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# Parochial and universal cooperation in intergroup conflicts

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# Chapter 4 Interest (Mis)Alignment in Representative Negotiations: Do Pro-social Agents Fuel or Reduce Intergroup Conflict?

This chapter is based on Aaldering, H., Greer, L. L., Van Kleef, G. A., & De Dreu, C. K. W. (2013). Interest (mis)alignment in representative negotiations: Do pro-social agents fuel or reduce inter-group conflict? *Organizational Behavior and Decision Processes*, 120, 240 – 20, DOI: 10.1016/j.obhdp.2012.06.001.

To reduce inter-group tension, to facilitate dispute resolution, or to strike mutually beneficial deals, competing groups often engage representatives who negotiate on their behalf. These representatives may be core members of the group, but can also be external agents with specific skills, knowledge or expertise in the relevant negotiation domain. A potential problem arises when the interests of the representative are not unequivocally aligned with the interests of the represented party. Such a conflict of interest exists, for example, among investment bankers representing bidding firms during merger negotiations: They receive compensation based on the premium paid for target firms. While it is in the target firms' interest to reach a maximum possible premium, the bidding firm strives for a premium as low as possible, potentially resulting in lower compensation for the investment banker (Kesner, Shapiro, & Sharma, 1994).

The problem of interest (mis)alignment is often referred to as the principalagent problem, in which the agent (representative) has other preferences than the principal (represented group or organization) (Allcock & Filatotchev, 2010; Eisenhardt, 1989; Jensen & Meckling, 1976) and may even have personal preferences more aligned with the opposing group. This may lead the representative to negotiate agreements that benefit him- or herself at the expense of the group he or she represents (Bazerman, Neale, Valley, Zajac, & Kim, 1992; Valley, White, Neale, & Bazerman, 1992). Here we integrate theory on the principal-agent problem with the growing body of research on representative negotiations in intergroup competition and conflict (e.g., De Dreu, 2010b; Druckman, 2004; Steinel, De Dreu, Ouwehand, & Ramírez-Marín, 2009; Steinel, Van Kleef, Van Knippenberg, Hogg, Homan, & Moffitt, 2010; Trötschel, Hüffmeier, & Loschelder, 2010; Van Kleef, Steinel, Van Knippenberg, Hogg, & Svensson, 2007). In two experiments we examine how representative negotiation behavior varies as a function of interest alignment between the representative, the constituency represented, and the opposing negotiator (henceforth: adversary). Importantly, we investigate whether representatives' willingness to sacrifice their self-interest to benefit their constituency is contingent upon their interpersonal motivation. We argue and show that individuals with a natural tendency to act prosocially will be more willing than those with a pro-self motivation to sacrifice their self-interest to benefit their constituency and to compete against the other group.

# The Principal-Agent Problem and Interdependence Theory

The principal-agent problem refers to the situation in which the agent or representative has, or may have, interests misaligned with those of the principal or constituency he or she is supposed to serve. This misalignment of interests creates a problem for the principal or constituency who delegates its decision control to an agent that may be more or less trustworthy. This problem has inspired a large number of studies testing possible means to ensure that representatives act in the interests of the group or organization they represent (for reviews, see Dalton, Hitt, Certo, & Dalton, 2007; Devers, Canella, Reilly, & Yoder, 2007). Much of this work has focused on monitoring the representative's behavior or using incentives to align self-interest with the interests of the represented constituency (Allcock & Filatotchev, 2010; Bottom, Holloway, Miller, Mislin, & Whitford, 2006; Hunton, Mauldin, & Wheeler, 2008; McLean Parks & Conlon, 1995). However, monitoring can be both expensive and logistically impractical, and incentives do not always have the intended effects (Bottom et al., 2006; Eisenhardt, 1989; Mulder, Van Dijk, De Cremer, & Wilke, 2006; O'Reilly & Main, 2010).

One reason underlying the failure to adequately design incentive and/or monitoring systems is that we still have a rather poor understanding of when and why representatives sacrifice their self-interests to benefit their constituency. The current study was designed to fill this void. In contrast to much of the work on the principal-agent problem, which is based on the assumption that agents will follow their self-interest whenever they have the opportunity to do so (Eisenhardt, 1989), a growing body of work in social psychology, organizational sciences, and behavioral economics shows that humans violate assumptions of rationality, sacrifice self-interest to help others, and are influenced by norms of fairness and reciprocity (Camerer & Fehr, 2006; De Dreu, 2010a; Henrich, Boyd, Bowles, Camerer, Fehr, Gintis, & McElreath, 2001; Van Lange, De Cremer, Van Dijk, & Van Vugt, 2007). Such tendencies can be understood in terms of Interdependence Theory (Kelley & Thibaut, 1978; Rusbult & Van Lange, 2003), which holds that individuals (i) transform the objective interdependence structure between themselves and one or more others (the "given matrix") into a subjective structure (the "effective matrix"), and (ii) behave according to the effective matrix more than according to the objective, given structure. Such transformations are driven by temporarily activated or chronically available social goals, or motivational orientations.

Although many different motivational orientations are conceivable (e.g., McClintock & Liebrand, 1988, Van Lange et al., 2007), most research and theory on motivational orientation relies on the broad dichotomy between pro-self and pro-social orientations. Individuals with a pro-self orientation often opt for non-cooperation and only value high own outcomes, whereas those with a pro-social orientation have a desire for equality and reciprocity, tend to initiate cooperation, and care for others (for reviews, see e.g., De Dreu, 2010a; McClintock, 1977; Van Lange, 1999, 2000). Indeed, in distributive bargaining and negotiation where individuals need to strike a balance between their self-interests and those of their adversary, the stronger desire for equality and fairness often leads negotiators with a pro-social orientation to demand less and concede more than negotiators with a pro-self orientation (e.g., Beersma & De Dreu, 1999; De Dreu & Van Lange, 1995; Gillespie, Weingart, & Brett, 2000; Olekalns & Smith, 2003; Schei & Rognes, 2003; Trötschel & Gollwitzer, 2007).

# Social Value Orientation and Interest (Mis)Alignment in Intergroup Negotiations

When negotiators represent a constituency, they need to take into account two additional types of interests – those of the constituency they represent, and those of the overarching collective comprising both one's own and the opposing group. In this complex set of interdependencies, the representative's self-interest may or may not be aligned with the interests of his constituency. In fact, it is conceivable that constituencies' and adversaries' interests are aligned, yet both are at odds with those of the representative. When, for example, both groups desire quick resolution of a costly conflict, yet their representatives are compensated on an hourly basis, the representatives may be motivated to prolong the conflict and to slow down dispute resolution. Along similar lines, the representative's self-interest may be quite compatible with the interests of the adversary, yet opposed to the representative's constituency - as in the opening example of investment bankers.

