch students in Groningen do not regularly encounter Moroccan-Dutch adolescents. A pilot test among an unrelated psychology students sample in Groningen ( $N = 101$ ; two declined to answer) indicated that no-one encountered Moroccan-Dutch people on a daily basis. Their average score ( $M = 3.30$ ,  $SD = 1.22$ ) was significantly lower than the midpoint on a scale from 1 (*never*) to 7 (*daily*),  $t(98) = -5.70$ ,  $p < .001$ . Experiment 4.2 participants may therefore have difficulty providing examples of Moroccan-Dutch individuals. To solve this, all small-group interactions were between actual students and one confederate who reinforced the manipulations. In the abstract conditions, the confederate made general (positive or negative) remarks about group characteristics of Moroccan-Dutch adolescents. In the concrete conditions, she pretended to have contact with Moroccan-Dutch adolescents, thereby acting as an ingroup member providing (positive or negative) *extended* intergroup contact (Wright, Aron, McLaughlin-Volpe, & Ropp, 1997). Additionally, the pilot test was used to choose the stereotypic traits that group members should disprove during their discussions (i.e., *aggressive*, *criminal*, *antisocial*).

Furthermore, in addition to stereotype application and intergroup attitudes, in Experiment 4.2 we added dependent variables to shed more light on the specifics

of individuals' intergroup perceptions. We were interested in two concepts. First, it may be worthwhile to investigate influences on essentialism because this may constitute a potential drawback of abstract intragroup communication about outgroups. That is, abstract communication may foster an abstract and generalizing perception of the outgroup as a relatively invariable, natural category (i.e., outgroup essentialism), which may in turn have detrimental consequences such as prejudice, inhumanization, and stereotype endorsement (Haslam, Bastian, Bain, & Kashima, 2006). Second, we intended to move beyond direct questions regarding intergroup perceptions (e.g., whether an outgroup is seen as competent), which may be subject to social desirability concerns, to more indirect measures. Indeed, we expected that abstract disconfirmation of negative outgroup stereotypes would motivate individuals to give a successful outgroup member more credit for his achievement (i.e., outgroup success attributions characterized by more personal control, more internal locus of causality, more stability, and less external control).

Finally, we included control measures to rule out the possibility that the findings of Experiment 4.1 may have resulted from systematic differences in perceived validation or consensualisation of outgroup views, participants' internal and external motivations to respond without prejudice, or their ingroup and outgroup identification. The latter may show more variance with the target outgroup chosen for Experiment 4.2 (Moroccan-Dutch adolescents) than in Experiment 4.1 (elderly people).

## Method

**Participants and design.** Seventy-eight students (51 women;  $M_{\text{age}} = 20.97$ ,  $SD = 1.85$ ; demographics of one participant missing) were randomly assigned to conditions.<sup>28</sup> The design was identical to Experiment 4.1: A 2 (communication level: Concrete, abstract) X 2 (communication aim: Stereotype-confirmation, stereotype-disconfirmation) factorial design.

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<sup>28</sup> Nine additional participants were deleted prior to analysis because they had non-western immigrant backgrounds (i.e., did not belong to the intended sample).

**Procedure.** The procedure and analytic strategy were identical to Experiment 4.1, except for the target of discussion (i.e., Moroccan-Dutch adolescents) and the presence of one confederate in each group of two to four members who reinforced the manipulations by bringing up condition-consistent information in the discussion. After the debriefing, participants were checked for awareness of the confederate's presence.

**Materials.** All materials were provided on paper. Stereotype-(dis)confirmation and communication abstraction were manipulated via group instructions to spend five minutes discussing why the negative stereotype that Moroccan-Dutch adolescents are aggressive, criminal, and antisocial is true [false], as proven by behaviors of individual Moroccan-Dutch adolescents (concrete communication) or by general characteristics of Moroccan-Dutch adolescents (abstract communication). The bottom of the instructions page provided room to list the top three most illustrative behaviors or characteristics, as part of the manipulation.

Stereotype application and intergroup attitudes were measured as in Experiment 4.1. Four items measured validation (e.g., “My ideas about Moroccan adolescents are right”, 1 *Strongly disagree* - 7 *Strongly agree*) and three others consensualisation (e.g., “During the group interaction, we agreed more and more on how Moroccan adolescents are”). We used Morton, Hornsey, and Postmes's (2009, Study 2) scales to gauge natural kind and reification essentialism. To measure attributions of outgroup success, a scenario adapted from Iatridis and Fousiani (2009) described how Youssef (i.e., a Moroccan-Dutch adolescent) succeeded to get into a very prestigious and demanding postgraduate course. The revised causal dimension scale (McAuley, Duncan, & Russell, 1992) measured causal dimensions underlying participants' attributions of outgroup success on seven-point scales: Personal control, locus of causality, stability, and external control.<sup>29</sup> Internal and external motivations to respond without prejudice were measured with five items each (Plant & Devine, 1998). Ingroup and outgroup identification were measured

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<sup>29</sup> Additional questions about perceived warmth of fellow participants, identification with them, and evaluations of their contributions to the group discussions were not of main interest for the current research focus and, hence, not analyzed. Further information is available upon request.

with single items (Postmes, Haslam, & Jans, 2013). Conversation ease was unintentionally omitted from the present questionnaire.

## Results

Prior to analyses, we removed participants who identified more than the scale midpoint with the outgroup ( $N = 9$ ) or did not believe the confederate was a fellow student ( $N = 2$ ). Because the manipulations were successful (i.e., more correct than incorrect manipulation checks in both levels of both manipulations,  $ps < .001$ ), data of six participants who failed at least one manipulation check were removed. Attribution of outgroup success to stable factors was non-normally distributed, absolute  $z > 3.64$ ,  $p < .001$ . Log-transformation normalized this variable. There were no univariate or multivariate outliers with  $p < .001$ . These procedures resulted in a final sample of 58 cases for analysis (37 women;  $M_{age} = 21.24$ ,  $SD = 1.94$ ).<sup>30</sup> The planned contrasts did not show any effects on the control variables perceived validation, consensualisation, internal and external motivation to respond without prejudice, and ingroup and outgroup identification,  $ps > .15$ .

Overall, the data were again consistent with the abstract disconfirmation hypothesis (see Table 4.2). Unlike Experiment 4.1, none of the planned contrasts affected stereotype application,  $ps > .13$ . However, we did replicate the Experiment 4.1 finding on intergroup attitudes regarding social proximity and found additional support for the abstract disconfirmation hypothesis. Abstract disconfirmation led to marginally more acceptance of social proximity between groups than concrete disconfirmation,  $t(29) = 1.94$ ,  $p = .06$ , marginally less reification than concrete disconfirmation,  $t(29) = -1.76$ ,  $p = .09$ , more attribution of outgroup success to stable factors,  $t(29) = 2.87$ ,  $p < .01$ , and marginally more internal locus of causality,  $t(29) = 1.93$ ,  $p = .06$ . In line with the hypothesis, there were no equivalent effects for stereotype confirmation,  $ps > .95$ . One effect was inconsistent with the abstract disconfirmation hypothesis: Concrete disconfirmation led to less attribution of outgroup success to personal control than abstract confirmation,  $t(29) = -2.10$ ,  $p = .04$ . However, this single effect was not consistent with any of the other hypotheses either. As in Experiment 4.1, there were no effects on the cognitive and affective

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<sup>30</sup> Data of two additional participants could not be analyzed in HLM because they were the only members of their group left (i.e., no group-level data).

attitude subscales,  $ps > .15$ , nor on natural kinds or attribution of outgroup success to external control,  $ps > .11$ .

**Table 4.2**

*Experiment 4.2 Estimated Marginal Means and Standard Errors (in Brackets) of Intergroup Perceptions by Communication Aim and Communication Level.*

	Stereotype confirmation		Stereotype disconfirmation	
	Concrete	Abstract	Concrete	Abstract
<b>Stereotyping</b>				
Positive	4.06 (0.28) =	4.32 (0.30)	4.67 (0.29) =	5.11 (0.20)
Negative	4.61 (0.27) =	4.56 (0.29)	3.69 (0.27) =	3.64 (0.19)
<b>Intergroup attitudes</b>				
Social proximity	3.85 (0.34) =	3.69 (0.38)	4.13 (0.35) <	4.69 (0.24)
Cognitive judgments	3.58 (0.22) =	3.80 (0.24)	4.26 (0.23) =	4.59 (0.16)
Affective reactions	3.81 (0.25) =	3.64 (0.28)	4.27 (0.26) =	4.38 (0.18)
<b>Essentialism</b>				
Reification	3.71 (0.28) =	3.73 (0.30)	3.17 (0.28) >	2.63 (0.20)
Natural kinds	3.08 (0.34) =	3.31 (0.37)	3.10 (0.35) =	3.61 (0.25)
<b>Attributions of outgroup success</b>				
Stability <sup>†</sup>	1.40 (0.05) =	1.43 (0.05)	1.37 (0.05) <	1.51 (0.04)
Internal causality	4.59 (0.13) =	4.50 (0.15)	4.58 (0.14) <	4.85 (0.10)
Personal control	6.12 (0.22) =	5.61 (0.24)	5.84 (0.22) <	6.06 (0.16)
External control	4.77 (0.37) =	4.64 (0.40)	5.00 (0.38) =	5.08 (0.26)

*Notes:* Stability, denoted †, was transformed to normalize its distribution and re-inverted so that higher transformed values correspond to higher original values. < and > indicate (marginally) significant planned contrasts comparing the effects of communication level (concrete, abstract) within both communication aims (stereotype confirmation, disconfirmation). Contrasts denoted = are non-significant.

## Discussion

Replicating and extending the findings of Experiment 4.1 in a more conflicted intergroup context, the pattern of results across variables in Experiment 4.2 supports the abstract disconfirmation hypothesis. Small-group interactions with

ingroup members that focus on positive outgroup characteristics evoke more positive intergroup perceptions than interactions that focus on individual outgroup members' positive behaviors, whereas there is no effect of abstract versus concrete intragroup stereotype confirmation. Despite the broad range of intergroup perceptions affected by abstract disconfirmation (e.g., outgroup essentialism, attributions of outgroup success), Experiment 4.2 failed to replicate the beneficial effects of abstract disconfirmation on application of outgroup stereotypes in Experiment 4.1. That is, in Experiment 4.1 abstract disconfirmation increased application of positive group characteristics to the outgroup and marginally decreased application of negative traits, whereas there was no significant effect in the current experiment. There are several possible explanations for this. For instance, participants may have been more passive because of the presence of an active confederate. Alternatively, the shared views of Moroccan-Dutch adolescents may simply be too robust.

Replicating the findings of Experiment 4.1, the positive effect of abstract disconfirmation again only emerged on the social proximity subscale of intergroup attitudes and not on the cognitive and affective components. Likewise, beneficial effects on other measures surfaced on some subscales (e.g., outgroup reification, attribution of outgroup success to stable factors and internal locus of causality) rather than others (e.g., outgroup natural kinds perception, attribution of outgroup success to external control). These differences between subscales may be mere artifacts of question or response framing. Hence, open-ended questions may provide more comprehensive insight into (changes in) individuals' intergroup perceptions.

Moreover, although the findings of Experiments 4.1 and 4.2 are suggestive of the applicability of intragroup communication as an intervention to improve intergroup perceptions, to conclude that abstract stereotype disconfirmation is a useful intervention would be premature. First, we cannot isolate the cause of differences between abstract and concrete stereotype disconfirmation because we did not include a baseline condition. Although the interpretation that abstract stereotype disconfirmation has a more positive effect than concrete disconfirmation seems reasonable, it could also be that concrete disconfirmation is more negative than abstract disconfirmation. Second, Experiment 4.2 focused on an intergroup context in which interventions to improve intergroup perceptions seem most urgent, yet we found weaker effects of abstract stereotype disconfirmation. Finally, an intervention requiring a confederate would not be feasible in real-life. Experiment 4.3 was conducted to address these issues.

### Experiment 4.3

The aims of Experiment 4.3 were twofold. First, we compared abstract and concrete disconfirmation with a baseline. Second, we modified the instructions to eliminate the necessity of a confederate. This enabled us to test the usefulness of an intervention relying on *natural* intragroup communication in which ingroup members are instructed to disprove negative stereotypes about a truly conflicting outgroup by listing positive outgroup characteristics. Based on our previous results, we expected that such abstract stereotype disconfirmation would yield more positive intergroup perceptions than baseline. We expected that this would not be the case for concrete disconfirmation.

Furthermore, we administered open-ended questions to obtain insight into underlying changes in group members' associations with the outgroup, the ingroup, and self after abstract and concrete stereotype disconfirmation. We were particularly interested in four aspects here. The first two aspects relate to characteristics of language use. Specifically, we were interested in whether concrete disconfirmation would increase vividness of outgroup imagery and decrease language abstraction, or abstract disconfirmation would decrease vividness and increase language abstraction, or both. Another aspect of interest concerns whether or not participants in the experimental conditions list more target stereotypes (aggressive, criminal, antisocial) than participants in the baseline condition. An intervention explicitly mentioning specific outgroup stereotypes may prime people to associate the outgroup *more* with these stereotypes. Such a priming effect would be a potential weakness of the currently proposed intervention.

The final aspect of outgroup associations we were interested in was the extent to which group members engage in description of the outgroup as strange others who are different from us (i.e., outgroup *othering* or “the discursive differentiation between us and them,” Van Houtum & Van Naerssen, 2002, p. 125; Pehrson, Stevenson, Muldoon, & Reicher, 2013; Coupland, 2010). Experiment 4.2 showed that abstract disconfirmation decreases essentialism, thus making intergroup boundaries more permeable (e.g., Martin & Parker, 1995; Rothbart & Taylor, 1992). Moreover, Experiments 4.1 and 4.2 revealed that the abstract disconfirmation condition was associated with the acceptance of social proximity with the outgroup. Based on these combined findings, we expected abstract disconfirmation to reduce outgroup othering. In order to reduce drop-outs or lack of concentration due to an

overly lengthy questionnaire, we decided to save space for the open-ended questions by omitting the intergroup attitudes measure in the current experiment.

To summarize, we hypothesized 1) more positive intergroup perceptions after abstract disconfirmation of negative outgroup stereotypes compared to baseline, and 2) non-significant or only marginal differences between concrete disconfirmation and the baseline.

## Methods

**Participants and design.** One-hundred students (75 women;  $M_{\text{age}} = 23.00$ ,  $SD = 1.32$ ) were randomly assigned to one of three conditions: Abstract or concrete disconfirmation of negative outgroup stereotypes (experimental conditions) or a neutral control condition.

