Universiteit Leiden

Faculteit der Sociale Wetenschappen

Managing to self-manage negotiations

The absence of formal leadership and its effects on negotiation abilities

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Master thesis Psychology, specialization social and organisational psychology
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Date: 24/08/2017
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Abstract

This study aimed to investigate the ability of self-managing teams to negotiate effectively relative to traditionally led teams. Based on previous literature leaders were expected to increase their teams' joint outcomes by facilitating information exchange. More specifically, leaders were expected to provide and seek information, as well as listening closely to the information provided. Using a three-person negotiation the effects of leadership were studied, as well as the effect of incentivising one team member to facilitate information exchange whilst still retaining autonomy within the group. It was expected that groups with a leader or advice would achieve higher judgement accuracy through facilitation of information exchange. Furthermore, this increase in judgement accuracy was expected to lead to an increase in joint outcomes. Neither of these hypotheses was supported by the data. Possible causes and implications are discussed.

Managing to self-manage negotiations: the absence of formal leadership and its effect on negotiation abilities

In recent decades, organisations have been showing a shift towards the greater use of teams (Morgeson, DeRue & Karam, 2010), particularly self-managing ones. Indeed Druskat and Wheeler (2004) state that 79% of Fortune 1000 companies make use of self-managing teams in their organisations. Although there are numerous definitions of self-managed teams, what they have in common is that workers in self-managed teams are free to make autonomous decisions, without referring back to an externally appointed leader (Nijholt & Benders, 2010). The introduction of self-managed teams has produced some mixed results regarding their effectiveness (Allen & Hecht, 2004). Many studies have reported benefits of self-management in teams (Erez, Lepine & Elms, 2002; Rousseau & Aubé, 2010; Solansky, 2008; Yang & Guy, 2011). As predicted by self-determination theory (Gagné & Deci, 2005), the greater autonomy enjoyed by self-managed teams results in members being happier, less stressed, less fatigued and more satisfied with their working conditions (Allen & Hecht, 2004). However other studies have shown less promising results (DeVaro, 2008; Manz & Sims, 1982) and many benefits are contingent on certain conditions, such as the type of goals that are set (Alper, Tjosvold & Law, 1998), task routineness (Rousseau & Aubé, 2010) and leadership emergence and rotation (Erez et al., 2002). Although self-managing teams appear to have great potential, it is clearly important that we gain an understanding of the conditions that must be met to allow autonomous teams to fulfil that potential. One area in which we currently understand very little about the potential and requirements of self-managing teams is decision-making and negotiation. As Fisher, Ury, and Patton (2012, p. xxv) noted, "Like it or not, you are a negotiator. Negotiation is a fact of life… Everyone negotiates something every day." It is not surprising therefore, that negotiation has produced a rich field of literature over the years

(Caputo, 2013; Kersten & Lai, 2007; Li, Tost & Wade-Benzoni, 2007; Malhotra & Bazerman, 2008; Menkel-Meadow, 2010; Thompson, 1990; Thompson, Wang & Gunia, 2010; Wall & Blum, 1991). However, much negotiation literature has focused on negotiating in dyads, leaving much to be learned about negotiations taking place within groups of three or more members, such as teams. Moving from a two-person negotiation to a negotiation including more people creates greater social and procedural complexity. Having more negotiation counterparts requires more information to be exchanged, processed and remembered by a greater number of people. It also introduces various options for decision-making rules. In dyadic negotiation or decision-making, the two negotiators must simply manage to agree with one another. In a multi-party negotiation negotiators could employ a similar unanimity rule but they could also use a majority rule (Beersma & De Dreu, 1999). One rule that is particularly relevant to work teams is the dictator rule, in which one person has the power of making the final decisions (Van Tol & Steinel, 2017). In traditionally led teams, the dictator rule is particularly applicable, as the boss of the team would most likely have the final say on any decisions being made. However, for many decisions in self-managing teams no one has the legitimate power or authority required to implement a dictator rule. Consequently self-managed teams must turn to other decision-making rules, such as unanimity or majority rule. In light of the recent trend towards appointing more self-managing teams, it is worth investigating how decision-making rules and the absence of formal leadership affect self-managed teams' ability to negotiate effectively. Can self-managed teams negotiate just as well, or possibly even better, without a leader? Or does the absence of a formal leader reduce the effectiveness of self-managed teams' negotiations?

Self-managing teams

Self-managed teams, otherwise known as autonomous teams, possess a number of features that make them different to traditionally structured work groups, and may thus influence their decision-making processes. Members of self-managed teams are entrusted to make autonomous decisions, without referring back to an appointed leader, including important decisions that may typically be made by management. For instance, self-managed teams may be responsible for deciding when to work or how exactly responsibilities should be carried out (Nijholt & Benders, 2010). Self-managed teams are thus given greater responsibility over the decision-making process. Furthermore, self-managed teams are given responsibility for relatively complete tasks and projects, as opposed to performing just one element of a task, which is then completed by a different employee or work team (Cohen, Ledford & Spreitzer, 1996; Moorhead, Neck & West, 1998). In this sense, self-managed teams are relatively self-contained. To encourage self-managed teams to work together as a group, members are often rewarded at the group level, with individual rewards being made contingent upon group performance (Moorhead et al., 1998). This creates pro-social intentions and encourages members to take the group's interests into account, as well as their own. Taking both personal and team interests into account is particularly relevant when making team decisions as some team members may hold different preferences to others. For instance, one team member may wish to work longer shifts in order to earn more salary, whereas another team member may prioritise a good work-life balance. Consequently, when making autonomous team decisions, team members must reconcile their differing preferences by engaging in negotiation.

Fisher et al. (2012, p. xxv) define negotiation as "back-and-forth communication designed to reach an agreement when you and the other side have some interests that are shared and others that are opposed". From this definition it is clear that negotiation revolves around

balancing one's own interests and preferences with those of the other group members. Indeed, negotiation and decision-making often resemble so-called 'social dilemmas', a situation in which each individual in the group must choose between pursuing individual gain and cooperating with the group. For each individual, non-cooperation is the most appealing option, producing the highest individual outcome (relative to cooperating), regardless of the others' choice to cooperate or defect. However, if everyone pursues individual gain at the expense of the others, everyone is worse off than if they had all cooperated. In a negotiation, this would be the equivalent of everyone digging their heels in and reaching a stalemate, making it impossible to reach a decision at all. However, if some people cooperate and others defect, then those who cooperated will end up being exploited. This is very similar to a situation in which one person is very powerful and shows concern only for their own interests, demanding many concessions from a less powerful counterpart. This latter scenario, at least, would seem highly unlikely in a self-managed team as, in theory, no single team member has more power than the others. However, this is not to say that autonomous teams are necessarily better at negotiating than traditionally led teams. An appointed leader may also bring benefits to the negotiating table, for instance by helping to avoid stalemates, structuring the negotiation, or ensuring that the negotiation stays on track. To discover how a leader may contribute to or detract from effective negotiation, it is necessary to determine what 'effective negotiation' entails.

Effective Negotiation

Within self-managed teams, where individual rewards are often made contingent upon group outcomes, negotiation success could be defined as the maximisation of joint outcomes. In other words, the better the group performs *as a whole* the more successful their negotiation would be considered to be. Excellent group-level performance would help

the team to flourish, as well as maximise the rewards for each individual team member. In order to aid the group as a whole, the team members must strive to satisfy *everyone's* needs to the best of their ability, and in order to satisfy everyone, the team must focus on finding win-win solutions to the problems they face. Negotiation that focuses on creating win-win situations is termed 'integrative negotiation' and one method of integrative negotiation that can be applied in multi-issue negotiations is logrolling (Tajima & Fraser, 2001). Logrolling is the term used to describe the trading-off of issues that are less important to one negotiator, but highly important to the other and vice versa. By making concessions on low-priority issues, a negotiator does not greatly damage their individual outcomes, but their counterpart's outcomes are greatly increased, increasing joint outcomes overall. Similarly, a negotiator's counterpart can then reciprocate by conceding on an issue that may not be very important to them, but greatly improves the outcomes of the negotiator. In doing this, joint outcomes are maximised as each negotiator gains the outcomes that are most important to them.

Only if everyone's preferences and priorities are known can options for mutual gain via logrolling be identified. Thus, to be able to negotiate integratively, the group must have information about, and a sound understanding of, each group member's preferences. Assuming that not all information about preferences is shared prior to starting the negotiation, information exchange must take place to make everyone's preferences known. Provided that information exchange is a sufficient condition for integrative negotiation, we would expect information exchange to lead to more integrative agreements. Thompson (1991) studied the effect of providing and seeking information in negotiations and found that increased information provision and search does indeed lead to higher joint outcomes, suggesting more integrative agreements. However, Thompson (1991) also stated the importance of explicitly instructing negotiators to seek and provide information to

overcome the restrictive effects of the fixed-pie perception. The fixed-pie perception is defined as "the tendency to assume that the other party places the same importance – or has the same priorities as the self – on the to-be-negotiated issues when the potential for mutually beneficial trades exists" (Thompson & Hastie, 1990, p. 101). Thompson (1991) argued that negotiators holding a fixed-pie perception would not engage in information exchange, as they believe they already know the priorities of their counterpart, which they assume to be identical to their own.

