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Negotiations among Chinese and Germans – An Experimental Case Study

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Abstract

This paper aims to better understand negotiation behaviour between Germans and Chinese. We study intra- and inter-cultural bargaining in negotiations with asymmetric outside options. Our analysis is based on team decisions and verbal transcripts of video-recorded within- and between-team discussions. The data show the importance of aspiration formation in combination with equity concerns. Before the negotiation starts, all teams already have formulated goals that can be traced during the subsequent negotiation. Moreover, all first offers and demands and the majority of final outcomes represent equitable shares of the amount at stake. Teams often agree upon the 'Split the Difference' allocation, which represents a feasible and justifiable compromise. Chinese typically gather as much information on their counterparts as possible, anticipate and simulate their counterparts' behavior and make harmony an issue. German teams, however, put great emphasis on fairness issues and aim at efficient outcomes by reaching an acceptable payoff within reasonable time.

JEL Classification: C7, F51, C92
Keywords: Bargaining, Negotiation, Culture, Aspirations, Equity, Experiment

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1. Introduction and overview

Bargaining and negotiating are essential interactions of international business and politics. Whether or not negotiations succeed depends on bargaining parties' mutual understanding of each others' goals, motivations and behaviour. If negotiations fail, a lack of understanding, rather than conflicts of interest, may be the reason. In particular, when negotiators have different cultural backgrounds, mutual understanding may be hard to achieve as social groups' shared beliefs, attitudes, norms, and behaviours (Brett (2000), Boyd and Richardson (1985)) may be quite distinct and divergent. There is evidence that the obstacles to mutual understanding arising from cultural differences tend to negatively affect negotiation outcomes (e.g. Adair and Brett (2005), see also Lügger et al. (2015)). In this regard, awareness of divergences in cultural heritage and mutual perception might be crucial for firms entering international business negotiations (Mintu-Wimsatt, Gassenheimer (2004), Fang (2006), Thompson (2009)). If negotiators from countries of such different cultural backgrounds like China and Germany have to interact, the recognition of barriers to mutual understanding should be of particular importance. Yet even though China is one of Germany's most important trading partners – number five in export, number two in import (Statistisches Bundesamt (2014)) – cross-cultural, and more specifically, inter-cultural, research focusing on Chinese and German negotiation behaviour is rare. Existing studies mostly rely on surveys, interviews, questionnaires and self-reported previous experiences. Even though these empirical methods can provide valuable insights into what may potentially happen within a negotiation, direct observations of actual negotiation behaviour are still lacking.

This study moves towards filling this gap. We tried to map a real world situation in which two firms bargain on how to distribute a joint profit that can only be realized when they cooperate and agree on how to split it. Both can also do their business separately. This, however, is inefficient. Acting alone, both firms fare less well than when working together, regardless of their unequal bargaining strength.

We transfer this situation into an incentivized negotiation experiment exhibiting both the advantages of a controlled laboratory experiment and features of a naturally occurring bargaining context. As opposed to standard laboratory experiments that typically work with a "thin" characterization of interaction situations, the "thick" experimental setup that we present mimicks a naturally occurring bargaining situation without losing much control. In our experiment, each firm is represented by a negotiation team of five members, bargaining face-to-face with each other for multiple negotiation rounds. Before the negotiation starts and between negotiation rounds, the members of each team privately discuss the goals they want to achieve in the negotiation and the strategies to reach these goals. By videorecording the communication within the negotiating teams as well as the face-to-face discussions between firms in each negotiation round, we are able to fully observe negotiators during the entire bargaining process and make the records available for scientific analysis.

The goal of our study is to identify similarities and differences in bargaining behaviour based on observing the Chinese and German teams in different negotiation settings, i.e. in

Chinese-Chinese, German-German, and Chinese-German negotiation constellations. Our variables of interest are offers, demands, and agreements displayed during the negotiation process. Most importantly, we also analyse the verbal text protocols of the negotiations, which generate a rich qualitative data set for an in-depth understanding of the negotiation. On the basis of our semi-controlled "thick" experiment – alluding to the concept of a "thick" rather than a "thin" description (e.g. Geertz (1973)) – we can pose research questions that could hardly be addressed otherwise.