**Materials.** Stereotype disconfirmation and communication abstraction were manipulated via written group instructions to discuss why the negative view of non-native Dutch adolescents as aggressive, criminal, and antisocial is false, as proven by individual non-native Dutch adolescents (concrete communication) or by group characteristics of non-native Dutch adolescents (abstract communication). To account for potential lack of personal intergroup connections, the concrete instructions mentioned names of three famous non-native Dutch people who set a positive example. The control condition comprised written instructions to discuss why the negative view of illegal downloading of music and films is false.

Dependent variables were obtained using Qualtrics. The introduction explained that groups of participants talked about various societally relevant topics, such as immigrant adolescents or illegal downloading of music, and that all participants answered questions about these topics. To support this explanation, the next page displayed questions about illegal downloading of music and films.<sup>31</sup> Outgroup, ingroup, and self associations were measured with three subsequent open-ended question about all words that came to mind when participants thought about

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<sup>31</sup> The questions about music and films were not of theoretical interest and, hence, not analyzed.



(non-)native Dutch adolescents or themselves. We manually coded target stereotypes: Whether or not participants listed outgroup stereotypes explicitly targeted in the intervention instructions. Vividness was coded as visible outgroup characteristics (e.g., *fur collars, dark skin*), and othering as words signaling intergroup boundaries (e.g., *other, different, their own*). These three variables were coded exclusively in outgroup associations. Automated LIWC2007 output (Pennebaker et al., 2007) was used to calculate absolute language abstraction as less articles, numbers (including numerals), and human-related words (e.g., *man, women*; cf. Beukeboom, Tanis, & Vermeulen, 2013). Because language abstraction is linked with personality variables (Beukeboom et al., 2013), we additionally calculated relative, within-person difference scores. Outgroup-ingroup differences were calculated as each participant's language abstraction in outgroup associations minus that of their ingroup associations. Outgroup-self differences were calculated by subtracting self associations from outgroup associations.<sup>32</sup> Stereotyping was measured as in Experiments 4.1 and 4.2. The final part of the questionnaire contained questions on participants' ingroup and outgroup identification (10-point scales), acquaintance with immigrant adolescents, conversation evaluations (ease, interestingness, pleasantness on 7-point scales), and an open-ended question about their comments or questions regarding the experiment.

**Procedure.** The procedure was identical to Experiment 4.1 (small groups'  $n = 2 - 4$ ). After providing informed consent, participants received the group discussion instructions and engaged in a small-group interaction with one to three fellow students (no confederate). In the next phase, the dependent measures and demographic questions were administered individually. Finally, participants were debriefed.

**Analytic Strategy.** Because participants were nested within discussion groups, data were again analyzed in HLM (Raudenbush et al., 2004). Experiment 4.3

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<sup>32</sup> All participants answered items measuring validation of and consensualisation on views regarding immigrants. However, because this topic was never discussed in the control condition (i.e., not validated, nor consensualized upon), planned contrasts would likely be significant. Hence, we did not include these variables in the analyses. An additional sociogram task (Livingstone, Shepherd, Spears, & Manstead, unpublished manuscript) was included but not analyzed for this dissertation due to time constraints.

covered three conditions: Abstract and concrete disconfirmation of negative outgroup stereotypes (experimental conditions) and a neutral control condition. According to the *vividness hypothesis*, concrete disconfirmation of negative outgroup stereotypes should improve intergroup perceptions compared to the baseline whereas abstract disconfirmation should not affect individuals' perceptions. However, Experiments 4.1 and 4.2 suggested more evidence for the *abstract disconfirmation* hypothesis, holding that abstract stereotype disconfirmation should improve intergroup perceptions compared to the baseline, whereas concrete disconfirmation should not.<sup>33</sup> To test these two hypotheses, we translated the three conditions into two dummy-coded variables representing the concrete and abstract disconfirmation conditions respectively (the control condition was always coded 0). The estimated HLM models were:

$$\text{Level-1: } Y = \beta_0 + r$$

$$\text{Level-2: } \beta_0 = \gamma_{00} + \gamma_{01} * (\text{dummyC}) + \gamma_{02} * (\text{dummyA}) + u_0$$

$Y$  represents the dependent variable,  $\beta$  is the individual-level regression coefficient,  $\gamma$ s are group-level regression coefficients, and  $r$  and  $u$  respectively are the individual-level and group-level errors.

## Results

Prior to analyses, we removed one group ( $n = 4$ ) that interacted twice because participants could not answer the questionnaires after their first interaction due to mechanical failure, and four participants who identified more than the scale midpoint with Dutch immigrants. Univariate outliers were not deleted because this would not normalize all distributions. Square-root, log- or 1/x-transformed variables that were (closest to) normally distributed were used in subsequent analyses.

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<sup>33</sup> This abstract disconfirmation pattern would also be consistent with the generalization and interaction hypotheses. However, contrary to the abstract disconfirmation hypothesis, those two hypotheses also predict significant effects of abstraction when groups *confirm* stereotypes. Because Experiment 4.3 only includes stereotype-disconfirming instructions, we merely mention the abstract disconfirmation hypothesis here. Moreover, this is in line with the evidence from Experiments 4.1 and 4.2, providing most support for the abstract disconfirmation hypothesis.

Mahalanobis distance revealed no multivariate outliers with  $p < .001$ . These procedures resulted in a final sample of 94 (70 women;  $M_{\text{age}} = 19.26$ ,  $SD = 1.34$ ).

All analyses were controlled for influences of conversation ease (cf. Experiment 4.1) and conversation pleasantness. This latter variable was added in Experiment 4.3 because a pilot study showed that people experience abstract disconfirmation as less pleasant than concrete disconfirmation (i.e., more uncomfortable and uneasy). In this pilot study, paper-and-pencil scenarios among an unrelated sample of 193 western-European psychology students in Groningen (128 women;  $M_{\text{age}} = 21.74$ ;  $SD = 2.30$ ) indicated that abstract disconfirmation caused participants to feel more relieved,  $t(186) = 4.94$ ,  $p < .001$ , than concrete disconfirmation.<sup>34</sup> This is interesting because it implies that abstract disconfirmation has positive emotional consequences for participants *themselves*, besides improved intergroup perceptions. Nevertheless, abstract disconfirmation also increased negative feelings of uncomfortableness  $t(187) = 2.96$ ,  $p < .01$ , and unease,  $t(187) = 3.67$ ,  $p < .001$ . To control for these negative influences, conversation ease and pleasantness were entered grand-mean centered at the group level and group-mean centered at the individual level in all main analyses (models are presented below).<sup>35</sup> The scenarios revealed no significant effects on pride or refusal to participate in the abstract or concrete disconfirmation tasks,  $ps > .23$ .<sup>36</sup>

Because the dummies did not show any effects on the control variables number of immigrant acquaintances, conversation interestingness, ingroup and outgroup identification,  $ps > .12$ , the subsequently estimated HLM models were:

$$\text{Level-1: } Y = \beta_0 + \beta_1 * (\text{conversation ease}^a) + \beta_2 * (\text{conversation pleasantness}^a) + r$$

$$\text{Level-2: } \beta_0 = \gamma_{00} + \gamma_{01} * (\text{dummyC}) + \gamma_{02} * (\text{dummyA}) + \gamma_{03} * (\text{conversation ease}^b) + \gamma_{04} * (\text{conversation pleasantness}^b) + u_0$$

$$\beta_1 = \gamma_{10} + \gamma_{11} * (\text{conversation ease}^b) + \gamma_{12} * (\text{conversation pleasantness}^b) + u_1$$

$$\beta_2 = \gamma_{20} + \gamma_{21} * (\text{conversation ease}^b) + \gamma_{22} * (\text{conversation pleasantness}^b) + u_2$$

<sup>34</sup> Thirty-eight additional participants were deleted prior to analysis because they either had non-western immigrant backgrounds or did not answer seriously (i.e., zero variance on dependent variables).

<sup>35</sup> Because one participant did not answer the conversation ease measure, HLM did not include his data in analyses that statistically controlled for this measure.

<sup>36</sup> To reduce positive skew, all variables were  $1/x$ -transformed.

As in the previous experiments,  $Y$  represents the dependent variable (higher means more positive intergroup perceptions),  $\beta$  is the individual-level regression coefficient,  $\gamma$ s are group-level regression coefficients,  $r$  and  $u$  respectively are the individual-level and group-level errors,  $^a$  means group-mean centered, and  $^b$  means grand-mean centered.

**Content coding of outgroup, ingroup, self associations.** Multilevel content analyses on the process variables revealed no effects of dummies on outgroup target stereotypes,  $p$ s  $> .30$ . However, we found that vividness of outgroup associations after concrete disconfirmation of negative outgroup stereotypes did not differ from control,  $t(32) = -0.87, p = .39$ , whereas abstract disconfirmation resulted in less vivid imagery than the control condition,  $t(32) = -3.32, p < .01$ . Again supporting the abstract disconfirmation hypothesis, abstract disconfirmation reduced othering,  $t(32) = -2.49, p = .02$ . This effect was only marginally significant for concrete stereotype confirmation,  $t(32) = -1.73, p = .09$ . The dummies showed no significant effects on outgroup language abstraction absolute or relative to ingroup or self language abstraction,  $p$ s  $> .16$ .

**Stereotyping questionnaire.** Multilevel analyses on the closed stereotyping measures provided additional evidence for the hypothesis. Abstract disconfirmation reduced application of negative stereotypes,  $t(32) = -1.99, p = .05$ , whereas concrete disconfirmation did not,  $t(32) = -1.31, p = .20$ . There were no significant effects on application of positive traits to the outgroup,  $p$ s  $> .58$ . Overall, these results again corroborate the abstract disconfirmation hypothesis (see Table 4.3).

**Table 4.3**

*Experiment 4.3 Estimated Marginal Means and Standard Errors (in Brackets) of Content-Coded*

	Stereotype disconfirmation		
	Control	Concrete	Abstract
<b>Content coding</b>			
Vividness <sup>t</sup>	3.36 (0.41)	2.87 (0.56)	1.44 (0.58)**
Abstraction <sup>t</sup>	0.79 (0.06)	0.90 (0.08)	0.76 (0.08)
Outgroup othering <sup>t</sup>	-0.53 (0.08)	-0.71 (0.11) <sup>o</sup>	-0.80 (0.11)*
<b>Stereotyping</b>			
Negative	4.15 (0.17)	3.85 (0.23)	3.68 (0.24)*
Positive	4.84 (0.14)	4.83 (0.19)	4.95 (0.20)

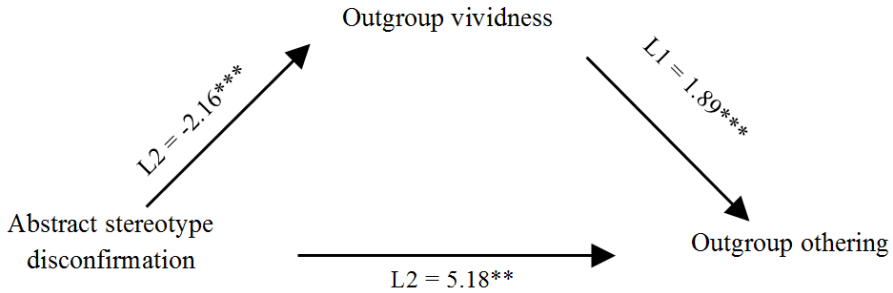
*Variables and Stereotyping by Condition Corrected for Conversation Ease and Conversation Pleasantness.*

*Notes:* All variables denoted † were transformed to (closest to) normal distributions and (if necessary) re-inverted so that higher transformed values correspond to higher original values. Significance of planned contrasts comparing each stereotype disconfirmation condition (concrete, abstract) with the control condition are denoted as: °  $p \leq .10$ , \*  $p \leq .05$ , \*\*  $p \leq .01$ .

**Mediation analyses.** Together, these results suggested a 2-1-1 multilevel mediation, in which the individual-level process variable outgroup vividness mediates the effects of group-level abstract disconfirmation on individual-level outcomes of outgroup othering and negative stereotyping. That is, did participants in the abstract disconfirmation condition engage in less outgroup othering and apply less negative stereotypes because abstract disconfirmation reduces the vividness of participants' mental images of the outgroup? Because Mplus is better equipped to test such upper-level mediations, we used this software to test the mediation patterns suggested by the HLM estimations in multilevel structural equation modelling (Preacher, Zyphur, & Zhang, 2010).<sup>37</sup> Multilevel 2-1-1 mediation analyses estimated a significant indirect effect of abstract disconfirmation on outgroup othering via outgroup vividness,  $b = -6.88$  ( $SE = 2.90$ ),  $p = .02$ , but a non-significant indirect effect on negative stereotype application,  $b = 0.05$  ( $SE = 3.07$ ),  $p = .99$ . These findings are consistent with a partial mediation in which abstract disconfirmation of negative outgroup stereotypes instills less vivid mental images of the outgroup in individuals' minds, and thereby contributes to less focus on how “they” differ from “us” (see Figure 4.1).

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<sup>37</sup> Covariates were not included in the current mediation tests.



**Figure 4.1.** Mediation analysis. A 2-1-1 mediation analysis (Preacher et al., 2010) estimated a significant indirect effect of abstract stereotype disconfirmation on outgroup othering via outgroup vividness,  $b = -6.88$  ( $SE = 2.90$ ),  $p = .02$ . Depicted estimated coefficients are consistent with a partial mediation model in which intragroup communication in which group members collectively disprove negative outgroup stereotypes by listing stereotype-inconsistent group characteristics (versus intragroup communication about an unrelated topic) inhibits the vividness of group members’ mental images of the outgroup, which ultimately reduces their view of the outgroup as “others” who fundamentally differ from “us.” L1 = individual-level coefficients; L2 = group-level coefficients.

\*  $p \leq .05$ . \*\*  $p \leq .01$ . \*\*\*  $p \leq .001$ .

