

# **Negotiating Quartermasters**

Preferred negotiation style and the influence of time pressure, uncertainty, trust and the constituency



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#### **Abstract**

Quartermasters are professional managers that bring together the necessary parties and make the preparations to organise something new. Quartermastering is a unique trade involving negotiation with various parties. Negotiation behaviours shown by quartermasters were explored within a framework of negotiation styles based on Mastenbroek's (1984/1987) descriptive model of negotiation and principled negotiation as proposed by Fisher and Ury (1981). Furthermore, several factors influencing negotiation behaviour were discussed. To study quartermasters' negotiation behaviour and to test the influence of time pressure, the constituency, trust between the negotiators and uncertainty of the situation 58 quartermasters answered a digital questionnaire. They read several scenarios based on real quartermastering cases and filled in a ten-item adapted version of the Dutch Test for Conflict handling about their negotiation behaviour in every situation. In general the results supported the hypotheses. Quartermasters generally preferred to use integrative negotiation behaviour during negotiations. High time pressure led to less integrative negotiation. A more demanding constituency increased forcing negotiation behaviour. High trust between the negotiating parties resulted in more integrative-, compromising- and yielding- and in less forcing negotiation behaviour. In situations with high uncertainty quartermasters compromised more. Participants, via answers to open questions, suggested eighteen additional factors that could influence negotiations, these are to be explored in future research. The findings of this study could form the basis for a training course in negotiation skills to enhance the professional development of quartermasters.

Keywords: quartermasters, negotiation, dual concern, time pressure, trust

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# **Negotiating quartermasters**

Preferred negotiation style and the influence of time pressure, uncertainty, trust and the constituency

#### Quartermastering

The position of *quartermaster* originates from a military context, where the quartermaster was responsible for the preparation of the base and the living quarters of the troops before they arrived (Janssen, 2014; Lievers, 2013). Nowadays quartermastering is mostly seen in the public sector, where a quartermaster is a professional manager who brings together the necessary parties and prepares for the organisation of something new (within/between organisations, or independently). This takes place before the phase of project management, after an idea, wish or need has presented itself (Janssen, 2014). Unique of quartermastering is the high degree of uncertainty in projects, as usually nothing has been organised yet, and the lack of a formal position of power in an organisation (Flikweert, 2015). Because of these characteristics, quartermasters need to possess special skills.

An example of a quartermasters job is the development of the 'Kinderombudsman', a governmental institution to monitor fulfilment of the United Nations Declaration of Children's Rights. A law had been passed that such an institution should be developed and should be connected to 'het institute Nationale Ombudsman', however there was no funding, no housing, a conflict in the legal position of both institutions and only very limited time to complete the project. The quartermaster solved these problems and developed the basic idea of the 'Kinderombudsman' into a concrete organisation that could be managed by a project manager. During this process multiple parties with conflicting interests had to be involved, for example the facility manager of the building housing the Nationale Ombudsman with whom an agreement had to be reached to find room for the Kinderombudsman, representatives of the Nationale Ombudsman with whom an agreement about the exact tasks and rights of the

Kinderombudsman (separate from the National Ombudsman) had to be reached and financial managers with whom funds had to be found and a budget had to be created.

Such quartermastering projects consist of roughly two simultaneous phases: preparation and implementation of the project (Figure 1). These phases change in importance during the project, with the preparation phase more important early on and the implementation phase increasing in importance over time.

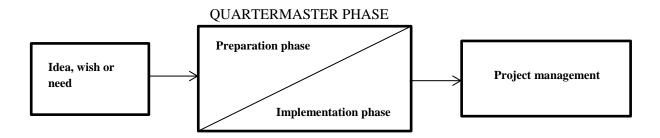


Figure 1. Different phases in the quartermastering process (Janssen, 2014).

In both phases, cooperation with various parties is crucial. These parties can be either the commissioner (the person or organisation that requests the project) or other people who are needed for the project. In the preparatory phase parties, like the commissioner and other stakeholders, mostly need to be involved in the process of developing a concrete plan, while in the implementation phase different parties are involved in the practical organisation of the project (Janssen, 2014). Because of all these cooperative processes, negotiation is an important part of the work of the quartermaster, for example to work out the details of the project with the commissioner, to get stakeholders on board, to figure out details with facility managers, financial managers or representatives of other institutions and to protect the interests of those concerned (Flikweert, 2015).

In this thesis the negotiation behaviour of quartermasters and the influence of time pressure, uncertainty of the situation, trust between the negotiators and the constituency on this behaviour are explored. To support the current research in a specific sample of

quartermasters a broad review of negotiation theory is first given, introducing the different negotiation styles and strategies often recognized in literature. A negotiation framework based on principled negotiation (Fisher and Ury, 1981) and Mastenbroek's model (Mastenbroek, 1984/1987) has been created for this. Multiple factors influencing negotiation that were found in previous research are also discussed, before specifying the specific research questions and hypotheses about negotiation behaviours of quartermasters.

# Negotiation

Negotiation is a method of resolving conflicts through communication. Negotiators have shared as well as opposed interests (Fisher & Ury, 1981; Lewicki, Saunders & Barry, 2001; Pruitt & Kim, 2004). Interests are based on what people find basically desirable and can consist of either tangible interests (goods and resources) or intangible interests (like power or recognition) (Pruitt & Kim, 2004). During negotiation interests are translated into positions, demands based on the underlying desires (Fisher & Ury, 1981; Pruitt & Kim, 2004).

A key characteristic of negotiations is that parties are interdependent, they need each other to achieve their preferred outcomes (Lewicki et al., 2001). For these parties negotiating is an alternative to either cooperating or fighting, a way to assure fulfilment of the own interests without ignoring this dependency on the other party. Higher interdependence usually results in less conflict and more negotiation behaviour (Mastenbroek, 1987).

# Negotiation styles

There are different styles of negotiating. Often (inexperienced) negotiators choose a negotiation-style that consists of a trade-off between the relationship and the task, so either a soft or a hard way to negotiate or a style in between. The soft negotiator tries to avoid conflict, which leads to making concessions and losing sight of their own interests. The hard

negotiator, on the other hand, wants to win and tries to make as little concessions as possible, usually resulting in damage in the relationship with the other party as their interests are not recognised (Fisher & Ury, 1981).

Negotiation behaviour is strongly shaped by the structure of the situation. When the parties' interests are connected so that only one can achieve the goal, this is a 'zero-sum' or 'distributive' situation. On the other hand, when one party's goal achievement helps the other to achieve their goals (or does not hinder it) it is a 'mutual-gains' or 'integrative' situation (Lewicki et al., 2001). As such, within negotiation behaviour a rough distinction is often made between distributive and integrative negotiation behaviour. Distributive behaviour consists of competitive negotiation behaviour, based on positions and using threats and power while trying to persuade the counterparty to make concessions. Integrative behaviour is based on information exchange and the underlying interests of both parties, while logrolling (trading off less important issues for more important ones). Using integrative behaviour often leads to win-win agreements (Harinck & De Dreu, 2004; Lewicki et al., 2001). By using integrative behaviour, it is possible to negotiate in a way that is hard on the content, but soft on the people, thus creating more favourable outcomes (Fisher & Ury, 1981).

# Negotiation strategies

Five major strategies for conflict handling or negotiation have been identified that fall within these two classes of negotiation behaviour (De Dreu, Evers, Beersma, Kluwer & Nauta, 2001; Lewicki et al., 2001; Pruitt & Kim, 2004). Problem solving is an integrative negotiation strategy, while forcing, yielding, compromising and avoiding are all distributive strategies. These strategies are often used in a combination and can be implemented through a wide variety of tactics (Pruitt & Kim, 2004).

- Problem solving (or integrating) entails trying to identify the issues of both parties and moving towards a solution that works for both sides.
- Forcing (or contending) means one resolves the conflict without regarding the other party's interests by trying to get the other to yield.
- Yielding (or accommodating) involves lowering one's own aspirations to fulfil the counterparty's interests and "let them win".
- Compromising is trying to find a middle ground solution between the negotiating parties by (both) making concessions. This negotiation style is under debate as some researchers (like Pruitt & Kim, 2004; Pruitt & Rubin, 1986) don't see it as a distinct strategy, but as a lazy form of problem solving. Support for compromising as a separate construct was found by De Dreu et al. (2001).
- Avoiding means not engaging in conflict, either through inaction (just not addressing the conflict) or withdrawal (removing oneself from the conversation or situation). This strategy was assumed to be incompatible with the nature of quartermastering and was not researched in this study.

#### The dual concern model

As is extensively discussed in Pruitt and Kim (2004), there are different theoretical notions about the conditions that affect the choice for these negotiation strategies, like the 'perceived feasibility perspective' and the 'dual concern model'. The perceived feasibility perspective attributes the choice between the different strategies to the perceived likelihood of success and the cost or risk of enacting each strategy.

The dual concern model (Figure 2; Pruitt & Kim, 2004; Pruitt & Rubin, 1986) argues for two types of concerns in conflict situations: concern about the party's own outcomes (self-concern) and concern about the counterparty's outcomes (other-concern). Other concern can

be either genuine or instrumental for one's own interests. The model predicts strategic choice in negotiations based on the level of both self-concern and other-concern a negotiator has. A negotiator with strong self-concern and other-concern would prefer problem solving, only strong self-concern would result in forcing, only strong other-concern would lead to a preference for yielding, a preference for compromising is based on intermediate self-concern and other-concern and a preference for avoiding comes from low self-concern and other-concern.

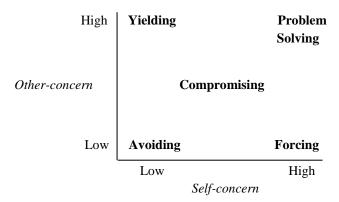


Figure 2. The dual concern model.

The dual concern model is often used in research and has been tested by many laboratory experiments on negotiation (e.g. Nelson, Bronstein, Shacham & Ben-Ari, 2015). The strong support found for the dual concern model implies that it helps to understand some of the decisions about what strategy to employ in negotiation.

The perceived feasibility perspective and the dual concern model supplement each other. The dual concern model indicates the strategy that is preferred under certain circumstances. However, for a negotiator to actually adopt this strategy it must also be perceived as feasible. Otherwise another strategy is chosen (Pruitt & Kim, 2004).

Two theories have been combined to create a framework of negotiation styles.

# Principled negotiation

Fisher and Ury (1981) describe *principled negotiation*, developed in the Harvard Negotiation project. They offer a prescriptive view, proposing a method of negotiation that combines aspects of hard and soft negotiation to create an integrative negotiation style. This method is based on four principles:

- Separate the people from the problem.
- Focus on interests, not positions.
- Invent options for mutual gain.
- Insist on using objective criteria.

#### Mastenbroek

Mastenbroek (1984/1987) proposes a more descriptive model of negotiation than Fisher and Ury (1981) that describes both integrative and distributive aspects of negotiating. The model consists of two main dimensions (exploring-avoiding and accommodating-fighting). Behaviours on the exploring-avoiding dimension are directed at 'influencing the procedures', for example by exchanging information, trying out possible solutions or thinking out loud. Additionally, the main choice between hard and soft negotiation is made in the accommodating-fighting dimension, which consists of four core behaviours:

- Influencing the content
- Influencing the constituency
- Influencing the power balance
- Influencing the climate

# The exploring-avoiding dimension

These two negotiation models complement each other. The exploring-avoiding dimension (or 'influencing the procedures') in Mastenbroek's model entails the search for possible solutions that fulfil the interests of both parties, without making large concessions (Mastenbroek, 1984). This is similar to the principle 'invent options for mutual gain' in principled negotiation. Fisher & Ury (1981) propose four acts to invent creative options: inventing options without judging them, broadening options that are on the table, searching for mutual gains and making the decision easier for the other party. This all depends on information exchange and is supported by multiple behaviours, like arranging brainstorm sessions, asking questions, using impasses as information sources, finding out which small concessions are important to the other party and using package deals (Fisher & Ury, 1981; Mastenbroek, 1984).

# The accommodating-fighting dimension

Influencing the content

Although the procedures of the negotiation are important, most negotiators will find the negotiation content the most important part of the process (Mastenbroek, 1984). The core behaviour 'influencing the content' of Mastenbroek's model, depends on a choice between making concessions and being inflexible. Negotiators use information in a tactical way to gain insight into the lowest acceptable offer for the other party, while trying to give information in such a way that their own demands seem unavoidable (Mastenbroek, 1984). Central is the first statement in the negotiation, since it can be either formulated as an inflexible position or as a statement about a party's interests without a definitive stance. Subsequently, in distributive negotiations, small concessions are made until a compromise becomes clear (Mastenbroek, 1984). In principled negotiation Fisher and Ury (1981) differentiate between

talking about interests (desires and concerns) and positions (what is specifically asked for in the negotiation). They advise negotiators to focus on the interests of both parties (instead of their positions) before starting to make concessions, as there are usually multiple possible positions that fulfil these interests. By asking **why** a position is proposed, the other party's interests can be identified, while ones' own interests should simultaneously be clarified. Being tough on interests is beneficial, as it makes sure these interests are fulfilled. On the other hand, being hard on positions means losing opportunities for mutual gains. When differences in interest are especially hard to reconcile, it is wise to use objective criteria (that are legitimate, practical and apply to both sides) to come to an agreement (Fisher & Ury, 1981).

#### *Influencing the constituency*

Focusing on interests is more difficult when there is a strong constituency (people dependent on the negotiation outcome, like a commissioner) to be taken into consideration. This decreases the flexibility in concession making. To avoid reaching an impasse due to expectations of the constituency, there should be a focus on mapping interests rather than specific positions when preparing for a negotiation with a strong constituency. Mastenbroek (1984) advises to consider the relation with the constituency as a separate negotiation. This means tactical information should be shared with the constituents, while a strict mandate should be avoided to remain flexible in negotiation.

# *Influencing the climate*

Within his model, Mastenbroek (1984) also distinguishes the choice between being friendly and hostile. The complexity lies in being tough in the negotiation, without damaging the relationship with the partner. This usually forms the basis for choosing either a soft or

hard negotiation style. Mastenbroek divides the tactics to deal with this dilemma in three categories: separating the person and the behaviour, avoiding tension inducing behaviour and using opportunities for tension reduction. Separating the person and the behaviour is similar to Fisher and Ury's core principle of 'separating the people from the problem' (Fisher & Ury, 1981). Developing a trusting relationship within the negotiation is very important for the development of respect and acceptance of the other party and consequently for coming to an agreement. Clear communication, active listening and emotional reflections without assigning blame are central to this (Fisher & Ury, 1981; Mastenbroek, 1984). Avoiding unnecessary irritations by averting tension inducing behaviours can be done by not using words like 'reasonable' (as it implies the other person is not reasonable), by asking questions and by avoiding the use of threats. Adjusting non-verbal behaviours by having a relaxed but alert demeanour can also be influential (Mastenbroek, 1984). Additionally, Fisher and Ury (1981) advise building a positive relationship before the negotiation. To reduce existing tensions it is essential to show appreciation and acknowledgement of the other party, combined with having informal conversations with each other (Mastenbroek, 1984).