The fact that a representative's self-interest, the interests of the constituency, and those of the adversary may be differentially aligned or misaligned should be relatively unimportant to representatives with a pro-self orientation. After all, pro-selves focus on self-interest more than pro-socials. As representatives, they will sacrifice their constituencies' interests when these are misaligned with their self-interest, inasmuch as they will be tough with their adversary when the adversary's interests oppose their own. Put differently, we expected pro-self

representatives to behave in line with Agency Theory, which assumes that representatives are driven by self-interest and will serve their constituencies' interests only when these converge with their self-interests (Bazerman et al., 1992; Eisenhardt, 1989; Jensen & Meckling, 1976; Valley et al., 1992).

For pro-social representatives, matters are more complicated. Pro-socials make large concessions and are relatively cooperative towards their adversary across different settings (e.g., De Dreu & Van Lange, 1995; De Dreu & Boles, 1998; Giacomantonio, De Dreu, Shalvi, Sligte, & Leder, 2010; Van Dijk, De Cremer, & Handgraaf, 2004). This suggests that pro-social representatives are willing to accommodate the interests of the opposing group at a cost to themselves. However, past research has not considered how the interests of the representative's constituency may interact with the representatives' personal motives to determine their eventual negotiation behavior.

Here we propose that pro-socials are more likely than pro-selves to sacrifice their self-interest to benefit their adversary, but only if this benefits their constituency as well. In developing this idea, we draw on research on social dilemmas which shows that pro-socials make more self-costly contributions to common goods than pro-self individuals (for reviews, see Au & Kwong, 2004; Balliet, Parks, & Joireman, 2009; Bogaert, Boone, & Declerck, 2008; Van Lange, Van Dijk, De Cremer, & Van Vugt, 2007). This finding holds across different experimental settings, using different social dilemma games as well as across field settings. For example, pro-socials are more than pro-selves willing to engage in pro-environmental behavior such as signing petitions or contributing money as well as to travel with public transport rather than by car (which is in the short term less convenient and flexible, but in the long term better for the collective environment and health) (Bogaert et al., 2008). Following the transformationhypothesis in Interdependence Theory (Kelley & Thibaut, 1978), the reasoning here is that pro-self individuals define the social dilemma in terms of individual rationality, leading them towards non-cooperation, whereas pro-social individuals define the dilemma in terms of collective rationality, leading them towards cooperation (Liebrand, 1984; Van Lange, Liebrand, & Kuhlman, 1990). Indeed, increased identification with the collective does not affect pro-socials' level of selfsacrificing cooperation because they already focus on collective welfare, yet strongly increases cooperation among pro-selves (e.g., De Cremer & Van Dijk, 2002). Thus, pro-socials' tendency to accommodate their adversary at a personal

cost is driven by the motivation to serve the overarching collective of in-group and out-group together, rather than the adversary and his or her constituency only.

Pro-social representatives would thus be most willing to sacrifice themselves when this benefits constituency as well as adversary (the 'collective'). However, a problem arises when there is no collective and the different subgroups (constituency group and adversary group) have divergent interests. Cooperating with the adversary in this scenario implies sacrificing not only one's own, but also the constituents' interests. Pro-socials thus need to choose which subgroup to cooperate with: constituency or adversary. Research into so-called nested social dilemmas, in which individuals choose to benefit their sub-group and/or an overarching collective, shows that individuals are likely to sacrifice personal interests by contributing to the subgroup level (Wit & Kerr, 2002). However, when the salience of the overarching collective is enhanced, self-sacrificial cooperation shifts from the subgroup to the overarching collective level, thus benefitting both in-group and out-group (Polzer, Stewart, & Simmons, 1999; Wit & Kerr, 2002). Relating these findings to the transformation hypothesis, which holds that the collective level is more salient to pro-social than to pro-self individuals (Bogaert et al., 2008; Van Lange et al., 2007), we propose:

Hypothesis 1: Pro-social representatives will make greater concessions than pro-selves when concessions serve collective interests (own constituency and adversary combined) and not when concessions serve the adversaries' interests only.

# **Experiment 1**

To test Hypothesis 1, we developed a new inter-group conflict game in which individuals negotiated on behalf of their constituency with the representative of the adversary group. To allow for the most straightforward test of our hypothesis, the negotiation involved a single issue, where the representative's self-interest was either opposed to or aligned with the interests of the represented constituency, and always opposed to the adversary. Concession making towards the adversary thus always hurt the representative's self-interest and always benefitted the adversary. Depending on condition, concession making either benefitted or hurt the constituencies' interests. Our hypothesis was that pro-self individuals would be relatively immune to such interest (mis)alignment, and that pro-social individuals would be more conciliatory towards the adversary, but only when this conciliatory behavior would benefit their constituency as well. Self-sacrificial concession

making was operationalized in terms of (i) the first offer participants made, with higher (i.e., more generous) offers being more personally costly, and (ii) the number of rounds representatives took to reach an agreement. Because participants interacted with a pre-programmed adversary who matched concessions (see below), fewer rounds reflect greater self-sacrificial concession making by the participant.

#### **Method**

# **Participants and Design**

Forty-eight undergraduate students from the University of Amsterdam (mean age 22.58, SD = 5.45, 72% female) participated for course credit or  $\mathfrak{C}7$ . Participants were randomly assigned to the interest alignment conditions of a 2 x 2 factorial with structure of the negotiation task (interests opposed to adversary only or to both constituency and adversary) and social value orientation (pro-social or pro-self) as the between-subject variables.

# **Procedure and Negotiation Task**

Upon arrival in the laboratory, participants were seated in individual cubicles behind a computer. They read that they would fill out some questionnaires and subsequently engage in a negotiation between two groups, and that the groups would be formed based on two personality questionnaires. Participants then proceeded with two questionnaires, one of which assessed their social value orientation.