## Discussion

Experiment 4.3 supported the hypothesized effects of 1) more positive intergroup perceptions after abstract disconfirmation of negative outgroup stereotypes compared to baseline, and 2) non-significant or only marginal differences between concrete disconfirmation and the baseline. Compared with neutral intragroup discussions as a baseline, intragroup communication aimed at generating positive outgroup characteristics that disprove negative stereotypes instills positive intergroup perceptions. Analogous effects of collective stereotype disproof based on positive outgroup exemplars were marginal or non-significant. The use of a baseline condition ruled out the alternative explanation that abstract stereotype

disconfirmation is not beneficial but concrete disconfirmation is detrimental for intergroup perceptions. Abstract disconfirmation reduced outgroup othering and application of negative outgroup stereotypes. Although there were no effects on language abstraction, estimations from multilevel structural equation modelling were consistent with a partial mediation model in which collective disconfirmation of negative outgroup stereotypes based on stereotype-inconsistent group characteristics reduces the vividness of mental images of the outgroup, which ultimately reduces their view of the outgroup as “others” who fundamentally differ from “us.” Thus, abstract disconfirmation reduced vividness rather than concrete disconfirmation boosting it compared to a baseline, and outgroup vividness mediated the effect of abstract stereotype disconfirmation on outgroup othering.

In line with Experiment 4.1 (and unlike Experiment 4.2) the current results showed changes in stereotype application. Interestingly, in Experiment 4.3 abstract disconfirmation resulted in less application of negative stereotypes whereas there was no effect on application of positive traits to the outgroup. This is of theoretical interest for two reasons. First, unlike Experiment 4.2 it demonstrates that intragroup communication can be directed to influence rather robust outgroup stereotypes. And second, it disproves the tentative conclusion from Experiment 4.1 that abstract disconfirmation selectively affects positive rather than negative traits because this intervention stimulates generation of positive outgroup traits. In sum, we can conclude that abstract intragroup disconfirmation of negative outgroup stereotypes can indeed improve individuals’ perceptions of a despised outgroup.

Importantly, the lack of effects on frequency of target stereotypes in outgroup associations in Experiment 4.3 implies either that the current instructions, which explicitly mentioned outgroup stereotypes, did not strengthen participants’ outgroup-stereotypic associations or that participants successfully suppressed these associations. Further research could explore this more in-depth. For instance, are these stereotypes so engrained that explicit referencing does not add to the salience of these outgroup associations? Or would differences emerge under cognitive load? In addition to providing food for thought, Experiment 4.3 empirically supported the abstract disconfirmation hypothesis

## General Discussion

The present research tested the effectiveness of an intervention targeting intragroup communication to improve intergroup perceptions. Three experiments provided converging evidence from different intergroup contexts for the abstract disconfirmation hypothesis, advocating the impact of intragroup refutation of negative outgroup stereotypes based on abstract positive outgroup characteristics rather than concrete examples of individual outgroup members' positive behaviors. This hypothesis was supported with interventions based on natural intragroup discussions and with a confederate, with a relatively positive target outgroup (elderly people) and more negative outgroups (Moroccan-Dutch and non-native Dutch adolescents). Intergroup perceptions were improved on various indicators, such as stereotype application, attitudes regarding social proximity to outgroup members, outgroup essentialism, attributions of outgroup success, and outgroup othering. Findings of Experiment 4.3 furthermore suggest that the beneficial influences of abstract stereotype disconfirmation on intergroup perceptions may be partially explained by less vivid mental images of the outgroup. In sum, abstract intragroup disconfirmation of negative outgroup stereotypes improves intergroup perceptions.

These findings contribute to the existing literature in several ways. First, the current results testify to the effectiveness of targeting intragroup communication in interventions to improve intergroup perceptions. Previous research has often focused on ideal forms of intergroup contact that could de-escalate intergroup conflict. Regarding this ideal contact, Pettigrew (1998, p. 69) observed that "Allport's hypothesis risks being an open-ended laundry list of conditions." Moreover, Dixon, Durrheim, and Tredoux (2005) noted that the ideal conditions for intergroup contact are rarely met in practice, and that "in focusing on rarefied forms of interaction, social psychologists have inadvertently widened the gap between theory and practice in contact research" (p. 700). This critical concern may be partially solved by distinguishing between conditions that are facilitating or essential for intergroup contact to improve intergroup relations (Pettigrew & Tropp, 2006). The current research adds to this effort by suggesting another way to address the rarity of ideal intergroup contact in real-life intergroup conflicts. We propose to target intragroup interactions, which are omnipresent (cf. Postmes et al., 2014). By targeting intragroup processes, the current findings extend the existing intergroup conflict literature, which primarily focuses on intra-individual and intergroup processes.



Thus, the current research reveals the promising potential of interventions targeting intragroup communication content and form to improve intergroup perceptions.

The second contribution to the literature concerns the relative power of concrete and abstract communication. The current research tested four competing hypotheses, revealing empirical support for the abstract disconfirmation hypothesis. This implies that intragroup discussion of general outgroup characteristics that are stereotype-inconsistent is more beneficial for intergroup perceptions than intragroup discussion of individual outgroup members who behave stereotype-inconsistently. This is not to say, however, that concrete communication could never impact intergroup perceptions. The current research contrasted concrete and abstract communication instructions to enable testing of their relative effects. It is likely that participants in the abstract conditions also mentioned concrete examples, and vice versa (cf. Nairn & McCreanor, 1991). Nonetheless, the abstract disconfirmation instructions yielded diverse positive outcomes.

### **Limitations and Directions for Future Research**

One important limitation is that, to narrow the focus of the current paper and increase readability, we assessed the usefulness of intragroup interventions in intergroup conflict with measures of intergroup perceptions. There are several reasons for why an interpretation of harmonized intergroup perceptions as indicative of harmonized intergroup relations is too simplistic. For one, in subsequent intergroup contact actual outgroup members may not be as nice or as similar to oneself as envisioned (cf. drawbacks of imagined contact). Moreover, even if improved intergroup perceptions succeed to de-escalate intergroup conflict this newly found harmony may inadvertently contribute to persistence of intergroup inequality by reducing the likelihood that disadvantaged group members engage in collective action (e.g., Dixon, Durrheim, Tredoux, Tropp, Clack, & Eaton, 2010; Saguy, Tausch, Dovidio, & Pratto, 2009; Wright & Lubensky, 2009). However, if advantaged group members stop othering the disadvantaged group as fundamentally different from “us” (as we found in Experiment 4.3), at least one ground for legitimizing intergroup inequality breaks down. This may be essential because positive intergroup perceptions may not hinder collective action if advantaged group members perceive and describe intergroup inequality as illegitimate (Becker, Wright, Lubensky, & Zhou, 2013). Moreover, reduced outgroup othering may lead to less

threat because it decreases the salience of intergroup boundaries (e.g., Gaertner & Dovidio, 2000) and, hence, result in more comfortable intergroup interactions (Trawalter, Richeson, & Shelton, 2009). Although reduced outgroup othering as merely signaling a social connection may not be appreciated by members of stigmatized groups (Rattan & Ambady, 2014), together these findings suggest that abstract negative stereotype disconfirmation within advantaged groups may improve intergroup interactions beyond merely improving intergroup perceptions.

One smaller issue concerns minor inconsistencies between findings across the three experiments. Experiment 4.1 revealed increased application of positive outgroup characteristics, Experiment 4.2 showed no significant effects, and Experiment 4.3 showed less application of negative outgroup traits. This inconsistency may be explained in several ways. One possible explanation involves valence. The target outgroups were relatively positive (elderly, Experiment 4.1) and negative (non-native Dutch adolescents, Experiment 4.3). Discussion of positive group characteristics in the abstract disconfirmation conditions may have affected the most salient valence dimension of the stereotype application measure. Although testing this speculation requires more research with other positive and negative outgroups, both significant effects (Experiments 4.1 and 4.3) testify to the beneficial influences of abstract intragroup disconfirmation of negative outgroup stereotypes. Moreover, the current findings show that this intervention has broader consequences than a mere increase in application of positive outgroup traits after collective generation of positive outgroup traits.

And as a final limitation, the current findings were controlled for conversation ease (Experiments 4.1 and 4.3) and conversation pleasantness (Experiment 4.3). However, we acknowledge that a real-life intervention should result in improved intergroup perceptions without controlling for such factors. One potential solution would be to investigate more in-depth why abstract disconfirmation of negative stereotypes makes a conversation feel uneasy and unpleasant. Anecdotal evidence suggests that this happens because people feel bad about making gross generalizations about outgroups. If this is indeed the case, this problem may be solved by including more explicit instructions explaining that such positive generalizations may seem wrong at first sight but can in fact counter existing negative generalizations such as stereotypes.

## Conclusion

Together, the current experiments provide new theoretical as well as practical insights by suggesting a viable way to intervene in intergroup conflict, accounting for the scarcity of high-quality intergroup contact. The proposed approach to target intragroup communication extends the existing intergroup contact and stereotyping literatures, which mainly revolve around intrapersonal and intergroup processes. Three experiments revealed converging support for the abstract disconfirmation hypothesis. Intragroup communication (natural or with a confederate) about group characteristics that disprove negative outgroup stereotypes (about elderly people, Moroccan-Dutch, or non-native Dutch adolescents) has beneficial influences on intergroup perceptions. Thus, intragroup interventions may contribute to bridging the gap between social psychological theories or ideologies and the tough and persistent practice of social relations in intergroup conflicts.

# **CHAPTER FIVE**

General Discussion: The Role of Intragroup Communication in  
Intergroup Conflict.



## Chapter Five

### General Discussion: The Role of Intragroup Communication in Intergroup Conflict.

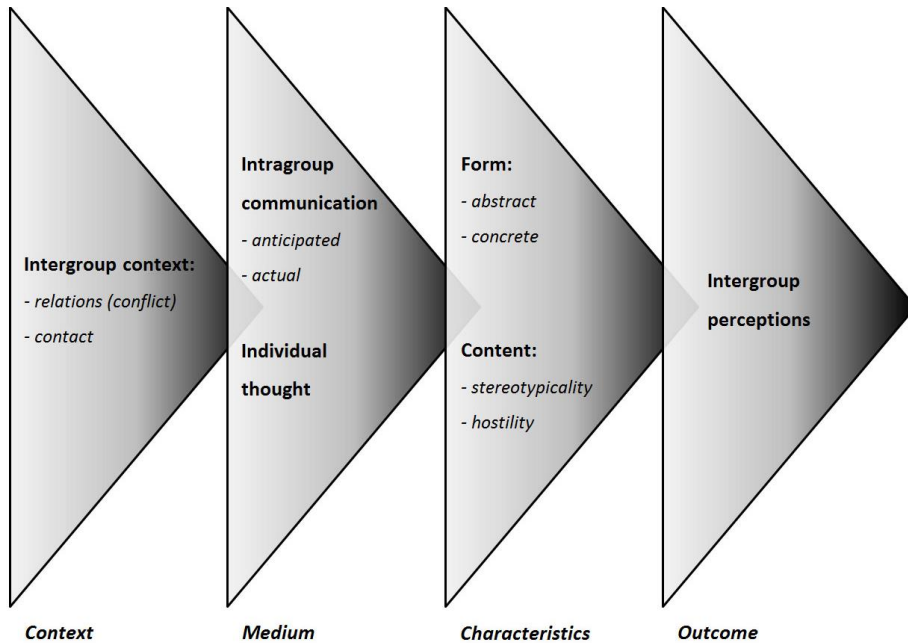
In this dissertation, I researched the potential of both the *content* and *form* of intragroup communication to reduce intergroup conflict escalation and de-escalation. As part of a multidisciplinary research program on the theme of conflict and security (De Dreu, 2014; Evenblij, 2014), I aimed to contribute to the development of effective intervention strategies in intergroup conflict. The research reported in the current dissertation addresses this issue by specifically exploring the role of intragroup communication in intergroup conflict. I decided to focus on intragroup communication because it has been shown to shape individuals' cognition and intergroup perceptions – which can ultimately flip the balance between intergroup conflict escalation and de-escalation. Yet to date investigations on intragroup processes and on intergroup conflict have been conducted in relatively disjoint literatures (Dovidio, 2013). Our investigation into intragroup processes thus extends the existing intergroup conflict literature that has been characterized by a main focus on intergroup processes (e.g., influences of contact between conflicting groups) and intrapersonal processes (e.g., stereotypes as pictures in the individual's head).

Specifically, I focused on answering the question how intergroup perceptions can be influenced by *anticipated* as well as *actual* intragroup communication. I focused on interactive conversations between fellow group members engaged in real-life intergroup conflict. The current dissertation highlighted the significance of the social embeddedness of communication and cognition by revealing that the *content* of intragroup conversations about a conflicting outgroup depends on the intergroup setting in which the conversation is embedded (i.e., with or without an impending intergroup confrontation). Likewise, the *form* of individuals' cognition (i.e., abstract or concrete) about outgroup members is affected by whether or not they anticipate to discuss this outgroup information with their fellow group members. Although these investigations are basic and fundamental, I have also tested the practical implications of these findings for intergroup conflict. The experiments reported here revealed that intergroup conflict can be de-escalated by an intervention targeting both content and form of intragroup communication about a conflicting outgroup. Before I detail the theoretical and practical implications of this

dissertation and discuss potential limitations, I briefly summarize the main findings from the experiments presented in the empirical chapters.

### Summary of Findings

The general aim of the current dissertation was to shed light on the role of intragroup communication in escalation and de-escalation of intergroup conflict, as an empirical base to ultimately design an intragroup approach to intervene in intergroup conflict. Each of the empirical chapters has approached this issue from a different angle. In the first empirical chapter (Chapter 2) I investigated how intragroup communication in small interactive groups affects stigmatized group members' intergroup perceptions. I specifically focused on how anticipating intergroup contact shapes the content of communication, and how communication content in turn influences individual group members' thinking. In the second empirical chapter (Chapter 3) I focused on its not content-related influences by exploring how mere *preparation for* intragroup communication about stereotype-relevant outgroup information influences the way group members think. Thereby, I investigated effects on the form in addition to the content of cognition. And lastly, in the third empirical chapter (Chapter 4) I sought to apply the concepts of content and form to communication in designing a practical, intragroup communication-based intervention to de-escalate intergroup conflict. Thus, each of the preceding empirical chapters considered an aspect of intragroup communication that is consequential for intergroup perceptions and, hence, the relations between conflicting groups (see Figure 5.1).



**Figure 5.1.** Aspects related to intragroup communication in intergroup conflict that have been considered in the empirical chapters of the current dissertation.

Each empirical chapter has addressed some aspects depicted in Figure 5.1. While all studies focused on a general context of intergroup conflict, Chapter 2 additionally investigated influences of anticipating contact with an antagonistic outgroup. In the preceding chapters I have explored the role of actual intragroup communication (Chapters 2, 4) and anticipated intragroup communication (Chapter 3) as well as individual thought (Chapter 2). I thereby focused on influences of the form (Chapters 3, 4) as well as the content (Chapters 2, 4) of these processes on individual group members' intergroup perceptions. Taken together, the current findings highlight the significance of intragroup processes for intergroup relations, and more in particular they reveal two facets of communication (i.e., content and form) that may be used in intergroup conflict interventions.