# Influencing the power balance

Mastenbroek (1984/1987) also considers influencing the power balance between the parties to be one of the core behaviours in negotiation. Power is defined as 'the capacity to determine the behaviour of others' (Mastenbroek, 1987, p. 49). A certain equality between parties is assumed in negotiation. The level of power is related to the level of interdependence between parties; the more dependent parties are on each other, the more power they have over one another (because the negotiators need each other). However, more interdependence also means conflicts are more harmful, thus more negotiating behaviour is shown to avoid harming the relationship (Mastenbroek, 1987). Within a negotiation parties often try to strengthen their

power position. Using mainly dominant tactics, like becoming angry or not listening to the other party, usually escalates the negotiation and induces hostile behaviour. Other tactics to influence the power balance are the use of manipulation or rhetoric, or (more constructively) to depend on facts and expertise, explore the negotiation space and strengthen the relation (Mastenbroek, 1984/1987).

#### **Influential factors**

Negotiations are dependent on specific situations and negotiators. Multiple factors influence negotiation behaviours. These influences can generally be categorised in personal factors (the characteristics, behaviours or cognitions of the negotiator) and contextual factors.

#### Personal factors

Examples of personal factors are: gender (Kray, Galinsky & Thompson, 2001; Nelson et al., 2015), fixed pie perceptions (De Dreu, Koole & Steinel, 2000; Harinck & De Dreu, 2004; Thompson & Hastie, 1990), creativity (Lewicki et al., 2001; Ott, Prowse, Fells & Rogers, 2016), expression of emotions (Steinel, Van Kleef & Harinck, 2008), social values (De Dreu, Beersma, Stroebe & Euwema, 2006; O'Conner & Carnevale, 1997; Van Beest, Steinel & Murnighan, 2011) and epistemic motivation (De Dreu et al., 2006).

Gender stereotypes influence the behaviour shown by negotiators, for example in the demonstration of more or less dominating behaviours (Nelson et al., 2015) or differences in offers made to men or women during negotiation (Kray et al., 2001). This was found by Kray et al. (2001) to be partly due to the processes of stereotype threat (performing worse when primed with a stereotype) and reactance (dissociating from a stereotype by exhibiting behaviours contrary to the stereotype).

'Fixed pie perceptions' or 'zero-sum thinking' refers to the tendency to see negotiations as zero-sum situations or win-lose exchanges, where mutually beneficial trade-offs are not possible (Lewicki et al., 2001; Thompson & Hastie, 1990). Even though some situations are essentially distributive, there is a tendency to assume that negotiation problems are more zero-sum than they really are and to overuse distributive strategies (De Dreu, Koole & Steinel, 2000; Lewicki et al., 2001; Pruitt & Kim, 2004). This leads to less cooperative behaviours, more competitive opening statements and in some situations to temporary impasses. Temporary impasses can be beneficial in a negotiation, as they can lead to a switch from distributive behaviour to integrative behaviour following a differentiation-before-integration-pattern (Harinck & De Dreu, 2004; Van de Vliert, Nauta, Giebels & Janssen, 1999). On the other hand, De Dreu, Giacomantonio, Shalvi and Sligte (2009) found that negotiators facing an obstacle in the negotiation tend to get stuck, focus only on this one difficult issue, experience less trust, less happiness and more sadness and consequently are less able to develop creative, mutually beneficial agreements.

As was just mentioned, De Dreu et al. (2009) found that obstacles decrease the ability to develop creative mutually beneficial solutions. Creativity enables negotiators to create alternative solutions, which is an essential aspect of integrative negotiation (Lewicki et al., 2001). Ott, Prowse, Fells & Rogers (2016) find creativity to be necessary for the creation of satisfying outcomes.

Expression of emotions is also influential (both positively and negatively) in negotiations (Fisher & Ury, 1981; Mastenbroek, 1984; Steinel et al., 2008). As Fisher and Ury (1981) advise to separate the people from the problem, they discuss giving emotional reflections in a rational way without assigning blame because emotions can escalate negotiations. Steinel et al. (2008) differentiate between behaviour-oriented emotions and person-directed emotions. Whereas negative person-directed emotions induce an affective

reaction that decreased integrative behaviour, target-directed emotions convey strategic information about the negotiation and lead to increased integrative behaviour.

Social values are traits shaping social concerns about either the own outcomes or the outcomes of both parties. The social values (proself or prosocial) of a negotiator influence fairness perceptions, the honesty of the negotiator, the negotiator's opening statements and consequently the integrative behaviour shown in the negotiation (Van Beest et al., 2011). This is similar to the finding of O'Conner and Carnevale (1997) that the motivational orientation (cooperative or individualistic) of the negotiator influences the use of contentious tactics, which are behaviours with the goal of producing favourable outcomes for the self (e.g. misrepresentation, threats and positional commitments). Furthermore, having a cooperative motivation increases information exchange, thus leading to more discovery of the integrative potential in the negotiation.

In line with these findings, De Dreu et al. (2006) propose a Motivated Information Processing (MIP) model of negotiation, stating that high-quality negotiation agreements depend on social motivation, epistemic motivation and the interaction between these two types of motivation. Social motivation is similar to social values (van Beest et al., 2011) or motivational orientation (O'Conner & Carnevale, 1997), meaning a preference for outcomes either positive for oneself or for both parties. Epistemic motivation is a desire to have an accurate understanding of the world or (in this context) the negotiation problem. High epistemic motivation results in more information exchange, which is essential for finding positive joint outcomes (Ott et al., 2016). A prosocial motivation combined with high epistemic motivation results in better negotiation results.

## Contextual factors

Contextual factors influencing negotiations are for example: transaction costs (Harinck & Druckman, 2017), time pressure (Harinck & De Dreu, 2004; Harinck & Druckman, 2017), negotiation issues (Harinck & De Dreu, 2004; Harinck & Druckman, 2017), the power balance in the negotiation (Brett & Thompson, 2016; Fisher & Ury, 1981; Lewicki et al., 2001; Mastenbroek, 1984), the constituency (Fisher & Ury, 1981; Mastenbroek, 1984), the relations with the counterparty (Bartos, 1996; Lewicki et al., 2001) and (especially in the case of quartermasters) the uncertainty of the situation.

Transaction costs are the costs of continuing the negotiation process. When the costs of an (imperfect) agreement are lower than the costs of continuing to negotiate, the negotiators will usually come to an agreement. Transaction costs influence negotiations, because they induce time pressure (Harinck & Druckman, 2017).

Negotiating under time pressure (caused for example by an approaching deadline or limited time to negotiate) leads to a motivation to reach a quick agreement, and results in lower epistemic motivation and lower resistance to yielding (Harinck & De Dreu, 2004; Harinck & Druckman, 2017). Consequently, negotiations have less temporary impasses and when they do arise, they are resolved more quickly. As discussed before, temporary impasses are often beneficial to the negotiation, as they promote a switch from distributive to integrative behaviour. Therefore, more time pressure leads to less integrative behaviour and less win-win solutions. This factor seems to be particularly relevant for quartermasters, as they are often in projects with a tight deadline (Janssen, 2014).

For the content of the negotiation (the negotiation issues), a distinction is usually made between negotiating about interests or values. A negotiation about interests is about the attainment of scarce resources, while in a negotiation about values the parties have different positions based on personal norms, values or ideological worldviews (Harinck & de Dreu,

2004; Stöckli & Tanner, 2014). In a negotiation about values people are usually more committed to their position, feel more identity-threat and are less willing to partake in logrolling, thus making it harder to find an integrative solution (Harinck & de Dreu, 2004; Harinck & Druckman, 2017; Stöckli & Tanner, 2014). Stöckli and Tanner (2014) even found that while in interest-based negotiations integrative outcomes brought more satisfaction, in value-based negotiations distributive outcomes were more satisfactory than integrative outcomes. This indicates negotiation behaviour and the goal of negotiation should be adapted to the content.

The power of the negotiators, especially the power balance between negotiators, also influences negotiation behaviour. As was previously mentioned, Mastenbroek (1984/1987) considers influencing the power balance between the parties one of the core negotiation behaviours of parties. There are different sources of power. The level of interdependence between parties is directly related to the power balance; a more dependent party has less power in the negotiation (Lewicki et al., 2001; Mastenbroek, 1984). Interdependence is greatly determined by the desirability of alternatives to working together (Lewicki et al., 2001). Whether you should (not) accept a proposed solution depends on the attractiveness of your best alternative to the negotiated agreement (BATNA). Having a good BATNA is a source of power in the negotiation, because with a good alternative one is less dependent on the counterparty (Fisher & Ury, 1981). Negotiators who focus on the BATNA of the counterparty have been found to be more effective in claiming value in the negotiation (Galinsky & Mussweiler, 2001, as discussed in the review of Brett & Thompson, 2016). This is why negotiators should always be aware of their own and (if possible) the other's BATNA (Fisher & Ury, 1981; Pinkley, 1995, as discussed in Brett & Thompson, 2016). French and Raven (1959) distinguish between five different power bases: reward power, coercive power, referent power, legitimate power and expert power. They also imply that an additional power base is informational power. In Raven (1992) this model has been extended. Personal and impersonal forms of coercive and reward power are distinguished and three (more subtle) forms of legitimate power are added: Legitimate power of reciprocity, equity and responsibility or dependence. Furthermore, expert and referent power are acknowledged to emerge in positive and negative forms and informational power can be direct and indirect. Less direct methods of influence, like environmental manipulation or invoking the power of third parties are also discussed. When quartermasters negotiate, they most often do so from a position of low formal (legitimate) power (Flikweert, 2015). This means they have to cooperate with other parties and negotiate. Quartermasters also work in an ambiguous situation without legitimate power (Flikweert, 2015; Schmidt, 2017), so they mostly work on a basis of expert power, consisting of the possession of superior skills and abilities. Another important power base for quartermasters is their network (Flikweert, 2015). As such, it is important for quartermasters to avoid damaging their relationships during negotiation. This lack of formal power, as well as the importance of positive relationships might influence the negotiation behaviours of quartermasters.

As discussed previously, the constituency is an influential factor on negotiation style, as it decreases the flexibility of concession making and leads to less focus on interests and consequently less integrative behaviour (Fisher & Ury, 1981; Mastenbroek, 1984). Quartermasters usually have to negotiate within a network of stakeholders, which means they have to take into account the different interests of all the parties in the project (H. Janssen, personal communication December 1<sup>st</sup>, 2017). The manner in which quartermasters deal with the pressure of having such a constituency decreasing their flexibility, might be an important influence on the negotiation behaviours quartermasters show and consequently the outcomes they achieve.

The relationship a negotiator has with the counterparty is also an important factor influencing negotiation behaviour. Both Mastenbroek (1984) and Fisher and Ury (1981) advise the creation of positive, informal relations with the counterparty, to avoid and reduce tension during the negotiations. As discussed in Bartos (1996), friendly relations lead to increased trust. Trust is essential to integrative behaviour, as it cues cooperative behaviours, leads to more information sharing and consequently results in more integrative behaviour (Lewicki et al., 2001). Flikweert (2015) found that for quartermastering the social-emotional relationship with other parties is very important, even more so than the instrumental relationship, because quartermasters have low formal power and base their power largely on their network. As such the positive valence of the relationship between parties would be important during negotiations. Trust is a central component in this; because quartermasters work in uncertain situations, they can often not make clear concessions, which means trust is necessary to come to an agreement.

Uncertainty is an influential factor that is specifically relevant for quartermastering. As quartermasters work in a phase of a project with a lot of uncertainty (Flikweert, 2015) or ambiguity (Schmidt, 2017), they have limited information to base their negotiating position on (G. Cornel, personal communication, December 1<sup>st</sup>, 2017). This might be beneficial for the negotiations. Depending on the epistemic motivation of the quartermaster, not having much information could lead to more information exchange. As discussed in Ott et al. (2016), more information exchange positively influences the negotiation outcomes, as it increases consideration of underlying interests and leads to more integrative solutions.

#### **Current research**

Research into quartermastering has only started in 2013 (Lievers, 2013), which makes it a unique field to study. As stated before, quartermasters often use negotiation during their work, either with the commissioner or with third parties such as various stakeholders. During the preparation phase, the quartermaster develops a concrete plan from the idea, wish or need of the commissioner. To come to such a plan it is necessary they confer with the commissioner on many instances. This phase includes some negotiation, but, as the quartermaster and commissioner have mostly mutual interests, it mainly consists of collaboration (Flikweert, 2015). However, in the implementation phase of quartermastering there is much to negotiate with various stakeholders (H. Janssen, personal communication December 21<sup>st</sup>, 2017). Because of the limited research into quartermastering and the unique characteristics of the work studying the behaviour and skills of quartermasters is very interesting. In the current research, negotiation behaviours of quartermasters in negotiations with third parties and four contextual factors influencing these behaviours were explored. This is the first research ever to be done on this subject. This study contributes to the theory on quartermastering as well as the extensive theory on negotiation by looking at a very specific sample of negotiators. The negotiations under consideration are closed negotiations, independent of future negotiations with the same parties. This means that any concessions made in current negotiations, are unrelated to concessions made in future negotiations. As quartermasters work in unusually uncertain situations and depend strongly on their personal network, as well as having to consider the interests of multiple stakeholders, it was interesting to explore negotiation behaviour under these unique circumstances.

## Research questions

It was assumed that quartermasters mostly use integrative behaviour during their negotiations (H. Janssen, personal communication December 1<sup>st,</sup> 2017), however to gain an empirical basis for this assumption the following research question was answered: *Do quartermasters show more integrative behaviour than distributive behaviour during negotiations?* 

Additionally, the influence of four contextual factors on quartermasters' integrative and distributive negotiation behaviour was researched. From the various factors that were discussed previously, 'time pressure', 'the constituency', 'trust between the negotiators' and 'uncertainty of the situation' seem to be the most relevant for the negotiation behaviour of quartermasters and were considered in this research. This led to the following research questions:

- 1. What are the effects of time pressure on negotiation behaviours of quartermasters?
- 2. What are the effects of the constituency on negotiation behaviours of quartermasters?
- 3. What are the effects of the level of trust between negotiators on negotiation behaviours of quartermasters?
- 4. What are the effects of uncertainty of the situation on negotiation behaviours of quartermasters?

Many possible factors could be influential, but only a few were currently researched.

To avoid missing important factors, an extra research question was explored: *Are there any additional factors that could be influential on negotiation behaviour? In what way?* 

## Hypotheses

As explained, time pressure leads to higher motivation to reach a quick agreement, lower epistemic motivation, lower resistance to yielding, less temporary impasses and consequently less integrative behaviour (Harinck & De Dreu, 2004; Harinck & Druckman, 2017). The following hypotheses were deducted:

- 1a. Negotiations with high time pressure lead to a decreased level of integrative behaviour, compared to negotiations with low time pressure.
- 1b. Negotiations with high time pressure lead to an increased level of distributive behaviour, compared to negotiations with low time pressure.

Quartermasters usually work within a network of the commissioner and various stakeholders, which form a constituency to consider when negotiating. When this constituency has very strict positions to take into consideration, it decreases the flexibility of the negotiator, leading to less freedom to focus on interests and consequently less integrative behaviours. This resulted in the following hypotheses:

- 2a. Negotiations with a highly demanding constituency lead to a decreased level of integrative behaviour, compared to negotiations with a less demanding constituency.
- 2b. Negotiations with a highly demanding constituency lead to an increased level of distributive behaviour, compared to negotiations with a less demanding constituency.