So, for effective negotiation that maximises joint outcomes it is essential that negotiators exchange information openly and honestly, and instructing them to do so is important to overcoming the effects of the fixed-pie perception. By exchanging information about preferences, the fixed-pie perception can be reduced and options for mutual gain can be identified and implemented in order to create win-win solutions. For self-managed teams it is thus important to know how the removal of formal leadership may influence information exchange. This would allow self-managed teams to recognise where their relative advantage lies, or else know how to compensate for any potential disadvantages that may arise from the removal of appointed leadership. As negotiation processes within self-managed teams, or indeed within groups of three or more people, have not been given much attention in the literature to date, the most effective way to gauge the effects of removing leadership may be to examine the effects of leadership and power on negotiation processes.

Power in negotiation

Power, within a negotiation and in general, can be defined in many ways (Kim, Pinkley & Fragale, 2005). A common definition of power in a negotiation is the availability of an attractive best alternative to negotiated agreement (BATNA) (Brett & Thompson,

2016; Kim et al., 2005; Magee, Galinsky, Gruenfeld, 2007; Nelson, Bronstein, Shacham & Ben-Ari, 2015; Wei & Luo, 2012). Another conceptualisation of power is French and Raven's (1959) five power bases: reward power, coercive power, legitimate power, expert power and referent power. In our study we define power as the ability to make binding decisions on behalf of the group (in other words, the ability to implement a dictator rule), much like the leader of a traditional work team. Power, in its diverse forms, has been shown to have a wide range of effects on (negotiation) behaviour. It has been shown to make people more proactive (Magee et al., 2007), more aggressive (Fast & Chen, 2009), take more risks (Anderson & Galinsky, 2006), less likely to empathise and take their counterpart's perspective (Galinsky, Magee, Ena Inesi & Gruenfeld, 2006; Van Kleef, Oveis, Löwe, LuoKogan, Goetz & Keltner, 2008), more likely to derogate subordinates (Georgesen & Harris, 2006), more competitive (Mannix, 1993) and more likely to act in one's own interests (Sturm & Antonakis, 2015). Based on these findings it would appear that power is a very destructive force within a negotiation. In this regard, one would expect self-managed teams to have a relative advantage when negotiating, as they need not fear the aggressive, risk-taking, selfish tendencies of a leader. In line with this, a number of studies have found that power differences led to lower joint outcomes in negotiation (For example Giebels, De Dreu & Van de Vliert, 2000; Van Tol & Steinel, 2017; Wolfe & McGinn, 2005). However, the effects of power are not limited to negative ones. Power has also been shown to make negotiators process information more globally and abstractly, therefore making them better able to detect underlying patterns (Mast, Jonas & Hall, 2009; Smith & Trope, 2006). High-power negotiators have further been shown to be more generous (Brett & Thompson, 2016), particularly when they have absolute power, as opposed to partial power (Handgraaf, Van Dijk, Vermunt, Wilke & De Dreu, 2008; Van Dijk & Vermunt, 2000). Having absolute power evokes a sense of social responsibility, inspiring leaders to

become more considerate of others' interests as opposed to just their own. Indeed, high-power negotiators have been found to be more procedurally just, listening more closely to others' interests and desires (Blader & Chen, 2012). Furthermore, power has been shown to make negotiators more likely to seek and create solutions, more obliging and less dominating (Nelson et al., 2015). Powerful negotiators also share their information more openly (Anderson & Galinsky, 2006), expressing their true opinions more than low-power negotiators (Anderson & Berdahl, 2002). In line with these findings, a number of studies have found that groups with a leader achieved higher joint outcomes than those without (Van Knippenberg, Van Knippenberg & Wilke, 2001; Van Tol & Steinel, 2017; Wei & Luo, 2012). So it seems that power dispersion can be either helpful or harmful to joint negotiation outcomes. However there is one important factor that appears to qualify this contradiction; social motives. All of the studies that found a positive effect of leadership on joint outcomes did so only when leaders were pro-socially motivated. Indeed, Van Tol and Steinel's (2017) study directly compared leaders of pro-social groups and leaders of pro-self groups and found that leaders of pro-self groups were indeed selfish, claiming most value for themselves, whereas the leaders of the pro-social groups helped the groups to achieve higher joint outcomes than pro-social groups without a leader. From these results we might conclude that leadership within a pro-socially motivated group, such as a self-managed team, is actually *beneficial* to joint negotiation outcomes. As discussed in the previous section, information exchange lies at the heart of integrative negotiation, and based on the literature presented here it seems that leaders of pro-social groups may facilitate information exchange in a number of ways. Firstly, high-power leaders are more likely to express their own opinions openly (Anderson & Berdahl, 2002; Anderson & Galinsky, 2006), contributing to information provision. Secondly, they take a greater interest in others' interests (Handgraaf et al., 2008; Van Dijk & Vermunt, 2000), actively

seeking solutions and underlying patterns (Mast et al., 2009; Nelson et al., 2015; Smith & Trope, 2006). Finally, they appear to listen more closely to information being provided by others (Blader & Chen, 2012). Without formal leadership, self-managed teams appear to be missing out on this facilitation of information exchange, putting them at a relative disadvantage compared to pro-social teams with traditional leadership. However, we have seen that the autonomy of self-managed teams also brings with it certain advantages, particularly for team members' well-being (Allen & Hecht, 2004). Removing this autonomy would therefore amount to trading one advantage for another.

The current study

Firstly, this study aims to replicate Van Tol and Steinel's (2017) finding that pro-social teams with a leader perform better in negotiations than pro-social groups without a formal leader. To this end, this study shall partially replicate their study, replicating their pro-social teams with and without a leader, and use the same research paradigm. The pro-social groups without a leader will closely resemble self-managed teams. Replicating this finding is a prerequisite to the main goal of this study, namely to discover whether the beneficial negotiation effects of a formal leader can be induced in self-managed teams without reducing the team autonomy. To examine this, a condition in which one team member shall be incentivised to facilitate information exchange through providing information, seeking information and listening carefully to the information provided shall be added to the research design. These behaviours closely match those displayed by pro-social leaders in previous studies. These information exchange facilitation behaviours are expected to increase information exchange and processing, and thus improve each group member's judgement accuracy concerning the other group members' preferences. Consequently, in the groups with a leader or an incentivised member, group members

would be expected to have a more accurate understanding and recall of their fellow negotiators' preferences, more so than in the self-managed groups.

H1a: The groups with one incentivised member will achieve higher scores on a judgement accuracy questionnaire than the self-managed groups.

H1b: The groups with a leader will achieve higher scores on a judgement accuracy questionnaire than the self-managed groups.

Additionally, as the leaders and incentivised negotiators are expected to similarly facilitate information exchange and processing, the groups with a pro-social leader are expected to have a similarly high level of judgement accuracy compared to the groups in which information exchange is incentivised.

H1c: The groups with one incentivised member will not differ from the pro-social groups with a leader in terms of judgement accuracy scores.

It is expected that this greater judgement accuracy is what allows pro-social groups with a leader to use more integrative negotiation techniques, thus gaining higher joint outcomes. As the groups with an incentivised member and the groups with a leader are expected to outperform the self-managed groups in terms of judgement accuracy, the groups with an incentivised member or a leader are thus also expected to outperform the self-managed groups in terms of joint outcomes.

H2a: The groups with an incentivised member will achieve higher joint outcomes than the self-managed groups.

H2b: The groups with a leader will achieve higher joint outcomes than the self-managed groups.

Similarly, as the judgement accuracy of the groups with an incentivised member is expected to match that of the pro-social groups with a leader, the groups with an incentivised member are expected to match the groups with a leader in terms of joint outcomes.

H2c: The groups with an incentivised member will not differ from the pro-social groups with a leader in terms of joint outcomes.

Method

Design

This study has an experimental design, with groups of three participants being randomly assigned to one of three conditions; a 'self-managed' condition, a 'leader' condition and an 'advice' condition. This study took the form of a field experiment, with research taking place in public (leisure) places outside the laboratory. Each group performed a face-to-face role-playing negotiation exercise, which has integrative potential. The first dependent variable is the judgement accuracy of the group members concerning each other's preferences. In other words, how accurately each group member can judge the preferences of the others after negotiating. The second dependent variable is the number of points that the group achieved as a whole, also known as the 'joint outcomes' of the

negotiation. The independent variable is the condition that groups are assigned to. The condition with neither a leader nor incentivised member serves as our baseline measurement of how well self-managed teams negotiate. By comparing the self-managed condition to the 'leader' condition we can see if we have managed to replicate the finding that self-managed teams do not perform as well as pro-social groups with a leader. The condition with an appointed leader also serves as the 'aspiration point' for the 'advice' condition. Comparing these two conditions will reveal whether the advised behaviours can increase joint outcomes to match the joint outcomes of a pro-social group with a leader. If this is the case, this may indicate that these behaviours are the key to achieving the negotiation benefits of formal leadership whilst still retaining group autonomy.

