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### Parochial and universal cooperation in intergroup conflicts

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**Chapter 3**  
**In Intergroup Conflict Pro-social Individuals**  
**Condition Self-Sacrifice on In-Group Emotion Signals**  
**More than Pro-selves**

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To regulate intergroup competition and settle conflict, groups often engage representatives who negotiate on their behalf. Representative negotiators face a multitude of more or less opposing interests, including their own, those of their in-group, and those of the opposing out-group with whom an agreement needs to be made (Druckman, 1977). Interests of the in-group may be communicated explicitly to the representatives, providing clear instructions on what strategies are preferred (Aaldering & De Dreu, 2012; Steinel, De Dreu, Ouwehand, & Ramirez-Marín, 2009), but they may also be communicated through more indirect, subtle, and often emotional cues that signal whether the representative's negotiation strategy is approved by the in-group (Van Kleef, Steinel, & Homan, 2013).

Whether and how representatives pick up on and respond to such in-group emotion signals is largely unknown, yet if they do this may substantially impact the constructiveness of the negotiation and broader inter-group relations (De Dreu, Aaldering, & Sagyi, 2014; Saygi, Greer, Van Kleef, & De Dreu, 2014). Accordingly, our goal here was to understand when and how representatives in intergroup conflict and competition adapt their behavior in response to in-group emotion signals of (dis)approval. In doing so, we considered that the negotiator's sensitivity to in-group emotion signals may depend on their pro-social versus pro-self value orientation (SVO; De Dreu & Van Lange, 1995; McClintock, 1972; Van Lange, 1999). We argue and show that representatives rely on their own SVO to (i) predict initial in-group preferences and (ii) to interpret in-group emotion signals, so that (iii) representatives with a pro-social orientation are more sensitive to in-group emotion signals than are pro-self representatives.

### **Social Value Orientation and Behavioral Expectations**

SVO is a stable dispositional trait associated with different forms of social behavior (McClintock, 1972; for reviews, see Au & Kwong, 2004; Balliet, Parks, & Joireman, 2009; Bogaert et al., 2008; Van Lange, De Cremer, Van Dijk, & Van Vugt, 2007). Pro-socially oriented individuals value equality, fairness and high outcomes for all parties and tend to initiate cooperation and care for others. Individuals with a pro-self orientation, in contrast, only value their own outcomes and opt for non-cooperation unless cooperation yields better personal outcomes than non-cooperation (for reviews, see e.g. De Dreu, 2010a; Van Lange, 1999; 2000). Compared to pro-selves, pro-socials also contribute more to the provision of public goods, show more restraint in consuming common resources (Balliet et al., 2009), make more generous offers and larger concessions when negotiating (De

Dreu & Van Lange, 1995; De Dreu & Boles, 1998; Van Dijk, De Cremer, & Handgraaf, 2004), and are more willing to self-sacrifice to protect and promote their in-group (Aaldering, Greer, Van Kleef, & De Dreu, 2013; Abbink, Brandts, Herrmann, & Orzen, 2012; De Dreu, 2010b; De Dreu, Greer et al., 2010).

One reason why pro-socials are more cooperative is that pro-socials tend to expect others to cooperate and reciprocate cooperation, whereas pro-self individuals anticipate others to be selfish and competitive. Indeed, there is good evidence for such a correspondence bias, or *structural assumed similarity bias*, suggesting that one expects others to have the same ideas, beliefs, and preferences as oneself (Iedema & Poppe, 1994; 1995; Kuhlman, Carnac, & Cunha, 1986, see also *false consensus effect*, Ross, Greene, & House, 1977).

In interpersonal negotiations, pro-socials assume their interaction partner to have pro-social beliefs too, leading them to pursue a cooperative strategy. Pro-self individuals, in contrast, expect their partner to be pro-self and approach them more competitively (De Dreu & Van Kleef, 2004; Van Kleef & De Dreu, 2002). Related research on the *might versus morality hypothesis* similarly shows that individuals' social value orientation determines how certain cooperative behaviors are evaluated. Whereas pro-socials tend to perceive others in terms of morality (honest and good vs. dishonest and bad), pro-selves perceive others in terms of might (strong and intelligent vs. weak and unintelligent). Specifically, cooperation is evaluated by pro-socials as moral and good, yet by pro-selves as weak and unintelligent (De Bruin & Van Lange, 2000; Liebrand, Jansen, Rijken, & Suhre, 1986; Van Lange & Kuhlman, 1994; Van Lange & Liebrand, 1989). Thus, pro-socials should expect others to be moral and cooperative too, while pro-selves expect others to be strong and competitive. Furthermore, there is some evidence that this biased projection is stronger for pro-selves (*cone model*, Aksoy & Weesie, 2012, Iedema, 1993), in part because both pro-selves and pro-socials expect others to want and think the same as they do (Iedema & Poppe, 1994, 1995). However, pro-socials are less biased and more open to the possibility that other preferences than their own pro-social orientation are not only possible but also quite likely. Presumably, they approach others with a more cooperative orientation than pro-selves, thereby experiencing both cooperation and competition in return. Pro-selves on the other hand always approach others with competition, which automatically leads to a reciprocation of competition (also among pro-social others) (Kelley & Stahelski, 1970; Van Lange, 1992).