A positive relationship with the counterparty leads to increased trust and consequently increased integrative behaviour (Bartos, 1996). This should be very influential for quartermasters, because they depend on their network as a source of power (Flikweert, 2015). This led to the following hypotheses:

- 3a. Negotiations with trust between the negotiators lead to an increased level of integrative behaviour, compared to negotiations with distrust between the negotiators.
- 3b. Negotiations with trust between the negotiators lead to a decreased level of distributive behaviour, compared to negotiations with distrust between the negotiators.

Unique about quartermastering is the high level of uncertainty (Flikweert, 2015) and ambiguity (Schmidt, 2017) in many projects. Having limited information to base a position on could lead to more information exchange and consequently more integrative behaviour. This was explored in the following hypotheses:

- 4a. Negotiations with high uncertainty lead to an increased level of integrative behaviour, compared to negotiations with low uncertainty.
- 4b. Negotiations with high uncertainty lead to a decreased level of distributive behaviour, compared to negotiations with low uncertainty.

# **Method**

# Participants and design

This study was a within-subjects scenario study with 58 quartermasters incorporating four influential factors with two levels (high and low) as independent variables and four negotiation behaviours as dependent variables. Participants were initially recruited through the mailing list of het Kwartiermakersgilde or the personal network of several quartermasters. Additional participants were found through Google, using the search term 'kwartiermaker'. Any subject fulfilling our definition of quartermaster was contacted either by e-mail or a personal message on LinkedIn. Digital questionnaires were sent to 332 quartermasters, with 82 to 86 persons invited per sub-version of the questionnaire.

99 participants started the questionnaire<sup>1</sup>. 3 respondents stopped their participation directly after giving consent and 4 people indicated they did not fulfil our characterisation of a quartermaster and were thus not suitable for taking part. Multiple respondents stopped their participation at various stages of the survey. Full participation on the quantitative part of the survey was necessary for the repeated measures character of the analyses, so only the 58 participants that answered all questions or left only the open questions unanswered were included in the analyses. This resulted in a response rate of 17.5% of 332 invited. Participants had received a link for one of the four sub-versions of the questionnaire, leading to different numbers of respondents for every sub-version: 19 respondents answered version 1.1, 14 version 1.2, 10 version 2.1 and 15 version 2.2. Respondents did not receive a reward for participating.

60.3% of participants was male (N = 35) and 37.9% (N = 22) female, while one participant chose not to share their gender. Ages ranged from 36 to 74 years old (M = 55.3,

<sup>&</sup>lt;sup>1</sup> No information was available about non-responders as no demographic information about the total sample of invited quartermasters was gathered and the questionnaires were filled out anonymously, making it impossible to deduce who who of the invited quartermasters participated in the study.

SD=8.20). The participating quartermasters came from various educational backgrounds. 50.0% of participants had a WO-level education, 22.4% HBO-level and other participants varied between HBS-level (between high school and college level), PhD and post-academic level education. 30 participants noted their field of education. Most of these participants had a background in either economics, management or organisation studies (N=11) or in social-and behavioural sciences (N=10). Experience in quartermastering (measured in number of projects) ranged from 1 to 50 projects (M=5.47, SD=7.75, Mdn=3.00).

#### **Scenarios and situations**

Two negotiation scenarios were used in the study, both based on cases of professional quartermasters. In the first scenario 'De Kinderombudsman' participants were asked to imagine negotiating with the facility manager of a building needing to accommodate an extra institution. In the second scenario 'Eenzaamheid onder kunstenaars' they imagined negotiating with the area manager of an art gallery about the budget for an initiative against feelings of solitude in artists. To manipulate the influence of the four independent variables (time pressure, the constituency, trust between the negotiators and uncertainty of the situation), 16 additional descriptions of specific situations within the scenarios, consisting of either a high or low level of each factor, were developed (Appendix A).

Two versions of the questionnaire were made to check for an effect of the different scenarios on negotiation behaviours in the specific situations. Each version consisted of a neutral situation of both scenarios and situations with either a high or low level of the influential factors time pressure, the constituency, trust between the negotiators and uncertainty of the situation. This added up to ten situation descriptions per version (Table 1). To check for order effects, the sequence of the two scenarios (Kinderombudsman and Kunstenaars) was counterbalanced in both versions, resulting in four sub-versions of the

questionnaire: sub-version 1.1 and 2.1 started with 'De Kinderombudsman', while sub-version 1.2 and 2.2 started with 'Eenzaamheid onder kunstenaars'.

#### **Scales**

A ten-item adapted version of the Dutch Test for Conflict Handling (DUTCH; De Dreu et al., 2001; Van de Vliert, 1997) was used for every situation to measure the dependent variables: integrative and distributive negotiation behaviours. The reliability of the scales was measured with Spearman-Brown  $\rho$ , as this is found to be the most accurate reliability coefficient for two-item scales<sup>2</sup> (Eisinga, te Grotenhuis & Pelzer, 2013). The reliabilities of all the final scales used in the analyses were good (> .60). Three items of the Problem solving scale of the DUTCH were translated to Dutch and used to measure integrative negotiation behaviour (Spearman-Brown  $\rho$  = .79<sup>3</sup>). Distributive behaviour was measured by three items of the Forcing scale ( $\rho$  = .83), two items of the Compromising scale ( $\rho$  = .74) and two items of the Accommodating/Yielding scale ( $\rho$  = .72), all in translation (Appendix B). Answers were given on a 7-point Likert scale ranging from 1 (not at all) to 7 (totally). Scale scores were acquired by dividing the sum of the answers by the number of items in the scale.

**Table 1.** *Version 1 and 2 of the questionnaires with different levels of the influential factors.* 

	Versio	on 1	Version 2			
Situation	Kinderombudsman	<u>Kunstenaars</u>	<u>Kinderombudsman</u>	<u>Kunstenaars</u>		
Neutral*	No manipulation	No manipulation	No manipulation	No manipulation		
Uncertainty	High	Low	Low	High		
Constituency	Low	High	High	Low		
Time pressure	High	Low	Low	High		
Trust	Low	High	High	Low		

<sup>\*</sup> For the neutral situation neither high nor low level was specified.

<sup>&</sup>lt;sup>2</sup> However, Chronbach's alphas and inter-item correlactions were also calculated and can be obtained at the author.

<sup>&</sup>lt;sup>3</sup> Reliability of the general neutral scale. For the reliabilities of situation-specific scales, the author can be contacted.

For the general neutral scale the neutral-situation scales of both scenarios were combined and averaged. The three distributive behaviours were analysed separately rather than merging them into one distributive scale, because theoretically these styles are (partially) imcompatible with each other as alternative means to one end with different underlying psychological orientations (Pruitt & Kim, 2004). This is demonstrated by the fact that items measuring yielding behaviour correlated negatively with items measuring compromising- ( $r \le$  -.25) or forcing behaviour ( $r \le$  -.45). The Avoiding scale of the DUTCH was not used in this questionnaire; quartermastering does not leave room for an avoiding negotiation style which makes this scale irrelevant for the current research. Furthermore, to avoid being led only by our own perception of important influential factors, respondents were asked in two open questions about any additional factors they believed to influence negotiation behaviours of quartermasters and how these factors influenced negotiations. Lastly, participants' demographic variables (education, gender and age) were asked. The total questionnaire consisted of 107 questions.

## **Procedure**

To increase response rates, potential participants were informed about the upcoming research by an e-mail or LinkedIn message (describing the goal of the research and how their participation would contribute to professionalizing quartermastering) before sending out the questionnaires. Participants were asked to fill in the survey and to forward the questionnaire to any quartermasters in their network. About a week later, participants were e-mailed a link to an online survey in Qualtrics. Every list of contacts was separated in four groups, with each group receiving a sub-version of the questionnaire. Participants first read and signed an informed consent. They were also provided with contact information in case of questions or complaints. Then, it was shortly explained that the research explored negotiation behaviours

of quartermasters and the influence of different factors on these behaviours. Participants were instructed to read the scenario descriptions and imagine that they were in that situation themselves. They were assured there were no right or wrong answers and asked to indicate how they would respond in such a situation on a 7-point scale. To be sure participants belonged to our target population they were asked whether they had fulfilled a role similar to our definition of quartermaster in the last five years. If they answered 'no', the survey moved on to the last page thanking them for their time. If they answered 'yes', they were asked how many projects they were involved in as a quartermaster. The questionnaire continued with the scenario descriptions. After every scenario, participants answered the ten items of the DUTCH about their negotiation behaviour. Following the demographic questions, participants read a debriefing page thanking them for their participation, explaining the goal of the research again, repeating the contact information for complaints and giving them the opportunity to receive the final thesis by e-mail.

# **Results**

# **Preliminary Analyses**

Before the data of participants of the different versions was merged and the research questions were analysed, preliminary analyses were done to test the effects of version, scenario and order of the scenarios. All preliminary analyses were done two-tailed, unless specifically mentioned otherwise.

#### **Effect of version**

The effect of version on negotiation behaviour was tested for the general versions (version 1 and 2) and for the sub-versions (version 1.1, 1.2, 2.1 and 2.2) with one-way ANOVAs.

A one-way ANOVA of the effect of general version on integrative behaviour was not significant (F(1,56) = .15, p = .704) and neither was the effect of general version on forcing behaviour (F(1,56) = .24, p = .623) or yielding behaviour (F(1,56) = 1.62, p = .209). Analyses of the influence of the sub-versions on integrative- (F(3,54) = 0.95, p = .423), forcing- (F(3,54) = .14, p = .939) and yielding behaviour (F(3,54) = 2.28, p = .090) were also not significant. This indicated there would be no problem merging the different versions for these negotiation styles. However, there was a significant effect of general version (F(1,56) = 10.30, p = .002) and sub-version (F(3,54) = 3.65, p = .018) on compromising behaviour, suggesting these groups might not be possible to merge. Participants that filled in version 1 of the questionnaire (sub-versions 1.1 or 1.2) scored higher on compromising behaviour than participants that filled in version 2 (sub-versions 2.1 or 2.2).

# **Effect of scenario**

Paired *t*-tests were used to test the effect of the two different scenarios ('Eenzaamheid onder kunstenaars' en 'de Kinderombudsman') on negotiation behaviour. There was no significant effect of scenario on integrative- (t(57) = .45, p = .653), forcing- (t(57) = 1.52, p = .133) or yielding behaviour (t(57) = -1.16, p = .249), indicating these scenarios can be analysed as one in the main analyses. Scenario did however have a significant effect (t(57) = -1.16), t(57) = -1.16, t

<sup>&</sup>lt;sup>4</sup> Due to this only being preliminary analyses, mean scores were not reported. However, this information is available upon request.

#### **Order effect**

As participants read the scenarios in two different orders (starting either with 'De Kinderombudsman' or with 'Eenzaamheid onder kunstenaars'), one-way ANOVAs were done to test the effect of order of the scenarios on negotiation behaviour. There was no significant effect of order on integrative- (F(1,56) = 1.04, p = .312), forcing- (F(1,56) = 0.25, p = .622), compromising- (F(1,56) = .03, p = .855) or yielding behaviour (F(1,56) = 2.90, p = .094), indicating that participants of the two different order conditions can be analysed as one group.

# **Multivariate Analysis**

To control for the large number of analyses and the consequent risk of type I errors (finding a significant effect where there is not one), additional multivariate tests were done to test the effect of version, scenario and order of scenarios again.

A mixed factorial ANOVA of the effect of the between-subjects factors version and order of the scenarios and the within-subjects factor scenario was done (Table 2). There were no significant effects of the three factors on integrative- or yielding behaviour. On forcing behaviour there was only a significant interaction effect of scenario and order of scenarios.

**Table 2.**Results of the Mixed Factorial ANOVA: main- and interaction effects of scenario, version and order of the scenarios on negotiation behaviours.

	<u>Integrative</u>		<b>Forcing</b>		Compromising		<u>Yielding</u>	
	F(1,54)	p	F(1,54)	p	F(1,54)	p	F(1,54)	p
Scenario	.07	.790	1.61	.210	8.77	.005	1.49	.228
Version	.40	.531	.16	.688	10.78	.002	2.48	.121
Order of the scenarios	1.61	.210	.17	.682	.69	.410	3.27	.076
Version*Order	1.49	.228	.00	.962	.26	.609	1.18	.283
Scenario*Version	.98	.326	2.01	.162	21.34	< .001	.25	.623
Scenario*Order	1.58	.214	8.42	.005	.22	.640	.06	.804
Scenario*Version*Order	.04	.850	.33	.570	.12	.728	.06	.804

Participants that filled in the questionnaire with the first order of scenarios (first 'de Kinderombudsman', then 'Eenzaamheid onder kunstenaars') scored higher on the forcing scale for the scenario about the artists than for the scenario about the Kinderombudsman, while participants with questionnaires in the second order (first 'Eenzaamheid onder kunstenaars' then 'de Kinderombudsman) scored higher on the forcing scale for the scenario about the Kinderombudsman than for the scenario about the artists. As in the previous analyses, scenario and version had significant main effects and additionally a significant interaction effect on compromising behaviour. Participants scored higher on compromising in the scenario 'Eenzaamheid onder kunstenaars' than in 'de Kinderombudsman' and participants that filled in version 1 scored higher on compromising than participants that filled in version 2. The interaction effect of scenario and version shows that participants in version 1 actually scored the same on both scenarios, but participants in version 2 score lower on 'de Kinderombudsman' than on 'Eenzaamheid onder kunstenaars'.

A MANOVA of the effect of version and order of the scenarios was also done. As in the previous analyses there was a significant effect of version (F(5, 50) = 4.06, p = .004), which was specified to a significant effect of version on compromising (F(1, 54) = 10.78, p = .002). As was found before, participants in version 1 score significantly higher on compromising than participants in version 2. The MANOVA did not indicate a significant main-effect of order of the scenarios (F(5,50) = 1.05, p = .401) or interaction effect of version and order of the scenarios (F(5,50) = 0.91, p = .481) on negotiation behaviour.

#### **Adapted compromising scales**

Due to the low reliability values of the compromising scales in the preliminary analyses (before the final scales were made) and the significant influence of version and scenario on compromising behaviour, the preliminary analyses were rerun with adapted

compromising scales consisting of only item 3 or item 4 of both scenarios of the questionnaire.

Firstly, a MANOVA of the effect of version on compromising behaviour was not significant, F(2,55) = 0.28, p = .760. Specific tests indicated that neither the effect of version on compromising behaviour as measured by item 3 (p = .509) nor on compromising behaviour as measured by item 4 (p = .506) was significant. Secondly, using paired t-tests, there was also no significant effect of scenario on compromising behaviour as measured by item 3 (t(57) = -1.82, p = .075), but there was a significant effect of scenario on compromising behaviour as measured by item 4 (t(57) = 2.48, p = .016). Finally, a MANOVA did not find a significant effect of order of the scenarios on compromising behaviour (F(2,55) = 0.56, p = .572), neither when compromising was measured by item 3 (p = .289), nor when compromising was measured by item 4 (p = .502).

It can be concluded that when only item 3 of both scenarios of the questionnaire was used to measure compromising behaviour, the effects of version and scenario on compromising were not significant. When only item 4 of both scenarios was used there was still a significant influence of scenario, but not of version.

#### **Conclusions**

Despite the effects of version and scenario on compromising behaviour, the different conditions were analysed as one group in the main analyses to be able to keep the within-subjects design of the study and the larger power of the analyses. The effects of version and scenario were kept in mind while interpreting the results.