Participants and selection

For our study we aimed to select participants between 18 and 67 years of age. The minimum age was 18 as it was not possible to obtain informed consent from parents allowing their children to participate for participants younger than 18. Furthermore, we couldn't be sure that the results of previous studies generalised to children, nor that children and adults negotiate in the same way, as previous research has not included this age group. The maximum age of 67 was imposed to ensure that everyone was of working age, as it wasn't possible to be sure that the elderly negotiate the same way as other adults do, as previous research has not focused on this age group. In total, 201 participants took part in 67 groups of three. The ages ranged from 17[1] to 58, (M = 23.43, SD = 6.73, Md = 23), with 71.6 percent of participants falling between the university ages of 18-24 years old.

[1] Our sample included six participants aged 17 in total. When recruiting participants we aimed to include only those participants aged 18 and over, however asking for age among younger groups might have had an undue influence on their negotiation behaviour, possibly by making their age more salient. The study did not include any activities that required a legal age limit of 18 or anything that may be considered aversive to a minor. Consequently, age judgements were done 'by eye'. Hence, a number of cases are included that did not quite meet the requirement of being 18 years old or over.

Participants were recruited from public (leisure) places, such as parks and beaches, as well as within the private networks of the researchers. As recruitment predominantly took place in and around student towns, this may explain the large number of participants around student age in our sample. In terms of gender, $n = 118$ participants were female and $n = 83$ participants were male. Groups consisted of 27 all-female groups, 14 all-male groups and 26 mixed groups. Gender composition had no effect on either of the dependent variables and was therefore excluded from further analyses. Existing groups were sought out, so it was likely that the participants knew each other, and expected to interact with one another beyond the negotiation exercise. As the exercise was translated into Dutch, English and German, participants had to be fluent in one of these languages to be able to participate. One hundred and seventy six participants were Dutch native speakers, 10 were English-speaking, three French, two German, two Portuguese and the rest were Maltese, Italian, Spanish, Greek, Czech, Turkish, Polish or failed to fill in their native language.

Procedure

Pre-existing groups of participants were recruited by the experimenters, predominantly in parks in and around student towns. Participants were informed that they could win five Euros each by taking part in a 'negotiation game' for the University of Leiden. All participants were given their cover letters and pay-off schedules whilst they received a brief explanation of the exercise and how the reward system worked. The distribution of the three characters (Alex, Chris and Bo) among the participants was random. Similarly the distribution of groups across the three experimental conditions was also random. The aim and rules of the game were explained. Participants were informed that they could discuss anything, including the points on their pay-off schedules, but that they must not show their pay-off schedules to anyone. If they did, the game would be over

and they would win nothing. Participants gave informed consent for the anonymous use of their data, including voice recordings of each negotiation session. Before starting the negotiation each participant filled out a number of questions on their cover letter to check whether they had understood the instructions correctly and to indicate their current mood. If they answered the pay-off schedule questions incorrectly, indicating that they had not (fully) understood the instructions, further explanation was given by the experimenter until all participants fully understood how to use the pay-off schedule. Participants were given a final opportunity to ask any questions before commencing with the negotiation. Participants were given 20 minutes to negotiate with one another, or until an agreement was reached, whichever happened soonest. After 20 minutes, participants were notified and they had to note down their final agreement (or note down nothing if they had reached an impasse, in which case the group earned zero points). Participants then filled in a questionnaire and a lottery was performed to see if the group members would receive five Euros each. For an explanation of the lottery system please see the section on social motives manipulation below. In the 'advice' condition, all group members received a small sweet for filling in the questionnaire. Those who had won the lottery were then paid five Euros each and asked to sign for receipt. Finally, participants were all thanked and debriefed verbally. Those who expressed further interest were given a letter with an extensive explanation of the purpose of the research.

The task

The 'Aloha Beach Club' task is a negotiation exercise that was developed for a previous study by Van Tol and Steinel (2017). It involves a three-party negotiation, including three characters with gender-neutral names, Alex, Chris and Bo, who run a cocktail bar together. Each character receives their own pay-off schedule, as seen in Table

1, indicating preferences and points that can be earned across eight issues that must be negotiated.

Table 1. ***Pay-off schedules for Alex, Chris and Bo***

Issue		Alex	Bo	Chris
Working hours	6h shift	500	500	500
	8h shift	1000	1000	1000
	9h shift	0	0	0
Days closed	Closed on Sunday	200	0	200
	Closed on Monday morning	100	500	100
	Closed on Monday night	0	1000	0
Vacation days	18 vacation days + 20 days unpaid leave	200	200	0
	22 vacation days + 10 days unpaid leave	100	100	500
	26 vacation days	0	0	1000
New dishes on the menu	More meat	0	200	200
	More fish	500	100	100
	More vegetarian	1000	0	0
New cocktail on the menu	Sex on the beach	500	0	500
	Frozen lime margarita	300	300	300
	Strawberry caipirinha	0	500	0
Hot drinks served	From 9:00 to 19:00	500	500	0
	From 9:00 to 21:00	300	300	300
	From 9:00 to 23:00	0	0	500
Division of tips	Divide weekly	0	500	500
	Divide monthly	300	300	300
	Keep own tips	500	0	0
Cleaning schedule	Day shift cleans before shift	1000	0	100
	Night shift cleans after shift	0	100	1000
	Cleaning is equally divided over shifts	100	1000	0

For each issue, there are three possible options to choose from. Each character has three high-priority issues (offering a maximum of 1000 points), three moderately important issues (maximum 500 points) and two issues that are less important (maximum 200 points). One issue is wholly compatible; all three characters get the highest number of points for an eight-hour work shift. A further six issues have integrative potential, including tip division, on which day the bar is closed, when hot drinks should be served, new cocktails to be included on the menu, new dishes for the menu and number of holiday days. On each of these issues, two characters are in agreement and the third has an opposite preference. For each character, one of these six issues is ‘high-priority’, offering a maximum of 1000

points. The final issue is wholly distributive, with each character holding a different, high-priority preference. Depending on how these eight issues are resolved, each character earns a certain number of points for themselves, up to a maximum of 4900 points. Adding up these individual scores produces the 'joint outcomes' for the group, which can produce a maximum of 10100 points. If a compromise were to be made on each of the six integrative issues, the joint outcomes would be 8900. Should one player claim the maximum amount of value for themselves, they would score 4900 points and the joint outcomes would be 8400. To support each character's preference, with preferred solutions being the ones that earn the most points, the pay-off schedules also included substantive reasons why each solution was preferred, such as "You are planning a long road trip this autumn so you need as many total days off as possible. 18 vacation days plus 20 days unpaid leave would be the best for you."

Independent variables

Experimental condition. The sample was divided into three conditions: the self-managed condition, the leader condition and the advice condition. In the self-managed condition, participants' instructions (in the case of Alex) read, "You play Alex, Bo and Chris, who work at the Aloha Beach Club…You are Alex." All participants in the self-managed condition had equal power. In the self-managed groups and groups with a leader, participants filled out cover letters with three questions to check they understood how to use their pay-off schedule. They then answered one question concerning who was the most powerful in the group, followed by a short questionnaire on their current mood.

Power was manipulated through varying the instructions on the cover letter that participants received. In the groups with a leader, the cover letters indicated to all group members who the leader or "boss" was. For instance, they read, "You are Alex. Chris is the

boss of the team." During the explanation of the game, the experimenter pointed out the three characters and emphasised who was the boss. Everyone was informed that this person had the power to make a binding decision if the group could not agree on an issue. The cover letter read, "If you cannot agree on a solution, then Chris, the boss, will decide which solution to choose for this problem." The experimenter further emphasised this when explaining the rules of the game. The cover letter for Alex (in the 'leader' condition) can be found in the appendix for further reference.

Finally, advice was manipulated by changing the information given on participants' cover letters. Just as in the self-managed conditions, everyone in this condition had equal power. In the groups with an incentivised member, this member received confidential advice. Their two counterparts filled in cover letters identical to those used in the self-managed groups and groups with a leader. The participant receiving advice received a different cover letter. These participants read an additional excerpt on their cover letter, as shown in Figure 1.

NOTE: additional information only for *you,* Bo!
In order to reach a *good agreement, everyone needs to understand what the others want!*
Groups earn ***most points*** when the members ***understand each other's preferences.***
After the negotiation, there will be ***a quiz*** to see how well your group understands what each person wants. If your group does well on this quiz, you can earn a ***bonus.*** Only you receive this extra information. ***Your team members do not know this. Therefore, you are not allowed to mention the quiz or the bonus.*** If you do, you won't receive the bonus.
So, to maximise your group's performance, and your chance of winning a bonus, you need to ***promote mutual understanding. Thus, make sure you:***

- ✓ ***Tell*** the group what your preferences are!
- ✓ ***Ask*** your group members what they want!
- ✓ ***Listen*** to what the others say, to ***understand*** what they want!