We used the decomposed game measure (Van Lange & Kuhlman, 1994), a measure that has good internal consistency (Liebrand & Van Run, 1985; Parks, 1994), test-retest reliability (Eisenberger, Kuhlman, & Cotterell, 1992) and construct validity (Van Lange, 1999). The measure was introduced as follows: 'Below you see nine decisions in which you have to make a choice. Your choice influences the amount of points you and some other person will get. Think of the points as something that is valuable to you, to which you attach great importance. The other person also attaches great importance to the points'. Participants were subsequently asked to make decisions in nine decomposed games. In each game, there were three options of point distributions between themselves and another person. Each of the options represents a particular social value orientation. An example is the choice between option 1 (500 points for self and 500 points for other), option 2 (560 points for self and 300 for other) and option 3 (500 points for

self and 100 for other). In this example, option 1 represents the pro-social orientation because it provides an equal distribution of outcomes and the highest joint outcome (1000). Option 2 represents the individualistic orientation because the own outcomes are higher (560) than in option 1 or 3 (500). Option 3 represents the competitive choice because it maximizes the differences between own and other's outcomes. (500 - 100 = 400 in option 3; whereas 500 - 500 = 0 in option 1 and 560 - 300 = 260 in option 2). Participants were classified as pro-social, individualist or competitor if they made at least six choices consistent with one of the three orientations. All participants were classifiable: 18 were classified as prosocial and 30 as individualists or competitors. Because in the current context no differences in behavior were expected between individualists and competitors, these two groups were combined into one 'pro-self' category (Van Lange, 1999).

After completion of the second questionnaire, the need for cognitive closure scale (Webster & Kruglanski, 1994), which served as a filler task, participants were told that based on their score on the questionnaires, they were a member of group O, which would negotiate against group P. Participants were informed that the computer would randomly determine who would represent the groups in the upcoming negotiation. In reality, each participant was assigned the role of representative of group O, and would negotiate with the unknown representative of group P. The adversary representative was computer simulated. This type of minimal (inter)-group paradigm is adapted from other past research on representative negotiation (Van Kleef et al., 2007; Steinel et al., 2010)

The negotiation consisted of one distributive issue, with thirteen levels of agreement, ranging from 0 to 36 points with increasing steps of 3 points per level. The representative would always get the highest amount of points (36) for an agreement at level 1 and the lowest amount of points (0) for an agreement at level 13. Next to their own individual point schedule, participants saw the point schedule of their constituency, group O. In the condition where representatives' interests were opposed to the adversary only, this schedule was exactly the same as the schedule of the participants. Thus, in this condition concessions towards the adversary equally hurt the participants' self-interest as the interests of his or her constituency. In the condition where representatives' interests were opposed to both their constituency and the adversary, the schedule of the constituency was the opposite: group O would get the most (36) points for an agreement on level 13, and the least (0) points for an agreement on level 1. This difference in point schedules created misalignment of interests between the representative and his constituency:

Concessions towards the adversary would still hurt the participants' self-interest yet benefit the interests of the constituency.

The condition where the representative's interests were aligned with the constituency but opposed to the adversary contained 10 pro-social and 17 pro-self participants. The condition where representative's interests were opposed to both constituency and adversary consisted of 8 pro-social and 13 pro-self participants.

To increase their motivation, participants were led to believe that the points represented real money, both for them and for the constituency and adversary, and that they could earn up to an extra 7€ depending on their negotiation outcome. They were also told that their constituency would evaluate the agreement they would make and that failure to reach an agreement would result in no extra money for any participant (whether constituent, representative, or adversary). It was made clear that the constituents had no insight in the point schedule of the representative and the point schedule of the adversary from group P was never shown. The adversary was simulated to make reciprocal offers depending on the offer of the participant, who initiated the negotiation. This style was chosen due to its credibility to participants and its neutrality in terms of competition or cooperation. A contingent reciprocal style is a common tactic in bargaining and it is transparent and intelligible for the negotiation partner (Axelrod, 1984; Osgood, 1962; Van Lange & Visser, 1999).

The adversary was programmed such that proposals for an agreement on level 7 or higher would be accepted. When an agreement was reached or ten minutes had passed, participants answered manipulation check questions, were debriefed, paid and dismissed.

#### **Dependent Variables**

The main dependent variable was the extent to which participants engaged in self-sacrificing cooperation towards the adversary. Main indicators were the first offer that representatives made with higher (i.e., more generous) first offers reflecting greater self-sacrifice, and the number of rounds it took participants to reach an agreement. Because the simulated adversary reciprocated participants' offers, more rounds reflect smaller concessions towards the adversary.

A manipulation check was included to verify whether participants correctly perceived the structure of the negotiation differently depending on interest alignment. This measure consisted of four items, an example being 'My group and I

had the same goals during the negotiation' (1 = not at all to 7 = very much; Cronbach's  $\alpha$ = .91).

# **Results**

# **Manipulation Check**

Answers to the manipulation check were submitted to a 2 (structure: self-interest opposed to adversary only, or to both constituency and adversary) x 2 (social value orientation: pro-social or pro-self) ANOVA. Participants whose interests were opposed to both constituency and adversary perceived more interest misalignment between their self-interest and the interests of their constituency (M = 5.46, SD = 1.25) than participants whose self-interest was opposed to the adversary only (M = 2.07, SD = .96, F(1, 44) = 115.59, p < .001,  $\eta_{\rm p^2} = .72$ ). No other effects were significant. The manipulation was considered successful.

# **Negotiation Behavior**

First offers and number of rounds were submitted to a 2 (structure: selfinterest opposed to adversary only, or to both groups) x 2 (social value orientation: pro-social or pro-self) MANOVA. Effects for social value orientation showed that pro-socials made more generous first offers (M = 3.78, SD = 2.34 vs. M = 2.20, SD= 1.79, F(1, 44) = 6.46, p = .015,  $\eta_{p^2} = .13$ ) and negotiated fewer rounds (M = 4.28,  $SD = 2.65 \text{ vs. } M = 7.20, SD = 4.34, F(1, 44) = 6.48, p = .015, \eta_{p^2} = .13) \text{ than pro-}$ selves. We also obtained an interaction between social value orientation and interest alignment for first offers (F (1, 44) = 4.769, p = .034,  $\eta_{p^2} = .098$ ) and a marginal interaction for the number of rounds (F(1, 44) = 2.870, p = .097,  $\eta_{p^2} =$ .061). Figure 1 and 2 show the nature of these interactions. Only when representatives' interests opposed those of their constituency did pro-socials engage in more cooperative behavior than pro-selves: They made more generous first offers (M = 4.80, SD = 2.04 vs. M = 2.08, SD = 1.55, F(1, 44) = 11.38, p = .002, $\eta_{\rm p^2}$  = .21) and negotiated fewer rounds (M = 3.20, SD = 1.99 vs. M = 8.00, SD = 4.98, F(1, 44) = 9.16, p = .004,  $\eta_{p^2} = .17$ ). When self-sacrifice benefitted the adversary only, pro-socials did not differ from pro-selves in first offers (M = 2.50,  $SD = 2.14 \text{ vs. } M = 2.29, SD = 1.99, F(1, 44) = 0.63, p = .80, \eta_{p^2} = .001)$  and number of rounds (M = 5.63, SD = 2.89 vs. M = 6.59, SD = 3.83, F(1, 44) = .36, p = .55,  $\eta_p^2$ = .008). These results support Hypothesis 1.

