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Intragroup communication in intergroup conflict

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Document Version
Publisher's PDF, also known as Version of record

Publication date:
2015

Link to publication in University of Groningen/UMCG research database

Citation for published version (APA):
Greijdanus, H. J. E. (2015). *Intragroup communication in intergroup conflict: Influences on social perception and cognition*. [Thesis fully internal (DIV), University of Groningen]. University of Groningen.

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CHAPTER THREE

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

Note: This chapter is published as Greijdanus, H., Postmes, T., Gordijn, E. H., & Van Zomeren, M. (2014). When abstraction does not increase stereotyping: Preparing for intragroup communication enables abstract construal of stereotype-inconsistent information. *Social Cognition, 32*, 505–527. doi:10.1521/soco.2014.32.6.505

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.[17]

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

[17] 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.[18] 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

[18] 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_{age} = 20.38, SD = 4.21), and there were 83 students (57 women; M_{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.[19]

[19] 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, Wieczorkowska, 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.

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.[20] 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.

[20] 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."[21] Subsequently, participants answered a stereotyping measure and some exploratory measures.[22] 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.[23] 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

[21] 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.

[22] 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.

[23] 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*(*ly*), 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; $M_{age} = 19.00$, $SD = 1.03$, 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 $\alpha = .87$; $M_{inconsistent} = 3.98$, $SD = 0.98$)

than participants who answered the same questions about the stereotype-consistent article ($M_{consistent}$ = 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).

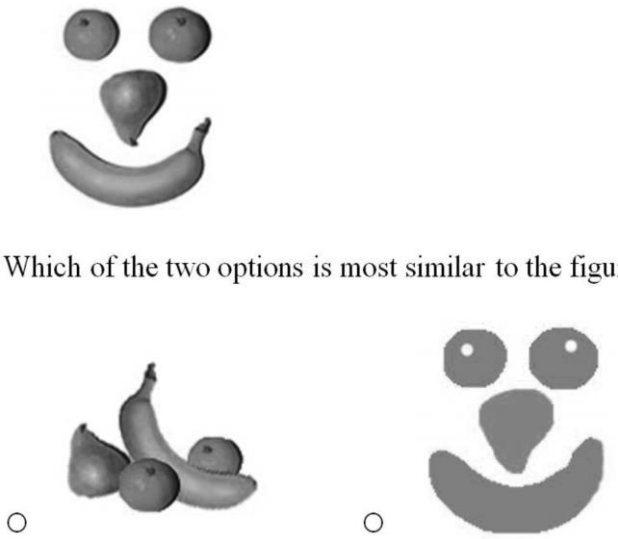

Figure 3.1. Example item of the Experiment 3.1 measure of construal level. The left object is the concrete construal level answer option, the right object is the abstract construal level option.

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_{age} = 20.37, SD = 4.24).[24] 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, η_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

[24] 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.

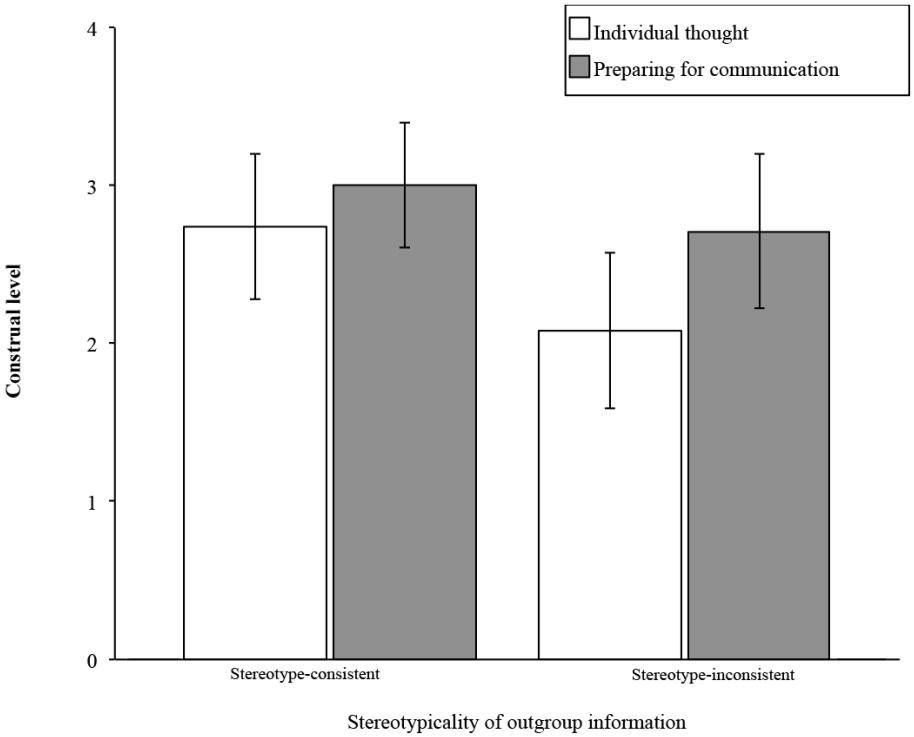

Figure 3.2. Mean construal levels in Experiment 3.1. As hypothesized, the planned control contrast (left) was not significant, whereas the experimental contrast (right) comparing the effects of impression formation within the stereotype-inconsistent condition was significant. Error bars depict 95% confidence 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; $M_{age} = 18.81$, 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 $\alpha = .83$; $M_{inconsistent} = 2.65$, $SD = 0.93$) than participants who answered the same questions about the stereotype-consistent article ($M_{consistent} = 4.93$, $SD = 0.92$), $F(1,35) = 52.36$, $p < .001$.