## CHAPTER 3

That people project their social value orientation onto others, and that pro-socials' biased projections may be more easily modulated by situational cues than those of pro-self individuals, has two implications for representative negotiation and intergroup competition. Representatives' social judgments and behavior may be shaped by their social value orientation: Compared to pro-self representatives, pro-social representatives expect their constituency to prefer cooperation towards the out-group more (H1); make more generous offers towards the out-group (H2); and these more generous offers are mediated by their expectations regarding their constituents' preferences (H3).

### Experiment 1

#### Method

**Sample and design.** Sixty-one undergraduate students participated for course credit or 10 euro. A total of 55 (mean age 22.90,  $SD = 4.97$ , 75.4% female) could be reliably classified as pro-social or pro-self and were retained in the analyses. Half of the participants completed the SVO measure before, and half after the dependent measures, but this had no effects and is further ignored. We measured participants' expectations regarding the preferred offer by their constituency, and their own offer in the Ultimatum Bargaining Game.

**Procedure, measures, and tasks.** Participants provided written informed consent and were seated in individual cubicles. From then onwards, the experiment was entirely computer-guided and self-paced. It started or ended with the need to belong scale (Leary, Kelly, Cottrell, & Schreindorfer, 2001; not analyzed), and the decomposed-game measure to assess SVO (De Dreu & Van Lange, 1995; Van Lange & Kuhlman, 1994; also see Parks, 1994; Eisenberger, Kuhlman, & Cotterell, 1992). In this measure, participants are asked to make decisions in nine decomposed games. In each game, three options of point distributions between themselves and another person were provided: a pro-social option (e.g., 500; 500 points to self; other), an individualistic option (e.g., 560;300 points to self; other) and a competitive option (e.g., 500;100 points to self; other). Participants were categorized as pro-social ( $n = 25$ ) or as pro-self (combined individualistist  $n = 25$  with competitors,  $n = 5$ ) if they made at least six choices consistent with one of the three orientations (also see Aldering et al., 2013; De Dreu & Van Lange, 1995; Van Dijk et al., 2004; Van Lange, 1999).

Before the intergroup negotiation task (Ultimatum Bargaining Game, see below) started, participants were assigned to either group 'Triangle' or group 'Square.' All participants were asked to act as Triangle's representative in a

negotiation with the representative of Square (for similar procedures, see Aaldering et al., 2013; Saygı et al., 2013; Steinel et al., 2009, 2010; Van Kleef, Steinel, Van Knippenberg, Hogg, & Svensson, 2007; Van Kleef, Steinel, & Homan, 2013).

The negotiation task consisted of a one-shot asymmetrical Ultimatum Bargaining Game (UBG; Van Dijk & Vermunt, 2000). In this task, 30 chips need to be divided between two parties. One of the parties is the allocator, the other the recipient. Participants were always assigned the role of allocator, and were told that each chip was worth €0,20 to Triangle (their own constituency) and €0,10 to Square (the out-group). Participants were informed that Triangle knew about this value difference, while Square did not. Using an asymmetrical UBG enabled us to discriminate between strategic fairness (which would lead to offers around 15-15) and genuine fairness (which would lead to offers around 10-20). Van Dijk et al. (2004) observed more genuine fairness among pro-social compared to pro-self individuals.

Participants answered seven comprehension questions regarding the value of the chips for each party, the awareness of their own and the other party of this value, whether their constituency could see their offer, and the consequences if the other party would accept or reject the offer. To enhance experimental realism, participants then received a few pre-written messages from their constituency that were selected to not provide any strategic direction regarding how to negotiate (i.e., "Ehm... Try your best?"; "I find it hard to say something" and "Make the best out of it!").

We elicited participants' expectations of their constituents' preferred offer in two ways. First, participants were presented with eleven possible distributions of points between their own and the out-group, one after another. The distributions ranged from zero chips for the out-group and 30 chips for the in-group to 30 chips for the out-group and zero chips for the in-group, with number of chips for the out-group increasing by 3 chips in each following distribution. The distributions of most interest were the seemingly fair (15-15) and the almost genuinely fair (18-12) ones. Participants indicated with a slider (ranging from 0 to 100) how likely they thought it would be that at least two out of their three constituency members would approve of the presented distribution. Second, participants indicated which offer they thought their constituency would want them to make by typing in the amount of chips for the own group and for the out-group.

Finally, participants made their actual offer, again by typing the amount of chips for the own group and for the out-group. They received explicit instructions

that if the out-group representative accepted the offer, the chips would be divided as proposed by the participant. If the out-group representative rejected the offer, neither Triangle (in-group) nor Square (out-group) would receive anything.<sup>1</sup> Upon finishing this task, participants were debriefed, paid, and dismissed.