## Chapter 2: Steeling ourselves.

In Chapter 2 I have presented two experiments on intragroup communication in intergroup conflict. The intergroup conflict investigated there revolved around the non-student inhabitants of Groningen stigmatizing students in the city as (although sociable and intelligent) generally annoying, unwelcome noisy litterers (also see Figure 2.1). Experiment 2.1 revealed that students who anticipate a face-to-face confrontation with non-students steel themselves against anticipated hostility. Specifically, they boost their ingroup identification, romanticize meta-stereotypes, and perceive students in general as holding more negative views about non-student inhabitants. Such ‘steeling’ emerged only if students anticipated face-to-face intergroup contact and engaged in small group discussions with other students rather than individual thought. Steeling seemed to occur because individuals in groups who anticipate intergroup contact talk more about incidents in which outgroup members displayed hostile reactions towards the ingroup than individuals in groups who do not anticipate a face-to-face intergroup confrontation.

Moreover, Experiment 2.2 indicated that audio recordings of small-group conversations between students preparing for intergroup contact with non-students instilled more discomfort in an unrelated student sample than audio recordings of small-group conversations of students who did not anticipate direct intergroup contact. This suggests that anticipating intragroup communication does not only affect what group members talk about, but this intragroup communication content in turn shapes individuals’ feelings and perceptions. This implies that an intergroup conflict intervention forcing intergroup contact may backfire once group members talk about this within their own groups – i.e., in the natural surroundings in which most daily-life communication takes place. Taken together, the key message of Chapter 2 is that people show divergent reactions to identical intergroup situations, depending on whether or not they engaged in intragroup communication.

## Chapter 3: When abstraction does not increase stereotyping.

Although the content of actual interactive intragroup communication may influence individual group members’ cognition (Chapter 2), the *anticipation* of intragroup communication may be sufficient to alter perceptions (cf. Zajonc, 1960). In Chapter 3 I explored one possible process by which anticipated intragroup

communication may impact on individuals' cognition. Two experiments supported the notion that preparation for intragroup communication can facilitate abstract thinking – even of information that is typically processed concretely (i.e., unexpected, stereotype-inconsistent information). This finding is of theoretical as well as practical interest, because stereotype-inconsistent information will more likely influence existing views if it is interpreted in a generalizing manner – which is not typically done. That is, abstract construal of stereotype-inconsistent information may result in stereotype change. Thus intragroup communication may be a setting in which people open their minds to change pre-existing shared realities.

In line with our hypotheses, both experiments showed that anticipated intragroup communication creates the conditions for stereotype-inconsistent information to be processed abstractly. More specifically, participants read fake newspaper articles about some members of a target outgroup who behaved in line with their stereotypes (employees having boring office meetings in Experiment 3.1; Moroccan-Dutch adolescents forming a kick boxers group in Experiment 3.2) or not in line with stereotypes (employees having a night out in Experiment 3.1; Moroccan-Dutch adolescents forming an artists collective in Experiment 3.2). They formed an individual impression of this article or expected to talk about it with ingroup members on an online forum. Results of both experiments showed that stereotype-consistent information is processed abstractly regardless of whether or not one expects to talk about this. That is, this kind of information about an outgroup does not draw perceivers' attention to specific details and, hence, they can maintain a relatively abstract and general mode of thinking. Yet stereotype-inconsistent information does direct attention to the details of a specific incident. Such unexpected information requires a more meticulous explanation: Why did these unique individuals behave stereotype-inconsistently in this particular situation? This shift to more concrete processing of stereotype-inconsistent information can, however, be countered by anticipated communication.

In Chapter 3 I have elaborated our view that communication calls for a certain level of abstraction because it is based on a common ground. Communication partners first need to establish a general framework of shared knowledge before they can dive into the details of a particular situation together. Therefore, anticipating communication forces people to maintain a relatively abstract way of thinking even when they are confronted with stereotype inconsistency. This hypothesis was supported in two different intergroup contexts, with central (i.e., in the core of a storyline) as well as peripheral presentation of stereotype-inconsistent

information about outgroup members. Moreover, Experiment 3.2 showed that abstract thinking increases stereotyping only if the construed information is stereotype-consistent. This finding nuances the common assumption that abstraction equals stereotyping. Abstract thinking can indeed cause us to see and treat others in terms of their social group membership rather than as idiosyncratic individuals. This would imply that we should think concretely about outgroup members in order to de-escalate intergroup conflict (cf. Brewer & Miller, 1984). However, our results indicate that only abstract thinking about stereotype-consistent information increases stereotype application – whereas abstract thinking about stereotype-inconsistent information does not. In other words, seeing a kick boxer as Moroccan-Dutch rather than as a unique individual increases native Dutch people’s negative stereotypical views of this group, but perceiving an artist as Moroccan-Dutch rather than as a unique individual is unrelated to native Dutch people’s use of stereotypes. This shows that characteristics that are unrelated to the stereotype can break the link between abstract thinking and application stereotype. This effect occurred even though people can be both artistic and aggressive – in other words, the stereotype-inconsistent trait used in Experiment 3.2 was not counter-stereotypical. One implication of this finding may be that seeing a peaceful person (i.e., *counter-stereotypical*, anti-aggressive) as Moroccan-Dutch rather than as a unique individual may *reduce* negative stereotypes. Thus, preparing for intragroup communication may be a key to stereotype change because it can facilitate abstract, generalizing interpretation of stereotype-inconsistent outgroup information. Because I aimed to develop an intergroup conflict intervention that can be implemented in *actual* intragroup conversations, these findings raised the question of whether and how differences in abstraction level can be manipulated in intragroup conversations to improve intergroup perceptions. This is one of the issues that I addressed in Chapter 4.

#### **Chapter 4: Improving intergroup perceptions.**

The aim of Chapter 4 was to design an intervention that combines the forces of abstraction level (Chapter 3) and intragroup communication content (Chapter 2) to de-escalate intergroup conflict via discussions in real groups. In this empirical chapter I reported three experiments concerning the practical implications of Chapters 2 and 3 for intergroup conflict interventions. That is, Chapter 2 showed

that interventions targeting *intergroup* contact may backfire because such contact is typically anticipated within groups. The content of small-group discussions in anticipation of intergroup contact can have negative consequences for intergroup perceptions and relations. An intervention should therefore create a safe environment – at least initially – of intragroup conversations about an outgroup that will not be physically present. That is, small groups of ingroup members should talk about how “we” see “them” rather than about how “we” see “you” – and of course the emphasis of these discussions should be on positive aspects. Adding to this content-based approach to intragroup communication, Chapter 3 investigated the form of individuals’ thinking about outgroup members and revealed that abstract cognition does not inevitably increase outgroup stereotyping. For an intervention, this implies that abstract thinking about an outgroup is not necessarily a problem in intergroup conflict. In fact, changing abstract group-level cognitions such as negative outgroup stereotypes requires abstract group-level counterevidence (Paik, MacDougall, Fabrigar, Peach, & Jellous, 2009). A concrete positive example, such as an elaborate description of a vibrant granny who shares Facebook posts all day, paints a vivid mental picture that feels quite real to the audience (cf. Hansen & Wänke, 2010). Nevertheless, this may be seen as an exception rather than bring about significant change in their stereotypes about elderly people in general. However, stereotype change may occur if the conversation instead focuses on abstract, group-level counter-stereotypical evidence – for instance that more than half of the elderly population in The Netherlands uses a tablet. Therefore, in Chapter 4 I investigated abstraction level (cf. Chapter 3) and intragroup communication content (cf. Chapter 2) as tools to de-escalate intergroup conflict via discussions in real groups.

In Experiment 4.1, which focused on a mild intergroup conflict, small groups of adolescents were instructed to confirm or disconfirm negative stereotypes about elderly people (i.e., target outgroup) by talking about individual outgroup members (vivid, concrete communication) or by talking about the entire social category (generalizing, abstract communication) in natural settings. I investigated a more severe intergroup conflict in Experiment 4.2, in which participants followed the same instructions regarding stereotypes about the target outgroup Moroccan-Dutch adolescents in small groups with a confederate (i.e., semi-natural intragroup discussions). Comparing several competing hypotheses, both Experiments 4.1 and 4.2 provided most support for the hypothesis that abstract intragroup refutation of negative outgroup stereotypes is the most successful intervention to improve intergroup perceptions. Moreover, in Experiment 4.3, I compared the effects of

abstract and concrete disconfirmation on intergroup perceptions to a neutral control condition (disconfirmation of the negative view of illegal downloading of music and films). This experiment investigated the impact of intragroup conversations (without confederate) about stereotypes concerning non-native Dutch adolescents. Again, abstract disconfirmation of negative outgroup stereotypes improved intergroup perceptions more than concrete disconfirmation. Thus, the experiments presented in the final empirical chapter not only established that intragroup communication can be targeted to improve intergroup perceptions, but also provided insight into ways in which intragroup communication form and content can be modelled to de-escalate intergroup conflict. Indeed, as I will outline in more detail below, I conclude that group members should be encouraged to collectively discuss outgroup characteristics that disprove negative intergroup perceptions. That is, based on these findings I advance an intergroup conflict intervention that is based on abstract intragroup disconfirmation of negative outgroup stereotypes.

### Theoretical Implications and Future Research

The studies in the current dissertation deal with dynamics in small interactive groups as well as responses of isolated individuals to computer tasks. In my view, the fields of social psychology and social cognition are not merely ‘social’ because we investigate cognitions, emotions, and behaviors *about* other social entities (e.g., stereotypes, attitudes, attributions) but also because human cognitions, emotions, and behaviors are formed and transformed together *with* others. I agree with Wittenbaum and Moreland (2008, p. 198) that “without work examining human interaction in small groups, much of the ‘social’ has been lost from social psychology.” And with the studies reported in the preceding empirical chapters I hope to contribute to reversing the recent sharp decline of research on small group interactions observed by Wittenbaum and Moreland (2008). Taken together, the main contribution of the empirical chapters is twofold. First, they highlight the thus far underrepresented role of intragroup processes in escalation and de-escalation of intergroup conflict. And second, they resulted in the development of an intragroup communication-based intervention to de-escalate intergroup conflict. Before turning to the practical implications, I will first discuss the main theoretical implications.

## **Theoretical implications for shared reality.**

The experiments reported in the current dissertation have implications for the concept of shared reality within groups (e.g., Echterhoff, Higgins, & Levine, 2009; Hardin & Higgins, 1996). As I have shown in the general introduction chapter, ample evidence supports the notion that group members tend to think, feel, and act similarly (e.g., Smith, Seger, & Mackie, 2007; Thompson & Fine, 1999; Tindale, Meisenhelder, Dykema-Engblade, & Hogg, 2001; Yzerbyt, Dumont, Mathieu, Gordijn, & Wigboldus, 2006). One may argue that individuals within the same social group share views – as well as consequent feelings and behaviors – mainly because they have had similar experiences with a target group (or person or other social entity). For instance, non-student inhabitants of Groningen may view students as noisy litterers (see Chapter 2) because they all have frowned upon students' loud music and carelessly scattered bicycles and beer cans. This illustrates that shared cognition, emotion, and behavior may be a consequence of group members' exposure to the same “stimulus.”

However, this cannot be the entire story. Many intergroup perceptions pertain to groups with which individuals have had little or no contact. In fact, one of the premises of contact theory is that negative stereotypes and prejudice prevail when intergroup contact is limited (e.g., Pettigrew & Tropp, 2006, 2008). Moreover, these shared views do not do justice to the heterogeneous nature of groups – individuals rarely are an exact embodiment of their group's stereotype. In other words, personal impression formation processes in similar social contexts cannot fully explain the sheer sharedness that exists among group members' cognitions, emotions, and behaviors (cf. Lyons, Clark, Kashima, & Kurz, 2008). The implication is that people's ideas about outgroups and intergroup relations are, to a large extent, constructed socially: They are shared realities whose relationship with actual events may be modest. The current dissertation provides evidence for another process involved in the formation and transformation of group members' views about others: Intragroup communication can profoundly affect the way in which individuals perceive the (social) world. I have shown that actual intragroup conversations as well as merely anticipated dialogue within groups impact how people think. And the influence of such communications on individuals' perceptions of reality depends, in turn, on the larger intergroup context. That is, conversations about a conflicting outgroup we are about to meet differ in content and consequences from mere dialogue among “us” about “them.” More importantly for

the current purpose, this powerful intragroup communication process can be shaped to improve intergroup perceptions (i.e., foster the development of constructive rather than destructive shared views). Thus, I conclude that intragroup communication can be an important factor in the rise and demise of tensions between social groups.

### **Theoretical implications for social influence.**

One other theoretical concept that I feel should be touched upon in discussing communication research is informational versus normative social influence. Deutsch and Gerard (1955, p. 629) defined normative influence as “an influence to conform with the positive expectations of another” and informational influence as “an influence to accept information obtained from another as evidence about reality.” Normative influence seems an unlikely explanation of the current findings, because most dependent variables in the current dissertation were measured with anonymous questionnaires. At first blush, informational influence may seem a more obvious candidate. Group members may change their perceptions after intragroup communication because they accept the information others contributed to the conversation as novel and true. However, there are several problems with a purely informational influence-based account of the current data. For instance, informational influence cannot explain why in Chapter 2 participants’ intergroup perceptions change only after intragroup discussions that served to prepare for an intergroup encounter. Nor can informational influence explain why mere *anticipation* of intragroup communication in Chapter 3 alters the way individuals think. And finally, informational influence cannot explain why participants are influenced more by abstract than by concrete stereotype (dis)confirmation as I found in Chapter 4. These findings thus confirm that the distinction between normative and informational social influence is not sufficient to explain attitude polarization-like phenomena in which communication leads to accentuation of intergroup differences, at least in some communication settings (see also Turner, 1991; Wetherell, 1987). All in all, the results presented in the empirical chapters paint a nuanced picture of individuals’ cognition as emerging in a dynamic interplay between intragroup and intergroup factors.