Our first research question focuses on whether and when bargainers form aspirations as to which goals they want to achieve. These goals mainly concern the outcome each firm wants to attain in the negotiation. We follow Tietz and co-authors (Tietz (1975), (1978), Tietz and Weber (1972), Tietz and Bartos (1983)), who define a number of plausible goals/aspirations that help to plan and structure the bargaining process like first offer/demand, planned and attainable outcomes, threat and conflict limit, as well as expectations on the goals of the firm's counterpart; see subsection 3.1. We use content analysis to identify these goals (see also Yi (2008)). Text segments of the videotaped discussions are assigned to categories constructed to represent the respective aspirations. The frequency of teams articulating a specific category at least once is the measure that transfers the qualitative data into quantitative figures. The transcripts serve as a means to analyse whether and, if so, how bargainers – regardless of being Chinese or German – implement and pursue a specific goal in the negotiation. For a detailed introduction into methodological considerations of our experiment, see Appendix 1.

Our second research question concerns regularities within and across culturally different firms on how to split the joint profit given the underlying aspirations. Even though it seems tempting to only concentrate on differences between Chinese and German bargainers, to us it is important to focus on similarities as well because they might be easily overlooked. Building on similarities might facilitate reaching a satisfactory negotiation agreement. In bargaining tasks like in other distributive conflicts the generalized equity principle (Selten (1978), (1987))[1] has been shown to guide behaviour (see, e.g. Hennig-Schmidt (2002), Hennig-Schmidt et al. (2014), see also the survey by Hennig-Schmidt et al. (2010)). According to the equity principle, bargainers focus on allocations that entail distributing the amount in question in such a way that each party is treated equally according to a particular standard; see subsection 3.2. In particular, these allocations comprise the equal split, the split proportional to outside options, and splitting the surplus equally. Exploiting the character of the rich interaction setting at hand, we have chosen the parameters of our experiment such that these allocations are chracterised by distinct numbers and can thus be differentiated from each other.

Our third research interest deals with motivational, behavioural and argumentational peculiarities, as well as specific Chinese and German values likely to influence bargaining behaviour. It has been pointed out that cultural traits can affect a negotiation's framework and

[1]The generalized equity principle is an extension of e.g. the equity and equality rules formulated by Deutsch (1975).

negotiators' behaviours in distinctive ways (Shi, Westwood, (2000), Baumhackl (2006), Chuah et al. (2014), Ma et al. (2015)). We screen the experimental transcripts for disclosed representations of those values and for motivational, behavioural and argumentational peculiarities that show up in intra-firm discussions and potentially influence inter-firm bargaining behaviour; see subsection 3.3 for a detailed description of potential cultural peculiarities.

In sum, our results show similarities and various differences between the Chinese and German firms' representatives in intra- and inter-cultural bargaining situations. This provides a handle to discriminate between more universal and more contextual characteristics of bargaining.

A remarkable universal trait is that all firms do formulate bargaining goals. Thus, bargaining behaviour of both nationalities is consistent with the aspiration approach illustrated in our first research question. Moreover, all teams already articulate aspirations before the actual negotiation starts, i.e. many features of the later bargaining process are already initiated in the pre-negotiation phase. In this respect, we found tactical considerations to guide the bargaining processes. More than half of the teams already formulate the final outcome as an aspiration level in the pre-negotiation phase. But independently of cultural background none of the teams presented this goal as an offer or demand in the very beginning of the negotiation because if they had they expected their counterpars to ask for further concessions.

We find differences in that Chinese firms are more effective in finalizing the deal in accordance with their previously formulated bargaining goal. They also succeed in mutually balancing aspirations in the final agreements. In particular, Chinese seem to much better predict the goals of their fellow-country bargaining counterparts in intra-cultural negotiations than Germans are able to predict the goals of their German counterparts. In inter-cultural negotiations, however, Germans and Chinese behave quite similarly in this respect. In general, Chinese firms are more successful than German firms with regard to final profits. This may be due to the fact that, for one thing, Chinese weak firms plan their own negotiation more carefully by discussing a larger number of the previously mentioned aspiration levels than German weak firms do. Moreover, many more Chinese than German firms reason about their counterparts' bargaining goals**.**