## Results

Pro-socials expected the majority of their in-group constituency to approve of the seemingly fair (15-15) distribution more ( $M = 80.52$ ,  $SD = 20.67$ ) than pro-selves ( $M = 61.33$ ,  $SD = 26.12$ ,  $F(1, 53) = 8.86$ ,  $p = .004$ ,  $\eta_p^2 = 0.14$ ). Pro-socials also expected the majority of their constituency to endorse the (almost) objectively fair 18-12 distribution marginally more ( $M = 48.44$ ,  $SD = 34.53$ ) than pro-selves ( $M = 32.00$ ,  $SD = 28.08$ ,  $F(1, 53) = 3.79$ ,  $p = .06$ ,  $\eta_p^2 = 0.07$ ). No effects of social value orientation emerged on the non-focal distributions. Finally, pro-socials expected their constituency to want a more generous offer towards the out-group ( $M = 15.12$ ,  $SD = 3.14$ ) than pro-selves ( $M = 11.83$ ,  $SD = 5.43$ ,  $F(1, 53) = 7.14$ ,  $p = .01$ ,  $\eta_p^2 = 0.12$ ). Combined, these results support H1. In line with H2, pro-socials subsequently made more generous offers towards the out-group than pro-selves ( $M_{pro-socials} = 15.56$ ,  $SD = 4.09$  vs.  $M_{pro-selves} = 12.83$ ,  $SD = 5.22$ ),  $F(1, 53) = 4.50$ ,  $p = .038$ ,  $\eta_p^2 = 0.08$ .

Although both expectation measures were correlated with the actual offer participants made ( $r = .28$ ,  $p = .03$  for the 15-15 distribution, and  $r = .35$ ,  $p = .06$  for the general expectation measure), a bootstrap analysis (Preacher & Hayes, 2008) revealed no significant mediation: The 95% bias corrected accelerated confidence interval did not differ from zero with 5000 bootstrap resamples for either of the expectation measures. H3 is thus rejected.

## Discussion and Introduction to Experiment 2

Experiment 1 uncovered that pro-socials (i) expect their constituency to prefer a more generous offer and (ii) propose a more generous distribution to the out-group than pro-selves. We thus highlight how representatives rely on their own SVO and associated assumptions about their in-groups' values to inform their negotiation behavior. In line with theory about the structural assumed similarity bias (Kuhlman et al., 1986), we found pro-socials to expect their constituency to prefer more cooperation, and to display more cooperation themselves. In line with the cone hypothesis, we found pro-socials to expect more preferred cooperation from their constituency both in a real and in a seemingly fair distribution, showing

that they anticipate some diversity in cooperation preferences from their constituency. We did not find expectations of preferences to mediate own behavior, suggesting that there are other factors at play that guide representatives' initial cooperation behavior: Their own social value orientation predicts behavior directly and beyond its effect on constituencies' preference expectations. Alternatively, our sample may not have been big enough to obtain mediation effects.

During the negotiation process, constituency signals may lead representatives to question and, perhaps, revise their assumptions about their in-group's preferences, and to adapt their negotiation strategy accordingly. Complementing earlier work on explicit and direct strategic communications from groups to their representatives (Aaldering & De Dreu, 2012; Benton & Druckman, 1973; Steinel et al., 2009), we focused in Experiment 2 on less explicit and more affective cues communicated to representatives. Emotional displays communicate evaluations and appraisals (Frijda, Kuipers, & Ter Schure, 1989; Van Kleef, De Dreu, & Manstead, 2010), and signal preferences regarding how to act in certain situations, including negotiations (Lelieveld, Van Dijk, Van Beest, & Van Kleef, 2013; Sinaceur & Tiedens, 2006; Van Kleef, De Dreu, & Manstead, 2004a, 2004b, 2006). For example, a positive emotion signal such as happiness from one's in-group signals satisfaction with the current course of action (Parrott, 1993; Van Kleef et al., 2004b). In contrast, a negative, angry emotion signal indicates frustration, and calls for behavioral adjustment (Averill, 1982; Van Kleef et al., 2010) and concessions (Van Kleef, De Dreu, & Manstead, 2004a, 2004b), especially when communicated by an in-group member (Lelieveld et al., 2013).

We argue that the direction of the adjustment depends on representatives' interpretation of the emotion signal. As predicted by the structural assumed similarity bias, and supported by our results in Experiment 1, individuals make sense of their environment through the lens of their social value orientation (Iedema & Poppe, 1994; 1995). This means that pro-social representatives will project their pro-social orientation on their in-group, and therefore interpret positive, happy in-group signals as reflecting approval of their cooperative approach. Pro-socials are therefore expected to continue their cooperation when receiving positive emotional signals from their in-group. Conversely, angry signals may imply that the in-group is frustrated with the representative's offer (Averill, 1982; Van Kleef et al., 2010). Projecting their own orientation on the in-group, pro-socials will likely interpret negative, angry in-group signals as a sign of frustration with their cooperation and as a request for a better deal for the in-group. Hence,

## CHAPTER 3

pro-socials should pick up the frustration communicated by negative in-group emotion signals and seek ways to compensate, ingratiate, or otherwise positively impress their in-group constituency by concentrating on their welfare and/or by enhanced competition towards the out-group.