Additionally, it was decided to keep the compromising scale (consisting of both item 3 and item 4) intact for the further analyses. Even though the results of the preliminary analyses indicate that only using item 3 to measure compromising behaviour would negate the effects

of version and scenario, this would mean changing the measurement of compromising to a one-item scale which is not desirable (Eisinga et al., 2013).

# **Main Analyses**

The research questions considering the most preferred negotiation style of quartermasters and the influence of time pressure, demands of the constituency, the level of trust between the negotiators and uncertainty in the situation were researched in the main analyses. The influence of the various factors on negotiation behaviour of quartermasters was tested with multiple analyses, specified for every negotiation behaviour, comparing the behaviour in the low- and high levels of the factors with each other and with the neutral situation (which functions as a baseline measurement), as well as forming a total picture of the preference for negotiation behaviours in both the low- and high level situations. All main analyses were done two-tailed, unless specifically mentioned otherwise.

#### Preference for integrative negotiation behaviour

Using a Repeated Measures ANOVA with Huynh-Feldt corrected degrees of freedom it was tested whether quartermasters preferred integrative negotiation behaviour compared to the three distributive negotiation styles in the neutral situation. There was a significant effect of negotiation behaviour, (F(2.8, 159.62) = 104.25, p < .001). The difference between all four negotiation styles was significant, with all pairwise comparisons p < .001. Quartermasters indicated they use integrative behaviour most (M = 6.07, SE = .10), then compromising (M = 5.15, SE = .12), yielding (M = 4.17, SE = .12) and least of all forcing (M = 3.37, SE = .15).

### **Effect of time pressure**

*Integrative behaviour* 

A paired samples t-test was used to test whether negotiations with high time pressure lead to a decreased level of integrative behaviour compared to negotiations with low time pressure. There was a significant effect of time pressure on integrative behaviour, t(57) =-3.12, p = .003. Respondents scored significantly lower on integrative behaviour in the high time pressure situation than in the low time pressure situation (Table 3). This was a small effect<sup>5</sup> (g = .40). However, when all styles were tested together with a Greenhouse-Geisser corrected Repeated Measures ANOVA with Bonferroni correction (F(3.57,203.50) = 41.69,p < .001) this difference was not significant anymore (p = .08). A Repeated Measures ANOVA with Huynh-Feldt correction (F(1.78,101.92) = 15.25, p < .001) was done to compare integrative behaviour in the low- and high time pressure situations with the neutral situation. In the high time pressure situation integrative behaviour was chosen significantly less often than in the neutral situation (p < .001), while in the low time pressure situation integrative behaviour was chosen as often as in the neutral situation (p = .134). Repeated Measures ANOVAs with Greenhouse-Geisser corrected F-tests were used to compare the preference for integrative behaviour to the preference for the other negotiation styles in the low- (F(2.09,118.99) = 49.47, p < .001) and high time pressure (F(2.04,213.92) = 41.38, p < .001).001) situations. In the low time pressure situation integrative behaviour was significantly (p < .001) preferred above forcing, yielding and compromising. In the high time pressure situation integrative- and compromising behaviour were chosen to the same extent (p = $1.000^{7}$ ).

<sup>&</sup>lt;sup>5</sup> Due to the large number of analyses and the complex calculations needed for some effect sizes, only the effect sizes of the paired samples *t*-tests used to compare the high and low level of each factor are reported.

<sup>&</sup>lt;sup>6</sup> All ANOVAs were done with Bonferroni correction, but this is specifically mentioned only when there was a difference in outcome with the paired samples *t*-test.

<sup>&</sup>lt;sup>7</sup> Although a significance level of p = 1.000 seems unlikely, these numbers have been double checked. These extreme significance values might be explained by the use of Bonferroni corrections.

### Compromising behaviour

The paired samples *t*-test comparing compromising behaviour under high- and low time pressure was significant (t(57) = 3.99, p < .001). Compromising behaviour was significantly more often chosen in the high time pressure situation than in the low time pressure situation. This was a medium-sized effect (g = .55). A Repeated Measures ANOVA with Huynh Feldt correction comparing the preference for compromising in the high- and low time pressure situation with the neutral situation was significant (F(1.84, 104.87) = 10.90, p < .001). Compromising was chosen less often in the low time pressure situation than in the neutral situation (p = .005) and in the high pressure situation to the same extent as in the neutral situation (p = .785). Greenhouse-Geisser corrected Repeated Measures ANOVAs comparing compromising behaviour to the other negotiation styles in the low-(F(2.09,118.99) = 49.47, p < .001) and high time pressure (F(2.04,213.92) = 41.38, p < .001) situations showed a significant difference between compromising- and yielding behaviour (p < .001) and compromising- and forcing behaviour (p < .001) in both situations. Compromising was more often chosen than forcing or yielding in the low- and high time pressure situation.

**Table 3.** *Means and standard errors of negotiation behaviours under high- and low time pressure and in the neutral situation.*<sup>8</sup>

	Low time	High time	Neutral
	pressure	pressure	situation
	M(SE)	M(SE)	M(SE)
Integrative	5.86 (.13)	5.44 (.14)	6.07 (.10)
Forcing	3.56 (.18)	3.43 (.20)	3.37 (.15)
Compromising	4.66 (.16)	5.28 (.14)	5.15 (.12)
Yielding	3.89 (.16)	4.21 (.13)	4.17 (.12)

<sup>&</sup>lt;sup>8</sup> The usual method of using subscripts to show significant results in the tables was considered but not used in this thesis, as the large amount of comparisons with every mean score would make this more confusing than the current description in the text.

### Forcing behaviour

The paired samples t-test indicated that forcing behaviour was not significantly different in the high- and low time pressure situation (t(57) = -0.85, p = .401) and the Repeated Measures ANOVA with Huynh Feldt corrected F-test showed that there was also no significant difference in forcing behaviour in the time pressure situations compared to the neutral situation (F(1.99,113.55) = 0.99, p = .375). The Repeated Measures ANOVA with Greenhouse-Geisser correction that compared forcing behaviour to the other negotiation styles indicated that in the low time pressure situation (F(2.09,118.99) = 49.47, p < .001) forcing and yielding were chosen to the same extent (p = 1.000), while in the high time pressure situation (F(2.04,213.92) = 41.38, p < .001) forcing behaviour was chosen less often than yielding (p = .024).

#### Yielding behaviour

As was indicated by the paired samples t-test (t(57) = 1.95, p = .056), quartermasters' preference for yielding behaviour was not significantly different in the high- or low time pressure situation, but quartermasters did show a tendency to choose yielding slightly less in the low time pressure situation than in the high time pressure situation. A Repeated Measures ANOVA with Huynh-Feldt correction shows that in the high- and low time pressure situation yielding was chosen to the same extent as the neutral situation, F(1.73,98.49) = 3.23, p = .051. Even though the general model is almost significant, the specific analyses show that yielding behaviour is the same in the neutral and low time pressure situation (p = .097) and in the neutral and high time pressure situation (p = 1.000).

### **Effect of the constituency**

## *Integrative behaviour*

A paired samples t-test was used to test whether negotiations with a highly demanding constituency lead to a decreased level of integrative behaviour compared to negotiations with a less demanding constituency. There was no significant effect of constituency on integrative behaviour, t(57) = -.26, p = .796. Integrative behaviour in the situation with a highly- and a less demanding constituency was compared to integrative behaviour in the neutral situation in a Repeated Measures ANOVA with Huynh-Feldt correction, F(1.99,113.21) = 4.56, p = .013. Integrative behaviour was chosen significantly less often in both the situation with the highly demanding constituency (p = .023) and the situation with the less demanding constituency (p = .027) compared to the neutral situation (Table 4). As indicated by a Repeated Measures ANOVA with Greenhouse-Geisser correction (F(2.11,120.16) = 48.87, p < .001), in the situation with a less demanding constituency integrative behaviour was chosen significantly more (p < .001) than all other negotiation styles.

Furthermore, a Repeated Measures ANOVA with Huynh-Feldt correction (F(2.65,150.74) = 50.66, p < .001) showed that also in the situation with highly demanding constituency integrative behaviour was chosen significantly more (p < .001) than the other behaviours.

# Compromising behaviour

The paired samples *t*-test comparing the compromising behaviour in the situation with a highly- and less demanding constituency was not significant (t(57) = -.75, p = .455). A Repeated Measures ANOVA with Huynh-Feldt correction used for comparing the situation with highly- and less demanding constituency to the neutral situation was significant (F(1.78,101.66) = 6.80, p = .002); compromising behaviour was chosen significantly less in negotiations with a highly demanding constituency (p = .003) or less demanding constituency

(p=.005) than in the neutral situation. A Repeated Measures ANOVA with Greenhouse-Geisser correction  $(F(2.11,120.16)=48.87,\,p<.001)$  demonstrated that in the less demanding constituency compromising behaviour was preferred more than forcing or yielding (p<.001). A Repeated Measures ANOVA with Huynh-Feldt correction  $(F(2.65,150.74)=50.66,\,p<.001)$  specified that also in the situation with a high constituency compromising was chosen more than forcing or yielding (p<.001).

# Forcing behaviour

There was a significant difference between the highly- and less demanding constituency situations in how often forcing behaviour was chosen (t(57) = 2.36, p = .022). Forcing was preferred more in the situation with a highly demanding constituency, this was a small effect (g = .30). However, the effect was not significant anymore (p = .603) when tested with a Greenhouse-Geisser corrected Repeated Measures ANOVA with Bonferroni correction comparing all negotiation styles (F(4.12,234.88) = 45.74, p < .001). A Repeated Measures ANOVA with Huynh-Feldt correction comparing the highly- and less demanding constituency situations with the neutral situation was significant (F(1.68,95.78) = 5.03, p = .012). The situation with a less demanding constituency did not differ from the neutral situation (p = 1.000), but in the situation with the highly demanding constituency forcing behaviour was chosen significantly more than in the neutral situation (p = .002).

**Table 4.** *Means and standard errors of negotiation behaviours in the situation with a highly - and less demanding constituency and in the neutral situation.* 

	Less	Highly	Neutral
	demanding	demanding	situation
	M (SE)	M (SE)	M (SE)
Integrative	5.82 (.11)	5.79 (.14)	6.07 (.10)
Forcing	3.36 (.20)	3.78 (.17)	3.37 (.15)
Compromising	4.80 (.15)	4.69 (.15)	5.15 (.12)
Yielding	4.03 (.15)	3.77 (.15)	4.17 (.12)

A Repeated Measures ANOVA with Greenhouse Geisser correction (F(2.11,120.16) = 48.87, p < .001) indicated that forcing and yielding were chosen to the same extent when there was a less demanding constituency (p = .068). A Huynh-Feldt corrected ANOVA (F(2.65,150.74) = 50.66, p < .001) indicated this was also the case in the situation with a highly demanding constituency (p = 1.000).

#### Yielding behaviour

The difference in preference for yielding in the situations with a highly- or less demanding constituency was not significant, t(57) = -1.90, p = .062). A Repeated Measures ANOVA with Huynh-Feldt correction comparing the highly- and less demanding constituency situation with the neutral situation showed a significant effect (F(1.93,110.10) = 5.344, p = .007). When there was a highly demanding constituency, yielding was chosen significantly less than in the neutral situation (p = .003). The situation with a less demanding constituency did not differ from the neutral situation (p = .765).

## Effect of level of trust

# Integrative behaviour

A paired samples t-test was used to test whether negotiations with trust between the negotiators lead to an increased level of integrative behaviour compared to negotiations with distrust between the negotiators. There was a significant, medium sized (g = .69) effect of trust, t(57) = 5.66, p < .001. In a situation with trust between the negotiators integrative behaviour was chosen significantly more often than in a situation with distrust between the negotiators (Table 5). A Repeated Measures ANOVA with Huynh-Feldt correction comparing the trust and distrust situation with the neutral situation was also significant, F(1.74,99.31) = 28.44, p < .001. In the distrust situation, people chose integrative behaviour significantly less

than in the neutral situation (p < .001). There was no difference between the trust and neutral situation (p = 1.000). A Huynh-Feldt corrected Repeated Measures ANOVA comparing the different negotiation styles in the distrust situation was significant (F(2.43,138.67) = 42.14, p < .001), in the distrust situation integrative behaviour was chosen significantly more than compromising- (p = .001), forcing- (p = .007) or yielding behaviour (p < .001). A Repeated Measures ANOVA with Greenhouse-Geisser ANOVA (F(2.14,122.12) = 80.04, p < .001) revealed that also in the trust situation integrative behaviour was used more than the other behaviours (p < .001).

#### Compromising behaviour

There was a significant difference in compromising behaviour between the trust and distrust situation (t(57) = 2.75, p = .008). In the trust situation compromising was chosen significantly more than in the distrust situation, this was a small effect (g = .38). This difference was not significant anymore (p = .223) when the negotiation behaviours were all tested with a Greenhouse-Geisser corrected Repeated Measures ANOVA with Bonferroni correction, F(4.03,456.61) = 54.31, p < .001. A Repeated Measures ANOVA with Huynh-Feldt correction comparing compromising behaviour in the trust situation with the neutral situation was significant (F(1.94,110.39) = 9.82, p < .001). In the distrust situation participants chose compromising significantly less than in the neutral situation (p < .001). There was no significant difference between the trust- and neutral situation (p = .629). A Huynh-Feldt corrected Repeated Measures ANOVA (F(2.43,138.67) = 42.14, p < .001) comparing the negotiation behaviours in the distrust situation demonstrated that compromising behaviour was used to the same extent as forcing- (p = 1.000) and more than yielding behaviour (p < .001). A Repeated Measures ANOVA with Greenhouse-Geisser correction of the negotiation behaviours in the trust situation (F(2.14,122.12) = 80.04, p < .001).

.001) showed that compromising and yielding were chosen to the same extent (p = .188) and more than forcing (p < .001).

#### Forcing behaviour

A paired samples t-test comparing forcing behaviour in the trust and distrust situation was significant, t(57) = -8.42, p < .001. In the situation with trust between the negotiators forcing behaviour was chosen significantly less than in a situation with distrust between the negotiators, this was a large effect (g = .88). A significant Repeated Measures ANOVA with Huynh-Feldt correction that compared forcing behaviour in the trust- and distrust situations with the neutral situation (F(1.92,109.56) = 46.14, p < .001) demonstrated that in the distrust situation people chose forcing significantly more than in the neutral situation (p < .001), while there was no difference between the trust- and neutral situation (p = .114). Preference for forcing- and yielding behaviour in the distrust situation was compared in a Repeated Measures ANOVA with Huynh-Feldt correction (F(2.43,138.67) = 42.14, p < .001) and indicated that forcing was used significantly more than yielding (p < .001). A Repeated Measures ANOVA with Greenhouse-Geisser correction (F(2.14,122.12) = 80.04, p < .001) revealed that forcing was preferred less than all other negotiation behaviours (p < .001) in the trust situation.