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).

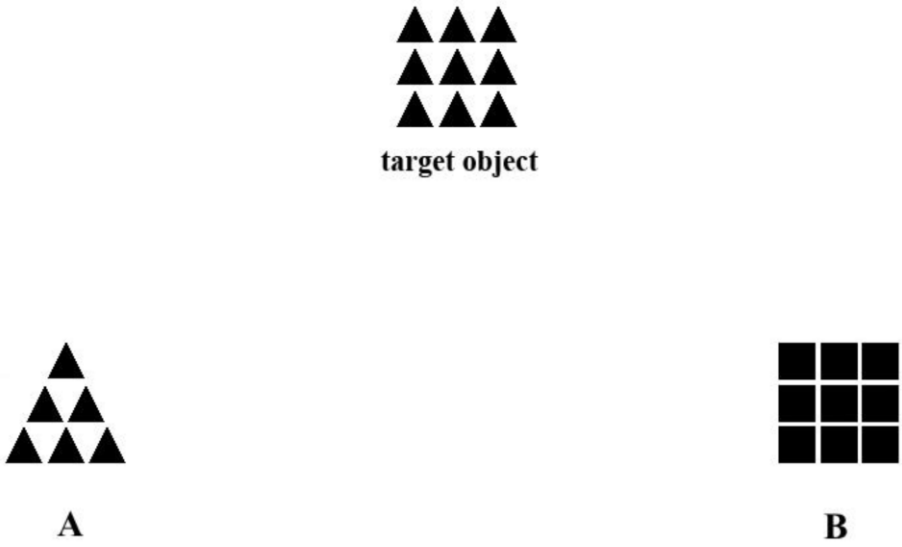

Figure 3.3. Example item of the Experiment 3.2 measure of construal level (based on Kimchi & Palmer, 1982). The accompanying question was: "Look at the target object. Is it most similar to object A or to object B?" Object A is the concrete construal level answer option, object B the abstract construal 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_{age} = 21.03, SD = 2.70, one unknown).[25] 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.

[25] 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).

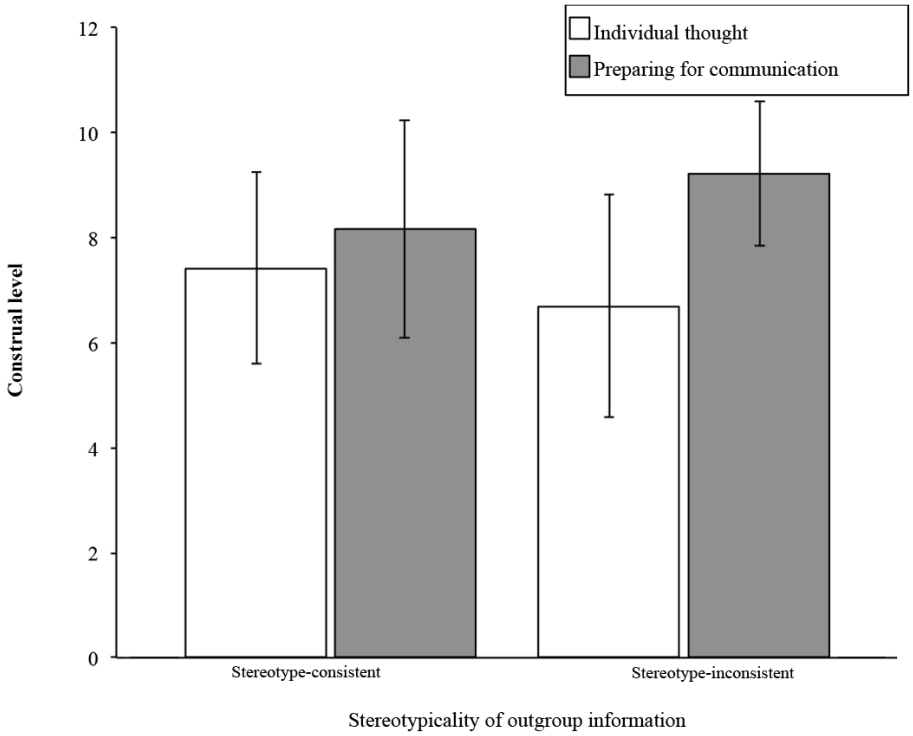

Figure 3.4. Mean construal levels in Experiment 3.2. As hypothesized, the planned control contrast (left) was not significant, whereas the experimental contrast (right) comparing the effects of impression formation within the stereotype-inconsistent condition was significant. Error bars depict 95% confidence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

	Regression results				
Model	*B*	*SE*	*β*	$R^2\Delta$	*FΔ (df)*
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 *intra*group 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.