Pro-self representatives should also interpret emotional feedback from their in-group through the lens of their own pro-self tendencies (Iedema & Poppe, 1994; 1995). Therefore, when pro-self representatives receive positive, happy in-group signals, they are likely to interpret this as endorsement of their competitive behavior, leading them to stay their competitive course in the negotiation. However, when receiving angry feedback from their in-group, pro-selves are likely to infer that their competitive approach requires adjustment, leading them to adopt a more cooperative strategy.

Lastly, we anticipated such behavioral adjustment to be stronger among pro-social than pro-self individuals. According to the cone model (and in line with the findings from Experiment 1), pro-socials expect a larger range of behaviors from other individuals and adapt their behavior more readily to the situation (Aksoy & Weesie, 2010; Iedema & Poppe, 1995; 1995; Van Lange, 1992; De Cremer & Van Lange, 2001; Steinel & De Dreu, 2004). Furthermore, pro-social compared to pro-self individuals are more concerned about the welfare of their in-group and are more willing to contribute, at a personal cost, to their in-group (Aaldering et al., 2013; Abbink et al., 2012; De Dreu, 2010b; De Dreu et al., 2010; De Cremer & Van Dijk, 2002). Finally, according to the might vs. morality hypothesis, pro-selves perceive cooperation as a sign of weakness (Van Lange & Liebrand, 1989) and may therefore be reluctant to serve their weak constituency by changing their competitive behavior to cooperation after negative in-group emotion signals. Thus, pro-social (compared to pro-self) representatives should be more attuned to constituency cues as well as more willing to adapt their behavior accordingly.

In Experiment 2, we firstly aimed to replicate the finding of Experiment 1 pertaining to Hypothesis 2, namely that pro-social representatives make more generous UBG offers than pro-selves. Secondly, we expected pro-social representatives (more than pro-selves) to adjust their initial pro-social behavior based on emotional signals from their in-group. Specifically, we hypothesized that after positive in-group emotion signals, pro-social representatives invest more in the out-group than pro-selves (Hypothesis 4a); and that after negative in-group emotion signals, pro-social representatives benefit their in-group more than pro-selves do (Hypothesis 4b).

## Method

In Experiment 2 we extended Experiment 1 in two ways. First, we presented emotional in-group messages immediately after the (pro-social or pro-self) representatives made their ultimatum offer to the out-group to test Hypotheses 4a and 4b. Second, we then provided participants twice with 10 lottery tickets and asked them to make a donation (range 0 – 10) to their in-group, and another donation (range 0 – 10) to the out-group. Because tickets represented a chance of winning extra money, donations were personally costly and beneficial to the recipient. Enhanced motivation to benefit the in-group, for example because the in-group expressed anger following the representative's generous offer to the out-group, should therefore lead to increased donations to the in-group. Conversely, enhanced motivation to benefit the out-group, for example because the in-group expressed happiness following the representative's generous offer to the out-group, should lead to increased donations to the out-group. Rather than their expectations about constituencies' initial cooperation preferences, we now included measures regarding representatives' interpretation of their in-groups' emotion feedback and preferences (see below).

**Sample and design.** One hundred eighty-five undergraduate students participated for course credit or €10. A total of 160 (mean age 21.38,  $SD = 3.66$ , 67.5 % female) could be reliably classified as pro-social or pro-self, and were randomly assigned to the positive or negative in-group emotion signal condition. Main dependent variables were participants' offers and their (personally costly) allocations of lottery tickets to out-group and in-group members.<sup>2</sup>

**Procedure, measures, and tasks.** The procedure was similar to that of Experiment 1. Participants filled out the SVO measure (72 pro-socials, 88 pro-selves; the 15 that could not be classified were dropped from the analyses) and were allocated to the position of representative of group Triangle. Instructions concerning the negotiation task (UBG) and pre-negotiation messages from the constituency were the same as before, but this time participants were not asked to indicate their expectations about constituency preferences. Also, chips now represented real money and one out of three participants (randomly selected) received additional pay depending on decision-making outcomes.

Following their UBG proposal, participants were told that their constituency had selected up to three prewritten messages for them about the offer they had just made. Participants learned that all three constituents had selected a certain message in their top three, and two of them had selected this message as their top

## CHAPTER 3

choice. In the negative in-group emotion signal condition, this message was: "I saw what you offered the other group. I am *angry* about your offer." In the positive in-group emotion signal condition it was: "I saw what you offered the other group. I am *happy* about your offer." Similar verbal emotion statements have been successfully employed in past research (e.g., Lelieveld et al., 2013; Sinaceur & Tiedens, 2006; Van Kleef et al., 2004a, 2004b, 2013).

Following the emotion signals from their in-group, participants learned that each member of both Triangle and Square, themselves included, would receive 20 lottery tickets. Tickets would go into a raffle for one of two prizes of €50, so the more tickets one has, the higher one's chance of winning. Participants were given the opportunity to donate tickets to others. First, they were provided with the possibility to donate any number of 10 tickets into Pool X, where each ticket invested would return as one ticket for each of the members of their constituency, the participant excluded. Donations to Pool X thus reflect personally costly in-group cooperation (De Dreu, 2010b; Halevy et al., 2008). Second, participants were given the possibility to donate any number out of the other 10 tickets into Pool Y, where each ticket contributed would return as one ticket for each *out-group* member. Donations to Pool Y thus reflect personally costly out-group cooperation. Note that in-group cooperation and out-group cooperation are independent in this paradigm.