**Table 5.** *Means and standard errors of negotiation behaviours in a situation with trust and distrust between negotiators and in the neutral situation.* 

	Distrust	Trust	Neutral
			situation
	M(SE)	M(SE)	M (SE)
Integrative	5.18 (.17)	6.01 (.14)	6.07 (.10)
Forcing	4.29 (.18)	3.14 (.16)	3.37 (.15)
Compromising	4.52 (.16)	4.97 (.15)	5.15 (.12)
Yielding	2.88 (.15)	4.69 (.13)	4.17 (.12)

### Yielding behaviour

The difference in preference for yielding behaviour in the trust and distrust situation was significant, t(57) = 10.47, p < .001. When there was trust between the negotiators, yielding was chosen significantly more than when there was distrust. This was a very large effect (g = 1.68). The Repeated Measures ANOVA with Huynh-Feldt correction comparing yielding behaviour in the trust situations with the neutral situation was significant, F(1.77,101.06) = 80.71, p < .001. In the distrust situation, participants chose yielding behaviour significantly less than in the neutral situation (p < .001), while in the trust situation yielding was chosen significantly more than in the neutral situation (p < .001).

#### **Effects of uncertainty**

#### *Integrative behaviour*

A paired samples t-test testing whether negotiations with high uncertainty in the situation lead to an increased level of integrative behaviour compared to negotiations with low uncertainty was not significant, t(57) = .99, p = .328. A Repeated Measures ANOVA with Huynh-Feldt correction to compare the high- and low uncertainty situations with the neutral situation was significant, F(1.77,100.72) = 4.08, p = .024. Integrative behaviour was chosen significantly less (p = .016) in the low uncertainty situation than in the neutral situation (Table 6).

**Table 6.** *Means and standard errors of negotiation behaviours in a situation with high- and low uncertainty and in the neutral situation.* 

	High	Low	Neutral
	uncertainty	uncertainty	situation
	M(SE)	M(SE)	M(SE)
Integrative	5.87 (.13)	5.74 (.15)	6.07 (.10)
Forcing	3.31 (.18)	3.58 (.16)	3.37 (.15)
Compromising	5.03 (.15)	4.66 (.16)	5.15 (.12)
Yielding	3.99 (.13)	4.02 (.15)	4.17 (.12)

In the high uncertainty- and neutral situations participants chose integrative behaviour to the same extent, p = .135. Huynh-Feldt corrected Repeated Measures ANOVAs comparing preference for negotiation styles in the low uncertainty- (F(2.50,142.70) = 51.89, p < .001) and high uncertainty situations (F(2.73,155.38) = 74.06, p < .001) show that integrative behaviour was chosen significantly more than the other negotiation behaviours in both situations, p < .001.

# Compromising behaviour

There was a significant, small (g = .33) effect of level of uncertainty on compromising behaviour, t(57) = 2.55, p = .013. In the high uncertainty situation compromising was chosen significantly more than in the low uncertainty situation. This effect was not significant (p = .378) anymore when a Greenhouse-Geisser corrected Repeated Measures ANOVA with Bonferroni correction (F(4.58,261.18) = 56.43, p < .001) was done on all negotiation behaviours. A repeated measures ANOVA with Huynh-Feldt correction comparing the high-and low uncertainty situations with the neutral situation was significant, F(1.77,100.85) = 8.12, p = .001. In the low uncertainty situation compromising behaviour was chosen significantly less than in the neutral situation (p = .001), while the high uncertainty situation and the neutral situation were the same (p = .853). As was indicated by a Repeated Measures ANOVA with Huynh-Feldt correction of negotiation styles in the low uncertainty - (F(2.50,142.70) = 51.89, p < .001) and high uncertainty situation (F(2.73,155.38) = 74.06, p < .001), compromising behaviour was chosen significantly more than forcing- (p < .001) or yielding behaviour (p = .001) in both situations.

### Forcing behaviour

A paired samples t-test comparing forcing behaviour in the high- and low uncertainty situation was not significant (t(57) = -1.74, p = .088) and a Huynh-Feldt corrected Repeated Measures ANOVA comparing forcing behaviour in both uncertainty situations with the neutral situation was also not significant, F(1.69,96.10) = 2.41, p = .104. A Repeated Measures ANOVA with Huynh Feldt correction (F(2.50,142.70) = 51.89, p < .001) demonstrated that in the low uncertainty situation forcing- and yielding behaviour were chosen to the same extent, p = .280. Another Repeated Measures ANOVA with Huynh Feldt correction (F(2.73,155.38) = 74.06, p < .001) indicated that in the high uncertainty situation forcing was chosen significantly less than yielding (p = .004), making it the least preferred style.

# Yielding behaviour

There was no significant difference in yielding behaviour in the high- or low uncertainty situation (t(57) = -.21, p = .832) and a Repeated Measures ANOVA with Huynh-Feldt correction comparing yielding behaviour in the high- and low uncertainty situations with the neutral situation was also not significant, F(2.00,114.00) = 1.35, p = .264.

# **Extra Analyses**

The relation between several demographic variables and negotiation behaviours of quartermasters was explored in several extra analyses. All these analyses were done two-tailed, unless specifically mentioned otherwise.

### **Experience**

The relation between experience in quartermastering and negotiation behaviour was tested with regression analyses. The F-test of our regression model of integrative behaviour predicted by experience was significant, F(1, 56) = 4.05, p = .049, R = .260, B = .027, SE = .01. Experience predicted 6.7% of variance in the sample ( $R^2 = .067$ ). This indicated that the more experience a quartermaster had, the more he or she preferred integrative negotiation in the neutral situation. Experience was no significant predictor for forcing (r = .058, p = .667), compromising (r = .022, p = .869) or yielding (r = .1, p = .455).

#### **Education**

The effect of level of education on negotiation behaviour was tested with one-way ANOVAs. To make a valid analysis with a large enough sample per category, post-academic and PhD-level educations were analysed together with WO-level educations. Educational levels consisting of less than 10 participants were not included in the analysis. There was no significant effect of educational level on integrative- (F(1,50) = 0.52, p = .476), forcing-(F(1,50) = 1.85, p = .180), compromising- (F(1,50) = 3.63, p = .062) or yielding behaviour (F(1,50) = 1.13, p = .293).

Additionally, to be able to include all cases in the analysis, the data regarding level of education were transformed to an ordinal scale ranging from HBS (between high school and college level) to post-academic level education. This made it possible to run an analysis of the correlational relations between level of education and negotiation behaviour. There were no significant correlations (tested with Spearman's rho) between education level and integrative- $(r_s = .037, p = .793)$ , forcing- $(r_s = .073, p = .605)$ , compromising- $(r_s = -.165, p = .238)$  and yielding behaviour  $(r_s = -.099, p = .480)$ .

The effect of field of education on negotiation behaviour was also tested with one-way ANOVAs. To make a valid analysis, categories with less than 10 participants were not included in the analysis. This means only respondents with an education in social- and behavioural sciences or economics, management and organisation studies were analysed as these were the only two categories with more than 10 respondents. There was no significant effect of field of education on integrative- (F(1,19) = 0.50, p = .488), forcing- (F(1,19) = 0.98, p = .334) and compromising behaviour (F(1,19) = 0.03, p = .871), but there was a significant effect on yielding behaviour (F(1,19) = 4.39, p = .05). Respondents educated in social- or behavioural sciences (M = 4.20, SE = .24) more often chose to yield than respondents with a background in economics, management and organisation studies (M = 3.50, SE = .23).

#### Gender

Independent *t*-tests were used to test the effect of gender on negotiation behaviour. There was no significant effect of gender on integrative- (t(55) = -0.87, p = .39), forcing- (t(55) = -0.33, p = .746), compromising- (t(55) = -0.68, p = .5) or yielding behaviour (t(55) = -0.27, p = .791).

# Age

The relation between age and negotiation behaviour was tested with regression analyses. There was no significant relation between age and integrative- (F(1,52) = 3.58, p = .064), forcing- (F(1,52) = 1.02, p = .317), compromising- (F(1,52) = 0.00, p = .984) and yielding behaviour (F(1,52) = 2.20, p = .144).

# **Qualitative Analyses**

After the quantitative part of the questionnaire, the survey proceeded with an explorative qualitative part. To avoid being led only by our own perception of important influential factors, respondents were asked for their ideas about other factors that influence negotiations and what the influence of these factors is. 46 quartermasters answered this these questions, most suggesting multiple influential factors and different influences. To analyse this qualitative data, the content of the suggestions was considered carefully. All the ideas were abstracted from the answers and sorted. Similar ideas were gathered and summarised in one term, after which the influence of every factor was matched with the ideas. This resulted in 18 additional factors possibly influencing negotiation and negotiation behaviours. The factors have been ordered by the frequency with which they were mentioned, starting with the most frequently suggested factors. Many participants did not specify the nature of the influence of these factors, as such this data should be considered as merely an exploration of possible factors and no generalising conclusions should be based on these findings.

#### *Interests of the parties involved*

This factor was mentioned most of all, nineteen times, as an influential factor and entails the underlying interests of both the negotiating parties and stakeholders in certain outcomes. The influence of this factor was not always specified, but was said to be both positive and negative. Interests influence the initial positions of the negotiators, the will to cooperate and the negotiation process. They determine what is important and what parties should fight for and can create both negotiation space and obstacles. The speed of obtaining results is also affected by the underlying interests. When there is mutual dependence this has a positive influence on the negotiation. Knowing the other party's interests and what an outcome would bring them, can be used to convince the counterparty. Based on the interests

of the parties involved in the negotiation and how much they will gain from the project independent of the solution, a negotiator could be willing to concede more or less to the other party.

### Behaviours and skills of the quartermaster

This broad factor summarizes the personal qualities of the quartermaster that were mentioned in seventeen instances as influential factors. Being able to approach stakeholders on all levels, the ability to connect people, communicative- and listening skills, negotiation skills, analysing skills and visualisation skills were all suggested to influence the stability of the quartermaster's position. For listening and interpreting the other party's behaviour it is essential to form a picture of what is going on besides the facts, while visualisation feeds the frame of reference of the other parties and influences the awareness of mutual interests and consequently the will to come to an agreement. Behaviours of the quartermaster also influence his or her likability, which has a positive influence in negotiations.

# The organisational- and societal context

Another broad factor, involving the incorporation of a project in the larger picture (the organisation and/or society), that was suggested fourteen times and entails for example influences like political decisional processes, societal developments, policy targets and organisational culture. The context was said to either help or hinder negotiations. The context can influence the flexibility in possible outcomes. Furthermore, a change in policy can lead to a change of negotiation strategy and slow down the process. On the other hand, managerial back-up facilitates implementation of a project. Context was said to be a factor to explicitly consider; consciously handling organisational culture shows respect and can contribute to realising a result without conflict.

### Knowledge

This factor was suggested on thirteen occasions and consists of the skills and craftsmanship of those involved, as well as the acquaintance with the other party and background knowledge about the project as a result of good preparation. Often the specific influence of knowledge was not indicated, but on the whole more knowledge seems to be considered to have a positive effect on the negotiation. Knowledge influences the speed of gaining results in the negotiation as it increases transparency in the negotiation space. Based on background knowledge and knowledge of possible obstacles, the right language, structure and priorities in the negotiation can be chosen, making it easier to determine a negotiation strategy. Furthermore, organisational knowledge is essential for success in turning solutions into realistic future long-term structures.

#### *Trust between the negotiating parties*

Although this is one of the factors already investigated in the current research, it was mentioned ten times as an influential factor. Respondents deem a basis of trust necessary for a successful negotiation. Trust is influenced by the track record of the quartermaster, trustworthy and consistent behaviour and the mandate the parties have been given. Based on trust a conversation can be started about underlying issues. Trust induces parties to grant each other wins, which has a positive influence on the negotiation, simplifies the interaction and influences the speed of gaining results. It changes the dynamics in the negotiation, facilitates the discourse about wishes and influences the strength of the quartermaster in his position. Generally it was said that more trust makes the negotiation easier.

### Personal factors

This factor consisting of personal feelings and ideas about the project or the negotiation, as well as the personality and the situation of the negotiator was mentioned eight times. A quartermaster who personally does not feel positive about (some aspects) of the project under negotiation will be weaker on those points, will have more feeling for the positions of the other party and will be more inclined to compromise. This could damage the image and integrity of the quartermaster. When the quartermaster's personal feelings and the demands of the project match, his or her behaviour will seem more natural and convincing. How much a quartermaster lets him- or herself be influenced by information about a defecting party influences how that quartermaster approaches a party. Finally, feelings and emotions also influence the flexibility of other involved parties.

#### Support

Support, suggested eight times as an influential factor, was meant in the sense of involvement in- and excitement of other parties for the project and proposed solution, as well as support for the quartermaster. When the initiative is supported, there is more trust and options are created. More support and enthusiasm for a project makes the negotiations easier. Additionally, commitment of involved parties and understanding the reasoning behind positions facilitates negotiations.

#### Stakeholders

This factor was mentioned seven times and specified as how many stakeholders are involved, where their loyalties lie and what collaborative relations there are between them. By having a clear picture of the relations between stakeholders the playing-field becomes transparent and it informs the quartermaster whether others will take him or her seriously.

Positive relations between stakeholders have a positive effect on negotiations, while negative relations have a negative effect. Stakeholders also influence what is possible, some partners consider the probability of damage to image and political consequences and hence show risk-avoiding behaviour.

#### Mandate or power to decide

This factor was mentioned five times and consists of whether the quartermaster has mandate in the negotiation as well as the decision power of the other party. The specific direction of the influence was not mentioned clearly. Having or not having a mandate can either enlarge or reduce the negotiation space, influence the speed of gaining results and determine the persistence or escalation in the negotiation.

### Characteristics of the project

This factor, consisting of the scalability, presence of constraints and the complexity of the project in the negotiation, was suggested four times. It was not specified what the influence of this factor on the negotiation would be.

# The relation of the commissioner with the quartermaster

Does the commissioner have a clear vision, does the commissioner support the quartermaster, is the commissioner involved in the project and is he transparent to the quartermaster? This factor was mentioned four times and was said to influence the stability of the quartermaster, persistence in the project and escalation in the negotiation. The direction of this influence was not further specified.

The relation of the commissioner to the other party

Three times the position of the commissioner with the negotiation partner was named as an influential factor, especially if there is a dependency on one another. If the other party is dependent on the commissioner, this gives the quartermaster an advantage in the negotiation and leads to less compromising. The power relations determine the negotiation space. Without power, one needs to negotiate clever.

## History

In three instances the history of negotiation parties was mentioned as influential factor, specifically resistance that has grown in earlier interactions and previous experiences of collaboration between stakeholders. This history between parties can influence the possibility to reach optimal results and it was said to be essential to manage this. Positive experiences and associations have a positive influence, but negative experiences and negative relationships influence the negotiation negatively.

# Money

Three participants mentioned the influence of the reliability and availability of financial resources to be influential on the stability of the quartermaster's position and the continuation of the project.

#### Time

Although this was one of the aspects researched in this study, the urgency of a project was suggested again three times as an important factor. The time factor was said to have an influence on the persistence and escalation in the negotiation and the stability of the quartermaster's position.

# The personal interests of the quartermaster

To what extent the quartermaster benefits from a certain outcome of the negotiation, for example through a 'no cure, no pay-structure' or because it influences a next assignment. This factor was mentioned twice and seems to be dependent on the integrity of the quartermaster. Depending on the way the quartermaster lets his or her own interest lead him or her, this could be of influence. When quartermasters pursue their own interests, this leads to more compromising and less aiming for the optimal end result for both parties. A quartermaster with much integrity is devoted to the best result for the commissioner (despite personal interests) and an optimal outcome with high commitment, while relaying (im)possibilities of an agreement to the constituency.