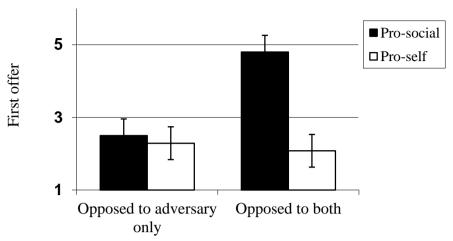


Figure 1. First offer making as a function of interest alignment and social value orientation in Experiment 1

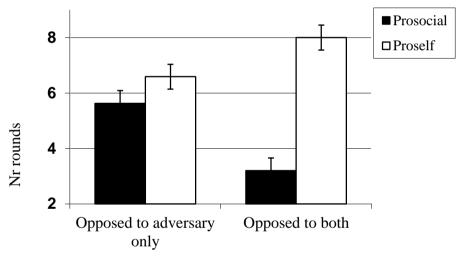


Figure 2. Number of negotiation rounds as a function of interest alignment and social value orientation in Experiment 1

#### **Discussion**

The results of Experiment 1 indicate that pro-social representatives' cooperative behavior is limited to a situation where parties' interests are not aligned. Pro-socials did not engage in more self-sacrificing cooperative behavior than pro-self representatives when doing so would benefit their adversary and harm their own group. Rather, pro-social representatives negotiated as competitively as pro-selves when only their adversary benefitted from concessions. However, as predicted, when concessions benefitted the constituency as well, pro-

social representatives conceded more than pro-self representatives. Thus, even in a competitive negotiation situation, pro-socials appear more willing than pro-selves to self-sacrifice to benefit the adversary, provided this benefits their constituency as well.

While our results offer an important first insight into the interaction between representative motives and the interest alignment structures of representative negotiations, there are several limitations. First, and probably because of the relatively small sample size, the interaction effect for number of rounds was only marginally significant. Second, the reciprocal strategy employed by the preprogrammed adversary could have potentially influenced the number of rounds it took representatives to reach an agreement. A competitive first offer by the representative would be reciprocated by a competitive offer from the adversary, thereby potentially increasing the duration of the negotiation, while a cooperative offer would be reciprocated by a cooperative offer, increasing the likelihood of a quick agreement. Therefore, in this setting, first offers and number of rounds cannot be treated as entirely independent measures of negotiation behavior.

# **Experiment 2**

Experiment 2 was designed, first of all, to remedy the limitations noted about Experiment 1 –to examine the robustness of the effect by testing the same contrasts with a larger sample size, and to examine whether the effects on number of rounds are not merely driven by the adversaries' strategy. Additionally, we adapted the procedure in Experiment 2 to obtain a measure of agreement level that complements the focus on negotiation processes.

Experiment 2 was designed also to test a possible qualification of the findings obtained in Experiment 1. The interest (mis)alignment conditions used in the experiment not only differed in terms of interest alignment between representative and constituency, but also between constituency and adversary. In the condition where representatives experienced misalignment with their constituency, the interdependence between constituency and adversary was cooperative (i.e., a positive correlation). Because pro-social individuals are more likely to perceive cooperative outcome interdependence (Batson, 1998; De Dreu, 2007; Van Lange, 1999), their tendency to concede to their adversary may reflect greater sensitivity to this positive interdependence, which increases cooperation (in the current setting, concession making towards the adversary). Alternatively, the observation that pro-socials self-sacrifice more than pro-selves when doing so

benefits the collective may reflect their desire to benefit their represented constituency and "accept" that doing so also benefits the adversary group. Put differently, in Experiment 1, pro-social representatives' unwillingness to self-sacrifice when doing so would benefit the adversary only may reflect (i) unwillingness to sacrifice the self for the benefit of the adversary, (ii) unwillingness to sacrifice the constituency for the benefit of the adversary, or (iii) both. Rather than promoting collective interests, pro-socials' self-sacrifice may reflect a desire to defend and promote the interests of the own constituency. It is conceivable that, compared to pro-selves, pro-social individuals have a stronger tendency towards parochial altruism: The willingness to sacrifice oneself to benefit the own group, especially if this concurrently hurts a competing other group (Boyd & Richerson, 2009; Choi & Bowles, 2007; De Dreu, 2010b; Gintis, Bowles, Boyd, & Fehr, 2003).

The possibility that instead of serving the overarching collective, pro-socials are particularly motivated to self-sacrifice when this serves their in-group resonates with several recent findings. In an intergroup conflict game developed by Halevy, Bornstein, and Sagiv (2008), De Dreu (2010b) examined the contributions of prosocials versus pro-selves to a "within-group" and a "between-group" pool. While contributions were personally costly, they would benefit the in-group and, in the case of the between-group pool, hurt the out-group. Results showed that prosocials contributed more to the within-group pool (henceforth "in-group love"), and non-significantly less to the between-group pool (henceforth "out-group hate"). De Dreu interpreted this pattern of results as showing that pro-socials more than proselves were parochial altruists—they cooperated but only to benefit their in-group and not the overarching collective. However, pro-socials did not exhibit more outgroup hate, which would be expected from parochial altruists. Rather, there was a non-significant decline in out-group hate among pro-socials. If this effect would have been significant, it would have followed that pro-socials self-sacrifice to benefit the overarching collective (a finding that would fit the pattern we observed in Experiment 1).

Other evidence for increased parochial altruism among pro-social individuals derives from a recent study by Abbink, Brandt, Hermann, and Orzen (in press). These authors assessed individual value orientations using a one-shot prisoner's dilemma (with those choosing the cooperative alternative being categorized as pro-social), and then introduced participants to a contest between their own and a rivaling four-person group for a given prize of 2000 money units, shared evenly among the members of the winning group. To win the contest,

individuals contributed out of their personal endowments to a common pool. Results showed that especially pro-social individuals were inclined to contribute to the common pool that enabled their group to win the contest. Put differently, prosocials - more than pro-selves - displayed parochial altruism in intergroup conflict games.