Following donation decisions, we explored participants' interpretations of the constituency's emotion signals. We firstly investigated to what extent representatives expected their constituency to prefer an equal distribution in the UBG with three items ("My constituency wanted me to be fair"; "My constituency thought it was immoral of me to be unfair"; and "My constituency considered it unfair if I would give them more than the out-group",  $\alpha = .72$ ). Furthermore, the extent to which participants felt that their in-group had received too little was measured: My constituency felt that... "they should have gotten more", "they got too much (reverse coded)", "I should have given them more", "I should have given them less (reverse coded)" and "I favored them too much" (reverse coded; all items 1 = *fully disagree* to 7 = *fully agree*,  $\alpha = .74$ ; items adapted from Van Kleef et al., 2006).<sup>3</sup> At the end of the experiment we checked whether participants correctly recalled the in-group emotion signals they had received. They indicated for seven emotions how their constituents said they felt after the Ultimatum Bargaining Task. The two emotions of interest were 'Happy' and 'Angry' (1 = *not at all*, 7 =

*very much*). This concluded the experiment, and participants were debriefed, paid, and dismissed.

## Results

### Confirmatory: Manipulation Checks

A 2 (representative's social value: pro-social vs. pro-self) x 2 (in-group emotion signal: positive vs. negative) ANOVA on recall of constituencies' emotions showed that participants in the negative in-group emotion signal perceived more anger in their constituency ( $M = 6.55$ ,  $SD = 0.82$ ) than participants in the positive in-group emotion signal condition ( $M = 1.60$ ,  $SD = 0.67$ ),  $F(1, 156) = 1707.80$ ,  $p < .001$ ,  $\eta_p^2 = 0.92$ . Likewise, participants in the positive in-group emotion signal condition perceived more happiness ( $M = 5.78$ ,  $SD = 0.83$ ) than participants in the negative in-group emotion signal condition ( $M = 1.57$ ,  $SD = 0.80$ ),  $F(1, 156) = 1049.39$ ,  $p < .001$ ,  $\eta_p^2 = 0.87$ . No other effects were significant and we conclude that the manipulation was successful.

### Confirmatory: Ultimatum Offer and Investment Decisions

A oneway ANOVA with social value orientation as between subjects factor showed that pro-socials made more generous ultimatum offers ( $M = 14.82$ ,  $SD = 3.14$ ) than pro-selves ( $M = 13.92$ ,  $SD = 2.45$ ),  $F(1, 158) = 4.13$ ,  $p = .044$ ,  $\eta_p^2 = 0.03$ . This replicates Experiment 1 and supports Hypothesis 2.4

To test Hypotheses 4a and 4b, we computed a mixed-model ANOVA with contributions to in-group and out-group as within-subjects factor. A main effect of Pool showed higher contributions to the in-group ( $M = 4.50$ ,  $SD = 3.01$ ) than to the out-group ( $M = 3.04$ ,  $SD = 2.89$ ),  $F(1, 156) = 40.17$ ,  $p < .001$ ,  $\eta_p^2 = 0.21$ , and a main effect of SVO showed that pro-socials contributed more overall than pro-selves,  $F(1, 156) = 9.41$ ,  $p = .003$ ,  $\eta_p^2 = 0.06$ . Specifically, pro-social representatives contributed more than pro-selves to the in-group ( $M_{\text{pro-social}} = 5.11$ ,  $SD = 2.30$  vs.  $M_{\text{pro-self}} = 4.00$ ,  $SD = 2.98$ ,  $F[1, 156] = 5.59$ ,  $p = .019$ ,  $\eta_p^2 = 0.04$ ) as well as to the out-group ( $M_{\text{pro-social}} = 3.78$ ,  $SD = 3.06$  vs.  $M_{\text{pro-self}} = 2.44$ ,  $SD = 2.61$ ,  $F[1, 156] = 9.07$ ,  $p = .003$ ,  $\eta_p^2 = .06$ ).

As predicted in Hypotheses 4a and 4b, both main effects were qualified by a SVO x Emotion Signal x Pool interaction,  $F(1, 156) = 4.03$ ,  $p = .046$ ,  $\eta_p^2 = 0.03$ . Following positive in-group emotion signals, pro-socials and pro-selves contributed similarly to the in-group,  $F(1, 156) < 1$ , *ns*, yet pro-social representatives allocated more to the out-group than pro-selves,  $F(1, 156) = 7.36$ ,  $p = .007$ ,  $\eta_p^2 = 0.05$ . This

### CHAPTER 3

pattern is shown in Figure 1 and supports Hypothesis 4a. Following negative in-group emotion signals, pro-socials and pro-selves made similar allocations to the out-group,  $F(1, 156) = 2.33, p = .13$ , yet pro-socials contributed more to their in-group than pro-selves,  $F(1, 156) = 6.08, p = .02, \eta_p^2 = 0.04$ . This pattern is shown in Figure 2 and supports Hypothesis 4b. No other simple effects were significant. In short, positive in-group emotion signals led pro-social representatives to benefit the out-group, whereas negative emotion signals led pro-social representatives to benefit the in-group. Pro-selves, in contrast, were relatively unresponsive to the constituents' emotion signals.