#### The negotiation space

Only one participant mentioned the negotiation space, the alternatives possible in the negotiation, as an influential factor. More negotiation space is positive for the negotiation, because it makes it possible to use a minimum agreement and build on that. If the other party knows their options, they will cooperate sooner.

#### Location

Location was also mentioned only once as an influential factor. It was suggested that the surroundings can strengthen or weaken the negotiating position of a party.

# **Discussion**

A quartermaster is a professional manager (mostly in the public sector) who brings together the necessary parties and prepares the organisation of something new after an idea, wish or need has presented itself. Negotiation is an important part of quartermastering as multiple different parties with their own interests are involved in these projects.

Negotiation is a method of conflict resolution for parties with shared and opposed interests (Fisher & Ury, 1981; Lewicki, Saunders & Barry, 2001; Pruitt & Kim, 2004). Negotiation behaviours are often roughly categorized in integrative negotiation behaviour (trying to fulfil the underlying interests of both parties and reach win-win solutions) and distributive negotiation behaviour (competitive behaviour based on the idea that only one party can win; Harinck & De Dreu, 2004). Specific distributive strategies are forcing, yielding, compromising and avoiding (Lewicki et al., 2001; Pruitt & Kim, 2004). The dual concern model posits that the choice for these negotiation behaviours is based on the level of self-concern and other-concern of the negotiator (Pruitt & Kim, 2004; Pruitt & Rubin, 1986). To create a framework for negotiations, two theories were combined in this thesis. Principled negotiation (Fisher and Ury, 1981) is a negotiation method aimed at reaching integrative solutions. Mastenbroek (1984/1987) describes a negotiation model that incorporates both integrative and distributive behaviours. In addition to general aspects (as described in this framework), there are multiple personal factors (e.g. gender, fixed pie perception, creativity, expression of emotions, social values and epistemice motivation) and contextual factors (e.g. transaction costs, time pressure, negotiation issues, power-balance, the constituency, relations with the counterparty and uncertainty of the situation) that influence negotiation behaviour.

The aim of the current study was to research negotiation behaviours of quartermasters in negotiations with third parties and to analyse the influence of time pressure, demands of the constituency, the level of trust between negotiators and uncertainty of the situation on these

negotiation behaviours. A qualitative part of the study explored additional factors that could influence the negotiation. To research the preferred negotiation behaviour of quartermasters and the influence of the four contextual factors, participants (who were all quartermasters themselves) read two negotiation scenarios based on cases of professional quartermasters and sixteen descriptions of specific situations in these scenarios while they answered questions about what they would do in that situation.

## **Summary of the results**

Preferred negotiation behaviour

As expected quartermasters generally prefer integrative behaviour during negotiations.

After integrative behaviour, compromising is the most preferred negotiation style, yielding behaviour is third and forcing behaviour is least preferred.

#### Time pressure

It was hypothesised that in a situation with high time pressure quartermasters would use less integrative behaviour and more distributive behaviour than in a situation with low time pressure. It was indeed found that less integrative behaviour is shown in the situation with high time pressure than with low time pressure, but this result disappears when a Bonferroni correction is applied. Under high time pressure there is an increase in compromising behaviour, but not in forcing and yielding behaviour, although there was a tendency to yield slightly more. Compared to the neutral situation (which can be seen as a baseline) quartermasters show the same level of integrative-, forcing- and yielding behaviour in the low time pressure situation, but less compromising. In the high time pressure situation there is less integrative behaviour and the same amount of compromising-, forcing- and yielding behaviour compared to the neutral situation. Generally, under low time pressure integrative

behaviour is preferred above forcing, yielding or compromising, with compromising as the second favourite style. Under high time pressure integrative and compromising behaviour are preferred to the same extent and yielding is the next choice. From these patterns it can be concluded that in general time pressure leads to less integrative negotiation and more compromising. This corresponds with earlier findings that negotiations under high time pressure reach less optimal agreements either due to low epistemic motivation with consequently more yielding and compromising and less search for integrative solutions (Harinck & Druckman, 2017) or due to getting locked into early impasses less often and thus not switching to higher levels of integrative behaviour as a consequence of this (Harinck & de Dreu, 2004).

# The constituency

The hypothesis was that in a negotiation with a highly demanding constituency quartermasters would use less integrative behaviour and more distributive behaviour than in a situation with a less demanding constituency. However, integrative behaviour was shown to the same extent in both situations and there was also no difference in compromising- or yielding behaviour. Forcing behaviour did seem to differ, with quartermasters showing more forcing behaviour in the situation with the highly demanding constituency, but this effect disappeared when a Bonferroni correction was applied. Compared to the neutral (baseline) situation, less integrative- and compromising behaviour was shown both with a highly- and with a less demanding constituency. More forcing and less yielding behaviour was shown when there was a highly demanding constituency, while there was no difference when there was a less demanding constituency. Integrative behaviour was the most used negotiation style in both situations, with compromising as runner-up and forcing and yielding both used least. In general, a more demanding constituency leads to more forcing negotiation behaviour. This

has been explained by Fisher and Ury (1981) and Mastenbroek (1984) as being due to (a perception of) decreased flexibility in concession making and less focus on interests.

#### Level of trust

It was expected that in a negotiation with trust between the negotiators quartermasters would use more integrative behaviour and less distributive behaviour than in a negotiation with distrust between the negotiators. It was indeed shown that integrative behaviour was chosen more and forcing behaviour was chosen less when there was trust between the negotiators than when there was distrust. However, there was also more compromising and yielding when negotiators trusted each other. This effect on compromising was not significant anymore with a Bonferroni correction though. Compared to the neutral situation, there was less integrative-, compromising- and yielding behaviour and more forcing behaviour in the distrust situation, while in the trust situation integrative, compromising- and forcing behaviour was shown to the same extent and only yielding was chosen more. Generally, integrative behaviour was preferred most in both situations. With distrust between the negotiators both compromising and forcing were shown to the same extent after integrative behaviour and yielding was chosen least, but when negotiators trusted each other both compromising and yielding were preferred after integrative behaviour and forcing was least popular. The overall conclusion is that trust between the negotiators leads to more integrative, compromising and yielding negotiation behaviour and to less forcing.

#### *Uncertainty in the situation*

The last hypothesis was that in a negotiation with high uncertainty quartermasters would use more integrative behaviour and less distributive behaviour than in a negotiation with low uncertainty. However, more or less uncertainty of the situation did not influence the

integrative-, forcing- or yielding behaviour of the quartermasters. Only compromising behaviour increased with more uncertainty, but this effect disappeared with a Bonferroni correction. Compared to the neutral situation there was less integrative- and compromising behaviour and no difference in forcing and yielding in the low uncertainty situation, while all behaviours were the same with high uncertainty. Generally integrative behaviour was preferred more than the other styles both with high- and low uncertainty and compromising was the second favourite. In the low uncertainty situation both forcing and yielding were chosen equally, but in the high uncertainty situation quartermasters used yielding more than forcing. All in all it can be concluded that higher uncertainty in the situation leads to more compromising in the negotiation.

#### *Influence of demographic factors*

In the exploration of the influence of experience on negotiation behaviour, only integrative behaviour was influenced by experience. More experienced quartermasters used integrative behaviour more than less experienced quartermasters, while their distributive behaviour stayed the same. Educational level did not have any influence on negotiation behaviour and was not even related to it, but it was found that quartermasters with an educational background in social- or behavioural sciences yielded more than respondents with a background in economics, management and organisation studies. Lastly, both gender and age did not make any difference in negotiation behaviour.

#### Other influential factors

Participants answered two open questions about other factors that could influence negotiations and the effect of these factors. Eighteen possible factors were suggested: the interests of the parties involved, behaviours and skills of the quartermaster, the organisational

and societal context, knowledge, trust between the negotiating parties, personal factors, support, stakeholders, mandate or power to decide, characteristics of the project, the relation of the commissioner with the quartermaster, the relation of the commissioner to the other party, history, money, time, the personal interests of the quartermaster, the negotiation space and the location. These factors differ between personal factors (for example behaviours and skills of the quartermaster) and contextual factors (for example stakeholders and the history between negotiating parties). Some of these factors were similar to factors researched in this study (like trust between the negotiating parties and time). For many of these factors the exact influence was not specified and the results should merely be seen as an exploration of possible factors and a starting point for future research. No generalising conclusions should be based on these findings.

#### Remarkable results

Many of the findings were partly or entirely in the direction that was hypothesised. In general it was expected that integrative negotiation behaviour is most preferred among quartermasters and this was indeed found. Even under influence of the different factors the integrative negotiation style remains the most adopted of all styles and only under influence of time pressure was compromising favoured to the same extent. Mostly the influence of the factors on negotiation behaviours lies in a changing preference for the different distributive behaviours. There were however also some interesting results that deserve extra attention.

#### Compromising scales

In the preliminary analyses several problems with the compromising scales came to light. The preliminary compromising scales had low reliability values and inter-item correlations and were influenced by the version of the questionnaire and the scenarios.

Participants that filled in the first version scored higher on compromising than participants with the second version and there were higher scores on compromising for the scenario 'Eenzaamheid onder kunstenaars' than for 'de Kinderombudsman'. The low reliability values and inter-item correlations of the compromising scales are interesting, as the compromising scales were taken (in translation) from the DUTCH, which is a validated questionnaire with good psychometric qualities (De Dreu et al., 2001). Several explanations are possible for the current problems with the compromising scale: The selection of the questions (only two out of four compromising items were taken from the DUTCH), the translation from English to Dutch or the construct 'compromising' itself. Compromising is the most confusing negotiation style in the dual concern model, as it combines intermediate concern for the self, with intermediate concern for the other (De Dreu et al., 2001) This has led to a debate about whether compromising should be seen as a distinct strategy or as 'half-hearted problem solving' (Pruitt & Kim, 2004). Although De Dreu et al. (2001) gave empirical support for the argument that compromising is distinct from problem solving, the intermediate qualities of the construct could still lead to the scale problems in this study.

The questionable psychometric properties of the compromising scales could be (part of) the cause of the version- and scenario-effects found for compromising, which is supported by the fact that the effects were only found in the compromising scale. However, these effects could also have originated from specific differences in the versions and scenarios. For instance, it was found that participants showed more compromising in the scenario 'Eenzaamheid onder kunstenaars' than in the scenario 'de Kinderombudsman'. Perhaps in the scenario about the artists participants felt more room for compromising than in the scenario about the Kinderombudsman. While in the latter scenario there is a law stating the need for the institution and it is posed that the new organisation 'needs to' be housed in the same building as the National Ombudsman, the artists-scenario describes a negotiation with a

manager that is a voluntary partner without any legal obligation. Furthermore, the effect of version meant that participants showed more compromising in version one than in version two of the questionnaire. The difference between these versions lies in the combinations of the low- and high level of every factor per scenario. For example, version one contained a high time pressure situation for the Kinderombudsman-scenario and a low time pressure situation for the scenario about the artists. The specific combination of the factor levels and scenarios could have caused the effect on compromising behaviour. The interaction effect of scenario and version on compromising endorses this explanation. Participants in version one scored the same on both scenarios, but participants in version two scored lower on compromising in 'de Kinderombudsman' than in 'Eenzaamheid onder kunstenaars', which could be the result of the specific combination of factor-levels and scenario.

The preliminary analyses were rerun with adapted compromising scales consisting of only item 3 or 4 (of both scenarios) to test whether that would undo the effects of version and scenario. When only item 3 was used to measure compromising behaviour the effects of version and scenario were gone, while with item 4 there was still an effect of scenario. Still for the main analyses both items were used to measure compromising behaviour, as using multiple items to measure a construct is preferred above a single-item test (Eisinga et al., 2013). Furthermore, the data of the different (sub-)versions was merged despite the effects of version and scenario on compromising behaviour to be able to continue with the within-subjects analyses. The final (merged) compromising scales had a good reliability ( $\rho = .74$ ). The effects of version and scenario on compromising behaviour should be kept in mind as possible confounding factors when interpreting the results. The effects of the various factors on compromising behaviour could have been partially caused or negated by the effects of scenario and version and care should be taken not to take these results at face-value. Further

research to reinforce or rebut the findings regarding compromising behaviour would be valuable.

#### Bonferroni corrections

There were multiple paired sample t-tests that found a significant difference in negotiation behaviour between the high- and low level of a factor, which were subsequently contradicted by a non-significant result from Repeated Measures ANOVAs with Bonferroni correction that analysed all the negotiation behaviours together. The small effects of time pressure on integrative behaviour, of demands of the constituency on forcing behaviour and of trust between the negotiators and uncertainty in the situation on compromising behaviour were all negated by the ANOVAs. A Bonferroni correction is used to combat the increased chance of making type I errors when doing multiple tests on the same data by adjusting the level of significance for individual tests so the overall error rate across all comparisons remains at p = .05 (Field, 2013). This results in a loss of statistical power, possibly causing the current contradictory results. The arbitrary nature of significance border values is exposed by the fact that the influence of the Bonferroni correction would be smaller with less tests, more respondents or when using one-tailed instead of two-tailed analyses. A distorted picture can be caused by using Bonferroni corrections when multiple tests and different numbers of comparisons are done (as was the case in the current study), because this results in a mean difference not being significant in one test, while a smaller mean difference is significant in another test with less comparisons. An example is the effect of demands of the constituency on forcing behaviour. The difference between forcing and yielding behaviour in the situation with a less demanding constituency was not significant, while the (smaller) difference between forcing in the situation with a highly demanding constituency and forcing in the neutral situation was significant. From these observations it can be concluded that only looking at the significance levels of these results will not paint a clear picture, but the tendencies displayed by the differences in means are more comprehensive. The significant results from the paired sample *t*-tests do show a tendency for behavioural change under influence of the various factors. Additional research with larger sample size or less tests should be done to reinforce these findings. On the other hand, it could be posed that the fact that multiple effects found by the paired sample *t*-tests did withstand testing with the conservative ANOVAs demonstrates the strength of these outcomes.

# Comparisons to the neutral situation

Comparison of negotiation behaviour in the neutral situation with behaviour under influence of the various factors revealed interesting patterns. It would be expected that behaviour in the neutral situation (which functions as a baseline) was intermediate between behaviour in situations with the high- and low levels of the factors. For example, the neutral time pressure situation being the situation with normal time pressure and the high- and low level situations being the situations with either high time pressure or low time pressure. However, in most of the results this is not the pattern. In general, there are few differences between the neutral situations and the situations under influence of a factor. This might indicate that it was difficult for participants to imagine themselves being in the described situation (thus leading to no or small differences in behaviour), that a certain level of the situation is similar to the neutral situation, or that quartermasters (think they) are not influenced by the situational factors.

The most interesting pattern is the comparison between the influence of demands of the constituency and the neutral situation. Integrative- and compromising behaviour is shown more in the neutral situation than in **both** the highly- and less demanding situation. To speculate, it seems as if in the neutral situation no consideration had been given to the

constituency and simply introducing the constituency in the specific situations decreased the integrative and compromising behaviour without considering the level of the factor. On the other hand, the higher tendency to force and lower tendency to yield with a highly demanding constituency is as would be expected.

Secondly, the results in the situation with high uncertainty are exactly the same as the results in the neutral situation, while there are differences in integrative and compromising behaviour in the low uncertainty situation. This could suggest that participating quartermasters already considered the neutral situation to contain a high level of uncertainty, either because they felt the scenario descriptions did not give enough information or because they expect quartermastering projects to be uncertain. The latter explanation would converge with the findings of Flikweert (2015) that a high level of uncertainty is one of the defining aspects of quartermastering.