Whereas these studies by De Dreu (2010b) and Abbink et al. (in press) suggest that especially pro-social individuals self-sacrifice to benefit their in-group rather than the overarching collective, a number of critical differences exist between the settings of those studies, and the representative negotiation setting examined here. First, the experimental games used in earlier work on parochial altruism are so-called coordination games, in which individuals make private decisions to self-sacrifice that are non-contingent upon the decisions made by other in-group members and/or members of the out-group. The outcomes in these situations thus result from independent decision making. Negotiation games are qualitatively different because opposing individuals move back-and-forth until they reach a commonly acceptable agreement, which subsequently results in outcomes to both sides (for a discussion of the differences between coordination and agreement games, see e.g., De Dreu & Carnevale, 2003). Whether findings from coordination games involving independent decision making comfortably generalize towards agreement games involving communication and joint decision making remains to be seen.

Another important difference between earlier work on parochial altruism and the current negotiation context is that individual representatives are to a larger extent tuned towards their out-group protagonist with whom they seek some form of agreement. This incentivizes a cooperative approach, and may detract from the implicit or explicit desire to serve the constituency, especially when representatives' interests are opposed to their constituency but aligned with the adversary. Put differently, especially in representative negotiations the individual may capitalize more on the features and characteristics of his adversary and less on tendencies towards parochial altruism. The current experiment investigates whether parochial altruism also emerges in such relatively weak (i.e., more cooperative) settings and whether it is then exhibited especially by pro-social individuals.

Taken together, Experiment 1 showed that especially pro-social representatives made, at a cost to themselves, concessions that benefitted their ingroup as well as their adversary's group, which is consistent with the well-established finding that pro-socials more than pro-selves self-sacrifice to benefit an

overarching collective. However, recent studies on experimental games (Abbink et al., 2012, De Dreu, 2012b) point towards the possibility that pro-socials' increased concession making could also reflect parochial altruism—their enhanced willingness to self-sacrifice for the benefit of their in-group (and accept the benefit to the rivaling out-group as "collateral damage"). Experiment 2 was designed to tease apart these two possible explanations for the pro-socials' increased willingness to self-sacrifice. To the design of Experiment 1 we added a condition in which the representative's self-interest was aligned with that of the adversary, and opposed to that of the constituency. Participant concession making would now promote the constituencies' welfare, at a cost to both self-interest and the adversary group's interest. In Experiment 2 we thus compare representative's concession making when concessions are self-costly and (i) benefit the adversary and hurt the constituency, (ii) hurt the adversary and benefit the constituency, and (iii) benefit both adversary and constituency. Furthermore, we now measured representatives' motives for their behavior to uncover whether their different self-sacrificing behavior can be explained by the motivation to serve their constituencies' interests, as is suggested by previous work on the discontinuity effect and representative negotiations (Aaldering & De Dreu, 2012, Steinel et al., 2009; Wildschut & Insko, 2007).

#### **Method**

# Sample and Design

One hundred thirteen undergraduate students from the University of Amsterdam (Mean age 22.20, SD = 4.55, 67.3% female) participated in exchange for course credit or €7. Participants were randomly assigned to the interest alignment conditions of a 3 x 2 factorial design with structure (interests opposed to adversary only, interests opposed to both constituency and adversary, or interests opposed to constituency only) and social value orientation (pro-social or pro-self) as between subjects independent variables. Main dependent variables were first offers, negotiation rounds, and agreement level. Based on their choices in the decomposed game measure, fifteen participants could not be classified as either pro-social or pro-self. These participants were excluded from the analyses, decreasing the number of cases to 98 (49 pro-socials and 49 pro-selves) in total.

# Procedure, Task, Manipulations, and Measures

The procedure and negotiation task were identical to the previous experiment, with three exceptions. Firstly, a condition was added in which the adversary group had the same preferences as the representative (both preferred an agreement on level 1), while the constituency (group O) preferred an agreement on level 13. Large concession making in this condition would reflect self-sacrificing directed towards the own constituency only.

Secondly, the simulated adversary was no longer programmed to use a reciprocal strategy. Instead, the adversary now made linear concessions of one step per round away from its opening offer of 1, irrespective of the concession made by the representative. As a result, the agreement reached is indicative of the participants' self-sacrifice, as higher agreement values reflect greater self-sacrifice to benefit the constituency and/or adversary, depending on condition. This strategy was changed for two reasons. Firstly, a reciprocal strategy would not be possible in the condition were interests of representative and adversary are aligned: reciprocating a self-serving offer would immediately end the negotiation. Furthermore, as previously discussed, the reciprocal strategy of the opponent could affect the number of rounds representatives needed to reach an agreement via their first offers (competitive offers eliciting a competitive reciprocal offer, thereby increasing the number of rounds, and vice versa).

Thirdly, not the participant but the adversary now made the opening offer. In the new condition in this experiment, in which the representatives' interests were aligned with the other group and not with the constituency, this offer was in line with the representative's self-interest. Accepting such a tempting offer from the adversary would serve both own and adversaries' interest yet hurt those of the represented constituency. By changing which party made the first offer, we could ensure that participants understood that the other party had preferences similar to themselves, and thereby increase the temptation to accept such a personally favorable offer.

The number of pro-socials and pro-self participants were distributed as follows over the different conditions: The condition in which representatives' interests were aligned with their constituency but opposed to the other group contained 13 pro-socials and 17 pro-selves. The condition in which the interests of the representatives were opposed to both parties comprised 15 pro-socials and 17 pro-selves. Finally, the condition where the interests of the representatives were

aligned with the other party but opposed to the constituency contained 21 prosocials and 15 pro-selves.

# **Dependent Variables**

As in Experiment 1, the behavioral measures of self-sacrificing behavior included the size of the first offer by the representative (which was now a counteroffer to the preprogrammed offer of 1 by the adversary) and the number of rounds it took the representative to reach an agreement. Due to the change in strategy employed by the pre-programmed negotiation adversary, we could now also use the final agreement level as a dependent variable.

Higher first offers would again signal self-sacrifice from the part of the representative. Similarly, an agreement on a high level would be against the interests of the representative. Finally, in the condition where the adversaries' interests were opposed to those of the representative, a high number of rounds formed an indication of tough concession making with the adversary. In the new condition where interests of the representative were opposed to those of the constituency only, number of rounds should be interpreted differently: Because interests of representative and adversary were now aligned, a beneficial agreement for these parties could be reached quickly. A high number of negotiation rounds between representative and adversary would thus indicate an unwillingness to close such a beneficial agreement out of concern for the interests of the constituency.