Figure 1. ***Cover letter advice excerpt to incentivise participants to provide, seek and listen to information***

The key goal (reaching a good agreement through understanding what the others want) was underlined, written in italics and coloured red to ensure that it would not escape notice. Further key words were also written in italics and in bold, such as “most points”, “understand each other’s preferences”, “a quiz” and “bonus”. The confidentiality of the quiz and the bonus, as well as the specific instructions were also written in bold italics (and using bullet points) to ensure that the main points of the message could be remembered more easily. The bonus mentioned was a small snack, such as a muesli bar or chocolate. The other members of the groups with an incentivised member were not aware of the quiz or the bonus, or the fact that one member had received additional advice. Instead of answering questions about their mood, those receiving advice answered a multiple-choice question to see if they had understood the advice. By including the short mood questionnaire for non-advised participants, those receiving advice had enough time to read the excerpt and answer the multiple choice question without raising suspicion by taking longer to complete their cover letter than their two counterparts.

Social motives induction. To ensure that all groups would share a pro-social motivation similar to that of self-managed teams, all individual rewards were made contingent upon group performance. This was done by means of a performance-dependent chance of winning the five Euro prize. Each group was informed that for each 100 points that the team earned as a whole, they would earn a winning lottery ticket to be added to a bag of non-winning tickets. After the exercise, one participant would draw a ticket from the bag. If the ticket was a winning ticket then each group member received five Euros, if it was a non-winning ticket then the team won nothing. The bag always contained 101 non-winning tickets. The maximum number of points the group could earn as a whole was 10100, which would result in the addition of 101 winning tickets to the lottery bag. This

ensured that the chance of winning the prize increased as performance increased but never exceeded 50 percent.

Measures

For our research, we made use of a number of questionnaire items to check the success of our various experimental manipulations and to measure our dependent variables.

Power manipulation checks. Various manipulation checks were used to determine whether the manipulation of power (leader versus no leader) was successful. Firstly, the cover letters included a multiple-choice question asking participants to indicate who was the most powerful in their group. There were four possible answers: "*Alex"*, "*Bo"*, "*Chris"* and *"We are all equally powerful."* This revealed whether participants in the groups with a leader could correctly identify the boss of the team and whether participants in the self-managed groups and groups with an incentivised member could correctly identify that they were all equally powerful. As a further check of the success of the power manipulation, power dispersion perceptions were measured after the negotiation using two items to be answered on a 7-point Likert scale (1 = '*strongly disagree'*, 7 = '*strongly agree'*). All items included in the post-negotiation questionnaire were answered on the same 7-point scale, unless otherwise indicated. The two power dispersion items were, *"*One of the players was more powerful than the other two" (reverse-scored) and "All three of us were equally powerful." Taken together these two items proved to be reliable scales for Alex, Bo and Chris separately (Cronbach's alpha = .81 for Alex, .81 for Bo and .85 for Chris), so scores on these two items were summed together to create *power dispersion perception* scores for Alex, Bo and Chris. As a final check of the power manipulation, all participants answered an item concerning the perception of their own power, "I was the most powerful player of us three."

Advice manipulation checks. Various manipulation checks were used to determine whether or not the advice manipulation had been successful. Firstly, the cover letters of those receiving advice included a multiple-choice question concerning the advice they had just received. The question read, "What do you need to do, according to the confidential extra information above?*"* There were four possible answers, *"Tell the group what your preferences are", "Ask your group members what they want", "Listen to what the others say, to understand what they want"* and, *"All of the above."* The correct answer was *"All of the above."* This question revealed whether participants receiving the advice had read and understood the advice given. As a further manipulation check, all participants filled in six self-report items on advised behaviours performed during the negotiation. These items included, "I made sure that the others wouldn't know where I could earn most points" (reverse-scored), "I asked Bo and Alex[2] what they wanted and/or what was important to them" and "I found it important to listen to what the others wanted." Taken together these six items proved to be reliable scales for Alex, Bo and Chris separately (Cronbach's alpha = .91 for Alex, .88 for Bo and .85 for Chris), so scores on these six items were summed together to create *self-report advised behaviours* scores for Alex, Bo and Chris. As a final manipulation check for the advice, each participant filled out three items concerning their counterparts' performance of advised behaviours during the negotiation. These three items included, "Alex accurately and openly talked about his/her preferences", "Alex listened carefully to what the others had to say" and, "Alex tried to understand what was important to Bo and me." As each participant was rated on three items by both of their counterparts, this meant that there were six peer-report items of advised behaviours for each character. Taken together these six items proved to be highly reliable scales for Alex, Bo and Chris

[2] For each player, the names of the other two players were used in this item and other, similar, items. So Alex answered about Bo and Chris, Bo answered about Alex and Chris and Chris answered about Alex and Bo.

separately (Cronbach's alpha = .92 for Alex, .91 for Bo and .94 for Chris), so scores on these six items were summed together to create *peer-report advised behaviour* scores for Alex, Bo and Chris.

Social motives induction check. To check whether all groups were socially motivated each participant answered four items concerning own and others' interests and/or points. These items included, "In the negotiation I found it very important to take my own interests into account" (reverse-scored), and, "It was crucial for me that the entire group collectively get many points." However, taken together these four items produced highly unreliable scales for Alex, Bo and Chris (Cronbach's alpha = -.39 for Alex, .065 for Bo and .14 for Chris). Cronbach's-alpha-if-item-deleted values also did not give a clear indication of items to be removed to improve the scale. Consequently just one item was used, asking participants to what extent it had been important to them that the whole group earn many points.

Joint outcomes. To measure joint outcomes, the number of points earned by each individual in the group was calculated, providing the individual outcomes of each group member. The individual outcomes were summed together to calculate the total number of points achieved by the group as a whole, providing the joint outcomes.

Judgement accuracy. As a measure of how much information was exchanged and properly processed during the negotiations, each negotiator answered eight multiple-choice questions on the other negotiators' preferences (the examples given below refer to the questions asked to participants in the role of Chris). The questions covered the specific content of the preferences e.g. "Which cleaning schedule did Alex prefer?" as well as preference alignment between negotiators, e.g. "What were the preferences of the others, relative to your own preferences, on the following issues?" with possible answers including *"Alex agreed with me", "Bo agreed with me", "Both agreed with me"* and *"No one agreed*

with me". The final type of question addressed priorities of issues, e.g. "Which issue did Bo find most important?" with three different issues given as possible answers. The group's ability to accurately recall the specific preferences and priorities of the group members formed an indication of the information exchanged and the resulting judgement accuracy achieved. By recoding each of these 24 questions as either 'correctly answered' or incorrectly answered', the number of correct answers per group could be calculated. This formed the *judgement accuracy* score for each group.

Ratings of fellow negotiators. Our peer-report items of advised behaviour were embedded among nine items concerning general negotiation behaviours. These items included, "He/she decided in which order the problems were discussed", "He/she decided in the team's best interests" and "He/she fixed on a position and/or refused to make concessions." As our study is not concerned with general negotiation behaviours, these items were not included in any further analyses.

Mood. In order to exactly replicate Van Tol and Steinel's (2017) study, each participant filled in a number of 7-point items concerning their current mood before starting the negotiation. Those receiving the advice did not receive these questions to fill in. These items were also included to give non-advised members something to do while the advised members read the advice excerpt. The mood items included "To which extent do you feel…excited?", "…confident?" and "…happy?" As our study is not concerned with the effect of mood on negotiation behaviours, these items were not included in any further analyses.

Results

Power manipulation

In the groups with a leader, 94.2 percent of participants correctly identified the leader, indicating that this manipulation was successful. Furthermore, 89.4 percent of

participants in the self-managed groups and groups with an incentivised member correctly identified that all participants had equal power. This number may be slightly lower than in the groups with a leader as the lack of power is less clearly defined than the explicit presence of it.

To further test the effectiveness of the power manipulation I submitted the power dispersion perception scores of Alex, Bo and Chris to a one-way MANOVA, with experimental condition as the independent variable. This revealed no main effect of condition using Pillai's trace, $V = .181$, $F(6, 126) = 2.10$, $p = .058$, although it did approach significance. This manipulation was an exact replication of the power manipulation used in Van Tol and Steinel's (2017) study, where it was found to be successful, further lending support to the effectiveness of this manipulation. However, in line with the marginally significant result in this study, Hiltermann (2016), who used the same power manipulation in cooperatively and individualistically motivated groups, found that the effects of the power manipulation were somewhat attenuated in the cooperative groups compared to the individualistically motivated groups. This could be due to the fact that power (abuse) is expected to play a less salient role in teams that are motivated to work together.

As a final check of the power manipulation, I assessed how powerful each participant reported feeling after the negotiation, using only those participants in the groups with a leader. I submitted *self-report power* scores for Alex, Bo and Chris to a one-way (Leader: Alex vs. Bo vs. Chris) MANOVA. Using Pillai's trace, no significant effect of who was the leader on one's own power perceptions was found, $V = 0.499$, $F(6, 38) = 2.105$, $p = .075$, although this result did approach significance. However, the means did follow the expected patterns, as can be seen in Figure 2. When Alex, Bo and Chris were the leader they reported feeling more powerful than when they weren't the leader, but not

significantly so. Furthermore, for Alex, Chris and Bo, the character in the leader position reported feeling more powerful than the other two roles, but not significantly so.