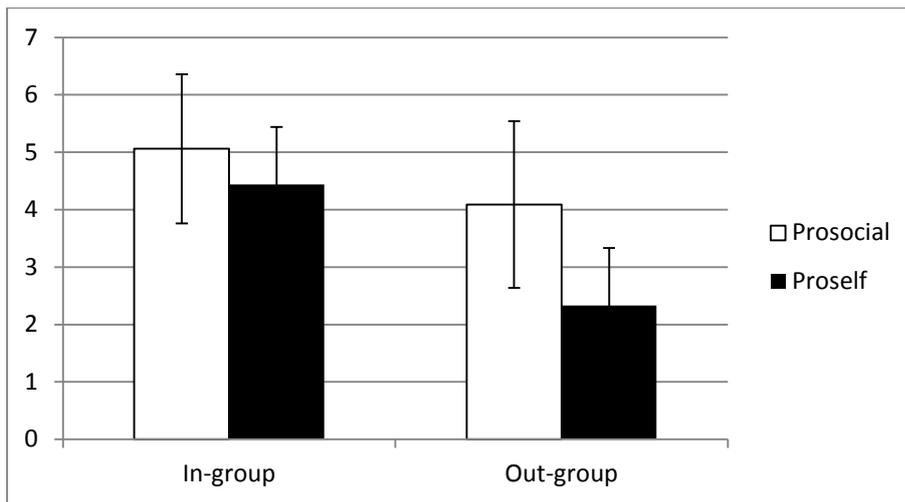


Figure 1. Investments following positive emotion signals

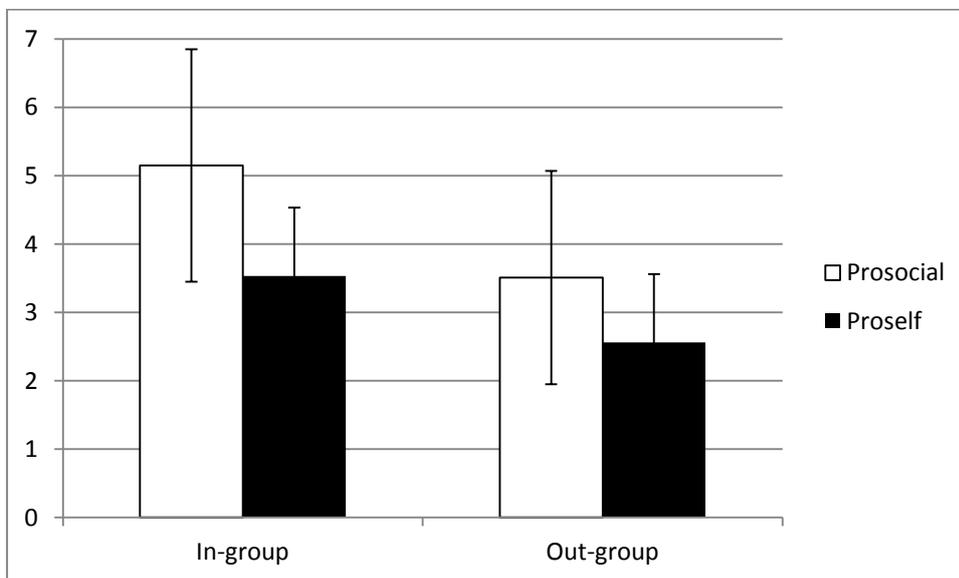


Figure 2. Investments following negative emotion signals

**Exploratory: Interpretation of Emotion Signals**

To shed some light on the representative's respective interpretation of their in-group emotion signals depending on their social value orientation, a 2 x 2 ANOVA was conducted on the extent to which representatives thought their constituency preferred an equal distribution. No main effects were obtained for social value orientation ( $F[1, 156] = 1.10, p = .30$ ) or emotion valence ( $F[1, 156] < 1, ns$ ), but there was a significant interaction,  $F(1, 156) = 11.48, p = .001, \eta_p^2 = .07$ . Simple effects showed that pro-socials believed their constituency to prefer an equal distribution more after communicated happiness ( $M = 3.23, SD = .85$ ) rather than anger ( $M = 2.57, SD = 1.38$ ),  $F(1, 156) = 4.33, p = .039, \eta_p^2 = .03$ . Conversely, pro-selves believed that their constituency preferred an equal distribution more after communicated anger ( $M = 3.52, SD = 1.85$ ) rather than happiness ( $M = 2.73, SD = .96$ ),  $F(1, 156) = 7.57, p = .007, \eta_p^2 = .05$ . This is in line with the expectation findings of Experiment 1 and corroborates our interpretation that pro-socials believed their constituency to prefer a cooperative, equal distribution, and accordingly interpreted the constituency's happiness as approval of their cooperative behavior. Pro-selves on the other hand initially expected their constituency to prefer a competitive approach, yet interpreted their anger as a sign that they would have preferred a more equal division.