In an attempt to shed more light on the motives underlying representatives' behavior, we added a scale assessing representatives' willingness to serve their groups' interests. This motive was assessed with four items. An example item is 'I tried to fulfill the wishes of my group'. Cronbach's alpha of this scale was .96. The same manipulation check items as in Experiment 1 were used to verify the extent to which representatives experienced interest misalignment between themselves and their constituency during the negotiation (Cronbach's alpha = .88).

#### **Results**

# **Manipulation Check**

A 3 (structure: interests opposed to adversary only, interests opposed to both parties, or interests opposed to constituency only) x 2 (social value orientation: pro-social or pro-self) ANOVA revealed a main effect of structure: When interests of representative and constituency were aligned, participants

reported to have preferences more similar to their constituency (M = 5.84, SD = 1.15) compared to participants whose interests were not aligned with those of their constituency (M = 2.85, SD = 1.41 for misalignment with constituency only and M = 3.20, SD = 1.50 for misalignment with both, F(2, 95) = 44.76, p < .001,  $\eta_p^2 = .49$ ). No other effects were significant.

# **Negotiation Behavior**

Behaviors reflecting self-sacrificing behavior were submitted to a 3 (structure: interests opposed to adversary only, interests opposed to both parties, or interests opposed to constituency only) x 2 (social value orientation: pro-social or pro-self) MANOVA.

Replicating the findings of Experiment 1, main effects of social value orientation showed that compared to pro-selves, pro-socials made more generous first offers  $(M=5.90, SD=3.22 \text{ vs. } M=2.83, SD=2.69, F(1,92)=14.56, p<.001, \eta_p^2=.14)$  and negotiated an agreement on a higher level  $(M=6.35, SD=2.18 \text{ vs. } M=3.98, SD=2.36, F(1,92)=22.72, p<.001, \eta_p^2=.20)$ . The 3 X 2 interaction between social value orientation and interest alignment was significant for number of rounds  $F(2,91)=14.44, p=.000, \eta_p^2=.24)$ , but not for first offers  $(F(2,91)=1.104, p=.336, \eta_p^2=.023)$ , or agreement level  $(F(2,91)=1.142, p=.324, \eta_p^2=.024)$ .

Because our hypotheses involved specific contrasts rather than overall interaction effects, we proceeded with testing directional contrasts (Rosenthal & Rosnow, 1985). These replicated the findings of Experiment 1. When representatives' interests were opposed to those of both their constituency and the other group, pro-socials made more generous first offers than pro-selves (M = 5.27, SD = 3.22 vs. M = 2.88, SD = 1.93, t (92) = -2.11, p = .019, negotiated fewer rounds (M = 4.07, SD = 1.10 vs. M = 5.00, SD = .87, t (92) = 2.26, p = .013) and reached higher agreements (M = 7.53, SD = 1.99 vs. M = 5.47, SD = 1.81, t(92) = -2.42, p = 1.81.01). Pro-socials did not differ significantly from pro-selves when their interests were aligned with their constituency and opposed to the other group in first offers (M = 4.54, SD = 3.26 vs. M = 3.18, SD = 1.93, t (92) = -1.151, p = .250), number of rounds (M = 4.77, SD = 1.36 vs. M = 5.35, SD = 1.58, t (92) = 1.350, p = .180), and final agreement (M = 6.15, SD = 3.36 vs. M = 4.53, SD = 3.24, t(92) = -1.829, p =.07). Their self-sacrificing behavior was thus directed to benefit both their constituency and the other group, rather than to benefit the other group only, supporting Hypothesis 1. However, and as predicted in Hypothesis 2, when

representatives' interests were opposed to those of their constituency only, prosocials made more generous first offers (M=7.38, SD=2.80 vs. M=3.67, SD=3.86, t (92) = -3.44, p < .001), negotiated more rounds (M=3.81, SD=81 vs. M=1.93, SD=1.22, t (92) = -4.76, p < .001), and reached higher (i.e., self-harming) agreements (M=5.95, SD=1.60 vs. M=2.60, SD=2.26, t (92) = -4.11, p < .001) than pro-selves: They sacrificed themselves for the benefit of their constituency, even when facing a strong temptation to do otherwise (See Figure 3 – 5).

In line with our expectations, pro-socials engaged in even more self-sacrificing behavior when this benefitted the constituency only compared to when it benefitted both the constituency and the adversary group. This is reflected in larger initial concession making, demonstrated with more generous first offers (t (92) = 1.96, p = .027). Pro-selves on the other hand sacrificed their constituency to benefit themselves: When their interests were opposed to the constituencies' interests only rather than to both constituency and the other group, they negotiated fewer rounds (t (92) = -7.42, p < .001) and reached a lower (i.e., more self-benefitting) agreement (t (92) = -3.36, p < .001). The effect on first offers was not significant (t (92) = .694, p = .25).

Taken together, these findings provide support for Hypothesis 2. Pro-social representatives were especially likely to self-sacrifice to promote the interests of their constituency only (as opposed to benefitting the overarching collective), while pro-selves neglected the interests of their constituency and closed a personally favorable deal with the other group when possible.

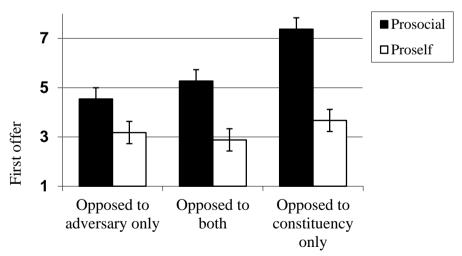


Figure 3. First offer making as a function of interest alignment and social value orientation in Experiment 2

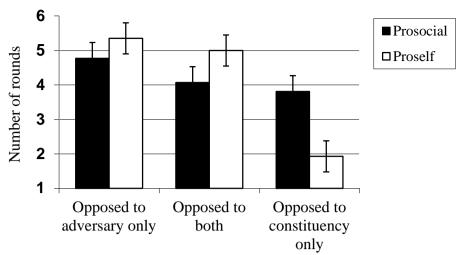


Figure 4. Number of negotiation rounds as a function of interest alignment and social value orientation in Experiment 2

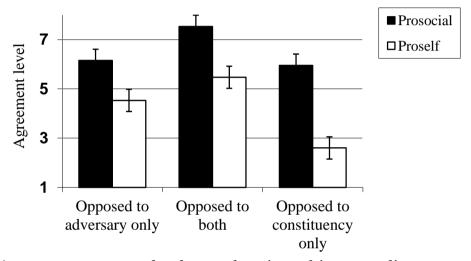


Figure 5. Agreement level as a function of interest alignment and social value orientation in Experiment 2.