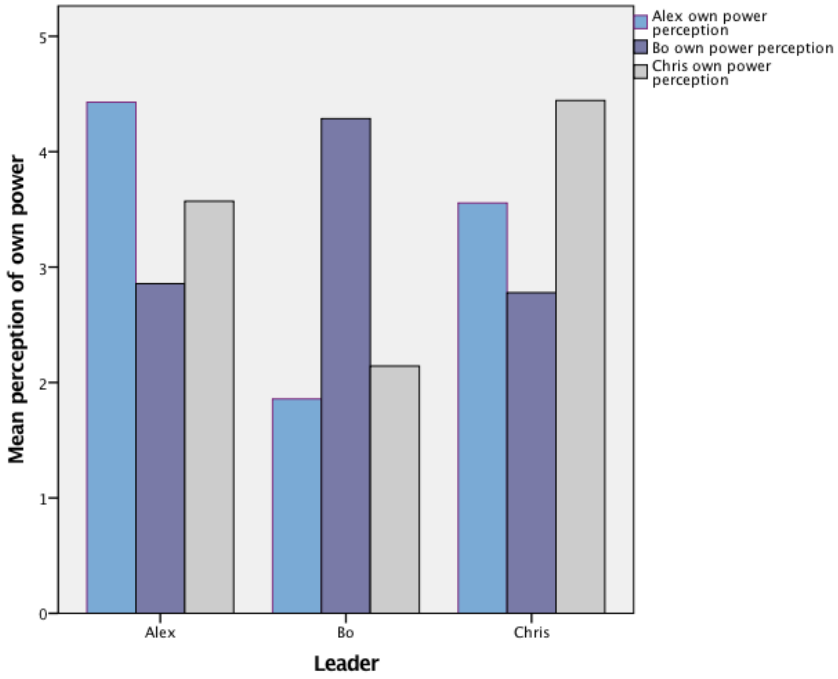

Figure 2. ***Bar graph of mean power perception per role and per leader***

It is possible that our individual leader groups, consisting of a group of Alex characters as the leader, a group of Bo characters and a group of Chris characters, were not large enough to have sufficient power to detect an effect. Indeed, there were just seven groups in which Alex was the leader, seven groups where Bo was the leader and nine groups where Chris was the leader. Additionally, the assumption of homogeneity of covariance matrices was not met for the MANOVA, however the largest standard deviation was in the largest group (the 'Chris as leader' group), rendering the test too conservative. Given that the test result approached significance, $p = .075$, it is possible that this non-significant result is a consequence of an overly conservative MANOVA.

Advice manipulation

Of those receiving advice, 91.7 percent correctly identified the advice they'd been given prior to negotiating. This indicates that the advice manipulation was successful. As a further check of the advice manipulation, self-report advised behaviour scores for Alex, Bo and Chris were entered into a one-way (Advice: Alex vs. Bo vs. Chris) MANOVA, using only those participants in the groups with an incentivised member. Using Pillai's trace a non-significant result was found, $V = 0.17$, $F(6, 40) = 0.62$, $p = .711$, indicating that receiving advice had no significant effect on self-report of performing advised behaviours during the negotiation. This would suggest that our advice manipulation was unsuccessful. Another possibility is that self-serving biases came into play when participants filled out the post-negotiation questionnaires, resulting in high scores for all participants, regardless of whether or not they received advice. Indeed, considering the mean self-report of advised behaviours for Alex ($M = 31.15$, $SD = 10.07$), Bo ($M = 30.73$, $SD = 9.64$) and Chris ($M = 30.67$, SD = 9.17) across all conditions we see that the means lie above the average score of 24, which we would expect to see if participants had filled in the middle score of 4 on all six items of this scale. A one-sample t-test confirmed that characters playing Alex across all conditions rated themselves significantly above the mid-point of the scale for advised behaviours, $t = 5.81$, $p < .001$. The same was true for characters playing Bo across all conditions, $t = 5.71$, $p < .001$ and for characters playing Chris, $t = 5.95$, $p < .001$. It appears that all participants feel they score above the midpoint of the scale when it comes to being open, accurate, asking questions, listening closely and trying to understand what their counterparts want. As a final check of our advice manipulation a one-way (Advice: Alex vs. Bo vs. Chris vs. None) MANOVA was performed, with Alex, Bo and Chris' peer-report advised behaviours as the dependent variables. Using Pillai's trace, a non-significant result was found, $V = 0.10$, $F(6, 40) = .35$, $p = .908$, indicating that receiving advice did not have

a significant effect on peer-reports of performing advised behaviours during the negotiation. It seems that advised people, if they did indeed perform the advised behaviours at all, did not do so to the extent that their peers could notice it. Although retrospective reports are subject to error, these findings suggest that our advice manipulation was not very effective at affecting participants' behaviour during the negotiation. Although the advice was well understood, as evidenced by the high accuracy in identifying the advice given prior to negotiating, it failed to effect a change in participants' behaviour.

Social motives induction

On average, participants across all conditions scored above the scale mid-point of 4 when indicating the importance of earning points as a group (M = 5.63, SD = 1.86). This shows that our social motives induction was successful in motivating participants to maximise group outcomes. Considered separately, groups in each condition scored highly on pro-social motivation (M_{equal} = 5.67, SD = 2.00; M_{advice} = 5.69, SD = 1.88; M_{leader} = 5.54, SD = 1.81), indicating that this induction was well understood in each of our three conditions.

Hypotheses

Hypothesis one. Hypotheses 1a, 1b and 1c predicted that the groups with a leader or an incentivised member would both outperform the self-managed groups in terms of judgement accuracy, and that there would be no significant difference in judgement accuracy between the groups with a leader and the groups with an incentivised member. To test these hypotheses, a one-way ANOVA was performed with experimental condition as the independent variable and the total number of correct answers per group on the judgement accuracy questionnaire as the dependent variable. The results showed no

significant main effect of condition, $F(2, 64) = 1.175$, $p = .315$, $\omega = 0.01$ ($M_{\text{self-managed}} = 13.60$, $SD = 5.28$, $M_{\text{advice}} = 14.83$, $SD = 3.73$, $M_{\text{leader}} = 15.70$, $SD = 4.46$), indicating that there was no significant difference between our conditions in terms of judgement accuracy. This means that hypotheses 1a, and 1b are unsupported. Hypothesis 1c, predicting that there would be no different between the groups with a leader and the groups with an incentivised member in terms of judgement accuracy, was supported by the data.

Hypothesis two. Hypotheses 2a, 2b and 2c predicted that the groups with a leader and groups with an incentivised member would both outperform the self-managed groups in terms of joint outcomes and that there would be no significant difference in joint outcomes between the groups with a leader and the groups with an incentivised member. To test these hypotheses, a one-way ANOVA was performed with experimental condition as the independent variable and joint outcomes as the dependent variable. The results showed that there was no significant main effect of condition, $F(2, 64) = 0.50$, $p = .611$, $\omega = -0.15$, meaning that Hypotheses 2a and 2b are unsupported by the data. Hypothesis 2c, predicting that there would be no difference between the groups with a leader and the groups with an incentivised member in terms of joint outcomes, was supported. However, based on these results one must conclude that receiving advice and appointing an official leader both have no impact on judgement accuracy or joint outcomes.

Additional analyses. In light of the unexpected results for judgement accuracy and joint outcomes, I performed some additional analyses in an attempt to discover why Hypotheses 1a, 1b, 2a and 2b were not supported. Whilst performing the experiment, it was noticeable that a large number of groups discussed the points printed on their pay-off schedules. Groups that discovered that they could talk about the points and simply calculate which solution would earn the most points for the team rarely engaged in thorough discussion of the preferences, opting to simply do the maths instead. This may have created

a ‘ceiling effect’ in terms of joint outcomes. Indeed, 32 of the 67 groups achieved the maximum score of 10100 points for the group. These maximum scores were also approximately equally divided across the conditions, with 10 groups in the ‘self-managed’ condition achieving the maximum score, 13 groups in the ‘advice’ condition and nine groups in the ‘leader’ condition. This suggests that the condition a group was in had little to no influence on whether or not a group (talked about points and) achieved the maximum score. Therefore, it is worth trying to discover whether talking about points may have affected our data in unexpected ways. Groups that discussed points were generally very quick to complete the negotiation exercise, as they did not engage in thorough discussion. Therefore, we can use the time taken to negotiate as an indication of whether groups talked about points or not. To gauge the effect of talking about points on joint outcomes, a correlation was calculated between negotiation time and joint outcomes. This correlation was significant, $r = -.45$, $p < .001$, indicating that the shorter the time taken to negotiate, the higher the number of points earned by the group. This supports the idea that discussing points was highly influential on joint outcomes, and that groups who discussed points were more likely to earn high scores. This effect is well demonstrated in Figure 2, showing joint outcomes plotted against time taken to negotiate. Groups taking between three to six minutes uniformly achieved the maximum score and indeed such a brief negotiation time would have been impossible to achieve if groups had engaged in substantive discussion as opposed to calculating the best solutions based on points.