Additional exploratory analyses on representatives' perception that their constituency had received too little in the UBG showed main effects of both emotion communication and social value orientation. Representatives who received negative in-group emotion signals felt that they hadn't given their constituency enough in their ultimatum offer to a greater extent ( $M = 5.19, SD = 1.47$ ) than those who received positive in-group emotion signals ( $M = 4.50, SD = 0.40$ ),  $F(1, 156) = 17.02, p < .001, \eta_p^2 = 0.09$ . Similarly, pro-socials felt that they hadn't given their constituency enough ( $M = 5.06, SD = 1.15$ ) more than pro-selves did ( $M = 4.69, SD = 1.11$ ),  $F(1, 156) = 3.71, p = .056, \eta_p^2 = 0.02$  (marginal). Finally, an Emotion Signal x SVO interaction,  $F(1, 156) = 4.21, p = .065, \eta_p^2 = .022$  (marginal), suggested that pro-socials more than pro-selves felt that they hadn't given their constituency enough after negative in-group emotion signals especially,  $F(1, 156) = 7.43, p = .007, \eta_p^2 = .05$  ( $M_{\text{pro-social}} = 5.53, SD = 1.34$ ;  $M_{\text{pro-self}} = 4.88, SD = 1.53$ ). SVO had no effect following positive in-group emotion signals,  $F(1, 156) < 1, ns$ . Thus, with some caution, it seems that negative in-group emotion signals were interpreted by pro-social representatives (more than by pro-selves) as a sign of felt deprivation among in-group members.

## General Discussion

In intergroup conflict and competition, representatives have to serve their in-group interests while striking a deal with a competing out-group. The current experiments show how representatives rely on their social value orientation by making an initial offer and by interpreting implicit emotion cues they receive from their constituencies, based on which they adapt their negotiation strategies. Results supported the hypotheses that (i) pro-social representatives expect their constituency to prefer a more cooperative approach towards the out-group than pro-selves, (ii) pro-social representatives make more cooperative initial offers towards the rivaling out-group than pro-self representatives, and (iii) pro-social representatives adapt more to in-group emotion signals than pro-self representatives, so that (iv) especially pro-social representatives showed greater out-group cooperation following positive in-group emotion signals, and greater in-group cooperation following negative in-group emotion signals. Compared to pro-self representatives, those with a pro-social orientation thus appear more sensitive to the social context within which they operate and are more likely to adapt their strategic behavior to the social context. Pro-socials (more than pro-selves) are inclined to benefit the out-group and/or their in-group at a personal cost, depending on what they expect their in-group to prefer. Interestingly, however, we found pro-selves to interpret negative in-group emotion signals as a preference for a more equal distribution, which was not reflected in their cooperative behavior towards the out-group. Previous research has shown pro-selves to be less willing to serve their in-group, which could explain their lack of behavioral reaction despite this interpretation (Aaldering et al., 2013). Possibly, this unwillingness results from their perception of the constituency and their cooperation wishes as weak (De Bruin & Van Lange, 2000; Van Lange & Kuhlman, 1994).

Overall, our results fit traditional findings that pro-social individuals are more cooperative and willing to make costly contributions than pro-selves (for reviews, see Bogaert et al., 2008; Balliet et al., 2009; Van Lange, 1999), as well as being more likely to adapt to others (e.g., Kelley & Stahelski, 1970; Steinel & De Dreu, 2004; Van Lange, 1992) and to value fairness and honesty (De Bruin & Van Lange, 2000; Van Lange, 1999). This may seem inconsistent with recent work showing that pro-socials, more than pro-selves, tend towards parochial altruism—the tendency to serve one’s in-group and to aggress against rivaling out-groups (e.g., Bowles, 2008; Choi & Bowles, 2007; see also Aaldering et al., 2013; Abbink et al., 2012; De Dreu, 2010b; De Dreu, Greer et al., 2010). In the present experiments,

however, pro-social representatives tended towards out-group cooperation, especially after positive in-group emotion communication.

One way to reconcile these seemingly opposite findings is that pro-socials closely monitor their in-group's preferences, and their tendency towards out-group cooperation follows their belief that this is what their in-group wants them to do. Experiment 1 showed that pro-socials expected their in-group to prefer a more cooperative offer than pro-selves did, and in Experiment 2 we found that pro-socials made even more generous offers to the out-group after constituency approval and expected their constituency to favor fairness and a cooperative approach. Furthermore, when the in-group showed disapproval of the representative's (generous) strategy by communicating negative emotions, pro-socials interpreted this as a sign that they hadn't given their in-group enough and adjusted their behavior towards benefitting their in-group. These findings together suggest that pro-social individuals are primarily concerned with satisfying the in-group and, in absence of cues suggesting otherwise, believe that cooperation with the out-group is in line with their in-groups' preferences. Alternatively, they could have reacted with enhanced competitiveness towards the out-group following negative emotion signals. However, benefitting the in-group by hurting the out-group is not an effective strategy in a negotiation where hurting the out-group too much will result in no agreement (in the current study: rejection of the ultimatum offer), rendering worse outcomes to both parties (Pruitt, 2007). In short, our findings suggest that pro-socials are parochial altruists who prefer a constructive approach to the out-group *unless* this hurts their in-group. This fits with work showing pro-socials' willingness to sacrifice their self-interests more than pro-selves (both in intergroup conflicts, see Abbink, 2012; De Dreu, 2010b; De Dreu et al., 2010 as well as in social dilemmas, see Bogaert et al., 2008; Van Lange et al., 2007).