## Theoretical implications for mass media research.

Of course, people's social perceptions are influenced by small-scale conversations as well as mass communication. Mass communication such as in the media has not been covered explicitly in the current dissertation. However, Chapter 3 revealed that the impact of newspaper articles on individuals' abstract thinking depends on whether or not they expect to talk about the content with others. Indeed, this is not an isolated finding: It has long been known that the influence of mass media is mediated by people's willingness to integrate mass communication into interpersonal (arguably, usually intragroup) communication (e.g., Lazarsfeld, Berelson, & Gaudet, 1968). For instance, anti-alcohol television campaigns lower students' intentions to engage in binge drinking to the extent that they cause students to have more negative conversations about alcohol (Hendriks, De Bruijn, & Van den Putte, 2012). Research on intergroup conflict (rather than health) interventions yields tentative yet similar conclusions regarding the mediating role of small-scale conversations. That is, listening to and subsequently talking about a radio soap opera on reducing intergroup conflict improves listeners' intergroup norms and behaviors (Paluck, 2009). The mediating role of intragroup communication in mass media influences on intergroup conflict de-escalation seems restricted to *spontaneous* rather than explicitly prompted conversations (Paluck, 2010). Intragroup communication may catalyze intergroup conflict escalation or de-escalation because it provides social validation and disseminates the effects of mass communication and intergroup communication through social networks (cf. extended intergroup contact; Wright, Aron, McLaughlin-Volpe, & Ropp, 1997). Chapter 3 adds to this existing literature by showing that mere preparation for intragroup communication alters the abstraction level of individuals' thinking. Specifically, anticipated communication enabled abstract construal of outgroup information in newspaper articles. Thus, although other forms of communication and sources of information can certainly influence individuals' cognition and behavior, (anticipated) intragroup communication plays an important role in the overall impact of information through other channels on perceptions.



## **Theoretical implications for the intragroup versus intergroup dichotomy.**

Chapter 2 reveals that intragroup interactions can color individuals' perceptions of themselves and others, and that this process is also socially situated. Intergroup dynamics such as anticipated intergroup contact can impact intragroup communication, which in turn (re)defines intergroup relations. In other words, the impact of intragroup processes on group members' cognition depends on the larger intergroup context in which the intragroup communication is embedded, and vice versa. Thus, in our view the question whether group-based outcomes such as prejudice and discrimination are shaped by either intragroup or intergroup dynamics (e.g., Gaertner & Schopler, 1998) is based on an arbitrary distinction. Processes within and between groups cannot be neatly separated in the messy reality of daily life. I therefore advocate an overarching approach to group research, bridging intragroup processes and intergroup relations (which is so far surprisingly rare; cf. Dovidio, 2013).

## **Theoretical implications for abstract thinking and stereotyping.**

Chapters 3 and 4 also extend previous research on the relation between abstract thinking and stereotype application. This relation has been presented as rather clear-cut in the literature. For instance, abstract thinking increases stereotyping, because it makes people see others as group exemplars rather than unique individuals (McCrea, Wieber, & Myers, 2012). In other words, abstraction is problematic for those who seek harmonious intergroup relations. However, the current research shows that this relation is less straightforward than previously assumed. Chapter 3 indicated that abstract construal of stereotype-consistent information is related to increased stereotype application, whereas abstract construal of stereotype-inconsistent information is not. Moreover, Chapter 4 revealed that only abstract communication about stereotype-inconsistency is beneficial for intergroup perceptions. Thus, abstract thinking may also be a *solution* for de-escalating conflictual intergroup relations.

## Future research.

Following Chapters 3 and 4, future research may investigate the exact conditions under which abstract thinking (de-)escalates intergroup conflict. One hypothesis that can be easily tested is that the categorization baseline (e.g., initially categorizing someone as a social psychology PhD candidate, as a female scientist, or as a researcher) and stereotype-consistency interactively influence prejudice. The level at which we categorize others may moderate the influence of abstraction level on prejudice and discrimination – causing an inverse U-shaped relation between abstraction level and prejudice. That is, abstraction decreases stereotyping if it shifts perception of others as outgroup members to others as part of an overarching common ingroup. By contrast, abstraction increases stereotyping to the extent that it shifts perception of others as individuals to others as outgroup members. For this purpose, one can conceive of social categorization as residing at three levels – from concrete to abstract: Merely unique individuals, ingroup versus outgroup members, and fellow members of an overarching common ingroup. If the categorization baseline is ingroup versus outgroup members, abstraction results in social categorization of others as fellow ingroup members at the overarching level and, hence, prejudice reduction (Gaertner, Dovidio, Anastasio, Bachman, & Rust, 1993). For instance, if native Dutch people think more abstractly about Moroccan-Dutch immigrants they may realize that they are all fellow Dutch citizens – thereby reducing prejudice and discrimination. However, if the baseline is the individual level, abstraction leads to group-level categorization of others as either ingroup or outgroup members. That is, if I think more abstractly about my driving instructor Mohammed I may perceive him as “a Moroccan-Dutch immigrant” instead. Chapters 3 and 4 imply that this latter more abstract re-categorization should increase prejudice of participants who are presented with stereotype-consistent information (arguably the default situation). However, this effect should disappear or reverse if participants are presented with stereotype-inconsistent information. Thus, the effects of abstract thinking presumably depend on what exactly one abstracts from.

The current dissertation mainly focused on group members’ intergroup perceptions. There are of course additional issues that are relevant in intragroup communication about intergroup conflict that have not been addressed in the experiments reported in the empirical chapters. For instance, it would be of theoretical interest to investigate the role of emotion in intragroup communication.

Emotions are a worthwhile topic for future research on intragroup influences in escalation and de-escalation of intergroup conflict for several reasons. Emotions tend to develop and converge within groups (e.g., Smith, Seger, & Mackie, 2007; Yzerbyt, Dumont, Mathieu, Gordijn, & Wigboldus, 2006) and are important predictors of behaviors that contribute to (de-)escalation of intergroup conflict. For instance, intergroup behaviors and relations are affected by intrapersonal experiences of emotions (e.g., intergroup anxiety; Stephan & Stephan, 1985) as well as intergroup communication conveying specific emotions from one group to another (e.g., De Vos, Van Zomeren, Gordijn, & Postmes, 2013). In a similar vein, future research may investigate several ways in which emotion plays a role in intragroup communication and intergroup conflict.

First, the emotions that one experiences during intragroup communication may moderate the impact of a conversation on perceptions (i.e., persuasive strength of intragroup communication). Positive emotions such as happiness generally lead people to be more easily influenced by what others say, whereas negative emotions such as sadness tend to encourage more thorough processing of arguments and attempts at persuasion (e.g., Bless, Bohner, Schwarz, & Strack, 1990; Worth & Mackie, 1987; for a more nuanced overview, see Petty & Briñol, 2015). Second, people's opinions may be influenced more easily by conversations that trigger stronger emotions. Regarding intergroup conflict (de-)escalation, how does intragroup dialogue involving personal anecdotes about hostile encounters with outgroup members (cf. Chapter 2) compare to collective laughter about a common enemy? And what are the different ways in which such threat versus ridicule can affect intergroup conflict? Presumably, making fun of a conflicting outgroup may take the edge off the conflict compared to sharing threatening stories. Indeed, one way of coping with a conflicting outgroup is to laugh away any suggestion of threat (Janis, 1971). However, jokes about outgroups may also relate to destructive reactions such as ingroup favoritism and discrimination (Thomas & Esses, 2004; Abrams & Bippus, 2014). This effect may be moderated by power, to the extent that humor and jokes reduce the power divide. That is, making fun of a high-power outgroup might de-escalate intergroup conflict if it makes them seem less superior, whereas joking would render a low-power outgroup more inferior and hence escalate conflict. Previous findings that especially women (i.e., the low-status group) rate jokes about the opposite gender as funnier and more typical (Abrams & Bippus, 2011) and that suggest that it may be a worthwhile to pursue these issues in future research.

A third subtopic related to the role of emotions in intragroup communication about intergroup conflict is that specific emotions likely play a role in social validation. For example, the impact of personal anecdotes about intergroup hostility such as described in Chapter 2 presumably depends on subsequent emotional reactions. Emotions such as satisfaction (towards the communicator) and fear or anger (towards the outgroup) after portrayal of an outgroup as hostile may validate this perception, whereas emotions such as surprise may lead communicators to feel that the expressed views are not justified. Indeed, happiness and anger rather than sadness and surprise can increase the extent to which people feel that their thoughts are correct (i.e., *cognitive validation*; e.g., Petty & Briñol, 2015). Moreover, expressions of anger (towards ingroup members) may facilitate intragroup consensualisation and, consequently, social validation if it encourages dissenting ingroup members to yield. Thus, it seems worthwhile to scrutinize the many facets of emotion effects in future research on intragroup communication in intergroup conflict.

## Practical Implications

In line with our aim to contribute to the multidisciplinary development of intergroup conflict interventions (De Dreu, 2014; Evenblij, 2014), the research reported in the current dissertation has several practical implications. Chapters 2 and 3 concerned theory-driven investigations into the role of intragroup communication in intergroup conflict, and insights from these studies were applied in Chapter 4, in which I designed and tested an intervention to reduce intergroup conflict via intragroup communication. The current findings provide useful suggestions for practitioners who seek to de-escalate conflict between groups, and may be applied to improve mutual perceptions in local conflicts (such as the students and stadgers in Groningen) as well as national conflict (such as between native and immigrant citizens). Our intervention was originally designed as an attempt to structure intragroup communication from the outside by instructing small groups to communicate in certain ways. In addition, however, the findings may hopefully stimulate anyone to become aware every now and then of how “we” tend to talk about “them” and of how this may buttress our pre-existing perceptions or open our minds for fresh insights.

First of all, Chapter 2 indicated that the larger intergroup context influences what group members discuss and – hence – think. Specifically, practitioners intending to intervene in intergroup conflict should prevent depiction of an outgroup as hostile, because this may result in defensive steeling. One way of achieving this is to focus on positive, stereotype-inconsistent (rather than threatening, stereotype-consistent) pieces of information. Moreover, Chapter 3 showed that such information that is inconsistent with existing stereotypes may be processed concretely (i.e., interpreted as inconsequential exceptions) by default. Moreover, Chapter 4 revealed that group members are able to discuss stereotype-inconsistent information at an abstract level – resulting in improved intergroup perceptions. Thus, together the findings offer a clear instruction: An intervention to reduce intergroup conflict should encourage group members to talk about general group characteristics that disprove prevailing negative stereotypes (such as the view of native Dutch people that non-western immigrants – and in particular Moroccan-Dutch people – are anti-social criminals; pilot study in Chapter 2; Dotsch et al., 2011; Gordijn et al., 2001; Van Prooijen & Coffeng, 2013). For instance, they could talk about how hospitable and warm non-western immigrants and Moroccan-Dutch people are.

Although I did not test this, I believe that the intervention developed in this dissertation can be applied at any moment during intragroup communication when interference is necessary to prevent intergroup conflict escalation. If communication partners start stereotyping or if they incriminate the outgroup using more concrete examples and anecdotes, this should be met with abstract positive counterarguments. This advice can be applied in several settings as it is useful for improving perceptions and relations between diverse groups. For instance, politicians may benefit by adapting their argumentation strategy in political debates about immigration and other intergroup conflicts. It can also be applied to repair relations between rival groups in neighborhoods (such as between the students and stadgers in Groningen), in schools, or in sports. And additionally, the intervention may improve cooperation between conflicting work teams, for instance after a problematic organizational merger.

Specifically, the intervention should lead to an awareness of the impact of abstract talk about outgroup stereotypes. Findings on the linguistic expectancy bias (Maass, 1999; Wigboldus, Semin, & Spears, 2006; see also Wenneker & Wigboldus, 2008; Karasawa & Suga, 2008; Maass, Milesi, Zabbini, & Stahlberg, 1995; Maass, Salvi, Arcuri, & Semin, 1989) illustrate exactly how the proposed intervention can

help. It conveys awareness of communication content (counter stereotype-confirming with stereotype-disconfirming evidence) in the absence of attention for communication form – leading to a crucial imbalance. We generally talk in abstract terms about stereotype-consistent information and in concrete terms about stereotype-inconsistent information. Unfortunately, this non-conscious tendency biases the power of communication towards perpetuation of negative outgroup stereotypes rather than improvement of intergroup perceptions.

That is, by talking abstractly about negative stereotypes (e.g., “Moroccan-Dutch adolescents are anti-social and lazy”) we stress their presumed applicability to the entire outgroup, whereas the concrete language we automatically use to describe stereotype-inconsistent instances (e.g., “Mohammed Raji Elilah is a hard-working, competent, and warm driving instructor”) accentuates their rarity. In our view, abstract perceptions such as stereotypes cannot be changed with merely concrete counterevidence: “Moroccan-Dutch people are *not* anti-social, because Mohammed is social.” Instead, abstract stereotype-disconfirmation should improve intergroup perceptions: “Moroccan-Dutch people are *not* anti-social, because Moroccan-Dutch people are social.” Thus, the proposed intervention should counter the fundamental bias towards stereotype-maintaining conversations by making communicators aware of the form of their language use and instructing them to discuss in abstract, generalizing terms why negative outgroup stereotypes are false.

When applying the current findings to practice, one should ask the question what the intended consequence of the intervention is. The main aim of the intervention presented in this dissertation is to improve intergroup perceptions in order to ultimately encourage group members to settle the intergroup conflict rather than avoiding or discriminating their outgroup. Care should be taken to focus the intervention explicitly on improving perceptions of the conflicting outgroup instead of (also) reducing perceptions of intergroup conflict or inequality. That is, more positive perceptions of a conflicting outgroup should not go hand in hand with trivializing the problem (cf. Becker, Wright, Lubensky, & Zhou, 2013; Dixon, Durrheim, & Tredoux, 2005; Dixon, Levine, Reicher, & Durrheim, 2012; Saguy, Tausch, Dovidio, & Pratto, 2009; Wright & Lubensky, 2009; Dovidio, Gaertner, & Saguy, 2009; for an overview, see Saguy & Kteily, 2014). However, these perspectives have mainly focused on the perceptions held by the disadvantaged group. In Chapter 4, we saw that members of the advantaged group also engaged in less outgroup othering after the intervention. Insofar this tendency echoes a reduction in the salience of intergroup boundaries (rather than, for instance, denial of inequality) the

proposed intervention should both improve intergroup perceptions and reduce ingroup favoritism. Thus, our hope is that abstract intragroup refutation of negative outgroup stereotypes ultimately de-escalates intergroup conflict by encouraging conflicting groups to face and solve their issues together.