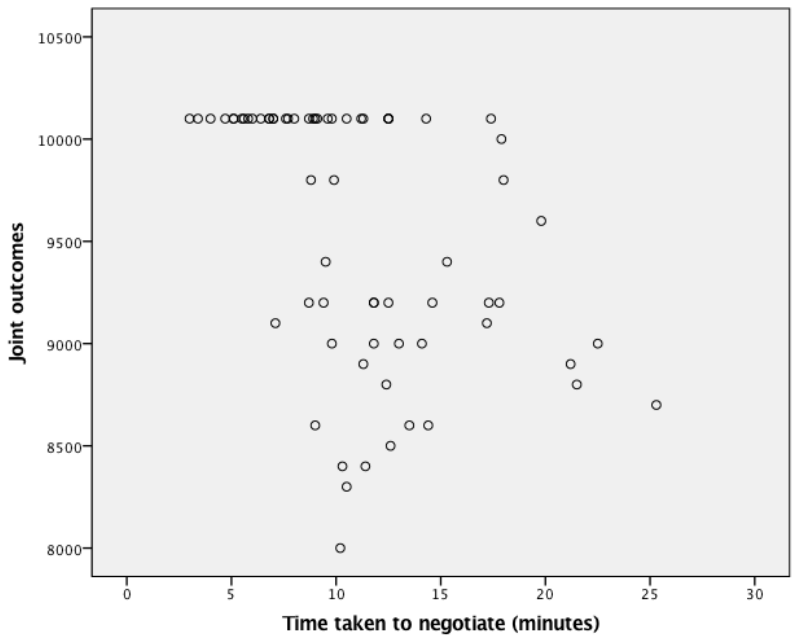

Figure 2. ***Scatterplot of joint outcomes against time taken to negotiate***

To further investigate the effects of discussing points, I considered the effect of discussing points on groups' judgement accuracy. By neglecting to engage in thorough discussion, judgement accuracy was likely reduced, as it is difficult to remember preferences that haven't been discussed thoroughly. Consequently one would expect there to be a significantly positive correlation between time taken to negotiate (again, as an indication of whether groups talked about points) and groups' judgement accuracy scores. This is indeed what was found, $r = .25$, $p = .043$. The shorter the time taken to negotiate, the lower judgement accuracy was. This suggests that top performers, who tended to take less time to negotiate, may have more frequently been talking about points, failing to engage in substantive discussion and thereby reducing their judgement accuracy. This may explain why condition did not have a main effect on judgement accuracy scores, as the effect of the condition was no longer relevant as soon as a group figured out that they could discuss points instead of interests. If discussion of points led to both a drop in judgement accuracy and a rise in joint outcomes, one might expect a negative correlation between

judgement accuracy and joint outcomes. However, it was still possible to obtain high joint outcomes through substantive discussion, which would likely have also raised judgement accuracy, in turn predicting a positive correlation between joint outcomes and judgement accuracy. This may explain why there was no significant correlation between judgement accuracy and joint outcomes, $r = .07$, $p = .557$. High judgement accuracy, though possibly beneficial to earning points, was not necessary as soon as points were discussed during the negotiation.

Discussion

Can self-managed teams effectively manage their negotiations? Do they have a disadvantage when compared to teams with a formal leader? Does incentivising information facilitation behaviour effectively replicate the previously found positive effects of having a formal leader within self-managed teams? These are the questions that this study investigated and aimed to answer. This was attempted by partially replicating and extending the research design of Van Tol and Steinel (2017), who found that power asymmetry amplified the positive effects of pro-social motivation, such that pro-socially motivated teams with a leader outperformed pro-socially motivated teams with equal power. In this study, which used the same research paradigm, this finding was not replicated. Instead, it was found that having a leader or being incentivised to facilitate information exchange did not affect the outcomes of the negotiation relative to not having a leader or not being thus incentivised. Furthermore, it was found that having a leader or being incentivised to facilitate information exchange did not influence judgement accuracy. There are a number of reasons why these contradictory results may have been found using the same paradigm.

Benefits of leadership

The logical starting point for discussion is the inability to replicate Van Tol and Steinel's (2017) finding that leaders help pro-social teams to out-perform leaderless teams in negotiations, as this finding was a prerequisite to finding that said leader-related benefits can be induced in self-managed teams. As already discussed in the results section, it is possible that allowing groups to discuss points may have influenced judgement accuracy and negotiation outcomes in unanticipated ways. Although Van Tol and Steinel's (2017) study included the option to talk about points as well, there may be one crucial difference that caused discussion of points to have a greater impact in this study. Whereas Van Tol and Steinel's sample were largely recruited at the beach, the current sample was largely recruited from parks in and around university towns. Whereas the beach is (also) largely populated by tourists in the summer, city parks tend to be populated by the city's inhabitants. Indeed, the current sample contained a large number of participants of student age, possibly making the sample demographically different to the one recruited at the beach in terms of education level. As students are used to analytical thinking challenges, it is possible that they were more likely to discover how the point system worked and consequently to score very highly with minimal influence from group leaders. Indeed, an appointed leader is not required to structure or lead a negotiation that does not really resemble a full negotiation but, instead, resembles a relatively simple maths problem. The larger number of students in the current sample may therefore have made the influence of leaders relatively redundant compared to the leaders' influence in Van Tol and Steinel's (2017) study. This would certainly explain the 'ceiling' effect that was discovered in the data, showing that almost half the groups achieved the maximum score, and that the faster groups negotiated the higher their scores were. So it seems that this study may have failed

to replicate Van Tol and Steinel's (2017) findings due to the relative lack of influence that leaders could exert, due to more groups discussing points in the current sample.

Another option is of course that Van Tol and Steinel's (2017) findings were a one-off finding, and that leaders of pro-social groups do not in fact help their teams to negotiate more effectively. However, Galinsky, Gruenfeld and Magee (2003) also found that leaders are more likely to take action and that, should taking action be a pro-social thing to do, they act in the team's best interests and improve the team's outcomes. Furthermore, Van Knippenberg et al. (2001) found that pro-socially motivated leaders did indeed use their power in the best interests of the group, thus improving group outcomes. Thus, given the support for Van Tol and Steinel's (2017) findings in the literature, it seems unlikely that these were a one-off occurrence.

Judgement accuracy

Given that the data did not show any benefits of having a leader, it seems logical that the proposed mechanism through which leaders were expected to enact benefits was also not supported by the data. It was expected that leaders and incentivised members would facilitate information exchange, resulting in a more thorough discussion of interests, and thus raising the judgement accuracy of these two groups over the self-managed groups. However, all groups scored equally on judgement accuracy, indicating that leaders and incentivised members failed to raise the judgement accuracy of their groups over that of the self-managed groups. This could be due to a number of reasons: leaders and incentivised members may not have engaged in information facilitation, self-managed groups may have engaged in equally high levels of information exchange, or information facilitation and exchange may not have resulted in higher judgement accuracy. In this latter scenario, this would suggest that (some) groups thoroughly discussed interests but all failed to remember

them when filling out the judgement accuracy questionnaire. However, having participants negotiate and subsequently fill out a questionnaire on their counterparts' preferences is a widely-used paradigm that has frequently produced differences in judgement accuracy between different conditions (For example, Steinel, Abele & De Dreu, 2007 Thompson, 1990; Thompson, 1991), suggesting that participants are perfectly capable of remembering the negotiation preferences of their counterparts.

Possibly, the fact that this sample contained many student-age participants meant that all groups were more likely to engage in thorough discussion, regardless of the condition the group was in. However, if this were the case, we would expect this increase to be equal across all conditions, thus we might still expect there to be an *additional* effect of receiving advice or having a group leader, which was not the case. This would not be the expected outcome if self-managed groups were already achieving the maximum judgement accuracy, however the judgement accuracy scores indicated an accuracy of barely over 50 percent, indicating that there was still room for leaders and incentivised members to further increase judgement accuracy scores. Thus it seems unlikely that the three conditions did not differ on judgement accuracy scores due to some 'ceiling effect' of including many (analytically-minded) students in the sample. It seems most likely, therefore, that the groups with a leader or an incentivised member failed to induce the expected increase in information exchange and the resulting judgement accuracy. As mentioned before, the discussion of points may have made the leaders and incentivised members redundant, achieving maximum scores without having to engage in thorough discussion. A further two reasons why the leader and advice groups failed to raise judgement accuracy are also worth exploring: the failure of the advice manipulation and the generalisability of the research findings on which the assumptions about leadership behaviours were based.

Failure of the advice manipulation. The advice manipulation aimed to ensure that incentivised members would openly provide accurate information about preferences, ask about others' preferences and listen closely to their counterparts' preferences. However no differences were found in self-report or peer-report of these behaviours between any of the conditions. Without engaging in the advised behaviours, it is likely that groups with incentivised members did not engage in more thorough discussion than self-managed groups, thus explaining why they did not out-perform self-managed groups in terms of judgement accuracy.