#### **Motives**

We explored whether the motivation to serve the constituency could account for the interaction between social value orientation and interest alignment on representative's self-sacrificing behavior. We tested this using directional contrast analysis with social value orientation as the between subjects factor. We found that pro-socials were more motivated to act in the interests of their constituency than pro-selves when their interests were opposed to both their constituency and the adversary (M = 5.42, SD = .88 vs. M = 4.49, SD = 1.74, t (92) = -1, 963, p = .027), and even more so when their interests were opposed to their constituency only (M = 5.23, SD = 1.33 vs. M = 3.40, SD = 1.89, t (92) = -4.034, p < .001), but not when their interests were aligned with their constituency (M = 5.56, SD = .90 vs. M = 6.16, SD = .80, t (92) = 1.224, p = .224).

These analyses were followed up by a test for mediation. In a regression analysis, social value orientation was marginally related to the motivation to serve the constituency when interests were opposed to both constituency and adversary (B = 0.468, SE = .251, t (31) = -1.865, p = .07). While motivation to serve the constituency was not related to the size of the first offers made by the representative (B = .308, SE = .349, t (31) = .882, p = .385), motivation to serve the constituency did predict the number of rounds it took representatives to reach an agreement (B = -.362, SE = .117, t (31) = -3.104, p = .004). A bootstrap analysis yielded a 95% Confidence Interval ranging from .0014 to .4116, indicating that the mediated effect on number of rounds was significantly different from zero (1000 resamples).

When interests of the representative were opposed to constituency but in line with adversary, social value orientation was a significant predictor of motivation to serve the constituency (B = -.917, SE = .269, t (35) = -3.407, p = .002), which in turn significantly predicted size of first offers (B = 1.341, SE = .269, t (35) = 4.981, p < .001) and number of rounds (B = .541, SE = .090, t (35) = 6.028, p < .001). We thus proceeded with bootstrapping analyses for both dependent variables (1000 resamples). The 95% Confidence Interval for first offers ranged from -2.14 to -.32, indicating that the mediated effect was significantly different from zero. For number of rounds, we obtained a 95% Confidence Interval ranging from -.66 to -.11, which also differed significantly from zero. In sum, these findings largely support the idea that motivation to serve the constituency mediates the representatives' self-sacrificing behavior.

#### **Discussion**

The results of Experiment 2 support Hypotheses 1 and 2. Using a priori contrast analyses, we found that pro-social representatives self-sacrificed more than pro-self representatives when doing so served the interests of both constituency and the other group and, especially, when doing so served the interests of the constituency only. Additionally, we found representatives' willingness to serve their constituency to underlie their self-sacrificing behavior. It fully explained the effect that pro-socials negotiated fewer rounds than pro-selves when representatives' interests were opposed to those of the constituency and the adversary, as well as the effect that pro-socials negotiated more rounds than pro-selves when their interests were opposed to their constituency only. However, it could only account for the higher first offer making by pro-socials compared to pro-

selves when representative's interests were opposed to those of their constituency and aligned with the adversary. Taken together, these results are largely consistent with our argument that pro-socials are more concerned about their constituency than are pro-selves, and that pro-socials are more willing to sacrifice themselves to serve the constituency's interests.

A somewhat surprising finding is that pro-social representatives reached an agreement on a higher level (i.e., more favorable to the constituency) when their interests were opposed to both their constituency and the adversary group, rather than opposed to the constituency only. We attribute this to the paradigm we used. When representatives' interests are opposed to their constituency only, the range of concession making was, although not theoretically, practically smaller than when their interests opposed those of the adversary group as well. The adversary group now did not make an offer that diverged strongly from representatives' interests, but instead had the same preferences as the representative: to close a deal on a low level. Although we found that representatives made larger initial concessions, as reflected in higher first offers when this benefitted their constituency only, this left them with a smaller range to negotiate compared to their relatively low selfbenefitting first offer and the high counteroffer when their interests were opposed to those of the other group. Because the range was relatively small, an agreement would inevitably be reached on a level more favorable to both representative and adversary. Future research using a design that takes this into account would provide stronger support for the conclusion that pro-socials are also parochial altruists in the final agreements they make.

#### **General Discussion**

In intergroup competition and conflict, groups often engage a representative to negotiate on their behalf. In such negotiation situations, representatives' interests are not always aligned with those of the constituency they represent. The current research highlights when and why representatives decide to sacrifice their self-interest to benefit their constituency. Across two studies we found that social value orientation interacted with interest alignment to moderate representative's concession making. Compared to those with a pro-self orientation, pro-social representatives were more inclined to sacrifice their own interests to promote the interests of their constituency. Experiment 2 showed that this tendency was even stronger when pro-social representative's interests were opposed to those of their constituency only, and their self-interest was actually aligned with the interests of

the adversary group. In contrast, pro-self representatives behaved selfishly regardless of their constituencies' preferences – when their interests opposed those of their constituency, they betrayed their constituency when they had the opportunity to close a quick and self-beneficial deal with the other party.

# **Theoretical Implications**

The current studies provide an extension and integration of several theories. Firstly, the results show that pro-socials are not indiscriminately cooperative. When interests of representative and constituency were aligned, but opposed to the adversary negotiation party, pro-social representatives did not engage in more conciliatory behavior than pro-selves. This finding qualifies earlier results on interpersonal negotiation showing that in the ordinary situation where self-interest opposes adversary interests, pro-socials make larger concessions than pro-selves (Beersma & De Dreu, 1999; De Dreu & Van Lange, 1995; Gillespie et al., 2000; Olekalns & Smith, 2003; Schei & Rognes, 2003; Van Dijk et al., 2004). This line of research has not examined the influence of the presence of a constituency. Conceding to the other group would in this situation not only imply sacrificing the self, but also sacrificing the constituency. Pro-social representatives were reluctant to engage in such sacrificial behavior that would hurt not only themselves, but also their constituency.