However, any intervention that is based on listing arguments against negative outgroup stereotypes should be implemented with caution. That is, group members who have a hard time coming up with outgroup characteristics that disprove a negative stereotype may develop more negative rather than improved intergroup perceptions (Schwarz, Bless, Strack, Klumpp, Rittenauer-Schatka, & Simons, 1991) – at least to the extent that they perceive this difficulty as bad (Briñol, Petty, & Tormala, 2006). Indeed, a failure to satisfactorily counter-argue negative intergroup perceptions may not only fail to produce constructive perceptions but even strengthen pre-existing destructive perceptions (cf. Rucker & Petty, 2004). The intervention tested in the current dissertation (Chapter 4) was designed to circumvent such potential backlash. Specifically, participants were provided with some examples of positive outgroup characteristics and task difficulty was limited by requiring them to only list their top three of positive outgroup characteristics. Practitioners who mean to apply this intervention should of course take care to tailor all instructions to the conflict at hand. Moreover, these interventions will only work to the extent that people are willing to discuss the outgroup in their intragroup conversations. One of our intended studies was obstructed by the discovery that, after the issue of immigration and integration has been discussed for more than a decade in the Netherlands, people may have become wary of engaging in yet another discussion on the topic. Thus, once relations are entrenched, it may be difficult to change them. These practical concerns should be taken into account when implementing the intervention as developed and tested in this dissertation. Nonetheless, the current intragroup communication-based intervention did yield promising results. Across different intergroup conflicts contexts, abstract intragroup disconfirmation of negative outgroup stereotypes improved intergroup perceptions.

## Conclusion

Employing a range of approaches, the experiments reported in the current dissertation investigated the role of intragroup communication in intergroup conflict. One of the main virtues of this dissertation is that the current manipulations of

abstraction level and stereotype-consistency concerned actual dynamic intragroup interactions – whereas former studies on communication influences have typically operationalized communication as (written) sentences or stories. Together, the experiments in this dissertation offer novel theoretical and practical implications by highlighting the role of intragroup communication in intergroup conflict. Based on the current findings, I propose to account for the scarcity of high-quality intergroup contact by targeting intragroup communication to intervene in intergroup conflict. The preceding empirical chapters unveil communication content and form as essential ingredients of intragroup communication that, with the right recipe, can reduce intergroup conflict. Intragroup conversations that revolve around positive, stereotype-inconsistent outgroup characteristics have beneficial consequences for intergroup perceptions. Thus, an intragroup communication-based intervention should instruct conflicting groups to list positive collective features of each other in order to de-escalate intergroup conflict.





# **NEDERLANDSE SAMENVATTING**

Summary in Dutch.



## *Summary in Dutch*

# **Intragroepscommunicatie in Intergroepsconflict: Invloeden op Sociale Perceptie en Cognitie.**

## **Inleiding.**

De meeste mensen zullen het erover eens zijn dat een conflict tussen sociale groepen verwoestende consequenties kan hebben voor de betrokken individuen zelf en hun omgeving. Dit geldt voor conflicten op grote schaal, bijvoorbeeld voor oorlogen of de strijd tegen terrorisme, maar ook voor botsingen op kleinere schaal zoals tussen hooligans van rivaliserende voetbalclubs of tussen demonstranten voor en tegen zwarte piet. Desondanks is er tot nog toe geen consensus bereikt over de beste manieren om escalatie van intergroepsconflict te voorkomen en de-escalatie te bevorderen. Het doel van dit proefschrift was om een bijdrage te leveren aan de ontwikkeling van effectieve strategieën voor interventie in intergroepsconflict, als onderdeel van een multidisciplinair onderzoeksprogramma met het thema *conflict en veiligheid* (De Dreu, 2014; Evenblij, 2014). Welke processen en dynamieken spelen een rol in escalatie en de-escalatie van conflict tussen groeperingen? Waarom laait intergroepsconflict juist op in situaties waarin groepen *geen* contact met elkaar hebben? En hoe kunnen we ervoor zorgen dat de percepties die conflicterende groepen hebben van elkaar en van hun onderlinge relaties minder negatief worden? In dit proefschrift beargumenteer ik dat *communicatie binnen groepen* in conflict een intrinsiek onderdeel vormt van zowel escalatie als de-escalatie van intergroepsconflict.<sup>38</sup>

Een belangrijke reden waarom intergroepsconflict zo sterk wordt beïnvloed door gesprekken die plaatsvinden binnen groepen is dat mensen geneigd zijn meer *over* andere groepen te praten dan *met* hen (McPherson, Smith-Lovin, & Cook, 2001). De beslotenheid van een onderonsje met gelijkgestemde familieleden, vrienden, of collega's biedt een veilige omgeving om samen te kletsen over wat "wij" van "hen" vinden. Dit soort gesprekken heeft voor de betrokkenen vaak als voornaamste doel

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<sup>38</sup> In deze samenvatting gebruik ik (net als in de Engelstalige hoofdstukken algemene inleiding en discussie) het persoonlijk voornaamwoord "ik" maar het onderzoek en de ideeën in dit proefschrift zijn ontwikkeld in samenwerking met mijn co-auteurs – zoals ook blijkt uit het gebruik van "wij" in de empirische hoofdstukken.

om samen wat tijd te verdrijven en elkaar te amuseren, maar kunnen desondanks denkbeelden over onszelf en anderen definiëren en transformeren (Condor, 2006). Het kernidee van dit proefschrift is dat deze ogenschijnlijk onschuldige conversaties door hun invloed op intergroepspercepties een sleutelrol kunnen spelen in het escaleren en de-escaleren van intergroepsconflict. Daarom betoog ik dat een grondig begrip van communicatie in de context van intergroepsconflict essentieel is voor het ontwikkelen van conflictinterventies.

Er zijn verscheidene redenen om de rol van communicatie binnen groepen voor het voetlicht te brengen. Voor zover de huidige literatuur over intergroepsconflict en interventies überhaupt communicatie heeft onderzocht, ligt de focus bijna exclusief op communicatie en interactie *tussen* groepen (Pettigrew & Tropp, 2006, 2008). Uit andere onderzoekslijnen is echter gebleken dat intergroepscommunicatie minder invloed heeft dan intragroepscommunicatie, doordat ons beeld van de werkelijkheid – en dan in het bijzonder van onze sociale wereld; onszelf en anderen – wordt gevormd en aangepast in interactie met anderen op wiens zienswijzen we vertrouwen (e.g., Echterhoff, Higgins, & Groll, 2005; Haslam, McGarty, & Turner, 1996; Postmes, 2003). Dat wil zeggen, onze denkbeelden baseren we voornamelijk op interactie met gelijkgestemden binnen groepen waarmee we ons identificeren (ingroupleden) en we zijn minder gemakkelijk te beïnvloeden door anderen die horen bij groepen waar we ons niet mee identificeren (outgroupleden).

Kortom, het is ook voor een fenomeen dat zich tussen groepen afspeelt, zoals intergroepsconflict, van belang om na te gaan wat er binnen de betrokken partijen gebeurt. Aandacht voor dergelijke intragroepsprocessen verrijkt ons inzicht in intergroepsconflict door verder te kijken dan de intra-individuele en intergroepsfactoren die traditioneel gezien worden bestudeerd in intergroepsconflictonderzoek. Het doel van dit proefschrift is om met deze benadering enerzijds een brug te slaan tussen intragroeps- en intergroepsonderzoek – twee aangrenzende maar desondanks opmerkelijk gescheiden domeinen binnen de sociaal-psychologische wetenschap (Dovidio, 2013). Anderzijds beoogde ik met dit onderzoek een steentje bij te dragen aan de ontwikkeling van wetenschappelijk onderbouwde interventies in intergroepsconflict.

## Samenvatting van resultaten.

In de empirische hoofdstukken van dit proefschrift kwamen verschillende facetten aan bod van de invloed intragroepscommunicatie op percepties in intergroepsconflict. Alle hier gerapporteerde experimenten speelden zich af tegen een algemene achtergrond van intergroepsconflict, waarbij Hoofdstuk 2 bovendien de invloeden uitlichtte van aanstaand contact met een vijandige outgroup. In de verschillende hoofdstukken heb ik de rol onderzocht van daadwerkelijke intragroepscommunicatie (Hoofdstukken 2 en 4), mentale voorbereiding op intragroepscommunicatie (Hoofdstuk 3), en individueel nadenken (Hoofdstuk 2). Ik heb me daarbij gericht op effecten van zowel de vorm (Hoofdstukken 3 en 4) als de inhoud (Hoofdstukken 2 en 4) van deze processen op de intergroepspercepties van individuele groepsleden. Samengenomen hadden deze empirische hoofdstukken als oogmerk om inzicht te verschaffen in de rol van intragroepsprocessen in escalatie en de-escalatie van intergroepsconflict, als een empirische basis om uiteindelijk een intragroepsinterventie te ontwikkelen om intergroepspercepties te verbeteren.

### **Hoofdstuk 2: Intragroepscommunicatie en verwacht intergroepscontact.**

Hoofdstuk 2 beschreef twee experimenten naar intragroepscommunicatie in intergroepsconflict. Het intergroepsconflict betrof de stigmatisering van studenten in Groningen door niet-studenten (*Stadjers*) als slordige herrieschoppers. Experiment 2.1 liet zien dat studenten die verwachten oog in oog te komen staan met Stadjers zich schrap zetten tegen verwachte vijandigheid. Dat wil zeggen, ze identificeren zich sterker met hun ingroup studenten, romantiseren metastereotypen, en hebben het idee dat studenten in het algemeen negatievere denkbeelden hebben over Stadjers. Dit schrap zetten gebeurde uitsluitend wanneer studenten direct contact verwachtten en hier met andere studenten over praatten, maar niet wanneer ze hier individueel over nadachten of alleen indirect (schriftelijk) of geen enkel contact verwachtten. De resultaten van inhouds- en mediatieanalyses suggereerden dat studenten zich schrap zetten in voorbereiding op een harde confrontatie met hun outgroup omdat groepen die direct intergroepscontact verwachten meer praten over incidenten waarbij Stadjers vijandig reageerden op studenten dan groepen die geen direct contact verwachten.

Bovendien wees Experiment 2.2 uit dat geluidsopnamen van groeps gesprekken tussen studenten die direct intergroepscontact verwachtten meer gevoelens van ongemak opwekten in een ongerelateerde steekproef van studenten dan geluidsopnamen van groeps gesprekken tussen studenten die geen direct intergroepscontact verwachtten. Dit suggereert dat verwacht intergroepscontact niet alleen beïnvloedt waar groepsleden onderling over praten, maar dat de inhoud van deze intragroepscommunicatie op zijn beurt weer invloed uitoefent op de gevoelens en percepties van individuen. Dit impliceert dat een intergroepsconflictinterventie waarin intergroepscontact wordt opgelegd en geforceerd ongewild negatieve consequenties kan hebben als groepsleden hierover praten binnen hun eigen groepen – dat wil zeggen, in de natuurlijke omgeving waarin het merendeel van de dagelijkse communicatie plaatsvindt. Samengevat is het belangrijkste punt van Hoofdstuk 2 dat mensen uiteenlopende reacties vertonen op identieke intergroepsituaties, afhankelijk van of ze hierover in gesprek gaan met hun ingroupleden.

### **Hoofdstuk 3: Abstract nadenken over stereotype-(in)consistente informatie.**

Zoals we in Hoofdstuk 2 zagen, kan de inhoud van interactieve intragroepscommunicatie effect hebben op de denkbeelden van individuele groepsleden. Maar pure anticipatie op intergroepscommunicatie kan al genoeg zijn om percepties te veranderen (zie Zajonc, 1960). In Hoofdstuk 3 werd een mogelijk proces onderzocht waardoor de verwachting van intragroepscommunicatie individuele cognitie zou kunnen beïnvloeden. Het centrale idee achter dit hoofdstuk was dat communicatie een bepaald niveau van abstractie vereist doordat communicatie gebaseerd is op gezamenlijke achtergrondkennis (een *common ground*). Communicatiepartners moeten eerst een algemeen raamwerk van gedeelde kennis bepalen voordat ze kunnen ingaan op de unieke details van een specifiek voorval. Zonder dit raamwerk is er geen gedeelde context waarin de communicatiepartners elkaars specifieke uitingen kunnen duiden. Zodoende dwingt de verwachting van communicatie mensen om (ook) na te blijven denken op een relatief abstract niveau in plaats van zich volledig op concrete details te concentreren.

Twee experimenten toonden aan dat voorbereiding op intragroepscommunicatie abstract nadenken kan faciliteren – zelfs over informatie die normaalgesproken op een concreet denkniveau wordt verwerkt (in deze

experimenten: onverwachte, stereotype-inconsistente informatie). Deze bevinding is van zowel theoretisch als praktisch belang, omdat stereotype-inconsistente informatie een grotere kans heeft om bestaande denkbeelden te beïnvloeden naarmate deze informatie op een abstractere, meer generaliserende manier wordt geïnterpreteerd. Dit betekent dat abstracte verwerking van stereotype-inconsistente informatie kan bijdragen aan verandering van stereotypen. Op deze manier zou intragroepscommunicatie dus een situatie kunnen zijn waarin mensen zich openstellen voor het aanpassen van bestaande gedeelde realiteiten.

In lijn met onze hypothesen, lieten beide experimenten zien dat voorbereiding op intragroepscommunicatie mensen in staat stelt om stereotype-inconsistente informatie op een abstract denkniveau te verwerken. De onderzoeksdeelnemers lazen speciaal voor dit onderzoek samengestelde krantenartikelen over een paar leden van een specifieke outgroup wiens gedrag strookte met stereotypen (werknemers die saaie vergaderingen hadden in Experiment 3.1; Marokkaans-Nederlandse jongeren die een kickboksersgroep oprichtten in Experiment 3.2) of hier juist niet mee strookte (werknemers die een nacht doorzakten in een kroeg in Experiment 3.1; Marokkaans-Nederlandse jongeren die een kunstenaarscollectief oprichtten in Experiment 3.2). Ze vormden zich een individueel beeld van dit krantenartikel of verwachtten hierover te praten met andere onderzoeksdeelnemers op een online forum. De resultaten van beide experimenten wezen uit dat stereotype-consistente informatie abstract wordt verwerkt onafhankelijk van of men wel of niet hierover verwacht te praten. Dat wil zeggen, dit type informatie over een outgroup trekt niet de aandacht van waarnemers naar specifieke details en daardoor kunnen zij blijven nadenken op een relatief abstract en algemeen niveau. Maar stereotype-inconsistente informatie daarentegen trekt de aandacht wel degelijk naar de details van een specifiek voorval. Zulke onverwachte informatie vraagt om een uitgebreidere uitleg: Waarom vertoonden deze unieke individuen dit stereotype-inconsistente gedrag in deze specifieke situatie? Deze verschuiving naar concretere verwerking van stereotype-inconsistente informatie kan echter tegengegaan worden door verwachte intragroepscommunicatie.