The unsuccessfulness of the manipulation may be due to a number of reasons. Firstly, some participants indicated after the negotiation that they had not read the advice properly, despite filling in the manipulation check correctly before negotiating. Without having read the advice, one would indeed not expect an increase in the advised behaviours. Secondly, some participants indicated that they had read and understood the advice, but that they had forgotten to implement it during the negotiation. Possibly the novelty and complexity of the negotiation situation meant that remembering all the rules and goals of the game made it too difficult to remember the advice they had been given, resulting in many participants correctly identifying the advice but generally failing to implement it, as can be seen in the data. The method for the advice manipulation was based on a study by Thompson (1991), in which negotiators in a two-party negotiation were similarly instructed to provide and seek information. In Thompson's (1991) study, advised negotiators did indeed engage in higher levels of information provision and seeking, resulting in higher joint outcomes. However, it could be that the effectiveness of giving advice is attenuated by the addition of more parties to the negotiation. Whereas Thompson (1991) conducting his study on two-party negotiations, the current negotiations took place between three people,

thus increasing the social and procedural complexity and possibly making it harder to remember to implement advice. Furthermore, as a contradiction to Thompson's (1991) findings, Steinel et al. (2007) found that offering advice alone was not sufficient to increase the integrativeness of two-person negotiations. Only by allowing negotiators to complete a round of negotiation first, and then offering them advice on integrative negotiation did negotiators actually manage to implement the advice in a second round of negotiations. This resulted in less contentious behaviour, more problem solving and higher joint outcomes. So it seems that advice alone may not be enough to ensure that negotiators implement it. They must be allowed a combination of experience in negotiation and subsequent advice to enable negotiators to use the advice to increase the integrativeness of their agreements. Again, this would explain why groups with an incentivised member did not show increased information exchange facilitation and, consequently, did not show increased judgement accuracy.

Finally, besides the complexity of the situation making it difficult to remember and implement advice, group norms may have been too strong to overcome with some well-intentioned advice. If the advised players wished to promote a thorough discussion but their two counterparts did not, then the prevailing group norm of making quick decisions may have prevented the information facilitation from being implemented. Group norms have indeed been shown to influence individual's behaviour (Smith & Louis, 2008; Smith & Terry, 2003). For instance, Terry, Hogg and McKimmie (2000) found that participants that were placed in a group that did not share their attitude, thus making the group norm opposed to their individual norm, were more likely to behave in attitude-inconsistent ways, adapting their behaviour to match the prevailing group norm. Particularly because the advised players were the only ones aware of the advice and the additional bonus that could be earned through accurate answering of the post-negotiation questionnaire, it may have

been too easy for advised players to forget the advice and/or hesitate to implement it when faced with the norms of the group. Taken together, there are numerous possible causes for the unsuccessfulness of the advice manipulation. Without implementation of the advice, information exchange was not facilitated in the advice condition and the expected resulting increase in judgement accuracy was not found. This explains why the groups with an incentivised member did not out-perform self-managed groups in terms of judgement accuracy, but what about groups with a leader? To explain their lack of judgement accuracy, we must turn to the second reason mentioned before: the generalisability of the research findings on which the assumptions about leadership behaviours were based.

Assumptions about leadership behaviours. Based on the literature, the power holders would have been expected to naturally engage in more information provision and seeking, as well as paying close attention to what their counterparts said. However, official group leaders did not show increased self-report or peer-report of the expected leadership behaviours (which are identical to the advised behaviours). It seems that being identified as the leader may not be sufficient to make someone act like a leader. Considering the literature upon which the assumptions were based, there are some key differences and boundary conditions that were not taken into account.

First of all, leaders were expected to more openly share their preferences based on two studies by Anderson and Berdahl (2002) and Anderson and Galinsky (2006). In the first study, power holders had complete power to make unilateral decisions within a dyad, ostensibly based on legitimate reasons, such as previous experience with leadership. The dyad members did not know each other prior to taking part. Power holders did not discuss their decision with their counterpart and also knew they would not have to see their counterpart after having made the decision. In the current study power holders did know their counterparts, and knew they would be interacting again in the future. Possibly this

knowledge meant that power holders were reluctant to use their power, for fear of negative consequences for their relationship with their counterparts, extending beyond the experimental situation. For instance, leaders may have been reluctant to use their decision-making powers for fear of upsetting their friends and being held accountable after the experiment. Social consequences have indeed been shown to influence the use of power, more specifically punishment power. Molenmaker, De Kwaadsteniet and Van Dijk (2016) studied individuals' willingness to punish others for not cooperating in a social dilemma game. They found that individuals were less likely to punish defectors if they thought they were making the punishment decision by themselves, than when they thought they were making the decision as part of a group. This effect was mediated by the increased responsibility participants felt if they alone were responsible for deciding whether or not to use their punishment power. Informing participants that they would be held accountable for the punishment decisions they made further increased this sense of responsibility.

Furthermore, whereas the power-holders in Anderson and Berdahl's (2002) study believed they held power based on legitimate reasons, the leaders in the current study knew they had been randomly selected. A study by Van Knippenberg et al. (2001) found that power holders who were told that they were more competent than their counterparts were more likely to use their power than those who thought they were less competent. In this case, competence may have provided legitimate grounds for 'justifying' their power and the use thereof, something that the power holders in the current study did not have. Consequently, leaders may not have felt like they could truly use their power, resulting in lower self-reports and peer-reports of power. Taken together, fear of negative social consequences and knowledge that power was randomly assigned may have prevented the leaders in the current study from using their power and feeling like true power-holders. Without feeling like a leader, it is possible that the power holders also did not act like

leaders, meaning that they were no more likely to openly reveal their preferences than non-leaders.

The second study that found that leaders more openly reveal information defined power as having a strong BATNA (Anderson & Galinsky, 2006). In the current study, without such a BATNA, and without feeling as though they could use their decision-making power (without negative social consequences), it may be that the leaders felt just as vulnerable as their non-leader counterparts, again explaining why power holders were not found to more openly reveal their preferences.

The second expected power effect was greater information seeking, based on two studies by Handgraaf et al. (2008) and Van Dijk and Vermunt (2000). These studies found that absolute power holders are more empathetic towards their counterparts, taking their interests into account to a greater extent. This greater concern for others was shown to be a result of a greater sense of social responsibility that comes with having absolute power. In both studies, however, power holders remained anonymous and did not have to face their 'subordinates'. Power holders were also required to make a unilateral decision, rather than simply being given this option. If the leaders in the current study did not (intend to) use their powers, they may not have felt as responsible for their actions, thus reducing their empathy and their tendency to discover their counterparts' interests to that of non-leaders.

Finally, we expected power holders to listen more closely to their counterparts' wishes and desires, based on a study by Blader and Chen (2012). Again, this study used dyads as opposed to groups, and participants did not know one another well. Power holders were simply informed that they had a more powerful role than their counterpart, but were given no decision-making power. This difference in power base and number of negotiating parties may have created differences in terms of the power effects we could have expected to see in the current study. Taken together, there are numerous reasons why we may not

have seen the expected leadership behaviours and the expected consequences thereof. Leaders that do not truly feel like leaders are unlikely to behave as leaders are expected to behave. This lack of leadership behaviour means that information was not facilitated as expected, thus not causing the expected increase in judgement accuracy.

Joint outcomes

Greater judgement accuracy in the groups with a leader and groups with an incentivised member was expected to allow these groups to out-perform self-managed groups in terms of joint outcomes. Given that the expected increase in judgement accuracy for groups with a leader or an incentivised member was not found, it is unsurprising that the resulting increase in joint outcomes was also not evidenced in the data. Consequently, all groups scored equally, either through discussion of points and/or because the expected leadership and advised behaviours were not successfully induced in our groups with a leader or an incentivised member.

Implications

So what do these results mean for self-managing teams and for the negotiation field? If the finding that leaders of pro-social groups increase negotiation outcomes over those of self-managed groups is indeed a one-off that cannot be replicated then this bodes well for self-managed teams. This would mean that they do not suffer any disadvantages of not having a formal leader where negotiation is concerned. Consequently, it would not be necessary for self-managed teams to attempt to compensate for the absence of formal leadership to avoid any negotiation or decision-making disadvantages relative to traditionally led teams. However, if the positive effect of leadership is real, but undetectable in the data due to the influence of discussing points, then this may mean that

points could be the key to compensating for the absence of formal leadership in self-managed teams. Indeed, if discussing points is what allowed all conditions to perform equally well in this study then this may be an area worth investigating. Future research should look into the effect of individual members assigning points to a number of issues as a reflection of the importance of those issues to the self. This may help members of teams, and self-managed teams in particular, to structure negotiations and discover opportunities for logrolling, as quantifying priorities may help to simplify the negotiation situation. However, as we have seen, judgement accuracy may suffer as a result of this. If discussion of points increased joint outcomes but decreased judgement accuracy then it would be important to gauge the value of knowing exactly who wanted what in a negotiation beyond helping teams to increase their joint outcomes. It is possible, for instance, that high judgement accuracy wouldn't be needed to achieve high joint outcomes in a single negotiation, but that remembering who wanted what, and consequently remembering who *didn't* get what they wanted, may be valuable in future negotiations. For example, if one team member sacrificed a lot of their own interests in the interest of the team in a previous negotiation, it may be prudent to favour that person's interests in a subsequent negotiation, to avoid disadvantaging individual team members. In this way, logrolling could occur not only within a single negotiation but also *across* negotiations and across time, as teams repeatedly come together to interact and make decisions. Future research should look into the value of judgement accuracy beyond increasing joint outcomes within a single negotiation.