The final interesting observation is that, while all negotiation behaviours in the distrust situation differ from behaviours in the neutral situation, most behaviours in the trust situation are similar to behaviours in the neutral situation. It could be speculated that this indicates that when the level of trust between negotiators is not specified, quartermasters expect to be able to trust their negotiation partners. In line with this, Lewicki et al. (2001) report that it has been found that many people approach a new relationship with an unknown party with high trust and assume others can be trusted. Considering the positive influence that trust was found to have on negotiations, this would be beneficial.

#### *Influence of educational background*

The last interesting result to consider is the finding that quartermasters with an educational background in social- or behavioural sciences yielded more than respondents with a background in economics, management or organisational studies. A possible explanation for

this factor is that people with a background in social sciences are more focused on the interests and positions of the other party due to the social nature of their studies. Of course, it should be realised that this outcome is based on an analysis with only a very small sample size and caution should be exercised in generalisation of this finding. To be able to draw conclusions with more certainty, further research should be conducted into this specific result.

#### **Theoretical refinement**

A major factor that has not been discussed in the current study is 'culture'. Culture can be defined as: 'the shared values, beliefs and behaviour of a group of people' (Lewicki, 2001, p. 230). The use of negotiation strategy has been found to vary by national culture (Brett & Thompson, 2016). In the current research the sample consisted of only Dutch quartermasters, which makes an extensive discussion of the effects of culture on negotiation behaviour irrelevant. Quartermastering, as defined by het Kwartiermakersgilde, is only found in the Netherlands under this name (as far as is known). However, it does mean any conclusions of this study cannot be taken to be true internationally without considering cultural differences. Future research should explore similar professions abroad. Another implication of the influence of culture on negotiation behaviour is the complications it causes for cross-cultural negotiations. How negotiation is defined, what is perceived to be negotiable and what happens during negotiations differs across cultures (Lewicki, 2001). How to negotiate in international or multicultural context might actually be valuable for quartermasters to learn.

Special attention should also be given to the assumptions about the dimensions underlying the influential factors made in this thesis. To test the influence of the four factors on negotiation behaviours of quartermasters, situations with low and high levels of these factors were compared. To operationalize this, decisions were made about the dimensions underlying these constructs that could be debated. An example of such an debate is the

ongoing disagreement about the trust and distrust constructs. In the current study a situation with trust between the negotiators was contrasted with a situation with distrust between the negotiators. This is the more traditional view of trust as a unidimensional construct with trust and distrust as opposite ends of the same continuum. Lack of trust and distrust are taken to be the same thing (Schoorman, Mayer & Davis, 2007). On the other hand, Lewicki, McAllister and Bies (1998) take a two-dimensional approach in which trust and distrust are seen as separate and distinct constructs with two underlying dimensions (high trust – low trust and high distrust – low distrust). In this view high distrust is not the same thing as low trust and simultaneous trust and distrust are possible. However, although different perspectives on the dimensionality of trust are possible, in the current study the operationalizations of the high and low levels of each factor are more important than the specific theoretical underpinnings.

Another theoretical extension should be made to look at the factor 'uncertainty'. In the current research uncertainty was applied specifically to the characteristics of quartermastering. Quartermasters often work in ambiguous and uncertain situations (Flikweert, 2015; Schmidt, 2017). At the start of a quartermaster's project it is usually unclear how the project will develop over time and sometimes even who the commissioner will be at a later stage (H. Janssen, personal communication August 17<sup>th</sup>, 2018). In this context uncertainty is seen as uncertainty in the project, concerning future direction and details. However, uncertainty has been the subject of much research in i.a. political science and economics, where it is used in a more game-theoretical sense in exploration of conflict and war. This is a different kind of uncertainty, as it is meant as: 'uncertainty about the capabilities, intent or resolve of leaders and states.' (Ramsay, 2017, p. 506) This uncertainty has been shown to be related to conflict onset and escalation (for a comprehensive review of the insights in this field: Ramsay, 2017). Of course, this concept of uncertainty is also applicable to the (in the current study) small-scale conflict that is negotiation. In negotiation

situations both parties are usually insecure about the other party's intentions and capabilities and this could influence the negotiation behaviours. Future research could extend the current study to include uncertainty in the game-theoretical sense and the way quartermasters handle this.

#### Added value of the study

Research on quartermastering is very scarce, with only three other studies (Flikweert, 2015; Lievers, 2013; Schmidt, 2017) having explored various aspects of this unique profession. Flikweert (2015) researched the uniqueness of quartermastering by comparing it to project management. The negotiation relationship of the quartermaster and the commissioner was also explored and compared to the relationship between the project manager and the commissioner. There was found to be more collaboration than negotiation between the quartermaster and commissioner due to mutual dependence. In the comparison to project management there was no conclusive evidence. Although Flikweert (2015) already exposed a very small part of the negotiation behaviour of quartermasters, the present study is the first research ever to consider the negotiation behaviour of quartermasters in negotiations with third parties and to explore the influence of several factors on these negotiations. The outcomes of this study give completely new insights into the work of quartermasters. Additionally, the research contributes to the current knowledge base about negotiation by studying negotiation behaviour of a very specific sample of negotiators.

#### **Strengths and limitations**

Of course, there are certain strengths and limitations to keep in mind when looking at this study. The most obvious of these limitations is the small sample of only 58 participants that was used, which could make generalising the outcomes a problem. However, there are three reasons that this should not be the case. First of all, the sample used for the analyses was very relevant despite its small size and should actually be noted as a strong point of the research. The study was done among real quartermasters that fit our definition of quartermastering, with a nice dispersion of age and experience, various educational backgrounds and a good balance between male and female quartermasters. Secondly, it can be assumed that the quartermasters that were invited to participate form the majority of the population of quartermasters in the Netherlands. Quartermastering is a unique profession that is not common. An extensive online search was done to gather all these quartermasters in addition to the quartermasters already in the network of the Kwartiermakersgilde. This means the research has targeted a considerable part of the population, making generalisation justified. Thirdly, the within-subjects design of the study will have decreased the influence of any confounding variables and increased the statistical power of the analyses.

A second limitation to mention is due to the research method being a scenario study. Even though special attention was paid to using realistic situations based on real quartermastering cases, it can be questioned how representative the situation descriptions were of negotiation situations. This is especially true when considering the many different kinds of quartermastering projects. In fact, several quartermasters gave the feedback that the questionnaire gave a simplified view of reality and that situations are usually not so black and white. This could have influenced the extent to which participants were able to imagine themselves making realistic negotiation decisions, although it is hard to avoid some simplification of reality in a situation description and it might be posed that the difference between participants' behaviour in one or the other situation still indicates a difference in real life behaviour. Additionally, there might have been participants with foreknowledge about 'de Kinderombudsman', as this institution was in the news quite a lot in 2016 (e.g. Singeling, 2016). All participants were asked beforehand to not let themselves be influenced by any

previous knowledge about the projects, but this information could have directed their answers. However, the fact that in the preliminary analyses there was only an effect of scenario on compromising behaviour and not on the other behaviours negates this.

A third limitation of this study lies in the scales used for measuring negotiation behaviour. First of all, the questionnaire was a self-report measure, which has the possibility of inducing a self-serving bias. It can be wondered if the behaviours participants report themselves to show are actually the behaviours they would show in those situations. To test to what extent quartermasters give socially desirable answers in future studies a social desirability scale should be used as a corrective measure. Secondly, compromising and yielding behaviour were measured by two-item scales. Having only two items measuring a construct makes the measurement less reliable and decreases the generalisability of conclusions. The original DUTCH uses scales for the different negotiation styles consisting of four items. However, the decision to use shorter scales was made based on a need to shorten the study in order to avoid respondents stopping their participation before the end of the questionnaire. To investigate the research questions as thoroughly as wanted, with multiple scenarios per factor, it would have been impossible to use the entire DUTCH questionnaire. As such, the entire Avoiding scale of the DUTCH (which was not relevant in the context of quartermastering) was not included and the other scales were reduced to three or two items.

However, three strengths of this study should also be mentioned. Firstly, two different negotiation models (principled negotiation and Mastenbroek's model) have been combined to form a strong theoretical foundation for this research and any practical implications and recommendations that will be made. Secondly, this research has combined both a quantitative and qualitative method to analyse the hypothesised factors influencing negotiation behaviours of quartermasters **and** explore possible other influential factors, thus laying the base for future research. Finally, due to the nature of the study and the sample this is not simply a theoretical

study exploring new dimensions of negotiation, but the results of this study can directly be used in practice.

#### **Practical recommendations**

With this study it has been confirmed that quartermasters mostly use integrative negotiation and increase or decrease their use of the distributive behaviours forcing, compromising and yielding depending on situational factors. Het Kwartiermakersgilde has explored possible avenues for developing a training course for quartermasters in previous research and concluded that benefits can be found in training psychological capital and active coping in quartermasters (Schmidt, 2017). Also organising training courses in negotiation skills could be a method of enhancing the professional development of quartermasters. Even though in general quartermasters show very good negotiation skills, there is still room for improvement. This research has shown that quartermasters with more experience use more integrative negotiation. Integrative negotiation has been found to create positive long term solutions and maintain a friendly relationship with the other party (Fisher & Ury, 1981). As such, quartermasters that are able to use more integrative negotiation after being trained in negotiation skills will be more successful in their work. It was also found that under high time pressure, in uncertain situations, with a highly demanding constituency and with distrust between the negotiators there is an increase in distributive negotiation. Quartermasters could be trained to deal with these situational factors and to avoid letting them influence their negotiation behaviours and (indirectly) their project results. Lastly, several behaviours and skills were suggested to be essential in the success of quartermastering and should be included in the training.

A training course could have the form of a number of sessions explaining the different negotiation behaviours and effects of applying these behaviours in interaction with the other negotiator. After this, a practical negotiation method should be offered to further develop quartermasters' knowledge about negotiation. Principled negotiation (Fisher & Ury, 1981) is a negotiation method with positive results based on practical principles, making it very suitable for this purpose. Their book 'Getting to Yes' could be used as course literature, as it is written in the form of a practical handbook and easy to read. Moreover, attention should be given to how to deal effectively with influential factors such as the factors explored in this study and the factors suggested by the participants in the qualitative part of the study (which were based on their own experience). Including these factors would make the course more applicable to the reality of quartermastering, instead of only offering a 'principal view'. Of course the focus in these sessions should not be on exploring negotiation behaviours and methods theoretically, but on applying the information by practicing with other participants. Steinel, Abele and De Dreu (2007) compared the influence of experience and advice on negotiation behaviour and joint outcomes and found that a combination of advice and experience resulted in more problem solving behaviour and higher joint outcomes than experience or advice alone. The situation descriptions written for the current study could be used as roleplay scenarios in the training, while participants should also be invited to contribute difficult situations they encounter to apply the training specifically to their experiences. After roleplaying diverse situations negotiation behaviours should be evaluated to gain optimal results in the training.

#### **Future research**

In the current research negotiation behaviours of quartermasters in specific situations were compared to negotiation behaviours of the same quartermasters in other situations. Consequently, nothing can be said about these quartermasters' negotiation behaviours compared to other groups, like project managers. The comparison between project managers and quartermasters has also been made in previous research (Flikweert, 2015), because both

jobs seem alike at first. By replicating this research with a sample of project managers, it would give more insight into the uniqueness of quartermasters' negotiation skills and behaviours. Future research should also explore the current research questions in an experimental design to corroborate the outcomes of the results of this self-report study. This could be done by having participants take part in negotiating tasks and analysing their negotiation behaviours. Additionally, it would be interesting to research quartermasters' negotiation behaviour in a longitudinal design. Because the challenges quartermasters encounter in the course of a quartermastering project are different, their negotiation behaviour might also change over time. By using digital diary techniques this development could be explored in a non-intrusive way. Furthermore, the various factors that were suggested in the qualitative part of this research should be explored further to be able to draw conclusions about their specific influence on negotiating behaviours. Lastly, recommendations of this research could be substantiated by researching the effect a training programme has on quartermasters' negotiation behaviour. To promote a training course for quartermasters it would be beneficial to have an indication of what effect is seen when training quartermasters, who already use integrative behaviour often in negotiations and might feel like they have little more to gain by taking part in a training. This could be researched either by setting up a between-subjects design study, comparing quartermasters that have been trained in negotiation with a control group, or by using a within-subjects design, comparing quartermasters' negotiation behaviours before and after the training sessions.

#### **Conclusions**

Quartermasters in negotiations with third parties prefer integrative negotiation behaviour above compromising, forcing or yielding. Even in situations with a highly demanding constituency, high uncertainty or low trust an integrative negotiation style is shown most often. Only under high time pressure do quartermasters prefer compromising and integrative behaviour to the same extent, as time pressure leads to less integrative behaviour and more compromising. Quartermasters use more forcing when there is a highly demanding constituency and when the situation is uncertain they tend to compromise more. When quartermasters trust their negotiation partner, they use more integrative, compromising and yielding negotiation styles and less forcing. Quartermasters with more experience use integrative negotiation more than less experienced quartermasters. These findings can be used as a basis for developing a training course for quartermasters to help their professional development.