Bovendien liet Experiment 3.2 zien dat abstract nadenken het gebruik van stereotypen alleen versterkt als de informatie waarover men nadenkt stereotype-consistent is, maar niet als de informatie stereotype-inconsistent is. Deze bevinding nuanceert de wijdverbreide aanname dat abstract nadenken gelijkgesteld kan worden aan stereotyperen. Abstract nadenken kan er inderdaad voor zorgen dat we anderen waarnemen en behandelen in termen van hun sociale groepslidmaatschap in plaats



van als idiosyncratische individuen. Dit zou impliceren dat we concreet zouden moeten nadenken over outgroupleden om intergroepsconflict te de-escaleren (zie ook Brewer & Miller, 1984). Niettemin wijzen onze resultaten uit dat alleen abstract nadenken over stereotype-consistente informatie leidt tot meer gebruik van stereotypen – terwijl dit niet het geval is voor abstract nadenken over stereotype-inconsistente informatie. Met andere woorden, de waarneming van een kickbokser als een Marokkaanse Nederlander in plaats van als een uniek individu versterkt de negatieve stereotiepe beelden die autochtone Nederlanders over deze groep hebben, maar de perceptie van een kunstenaar als een Marokkaanse Nederlander in plaats van als een uniek individu laat de stereotypen van autochtone Nederlanders over Marokkaanse Nederlanders ongemoeid. Dit toont aan dat kenmerken die niet gerelateerd zijn aan het stereotype het verband tussen abstract denken enerzijds en het toepassen van stereotypen anderzijds kunnen verbreken. Dit effect trad op ondanks het feit dat mensen zowel kunstzinnig als agressief kunnen zijn – met andere woorden, de stereotype-inconsistente eigenschap die werd gebruikt in Experiment 3.2 was niet anti-stereotiep. Een mogelijke implicatie van deze bevinding is dat de perceptie van een vredelievend persoon (d.w.z., *anti*-stereotiep, anti-agressief) als een Marokkaanse Nederlander in plaats van als een uniek individu negatieve stereotypen zou kunnen *verminderen*. Al met al zou de voorbereiding op intragroepscommunicatie een sleutelrol kunnen spelen in de verandering van stereotypen, doordat deze situatie de mogelijkheid schept tot abstracte, generaliserende interpretatie van stereotype-inconsistente informatie over een outgroup.

Aangezien ik mij ten doel had gesteld om een intergroepsconflictinterventie te ontwikkelen die ingezet kan worden in *daadwerkelijke* intragroepscommunicatie, roepen deze bevindingen de vraag op of en hoe verschillen in abstractieniveau kunnen worden gemanipuleerd in intragroepsgesprekken om intergroepspercepties te verbeteren. Dit is een van de onderwerpen die aan bod kwamen in Hoofdstuk 4.

## **Hoofdstuk 4: Interventie in intergroepsconflict.**

Het doel van Hoofdstuk 4 was om een interventie te ontwerpen waarin de krachten van abstractieniveau (Hoofdstuk 3) en inhoud (Hoofdstuk 2) van intragroepscommunicatie worden gebundeld om intergroepsconflict te de-escaleren middels discussies in echte groepen. In dit empirische hoofdstuk heb ik drie

experimenten gerapporteerd aangaande de praktische implicaties van Hoofdstukken 2 en 3 voor interventies in intergroepsconflict. Dat wil zeggen, Hoofdstuk 2 wees uit dat interventies die zich richten op *intergroepscontact* mogelijk een averechts effect sorteren doordat dergelijk contact doorgaans wordt voorbereid binnen de betrokken groepen. De inhoud van gesprekken in anticipatie op intergroepscontact kunnen negatieve consequenties hebben voor intergroepspercepties en -relaties. Een interventie zou daarom – in ieder geval als eerste stap – een veilige omgeving moeten scheppen van intragroepsgesprekken over een outgroup waarmee men niet direct contact verwacht. In het bijzonder zou ervoor gezorgd moeten worden dat gesprekken binnen groepen zich afspelen rondom de vraag hoe “wij” “hen” zien en niet hoe “wij” “jullie” zien – en vanzelfsprekend dient de nadruk in deze discussies te liggen op positieve aspecten.

Als toevoeging op deze inhoud-gestuurde benadering van intragroepscommunicatie, onderzocht Hoofdstuk 3 de vorm (d.w.z., het abstractieniveau) van denkbeelden over outgroupleden. De resultaten wezen uit dat abstracte cognitie niet onvermijdelijk leidt tot meer stereotypering. Voor een interventie betekent dit dat abstract nadenken over een outgroup niet noodzakelijkerwijs een probleem hoeft te zijn in intergroepsconflict. Integendeel, de verandering van abstracte cognities op groepsniveau zoals negatieve outgroupstereotypen vergt abstract tegenbewijs op groepsniveau (Paik, MacDougall, Fabrigar, Peach, & Jellous, 2009). Een concreet positief voorbeeld, zoals een uitgebreide beschrijving van een kwiek en bijdetijds omaatje dat de hele dag zit te Facebooken, schetst een levendig mentaal plaatje dat behoorlijk echt over kan komen op de toehoorders (zie ook Hansen & Wänke, 2010). Desalniettemin kan dit worden afgedaan als een uitzondering, waardoor het algemene stereotype dat bejaarden saai en ouderwets zijn in stand blijft. Het stereotype kan echter veranderen als een gesprek zich juist concentreert op abstract tegenbewijs op groepsniveau in plaats van op individueel niveau – bijvoorbeeld dat meer dan de helft van de Nederlandse bejaarden een tablet gebruikt. Voortbordurend op deze eerdere bevindingen heb ik in Hoofdstuk 4 de potentie van abstractieniveau (zie Hoofdstuk 3) en inhoud (zie Hoofdstuk 4) van intragroepscommunicatie onderzocht als handvatten om intergroepsconflict te de-escaleren door middel van discussies in echte groepen.

In Experiment 4.1, dat zich concentreerde op een gematigd intergroepsconflict, werden groepjes jongeren geïnstrueerd om negatieve stereotypen over bejaarden (d.w.z., de doelgroep van dit experiment) te bevestigen of

ontkrachten door te praten over individuele outgroupleden (levendige, concrete communicatie) of door te praten over de gehele sociale categorie (generaliserende, abstracte communicatie) in natuurlijke, verder ongestuurde gesprekken. Ik heb een sterker intergroepsconflict onderzocht in Experiment 4.2, waarin onderzoeksdeelnemers dezelfde instructies volgden maar ditmaal gingen de gesprekken over de doelgroep Marokkaans-Nederlandse jongeren en nam er in elk groepsgesprek stiekem een handlangster van de onderzoekers deel (d.w.z., semi-natuurlijke intragroepsdiscussies met naïeve deelnemers en een acteur). In een vergelijking tussen verscheidene concurrerende hypothesen leverden Experimenten 4.1 en 4.2 de meeste empirische ondersteuning voor de hypothese dat abstracte intragroepsontkrachting van negatieve outgroupstereotypen de succesvolste interventie is om intergroepspercepties te verbeteren. Vervolgens werden in Experiment 4.3 de effecten van abstracte en concrete ontkrachting op intergroepspercepties afgezet tegen de effecten van een neutrale controleconditie (ontkrachting van het negatieve beeld over het illegaal downloaden van muziek en films). Dit experiment onderzocht de invloed van intragroeps gesprekken (zonder handlangster) over stereotypen over allochtone Nederlandse jongeren. Ook hier bleek abstracte ontkrachting van negatieve outgroupstereotypen de intergroepspercepties sterker te verbeteren dan concrete ontkrachting. Al met al bevestigden de experimenten in dit laatste empirische hoofdstuk niet alleen dat intragroepscommunicatie kan worden aangewend als middel om intergroepspercepties te verbeteren, maar de resultaten leverden ook inzicht in de manieren waarop de vorm en inhoud van intragroepscommunicatie kunnen worden ingezet om intergroepsconflict te de-escaleren. De conclusie die hieruit voortvloeide was dat groepsleden aangespoord zouden moeten worden om collectief outgroupkenmerken te bespreken die negatieve intergroepspercepties ontkrachten. Kortom, op basis van deze bevindingen stel ik een intergroepsconflictinterventie voor die is gebaseerd op abstracte intragroepsontkrachting van negatieve outgroupstereotypen.

## **Discussie en conclusies.**

Het overkoepelende doel van dit proefschrift was om een nieuw licht te werpen op de rol van intragroepscommunicatie in escalatie en de-escalatie van intergroepsconflict. Dit onderzoek diende als een empirische basis om uiteindelijk

een intergroepsaanpak te ontwikkelen om in te grijpen in intergroepsconflict. Elk empirisch hoofdstuk benaderde dit onderwerp vanuit een ander oogpunt. In het eerste empirische hoofdstuk (Hoofdstuk 2) heb ik onderzocht hoe intragroepscommunicatie in kleine interactieve groepjes de intergroepspercepties van gestigmatiseerde groepsleden beïnvloedt. Ik heb me hierbij specifiek gericht op hoe de voorbereiding op intergroepscontact de inhoud van intragroepscommunicatie vormgeeft, en op hoe communicatie-inhoud vervolgens doorwerkt in de denkbeelden van individuele groepsleden. In het tweede empirische hoofdstuk (Hoofdstuk 3) heb ik bestudeerd hoe pure *voorbereiding op* intragroepscommunicatie invloed uitoefent op de manier waarop groepsleden nadenken. Daarmee heb ik de effecten verkend van zowel de vorm als de inhoud van cognitie. En ten slotte heb ik in het derde empirische hoofdstuk (Hoofdstuk 4) getracht de concepten van inhoud en vorm toe te passen op communicatie in het ontwerpen van een praktische, op intragroepscommunicatie gebaseerde interventie om intergroepsconflict te de-escaleren. Samenvattend, heeft elk van de empirische hoofdstukken een aspect van intragroepscommunicatie behandeld dat consequenties heeft voor intergroepspercepties en, daardoor, de relaties tussen conflicterende groepen.

### **Theoretische implicaties.**

De studies in dit proefschrift behandelen zowel de dynamiek van kleine interactieve groepjes als responsen van geïsoleerde individuen op gestandaardiseerde computertaken. Naar mijn idee zijn de onderzoeksdomeinen van de sociale psychologie en sociale cognitie niet alleen ‘sociaal’ omdat we cognities, emoties en gedrag *jegens* andere sociale entiteiten onderzoeken (bijv. stereotypen, attitudes, attributies) maar ook omdat menselijke cognities, emoties en gedrag worden gevormd en omgevormd samen *met* anderen. Met de studies in dit proefschrift hoop ik een steentje te kunnen bijdragen aan het omkeren van de recente sterke afname in onderzoek naar interacties binnen kleine groepen, zoals die is geobserveerd door Wittenbaum en Moreland (2008). Samengenomen leveren de empirische hoofdstukken een tweevoudige wetenschappelijke bijdrage. Ten eerste brengen deze de tot dusverre onderbelichte rol van intragroepsprocessen in escalatie en de-escalatie van intergroepsconflict voor het voetlicht. En ten tweede resulteerden de hoofdstukken in de ontwikkeling van een op intragroepscommunicatie gebaseerde

interventie in intergroepsconflict. Voordat ik wat dieper inga op de praktische implicaties, zal ik eerst de belangrijkste theoretische implicaties aanstippen.

De experimenten in dit proefschrift hebben allereerst implicaties voor het concept van *gedeelde realiteit* binnen groepen (bijv. Echterhoff, Higgins, & Levine, 2009; Hardin & Higgins, 1996). De gedachten, gevoelens en gedragingen van groepsleden lijken over het algemeen op elkaar (Smith, Seger, & Mackie, 2007; Thompson & Fine, 1999; Tindale, Meisenhelder, Dykema-Engblade, & Hogg, 2001; Yzerbyt, Dumont, Mathieu, Gordijn, & Wigboldus, 2006). Deze gedeelde cognities, emoties en gedragingen kunnen niet volledig verklaard worden door te stellen dat groepsleden simpelweg dezelfde ervaringen meemaken (zie ook Lyons, Clark, Kashima, & Kurz, 2008) – bijvoorbeeld dat Groningse Stadjers studenten zien als luidruchtige overlastveroorzakers (zie Hoofdstuk 2) doordat ze allemaal wel eens gestruikeld zijn over de slordig neergegooide fietsen in een poging om in het holst van de nacht aan te bellen of de muziek alsjeblieft wat zachter kan. Er bestaan echter veel intergroepspercepties over groepen waar mensen niet of nauwelijks mee in aanraking zijn geweest. Zo stoelt de contacttheorie op de veronderstelling dat negatieve stereotypen en vooroordelen de overhand nemen wanneer er beperkt intergroepscontact is (Pettigrew & Tropp, 2006, 2008). Bovendien doen deze gedeelde denkbeelden geen recht aan de heterogene aard van groepen – individuen zijn zelden een exacte verpersoonlijking van het stereotype dat over hun groep bestaat. Tezamen impliceert dit dat ideeën over andere groepen en intergroepsrelaties grotendeels sociaal gecreëerd worden. Het zijn gedeelde realiteiten die een soms erg geringe relatie hebben met de “echte” werkelijkheid. Dit proefschrift levert bewijs voor een proces dat ten grondslag ligt aan de vorming en omvorming van denkbeelden over anderen. Intragroepscommunicatie kan een sterke invloed uitoefenen op de manier waarop individuen de (sociale) wereld waarnemen. De bevindingen laten zien dat zowel daadwerkelijke intragroepsconversaties als puur de verwachting hiervan het denken beïnvloeden. Welke invloed dergelijke communicatie precies heeft op hoe individuen de realiteit waarnemen is daarnaast afhankelijk van de bredere intergroepscontext. Dat wil zeggen, gesprekken over een conflicterende outgroup die we zo meteen zullen ontmoeten verschillen qua inhoud en consequenties van een luchtig, minder doelgericht gesprek onder “ons” over “hen.” Deze invloeden van (verwachte) intragroepscommunicatie op gedeelde realiteit kunnen ingezet worden om intergroepsrelaties te verbeteren, bijvoorbeeld door de ontwikkeling van constructieve in plaats van destructieve gedeelde realiteiten te bevorderen.