Although our study did not manage to replicate Van Tol and Steinel's (2017) findings, it did partially replicate Steinel et al.'s (2007) findings that simply offering advice before a negotiation is not enough to ensure that the advice will be implemented. Future research should use a different method for giving advice, possibly following Steinel et al.'s

(2007) method of allowing a team to experience negotiating first, then offering advice, and then allowing them to negotiate once more. Another option might be to make the advice given known to everyone, as opposed to giving advice to just one person in the team. Advised players may have struggled to impose a new group norm by themselves, especially amidst the social and procedural complexity of a three-person negotiation. Future research should make the advice known to everyone, or else use a manipulation that legitimises the changing of group norms, such as appointing someone publicly as 'devil's advocate'. Finally, the failure of the current study in replicating Thompson's (1991) successful advice manipulation might have been due to the increased complexity of three-person negotiations relative to dyadic negotiation. This further highlights the need for greater focus on group negotiation in the scientific literature.

Furthermore, our study highlights the importance of social context in how power is perceived and used. The literature upon which the advice was based, and which led to the expectation that leaders would to provide more information, seek more information and listen more closely, used power holders that did not know their subordinates and would not face any social consequences of power use. As mentioned previously, leaders in the current study may have feared being held accountable for their power use after the negotiation had concluded, thus making them less willing to make use of their power. Future research should take this into account when aiming to model an accurate work team situation. Power holders within work teams, who do know their subordinates and will have to work with them in future, may behave differently than one might expect based on literature that allows or demands anonymous power use.

Limitations and future research

As is the case for all research, this study contained a number of limitations and elements that might be improved upon. Firstly, the sample size was relatively small, possibly reducing the statistical power of the analyses. Although reduced power lends extra credibility to any significant results that *are* found, it may mask small to medium effects that cannot be detected. Future research should include larger samples.

Secondly, there were some issues with the manipulations of advice. The advice seems to have been well understood but not correctly implemented in many cases. The potential reasons for this and suggestions for solutions have been discussed in the previous section. The suggested solutions include allowing groups to negotiate first before giving them advice, and then asking them to negotiate once more. Another solution might be to make the advice public, or to publicly appoint a devil's advocate to justify the changing of prevailing group norms and aid the group in remembering to implement the advice. Furthermore, the advice was based on previous negotiation literature, however this literature focused on dyadic negotiation. Due to the relative simplicity of dyadic negotiation relative to group negotiation, the effects of offering advice may be different depending on the number of parties negotiating. The same holds true for the effect of power. Future research should focus more on group negotiation, as the increased complexity of these negotiations may make much of the current (dyadic) negotiation literature inapplicable.

The manipulation checks for advice and power were measured using retrospective self-report methods. This potentially introduces memory and self-serving biases, which might have resulted in inaccurate reports of negotiation behaviours, particularly self-serving self-reports of the advised behaviours. Future research should use methods of measuring behaviour that are less sensitive to bias, such as recording and coding behaviours so that one does not have to rely on self-report.

Besides potential issues with the manipulation checks, the power manipulation, as discussed previously, may have failed due to the lack of justification for power being assigned to a particular group member, as well as fear of social consequences of using power. Future studies involving power should take this into account when designing their manipulations. Power should be manipulated in such a way that it accurately reflects the power situation that the study is trying to model. Furthermore, the current study used participants from the general population in a non-work setting. Although this allowed us to more accurately replicate Van Tol and Steinel's (2017) study, this may have reduced the generalisability of our findings to self-managed teams and traditionally led work teams. To further investigate how self-managed teams negotiate, it is vital that studies are carried out in existing work teams. This kind of naturalistic study would accurately capture real-world power structures and dynamics as well as producing more generalisable results. Studies on decision making within existing self-managed teams have already noted their unique vulnerability to 'groupthink' (Manz & Sims, 1982; Moorhead et al., 1998), however it would be interesting to expand this research to a more general evaluation of how self-managed teams negotiate and their particular strengths and weaknesses therein.

Finally, our study aimed to partially replicate that of Van Tol and Steinel (2017). Consequently, allowing groups to talk about points, just as they had done, allowed us to accurately replicate their study. However, as discussed, talking about points during the negotiation may have been a key factor in not being able to replicate their findings, despite exactly replicating their method. Future research should test a similar paradigm but without the possibility of discussing points. Using the Aloha Beach Club task, discussion of points is almost necessary, as the differences between the number of points earned for different solutions were sometimes very subtle. For instance, it would have been very difficult for Alex to indicate the difference in preference between closing the bar on Monday morning

and closing the bar on Sunday night when the difference in points is just 100, on a scale from 0 to 1000. Although it is still possible to give some indication of preference, these subtleties would have made it almost impossible to earn the maximum number of points without discussing the points on the pay-off schedule. Therefore, future research using this paradigm, but not allowing the possibility to discuss points, should adapt the pay-off schedule so that discussion of points is no longer required to perform very well.

Conclusion

All in all, this study did not succeed in replicating the finding that pro-social groups negotiate better with a leader than without. This might mean that self-managed teams are not at a negotiation disadvantage, or it may mean that using points to simplify negotiations may help self-managed teams to perform equally well as a pro-social team with a leader. The manipulations of advice and power met with some methodological difficulties, concerning sample size, self-serving biases, discussion of points and the increased complexity of multi-party negotiation relative to dyadic negotiation. Future research should take these difficulties, particularly those pertaining to the complexity of multi-party negotiations, into account. This study highlights the need for further research into the effect of pro-social leadership on group negotiations and group negotiations in general, as well as introducing the interesting new idea of using a point system to simplify group negotiations.

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Appendix

Universiteit Leiden

Aloha Beach Club

Group number:	
Version:	20170626AA/1

THE GAME

Practice your negotiation skills! This game is about negotiating and deal-making. You play Alex, Bo and Chris, who work at the Aloha Beach Club. This small and successful bar on the beach is very busy in summer, thanks to the good food and delicious cocktails.

You are Alex. You are the boss of the team.

In order to keep things going smoothly, there is a work meeting. You meet and discuss eight problems. There are three possible solutions for each problem. For each problem, you have a preference for one of the solutions. With each solution, you can earn a number of ***points.*** *(Take a look at the blue sheet of paper.)*

OBJECT OF THE GAME

The object of the game is to ***reach an agreement*** on which solution to choose for each problem. Try to agree on the solution ***for each of the eight problems.***

Reaching an agreement. Reaching an agreement means selecting ***one solution***, which then applies ***to everyone.*** When you agree on the solution selected for a particular problem, then everyone marks this solution on their blue sheets.

Points. Your goal is to ***earn as many points as possible for the entire team***. The greater your collective total points, the better your team's chances to win prizes! How do you earn points? By negotiating with your colleagues! Please note: If you do not settle for a solution for all of the eight problems, then you earn 0 points and the game is over.

The boss. If you cannot agree on a solution for a problem, then you, the boss, have to decide which solution to choose for this problem.

Important note: You are allowed to talk about everything, but you may **NOT** show the blue sheet to anyone! If you do so, the game is over and you will not win a prize.

Please answer the questions on the reverse side to make sure that all instructions were clear.

To make sure that all the instructions were clear, please answer the questions below.

1. How many points do you earn on the issue "work shift" if you agree on a 6h shift? *(Mark the correct answer.)*
   - □ 0 points
   - □ 2 points
   - □ 10 points

2. Which solution do you prefer for the problem “Cleaning schedule”? (In other words, for which solutions would you earn most points?)
   - □ Day shift cleans before shift
   - □ Night shift cleans after shift
   - □ Cleaning is divided equally over shifts

3. For which of the two problems "Cleaning schedule" and "Division of tips" is it ***more important*** to find the best possible solution for you? (In other words, on which of these two problems can you earn more points?)
   - □ Cleaning schedule
   - □ Division of tips
   - □ Both are equally important to me

4. Who is most powerful in your team?
   - □ Alex
   - □ Bo
   - □ Chris
   - □ We are all equally powerful

5. The next questions are about how you feel at this moment. *(Mark the number.)*

To which extent do you feel...	**not at all**						**very much**
…excited?	**1**	**2**	**3**	**4**	**5**	**6**	**7**
…stressed?	**1**	**2**	**3**	**4**	**5**	**6**	**7**
…relaxed?	**1**	**2**	**3**	**4**	**5**	**6**	**7**
…happy?	**1**	**2**	**3**	**4**	**5**	**6**	**7**
…angry?	**1**	**2**	**3**	**4**	**5**	**6**	**7**
…confident?	**1**	**2**	**3**	**4**	**5**	**6**	**7**
…sad?	**1**	**2**	**3**	**4**	**5**	**6**	**7**
…cheerful?	**1**	**2**	**3**	**4**	**5**	**6**	**7**
…insecure?	**1**	**2**	**3**	**4**	**5**	**6**	**7**
…tense?	**1**	**2**	**3**	**4**	**5**	**6**	**7**

You will get a signal to start. You will have 20 minutes time. Good Luck!