Our findings bear practical as well as theoretical relevance to representative negotiations. Whereas most work on representative negotiation has been limited to rather explicit instructions and communications from in-group constituencies to their representative (e.g., Aaldering & de Dreu, 2012; Benton & Druckman, 1973; Steinel et al., 2009; Van Kleef et al., 2007), ours is the first to address the impact of less explicit emotion signals. Furthermore, our findings qualify the widespread assumption that representatives in general use competitive strategies, unless their constituency clearly communicates a preference for a more cooperative strategy (Klimoski & Asch, 1974; Steinel et al., 2010; Van Kleef et al., 2007). We identify

representatives' SVO as determinant for initial cooperation, and constituencies' indirect and emotion-laden approval as qualifier for subsequent behavior. Overall, pro-social representatives should be a good choice in an intergroup negotiation or conflict situation where interests between in- and out-group are opposed: Pro-socials are more motivated than pro-selves to satisfy the interests of both groups, and hence may be able to reach a high quality solution. They are also more receptive to subtle cues from their constituency: Once they offer too much to the out-group, they will easily adjust their behavior to benefit the own group again. Future research should investigate why pro-selves are less receptive to constituency information. Our findings suggest that they are able to interpret emotion signals as a sign to extend their cooperation to the out-group, yet they are reluctant to do so. Literature on the might versus morality hypothesis can explain these findings by highlighting pro-selves' tendency to perceive cooperation (including others' valuing cooperation) as weak (Van Lange & Liebrand, 1989; Van Lange & Kuhlman, 1994).

More research into representatives' use of indirect constituency cues would help to increase understanding of how these cues are interpreted and reacted upon by representatives. Such work could focus on the interpretation of more specific emotions (such as distinguishing between self-directed emotions like shame and guilt or other-directed emotions like contempt and envy), but also on other forms of indirect (non)verbal feedback. How do such cues affect representatives' interpretation of constituencies' preferences and subsequent behavior? Furthermore, little research has investigated when and why constituencies approve of a representative and endorse a negotiated agreement (Julian, Hollander, & Regula, 1969; Klimoski, & Breaugh, 1977). Such research could uncover whether a representative's interpretation and reaction to constituents' feedback is effective in the long run and leads to approval, rewards, and re-election (cf. Heerdink, Van Kleef, Homan, & Fischer, 2013).

### **Conclusion**

When intergroup relations are regulated through representative negotiation, constituencies monitor and guide their representatives with direct and clear-cut strategic advice or, instead, with more indirect and emotion-laden cues and signals. We uncovered that representatives with a pro-social value orientation (more than those with a pro-self orientation) tune in on those cues and benefit the rivaling out-group at a personal cost when their in-group responds positively to their initially cooperative strategy, or self-sacrifice to benefit their constituency when their in-

## SVO and Emotion Communication in Intergroup Conflict

group responds negatively to their initially cooperative strategy. The current experiments thus provide insight into how representatives' SVO determines self-sacrificial contributions in an intergroup conflict. Moreover, we provide initial evidence of pro-socials' extended parochialism: Pro-socials defend and promote their in-group's interests, but if the situation permits, extend their pro-sociality towards the out-group as well. This ultimately increases the probability of high-quality negotiation agreements and successful resolution of intergroup conflict.

## CHAPTER 3

### Notes

<sup>1</sup> We also included, for exploratory purposes, measures of representatives' perceived motivation and ability to fulfill constituencies' wishes and self-reported competitiveness. The measures were included at the end of the experiment. Analyses revealed no additional insights pertinent to the current conclusions and are further ignored. Materials and results are available from the first author upon request.

<sup>2</sup> The design also included a manipulation of task interdependence, where participants were informed before making their investment decisions that the out-group already had decided on whether to accept their UBG offer or not. This manipulation produced no significant effects and including it as a factor in the analyses did not change any of the results.

<sup>3</sup> We also included, for exploratory purposes, measures of representatives' greed, concern for the collective, identification with their in-group and with the out-group, and interpretation of the feedback as generally positive or negative. The measures followed those reported in the main text, and preceded the manipulation check questions. Analyses revealed no additional insights pertinent to the current conclusions and are further ignored. Materials and results are available from the first author upon request.

<sup>4</sup> We believe that the differences depending on social value orientation in the initial UBG task are important for the subsequent token division task. However, the results of the analyses do not differ when we control for the UBG offer ( $F[1, 156] = 6.79, p = .01, \text{partial } \eta^2 = .042$  for the interaction).