Ten tweede hebben de bevindingen in dit proefschrift implicaties voor de intragroep versus intergroep dichotomie. Hoofdstuk 2 toont aan dat intragroepsinteracties de percepties van individuen over zichzelf en anderen kunnen kleuren, en dat dit proces ook afhankelijk is van de sociale context. Intergroepsdynamica zoals verwacht intergroepscontact kunnen intragroepscommunicatie beïnvloeden, wat vervolgens de intergroepsrelaties (her)definieert. Met andere woorden, het effect van intragroepsprocessen op de cognitie van groepsleden is afhankelijk van de bredere intergroepscontext waarin de intragroepscommunicatie is ingebed, en vice versa. Derhalve is naar mijn mening de vraag of groepsuitkomsten zoals vooroordelen en discriminatie veroorzaakt worden door intra- of intergroepsprocessen (zie bijv. Gaertner & Schopler, 1998) gebaseerd op een arbitrair onderscheid. Processen binnen en tussen groepen kunnen niet netjes gescheiden worden in de chaos van het dagelijks leven. Ik propageer daarom een overkoepelende aanpak van intergroepsonderzoek die het onderscheid tussen intra- en intergroepsprocessen overbrugt (een tot dusverre verbazingwekkend zeldzame aanpak; zie Dovidio, 2013).

Ten slotte hebben de resultaten die werden gerapporteerd in dit proefschrift ook theoretische implicaties voor abstract nadenken en stereotyperen. Hoofdstukken 3 en 4 bouwen voort op voorgaand onderzoek naar de relatie tussen deze twee concepten. De literatuur schetst vaak een ondubbelzinnig beeld van deze relatie. Zo zou abstract nadenken het gebruik van stereotypen bevorderen, doordat het ervoor zorgt dat mensen elkaar in termen van groepslidmaatschap waarnemen in plaats van als unieke individuen (McCrea, Wieber, & Myers, 2012). Met andere woorden, abstractie is problematisch voor diegenen die harmonieuze intergroepsrelaties nastreven. Het huidige onderzoek demonstreert echter dat deze relatie minder eenvoudig is dan tot nog toe werd aangenomen. Hoofdstuk 3 liet zien dat abstracte verwerking van stereotype-consistente informatie gerelateerd is aan een verhoogd gebruik van stereotypen, terwijl dat niet geldt voor abstracte verwerking van stereotype-inconsistente informatie. Bovendien wees Hoofdstuk 4 uit dat abstracte communicatie over stereotype-inconsistentie een gunstig effect heeft op intergroepspercepties. Kortom, abstract nadenken kan ook een *oplossing* zijn in de de-escalatie van conflictueuze intergroepsrelaties.

## **Praktische implicaties.**

In overeenstemming met het doel bij te dragen aan de ontwikkeling van intergroepsconflictinterventies (De Dreu, 2014; Evenblij, 2014), heeft het huidige proefschrift ook verscheidene praktische implicaties. Hoofdstukken 2 en 3 behandelden onderzoeken naar de rol van intragroepscommunicatie in intergroepsconflict en inzichten uit deze studies werden toegepast in Hoofdstuk 4, waarin ik een interventie ontwerp en toets die intergroepsconflict vermindert door middel van intragroepscommunicatie. De huidige bevindingen leveren waardevolle suggesties op voor instanties in de praktijk die conflicten tussen groepen trachten te sussen. Deze suggesties kunnen worden toegepast in zowel lokale conflicten (zoals tussen de studenten en Stadlers in Groningen) als nationale conflicten (zoals tussen autochtone en allochtone burgers). De interventie die in dit proefschrift wordt gepresenteerd is oorspronkelijk ontworpen als een poging om intragroepscommunicatie van buitenaf te structureren. Maar daarnaast kunnen de bevindingen hopelijk een algemene gewaarwording bewerkstelligen van de manieren waarop “wij” onderling over “hen” praten en hoe deze communicatie onze bestaande denkbeelden versterkt of ons juist openstelt voor een andere kijk op onszelf en de ander.

Hoofdstuk 2 demonstreerde dat de bredere intergroepscontext beïnvloedt wat groepsleden bespreken en – daardoor – denken. In de praktijk moeten instanties die willen ingrijpen in intergroepsconflict proberen te voorkomen dat een outgroup als vijandig wordt afgeschilderd, omdat dit kan leiden tot een defensieve houding. Een manier waarop dit kan worden bewerkstelligd is door gesprekken doelbewust te laten verlopen rondom positieve, stereotype-inconsistente (in plaats van bedreigende, stereotype-consistente) informatie. Bovendien liet Hoofdstuk 3 zien dat dergelijke informatie die inconsistent is met bestaande stereotypen waarschijnlijk concreet wordt verwerkt (d.w.z., geïnterpreteerd als onbeduidende uitzondering). Daarnaast wees Hoofdstuk 4 uit dat groepsleden in staat zijn om stereotype-inconsistente informatie op een abstract niveau te bespreken, wat vervolgens resulteert in verbeterde intergroepspercepties. Samengenomen leiden deze bevindingen tot een duidelijke instructie: Een interventie om intergroepsconflict te verminderen moet groepsleden stimuleren om over algemene groepskenmerken te praten die indruisen tegen negatieve stereotypen (zoals de opvatting onder autochtone Nederlanders dat niet-westerse immigranten – en in het bijzonder Marokkaanse Nederlanders – asociale criminelen zijn pilotstudie in Hoofdstuk 2; Dotsch et al., 2011; Gordijn et

al., 2001; Van Prooijen & Coffeng, 2013). Zo kunnen groepsleden bijvoorbeeld praten over hoe gastvrij en warm niet-westerse immigranten en Marokkaanse Nederlanders zijn.

Hoewel ik dit niet heb getoetst, denk ik dat de interventie die is ontwikkeld in dit proefschrift toegepast kan worden op elk willekeurig moment waarop een ingreep in intragroepscommunicatie noodzakelijk is om escalatie van intergroepsconflict te voorkomen. Wanneer communicatiepartners beginnen te stereotyperen of wanneer ze een conflicterende groep verdacht maken met concretere voorbeelden en anekdotes, dient hierop gereageerd te worden met abstracte positieve tegenargumenten. Dit advies kan toegepast worden in verscheidene situaties aangezien het de percepties en relaties tussen uiteenlopende groepen kan verbeteren. Zo kunnen politici bijvoorbeeld baat hebben bij aanpassing van hun argumentatiestrategie in politieke debatten over immigratie en andere intergroepsconflicten. Andere toepassingsmogelijkheden zijn rivaliserende groepen in buurten (zoals tussen de studenten en Stadlers in Groningen), in scholen, of in sporten. Verder zou de interventie de samenwerking tussen conflicterende werkteams kunnen verbeteren, bijvoorbeeld na een problematische bedrijfsfusie.

Een belangrijk praktisch aspect van de interventie is de bewustwording van de invloed van abstracte communicatie over stereotypen. Bevindingen over de linguïstische verwachtingsvertekening (*linguistic expectancy bias*; Maass, 1999; Wigboldus, Semin, & Spears, 2006; zie ook Wenneker & Wigboldus, 2008; Karasawa & Suga, 2008; Maass, Milesi, Zabbini, & Stahlberg, 1995; Maass, Salvi, Arcuri, & Semin, 1989) illustreren hoe de voorgestelde interventie kan helpen. We praten doorgaans in abstracte termen over stereotype-consistente informatie en in concrete termen over stereotype-inconsistente informatie. Helaas zorgt deze onbewuste neiging ervoor dat spontane gesprekken over het algemeen niet leiden tot verandering van negatieve stereotypen.

Dat wil zeggen, door abstract te praten over negatieve stereotypen (bijv. “Marokkaanse Nederlanders zijn asociaal en lui”) benadrukken we de veronderstelde toepasbaarheid van deze eigenschappen op de hele groep, terwijl de concrete taal die we automatisch gebruiken om stereotype-inconsistente voorvallen te beschrijven (bijv. “Mohammed Raji Elilah is een hardwerkende, competente en warme rijinstructeur”) hun zeldzaamheid benadrukt. Naar mijn idee kunnen abstracte percepties zoals stereotypen niet veranderd worden door puur concreet tegenbewijs: “Marokkaanse Nederlanders zijn *niet* asociaal, want Mohammed is sociaal.” In plaats daarvan zou abstracte ontkrachting van stereotypen intergroepspercepties wel



moeten verbeteren: “Marokkaanse Nederlanders zijn *niet* asociaal, want Marokkaanse Nederlanders zijn sociaal.” Al met al biedt de voorgestelde interventie tegenwicht aan de fundamentele neiging tot stereotype-bevestigende gesprekken door gesprekspartners te attenderen op de vorm van hun taalgebruik en hen te leren in abstracte, generaliserende termen te bespreken waarom negatieve stereotypen niet kloppen.

Bij het toepassen van de huidige bevindingen in de praktijk, dient men zich af te vragen wat het beoogde effect van de interventie is. Het hoofddoel van de in dit proefschrift voorgestelde interventie is om intergroepspercepties te verbeteren om uiteindelijk groepsleden ertoe te zetten hun conflicten bij te leggen in plaats van elkaar te ontwijken of discrimineren. Hierbij moet er echter wel voor worden gezorgd dat de interventie expliciet gericht is op het verbeteren van percepties over de conflicterende groep en niet (ook) op het verminderen van percepties van intergroepsconflict of ongelijkheid. Met andere woorden, positievere percepties van een conflicterende groep dienen niet gepaard te gaan met bagatellisering van het probleem op zich (voor een overzicht, zie Saguy & Kteily, 2014). Voorgaande studies hebben zich echter voornamelijk geconcentreerd op de percepties die de benadeelde groep heeft. In Hoofdstuk 4 zagen we dat leden van de bevoordeelde groep na de interventie ook minder expliciet onderscheid maken tussen “hen” en “ons.” Voor zover deze neiging een aanwijzing is van verminderde nadruk op intergroeps grenzen (in plaats van bijvoorbeeld ontkenning van ongelijkheid) zou de voorgestelde interventie vriendjespolitiek binnen groepen moeten verminderen. Al met al is onze hoop dat een abstracte intragroepsreplek op negatieve stereotypen uiteindelijk intergroepsconflict kan de-escaleren door groepen ertoe te bewegen hun problemen samen onder ogen te zien en op te lossen.

Desalniettemin dient elke interventie die gebaseerd is op het opsommen van argumenten tegen negatieve stereotypen bedachtzaam ingezet te worden. Moeite in het verzinnen van dergelijke argumenten kan namelijk leiden tot negatievere in plaats van positievere intergroepspercepties (Schwarz, Bless, Strack, Klumpp, Rittenauer-Schatka, & Simons, 1991). De interventie die werd getoetst in het huidige proefschrift (Hoofdstuk 4) is ontworpen om deze potentiële nadelige gevolgen tegen te gaan. Deelnemers kregen een aantal voorbeelden van positieve groepskenmerken voorgeschoteld en de taakmoeilijkheid werd beperkt door slechts om een top drie van positieve groepskenmerken te vragen. Instanties die deze interventie willen gebruiken in de praktijk dienen deze instructies uiteraard zorgvuldig aan te passen aan het specifieke conflict. Bovendien zal dit soort interventies alleen slagen als

mensen bereid zijn samen over een andere groep te praten. Eén van de geplande studies voor dit proefschrift werd belemmerd doordat deelnemers na meer dan een decennium waarin immigratie hoog op de Nederlandse agenda stond huiverig leken te zijn geworden om mee te doen aan weer een discussie over dit onderwerp. Dus als relaties eenmaal vastgeworteld zijn, is het lastig deze te veranderen.

Deze praktische overwegingen dienen in acht genomen te worden bij het toepassen van de interventie zoals deze is ontwikkeld en getoetst in het huidige proefschrift. Desondanks heeft de huidige op intragroepscommunicatie gebaseerde interventie in intergroepsconflict veelbelovende resultaten opgeleverd. Over verschillende intergroepsconflictcontexten heen en in verschillende intragroepssituaties (groepsgesprekken met een acteur of in een natuurlijke situatie met alleen naïeve deelnemers) bleek abstracte intragroepsontkrachting van negatieve stereotypen de intergroepspercepties te verbeteren.

## **Conclusie.**

Gebruikmakend van diverse benaderingen, belichtten de experimenten in het huidige proefschrift de rol van intragroepscommunicatie in intergroepsconflict. Eén van de pluspunten van dit proefschrift is dat abstractieniveau en stereotype-consistentie zijn onderzocht in daadwerkelijk dynamische intragroepsinteracties – terwijl communicatie in voorgaande onderzoeken doorgaans werd geoperationaliseerd als (geschreven) zinnen of verhalen. Tezamen leveren de experimenten in dit proefschrift vernieuwende theoretische en praktische implicaties door de rol van intragroepscommunicatie in intergroepsconflict voor het voetlicht te brengen. In de praktijk is kwalitatief hoogwaardig contact tussen conflicterende groepen schaars. Dit is jammer omdat dit een ideale omgeving zou zijn voor het verbeteren van intergroepsrelaties. Uitgaande van de huidige bevindingen, stel ik voor dit probleem te omzeilen door de pijlen van een intergroepsconflictinterventie te richten op processen *binnen* groepen. De empirische hoofdstukken onthullen de inhoud en vorm van communicatie als essentiële ingrediënten van intragroepscommunicatie die, met het juiste recept, intergroepsconflict kunnen verminderen. Intragroepsgesprekken die om positieve, stereotype-inconsistente groepskenmerken draaien hebben gunstige effecten op intergroepspercepties en –cognities. De algemene conclusie is dat een op intragroepscommunicatie gebaseerde interventie conflicterende groepen moet stimuleren om positieve collectieve

eigenschappen van elkaar op te sommen, om uiteindelijk intergroepsconflict te de-escaleren.

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Lieve allemaal, bedankt! :)

Hedy

# **BRIEF CURRICULUM VITAE**



## Brief Curriculum Vitae

Hedy Greijdanus (Winterswijk, 1985) grew up in Aalten with her parents, sister, and brother. After a brief start at an arts academy, she decided to study psychology at the Radboud University Nijmegen, where she received her Bachelor in Social Psychology in 2008 and finished the Research Master Behavioral Science (cum laude) in 2010. In 2010, Hedy moved to the University of Groningen to write her dissertation on intragroup communication in intergroup conflict with Prof. Dr. Tom Postmes, Prof. Dr. Ernestine H. Gordijn, and Dr. Martijn van Zomeren. In the spring of 2013, she visited several universities and researchers in Scotland and the United Kingdom. Hedy is currently teaching psychology at the University of Groningen.



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