It seems that pro-socials' cooperative tendencies are geared towards their constituency, while deliberately or inadvertently hurting the other group. The tendency to engage in self-sacrificing behavior to promote one's own group is an important motivator of human behavior in conflict situations (e.g., Halevy, Weisel, & Bornstein, 2011; Lowery, Unzeta, Knowles, & Goff, 2006) and the behavioral pattern of pro-social representatives resembles parochial altruism, an adaptive strategy in enduring inter-group conflicts. An inter-group conflict is won by the group with the most members willing to sacrifice themselves: self-sacrificing to benefit one's own group often implies hostile behavior towards the competing other group. Parochial altruists thus have a competitive advantage in inter-group conflicts and as such contribute to the survival of the group in the long run (Arrow, 2007; Boyd & Richerson, 2009; Choi & Bowles, 2007; Gintis et al., 2003). Prosocial individuals may be especially susceptible to such self-sacrificing behavior because of their general inclination towards equality and reciprocity. They reciprocate cooperativeness within the own group, potentially leading to selfsacrificing behavior but at the same time strengthening the group. They also

reciprocate competitiveness when facing a competitive interaction partner (behavioral assimilation, Kelly & Stahelski, 1970; Liebrand, Jansen, Rijken, & Suhre, 1986; Parks & Rumble, 2001; Van Lange, 1992) and are as such not easily exploitable by hostile groups.

Pro-selves seem to have evolved according to a different survival mechanism. Although they are not willing to sacrifice themselves to benefit their own group, which may lead to disapproval and eventually removal from this group, they also refrain from damaging the competing group, especially when this could potentially incur personal losses: They always follow the strategy that leads to highest personal benefit (Balliet et al., 2009; De Dreu, Weingart, & Kwon, 2000; Van Lange et al., 2007). Thus, within inter-group conflicts, pro-selves follow a strategy that is relatively indifferent towards the other parties, and as such they manage to avoid personal losses in conflict escalation.

Our findings send an important message to Agency Theory (Eisenhardt, 1989; Dalton et al., 2007; Devers et al., 2007), namely that agents do not always pursue their self-interest. While pro-self representatives behaved in accordance with Agency Theory, roughly 50 % of the human population consists of people with a pro-social orientation (Van Lange, De Cremer, Van Dijk, & Van Vugt, 1997). We found this other half of the population to self-sacrifice for the benefit of the own group, rather than to forsake their constituency to benefit themselves. As such, it appears that the principal-agent problem applies less to pro-social individuals, who are willing to self-sacrifice to benefit the principals' interests. Pro-social agents thus should be a good choice when one needs a representative intrinsically motivated to serve the interests of the principal, rather than their own interests. A potential risk involved in such a decision is that pro-social representatives may be willing to hurt the interests of the other group, thus potentially worsening the conflict and intergroup relations.

#### **Avenues for Future Research**

The present research provided a first step towards uncovering the dynamics that play a role in principal-agent-adversary interactions, and we were able to develop a straightforward paradigm to cleanly test our hypotheses. Manipulating interest (mis)alignments as done here allowed strong inferences about the motivations underlying the representative's behavior. However, we studied a negotiation with one issue on which interests were inevitably opposed. Many negotiations involve multiple issues, and different parties may have opposing

preferences on some, but aligned preferences on other issues (De Dreu, 2010a). Such multiple issue negotiations allow for representatives to craft beneficial integrative solutions for more than one party. Specifically pro-social individuals have been shown to prefer high joint outcomes when possible (Stouten, De Cremer, & Van Dijk, 2005; Van Lange, 1999; Van Lange et al., 2007; Van Beest, Wilke, & Van Dijk, 2003). However, the increased complexity of a situation where representative, constituency and adversary have diverging preferences on various issues, poses a challenging situation for the representative to reach a win-win solution. As such, predicting and interpreting outcomes reached in a complex negotiation setting with multiple issues and even more diverging preferences would be difficult and less clean than results obtained in a distributive single issue negotiation task. The current design therefore allowed us to draw clear inferences about the motives of the representatives. Future research should investigate how representatives manage such complex negotiation situations and to what extent their social value orientation affects their ability to reach a beneficial solution for each of the parties involved.

Another avenue for future research would be to increase the cooperation level of pro-selves. The current studies show that pro-self representatives ignore their constituency and act only according to their self-interest. However, negotiation studies revealed time and time again that pro-self individuals operate according to pro-social motives when they are instructed or rewarded to do so (e.g., De Dreu et al., 2000). Similarly, research on social dilemmas and the goal transformation hypothesis has shown that pro-selves' self-costly contribution level can be raised by increasing their identification with the group (e.g., De Cremer & Van Dijk, 2002; De Cremer, Van Knippenberg, Van Dijk, & Van Leeuwen, 2008). In the current study, representatives were led to believe they were part of a group based on a personality questionnaire to induce some sense of identification with their constituents (Tajfel, 1970). This categorization was very minimal, and increasing the level of identification of the representative, for example by increasing the relevance or salience of their group membership, provides fruitful ground for future research on (temporarily) altering pro-selves' self-interested motives.

Finally, new work could investigate when and why pro-socials become hostile and aggressive towards the adversary. In the current research we demonstrated that pro-social representatives are not cooperative to their adversary if this is not beneficial for their constituency. However, we cannot show the driving

force behind this parochial altruism: Pro-socials could be mainly motivated by a desire to promote their constituencies' interests, to decrease the outcomes of the adversary (if these are negatively correlated with those of their constituency) or a combination of both. The findings of our experiments suggest that pro-socials are not willing to give up their constituency to hurt their adversary. If the adversary benefits from the same outcomes as their constituency, pro-socials seem to accept this as collateral damage. It thus seems more likely that their behavior is driven by a tendency to defend their in-group, which indeed emerged as an important underlying motive in Experiment 2. Even so, more research is required to investigate why pro-socials engage in parochial altruism, and whether their defensive aggression towards the adversary is rooted in fear of exploitation or in greed for better outcomes for the own group. Especially the latter option is very counterintuitive given the established literature on pro-socials' preference for equality and joint outcomes (Van Lange, 1999, Van Lange et al., 2007, De Dreu, Weingart, & Kwon, 2000; Van Dijk et al., 2004). However, the presence of a constituency to please and defend (perhaps in combination with the presence of a salient outgroup) may substantially alter our current view on pro-socials' benevolence by revealing their potential dark side.

#### Conclusion

In conclusion, these studies demonstrate that the role of social value orientation in a representative intergroup negotiation depends on interest alignment. Whereas pro-self representatives always act selfishly, pro-social agents are willing to sacrifice themselves – but not indiscriminately. They prefer to provide their constituency with a competitive advantage over the other group and thereby show that they might not always be as pro-social as is often thought.