# References

- Bartos, O. J. (1996). Negotiation as Friendship Formation. *International Negotiation*, *1*, 29-46. http://dx.doi.org/10.1163/157180696X00043
- Brett, J. & Thompson, L. L. (2016). Negotiation. *Organizational Behavior and Human Decision Processes*, 136, 68-79. http://dx.doi.org/10.1016/j.obhdp.2016.06.003
- De Dreu, C. K. W., Beersma, B., Stroebe, K., & Euwema, M. C. (2006). Motivated information processing, strategic choice, and the quality of negotiated agreement. *Journal of Personality and Social Psychology*, 90(6), 927-943. http://dx.doi.org/10.1037/0022-3514.90.6.927
- De Dreu, C. K. W., Evers, A., Beersma, B., Kluwer E. S., & Nauta, A. (2001). A theory-based measure of conflict management strategies in the workplace. *Journal of Organizational Behavior*, 22, 645-668. http://dx.doi.org/10.1002/job.107
- De Dreu, C. K. W., Giacomantonio, M., Shalvi, S., & Sligte, D. (2009). Getting stuck or stepping back: Effects of obstacles and construal level in the negotiation of creative solutions. *Journal of Experimental Social Psychology*, *45*, 542-548. http://dx.doi.org/10.1016/j.jesp.2009.01.001
- De Dreu, C. K. W., Koole, S. L., & Steinel, W. (2000). Unfixing the fixed pie: A motivated information-processing approach to integrative negotiation. *Journal of Personality and Social Psychology*, 79(6), 975-987. http://dx.doi.org/10.1037/0022-3514.79.6.975
- Eisinga, R., te Grotenhuis, M., & Pelzer, B. (2013). The reliability of a two-item scale: Pearson, Chronbach or Spearman-Brown? *International Journal of Public Health*, 58(4), 637-642. http://dx.doi.org/10.1007/s00038-012-0416-3
- Field, A. (2013), Discovering statistics using IBM SPSS Statistics (4th edition). London: Sage.
- Fisher, R., & Ury, W. (1981). *Getting to yes. Negotiating an agreement without giving in* (3<sup>rd</sup> ed.). London: Random House.
- Flikweert, J. A. (2015). *Uniqueness of Quartermastering, the relationship between* commissioner and quartermaster in quartermastering in comparison to project management. Master thesis Leiden University, Section Social and Organisational Psychology.
- French, J. R. P., & Raven, B. (1959). The bases of social power. In D. Cartwright and A. Zander (Eds.). *Group dynamics*. New York, NY: Harper & Row.
- Harinck, F., & De Dreu, C. K. W. (2004). Negotiating interests or values and reaching integrative agreements: The importance of time pressure and temporary impasses. *European Journal of Social Psychology, 34*, 595-611. http://dx.doi.org/10.1002/ejsp.218

- Harinck, F., & Druckman, D. (2017). Do negotiation interventions matter? Resolving conflicting interests and values. *Journal of Conflict Resolution*, 61(1), 29-55. http://dx.doi.org/10.1177/0022002715569774
- Janssen, H. (2014). *Handboek Kwartiermaken. Een gids voor het opzetten en (her)inrichten van organisaties.* Leiden: Stichting Kwartiermakersgilde.
- Kray, L. J., Galinsky, A., & Thompson, L. (2001). Battle of the sexes: Gender stereotype confirmation and reactance in negotiations. *Journal of Personality and Social Psychology*, 80(6), 942-958. http://dx.doi.org/10.1037/0022-3514.80.6.942
- Lewicki, R. J., McAllister, D. J., & Bies, R. J. (1998). Trust and distrust: New relationships and realities. *The Academy of Management Review*, 23(3), 438-458. http://dx.doi.org/10.2307/259288
- Lewicki, R. J., Saunders, D. M., Barry, B. (2001). *Essentials of negotiation* (5<sup>th</sup> ed.). New York, NY: McGraw-Hill.
- Lievers, J. H. (2013). *Quartermastering in Practice: A study into the work of change managers in the Dutch Public Sector*. Master thesis Leiden University, Section Social and Organisational Psychology.
- Mastenbroek, W. F. G. (1984). Onderhandelen (5<sup>th</sup> ed.) Utrecht: Uitgeverij Het Spectrum BV.
- Mastenbroek, W. F. G. (1987/1993). *Conflict management and Organization development.* Sussex: John Wiley & Sons Ltd.
- Nelson, N., Bronstein, I., Shacham, R., & Ben-Ari, R. (2015). The power to oblige: Power, gender, negotiation behaviours and their consequences. *Negotiation and Conflict Management Research*, 8(1), 1-24. http://dx.doi.org/10.1111/ncmr.12045
- O'Conner, K. M., & Carnevale, P. J. (1997). A nasty but effective negotiation strategy: Misrepresentation of a common-value issue. *Personality and Social Psychology Bulletin*, 23(5), 504-515. http://dx.doi.org/10.1177/0146167297235006
- Ott, U. F., Prowse, P., Fells, R., Rogers, H. (2016). The DNA of negotiations as a set theoretic concept: A theoretical and empirical analysis. *Journal of Business Research*, 69, 3561-3571. http://dx.doi.org/10.1016/j.jbusres.2016.01.007
- Pruitt, D. G., & Kim, S. H. (2004). *Social conflict: Escalation, stalemate, and settlement* (3<sup>rd</sup> ed.). New York, NY: McGraw-Hill.
- Pruitt, D. G., & Rubin, J. Z. (1986). *Social conflict: Escalation, stalemate, and settlement*. New York, NY: McGraw-Hill.
- Ramsay, K. W. (2017). Information, uncertainty and war. *Annual Review Political Science*, 20, 505-527. http://dx.doi.org/10.1146/annurev-polisci-051215-022729
- Raven, B. H. (1992). A power/interaction model of interpersonal influence: French and Raven thirty years later. *Journal of Social Behavior and Personality*, 7(2), 217-244.
- Schmidt, J. (2017). Should quartermasters train their coping style and psychological capital? Master thesis Leiden University, Section Occupational Health Psychology.

- Schoorman, F. D., Mayer, R. C., & Davis, J. H. (2007). An integrative model of organizational trust: Past, present and future. *The Academy of Management Review*, 32(2), 344-354. http://dx.doi.org/10.5465/amr.2007.24348410
- Singeling, L. (2016, February 2). Waarom de Kinderombudsman moet blijven. *De Volkskrant*. Retrieved from https://www.volkskrant.nl/nieuws-achtergrond/waarom-de-kinderombudsman-moet-blijven~b4bc6fbe/.
- Steinel, W., Abele, A. E., & De Dreu, C. K. W. (2007). Effects of experience and advice on process and performance in negotiations. *Group Processes & Intergroup Relations*, 10(4), 533-550. http://dx.doi.org/10.1177/1368430207081541
- Steinel, W., Van Kleef, G. A., Harinck, F. (2008). Are you talking to *me*?! Separating the people from the problem when expressing emotions in negotiation. *Journal of Experimental Social Psychology*, 44, 362-369. http://dx.doi.org/10.1016/j.jesp.2006.12.002
- Stöckli, P. L., & Tanner, C. (2014). Are integrative or distributive outcomes more satisfactory? The effects of interest-based versus value-based issues on negotiator satisfaction. *European Journal of Social Psychology, 44*, 202-208. http://dx.doi.org/10.1002/ejsp.2003
- Thompson, L., & Hastie, R. (1990). Social perception in negotiation. *Organizational Behaviour and Human Decision Processes*, *47*, 98-123. http://dx.doi.org/10.1016/0749-5978(90)90048-E
- Van Beest, I., Steinel, W., & Murnighan, J. K. (2011). Honesty pays: On the benefits of having and disclosing information in coalition bargaining. *Journal of Experimental Social Psychology*, 47, 738-747. http://dx.doi.org/10.1016/j.jesp.2011.02.013
- Van de Vliert, E. 1997. Complex interpersonal conflict behavior. London: Psychology press.
- Van de Vliert, E., Nauta, A., Giebels, E., & Janssen, O. (1999). Constructive conflict at work. *Journal of Organizational Behaviour*, 20, 475-491. http://dx.doi.org/10.1002/(SICI)1099-1379(199907)20:4%3C475::AID-JOB897%3E3.0.CO;2-G

# Appendix A

# Scenario- and situation descriptions

#### Scenario 1: De Kinderombudsman

Stel u voor dat u in de volgende (waargebeurde) situatie zit. Probeer voorkennis die u eventueel heeft over dit project u niet te laten beïnvloeden, het is geheel uw project.

Er is een nieuwe wet aangenomen die heeft gesteld dat er een Kinderombudsman moet komen om toe te zien op naleving van het VN-verdrag voor de rechten van het kind. Dit instituut moet ondergebracht worden bij het Instituut Nationale Ombudsman. Er is echter nog geen budget of formatie geregeld, er is weinig ruimte voor huisvesting en de twee instituten zitten elkaar wettelijk enigszins in de weg. U bent als kwartiermaker ingeschakeld om alles in gereedheid te brengen.

U bent met de facilitair manager in onderhandeling over de huisvesting. De Kinderombudsman moet worden gehuisvest bij het Instituut Nationale Ombudsman, echter wordt het gebouw al volledig gebruikt. U zult met de facilitair manager tot een oplossing moeten komen.

### Weinig onzekere situatie

Het project begint ondertussen vorm te krijgen. U heeft een goed idee hoe het uiteindelijke instituut Kinderombudsman eruit moet zien. U heeft dus weinig onzekerheid over uw doel in de onderhandeling terwijl u met de facilitair manager over de huisvesting onderhandelt.

#### Onzekere situatie

Behalve de wet die tot de opdracht heeft geleid, is er nog helemaal niets duidelijk over de opzet van de Kinderombudsman. U heeft maar een beperkt beeld van hoe het uiteindelijke instituut er uit gaat zien, maar u moet toch de onderhandelingen over de huisvesting al doorzetten. U heeft dus veel onzekerheid over uw doel in de onderhandeling.

#### Niet veeleisende achterban

U heeft vanuit uw achterban veel ruimte gekregen om de onderhandelingen naar eigen inzien te voeren. Uw opdrachtgever en verscheidene belanghebbenden hebben hun vertrouwen in uw inschattingsvermogen uitgesproken. Dit geeft u veel vrijheid in de onderhandelingen over de huisvesting, aangezien uw achterban akkoord zal gaan met de uitkomst.

#### Veeleisende achterban

Na overleg met uw opdrachtgever heeft u een aantal strikte eisen meegekregen over de uiteindelijke vormgeving van de Kinderombudsman. Ook zijn er meerdere andere belanghebbenden waar u rekening mee heeft te houden terwijl de onderhandelingen over de huisvesting doorgaan. Uiteindelijk hebben de opdrachtgever en belanghebbenden namelijk veel invloed op het succes van het project. U heeft dus een zeer veeleisende achterban.

#### Weinig tijdsdruk

De afgelopen weken heeft u heel hard gewerkt om de voortgang in het project te waarborgen. U ligt goed op schema en voelt gelukkig weinig tijdsdruk om de onderhandelingen over de huisvesting af te ronden.

#### Hoge tijdsdruk

Terwijl de gesprekken met stakeholders doorgaan, wordt de deadline van het project naar voren geschoven. Dit betekent dat u veel minder tijd heeft om het project af te ronden. Het wordt spannend of deze deadline wel haalbaar is. U voelt de tijdsdruk en probeert in ieder geval de huisvesting zo snel mogelijk rond te hebben.

#### Weinig vertrouwen

U dacht dat u de facilitair manager kon vertrouwen, echter hoort u in de wandelgangen dat hij u in de onderhandeling probeert te misleiden om een betere uitkomst voor zichzelf te creëren. De onderhandeling is nog niet afgerond en moet dus worden voortgezet, maar u vertrouwt de andere partij niet meer.

#### Veel vertrouwen

U hoopt de onderhandeling over de huisvesting binnenkort af te kunnen ronden. Er moeten echter nog een aantal laatste belangrijke punten overeengekomen worden. In de afgelopen periode heeft u goed contact opgebouwd met de facilitair manager en u heeft er vertrouwen in dat hij de zaken eerlijk regelt. U wilt uw goede relatie met hem graag behouden, omdat u in de toekomst van het instituut verwacht nog met hem samen te werken. U vertrouwt de andere partij in de onderhandeling dus.

#### Scenario 2: Eenzaamheid onder kunstenaars

Stel u voor dat u in het volgende (waargebeurde) scenario zit. Probeer voorkennis die u eventueel heeft over dit project u niet te laten beïnvloeden, het is geheel uw project.

U bent als kwartiermaker betrokken bij een initiatief van een activeringscentrum om eenzaamheid onder kunstenaars te verlichten. Er is vanuit deze doelgroep duidelijk behoefte aan een ontmoetingsplaats. De kunstenaars zelf hebben aangegeven graag meer betrokken te zijn bij exposities in het kunstenaarsnetwerk. U heeft een galerie gevonden waar exposities georganiseerd worden waar de kunstenaars bij aan kunnen sluiten. Dit kan een veilige en vertrouwde plek worden om de doelgroep te activeren. U bent in onderhandeling met de regiomanager van de locatie. Hij houdt graag de regie in handen en stelt weinig geld beschikbaar. Toch moeten jullie tot een overeenstemming komen over het budget.

#### Weinig onzekere situatie

Het project begint ondertussen meer vorm te krijgen. U heeft een goed idee hoe het uiteindelijke project en de samenwerking met de galerie er uit gaan zien. Daardoor heeft u een eerste opzet voor een financieel plan kunnen maken. U heeft dus weinig onzekerheid over uw doel in de onderhandeling, terwijl u met de regiomanager over het budget onderhandelt.

#### Onzekere situatie

Behalve dat u weet dat de galerie kan dienen als ontmoetingsplek voor de kunstenaars, is er nog helemaal niets duidelijk over de precieze vormgeving van het initiatief. U heeft dus maar een beperkt beeld van hoe het uiteindelijke project er uit gaat zien, maar u moet toch de onderhandelingen over het budget al doorzetten. U heeft dus veel onzekerheid over uw doel in de onderhandeling.

#### Niet veeleisende achterban

U heeft vanuit zowel het activeringscentrum dat met het initiatief is gekomen, als de betrokken kunstenaars veel ruimte gekregen om het project naar eigen inzicht in te richten. Alle betrokkenen hebben hun vertrouwen in uw inschattingsvermogen uitgesproken. Dit geeft u veel vrijheid in uw onderhandelingen over het budget, aangezien uw achterban akkoord zal gaan met de uitkomst.

#### Veeleisende achterban

Zowel het activeringscentrum dat met het initiatief is gekomen, als de betrokken kunstenaars hebben strikte eisen aan het project gesteld. Zij hebben veel invloed op het uiteindelijke succes van het project. U heeft in uw onderhandelingen met de regiomanager dus rekening te houden met deze veeleisende partijen.

# Weinig tijdsdruk

De afgelopen weken heeft u heel hard gewerkt om de voortgang in het project te waarborgen. U ligt goed op schema en voelt gelukkig weinig tijdsdruk om de onderhandelingen over het budget af te ronden.

#### Hoge tijdsdruk

Terwijl de onderhandelingen met de regiomanager doorgaan, wordt de deadline van het project naar voren geschoven. De eerste exposities waar de kunstenaars bij betrokken zijn moeten al over korte tijd gerealiseerd worden. Dit betekent dat u veel minder tijd heeft om het project af te ronden. Het wordt spannend of deze deadline wel haalbaar is. U voelt de tijdsdruk en probeert de onderhandelingen over het budget zo snel mogelijk af te ronden.

#### Weinig vertrouwen

U dacht dat u de regiomanager kon vertrouwen, echter hoort u via via dat hij u in de onderhandeling probeert te misleiden om een betere uitkomst voor zichzelf te creëren. De onderhandeling is nog niet afgerond en moet dus worden voortgezet, maar u vertrouwt de andere partij niet meer.

#### Veel vertrouwen

U hoopt de onderhandeling over het budget binnenkort af te kunnen ronden. Er moeten echter nog een aantal laatste belangrijke punten overeengekomen worden. In de afgelopen periode heeft u goed contact opgebouwd met de regiomanager en u heeft er vertrouwen in dat hij de zaken eerlijk regelt. U wilt uw goede relatie met hem graag behouden, omdat u in de toekomst van het project verwacht nog met hem samen te werken. U vertrouwt de andere partij in de onderhandeling dus.

# Appendix B

# Adapted version of the Dutch Test for Conflict Handling (DUTCH)

In de onderhandeling...

#### **Yielding**

- 1. Geef ik toe aan de wensen van de andere partij.
- 2. Probeer ik de andere partij tegemoet te komen.

### **Compromising**

- 3. Probeer ik een middenweg te vinden.
- 4. Benadruk ik dat we een compromis moeten vinden.

# **Forcing**

- 5. Vecht ik voor een goede uitkomst voor mijzelf.
- 6. Doe ik alles om te winnen.
- 7. Druk ik mijn eigen standpunt door.

## **Problem Solving**

- 8. Onderzoek ik kwesties net zolang tot ik een oplossing vind die mij én de andere partij echt tevreden maakt.
- 9. Bekijk ik ideeën van beide kanten om een wederzijds optimale oplossing te vinden.
- 10. Zoek ik een oplossing die zowel mijn eigen belangen als de belangen van de ander zo goed mogelijk behartigt.

#### Antwoordschaal

 Helemaal niet
 Helemaal wel

 1
 2
 3
 4
 5
 6
 7