With regard to the second research question, the application of the equity principle proves to be a very important regularity across cultures. Not only 56% of all bids in the bargaining process but also all planned and actual first offers/demands, as well as two thirds of the final outcomes, are equitable allocations. A notable regularity is that all Chinese and all German strong firms open the negotiation by a proportional split offer, whereas their respective counterparts demand an equal split. Splitting the difference is a prominent allocation rule for Chinese and German bargainers for several reasons. Firstly, an equal split of the surplus combines the strong firms' claims for more than half of the joint profit with the element of equality by splitting the surplus equally. Secondly, agreeing on this allocation means that

both firms make exactly the same concessions in terms of profits, and, thirdly, they finalize the deal at the exact midpoint between the first offer and the first demand. The transcripts show that "split the difference" meets the demand of both the Chinese and the German firms to provide a mutually acceptable justification for an allocation. In addition, it satisfies the German firms' typical requirement that an allocation has to be "fair".

Concerning the third research question, we find peculiarities in motivation, behaviour and argumentation of Chinese and German bargaining firms. This includes German firms' great emphasis on fairness issues. All German teams request specific explanations and justifications for why an offer/demand is fair irrespective of whether the counterpart is Chinese or German. In this regard, fairness is particularly attributed to the three equitable distributions described above. Chinese teams also talk about fairness but to a much lesser extent. Chinese differ from German firms in that they (i) aim at gathering as much information on their counterparts as possible, (ii) try to anticipate their counterpart's behaviour through "imaginary bargaining", i.e. simulating the bargaining encounter by appointing the counterpart's role to one or two members of their own team, (iii) use role play, however, only in intra-cultural negotiations, (iv) make harmony an issue. As to bargaining style, Germans strive for overall efficiency, i.e. reaching an acceptable payoff within reasonable time. Moreover, threatening to break off the negotiation seems to be a more important means for German than for Chinese teams.

The paper is organized as follows. Section 2 explains the experimental design and procedures. Section 3 elaborates on the determinants of the bargaining process in our experiment, i.e. the aspiration level approach, the importance of the equity principle in bargaining, and Chinese and German values and negotiation characteristics that may prove specifically important in Chinese-German negotiation processes. Section 4 presents the results and Section 5 concludes.

2. Empirical strategy

2.1 Participants and constellations

We conducted our experiment with Chinese and German bargaining teams implementing intra- and inter-cultural negotiation constellations that involved two German-German, two Chinese-Chinese, and two German-Chinese negotiations. Members of the bargaining teams are 59 PhD. students graduating in Economics or Management Science as well as young staff of economics and management faculties of various universities from all over China and Germany. They participated in the first or second Sino-German Summer School on Experimental Economics held 2006 at Sichuan University, Chengdu, China, and 2007 at the University of Bonn, Germany. To be eligible for participation, applicants to the summer schools had to agree to take part in a videotaped experiment.

Table 1 shows the different bargaining constellations as well as when and where the experiments were run. Our analysis is based on data from 12 teams in total. They were

randomly matched into six negotiation pairs: four intra- and two inter-cultural pairs. We use abbreviations to identify a specific team. GC06_X[G], for instance, characterizes the German team representing the stronger firm X (see below for details) in the inter-cultural negotiation between a German and a Chinese team at the Summer School 2006.

Location	Year	Bargaining constellation	Country of origin	Team	Firm
Chengdu	2006	Intra-cultural Germans (X)/Germans(Y)	Germany	GG06_X	X
				GG06_Y	Y
Bonn	2007			GG07_X	X
				GG07_Y	Y
Chengdu	2006	Intra-cultural Chinese (X)/Chinese(Y)	China	CC06_X	X
				CC06_Y	Y
Bonn	2007			CC07_X	X
				CC07_Y	Y
Chengdu	2006	Inter-cultural Germans (X)/Chinese(Y)	Germany	GC06_X[G]	X
			China	GC06_Y[C]	Y
Bonn	2007	Inter-cultural Chinese(X)/Germans(Y)	China	CG07_X[C]	X
			Germany	CG07_Y[G]	Y

Table 1: Location, year, constellation, team members‘ country of origin, team denotation and firms

2.2 Bargaining situation

The bargaining situation we implemented is one where two firms X and Y repeatedly bargain with each other about how to split a joint profit P(X,Y) that they can make if both agree on the deal.[2] Each of the firms can choose to do its own business separately. That is to say, each firm has an outside option, P(X), P(Y), respectively, that it may take, for instance, if the joint venture does not yield a share of the joint profit deemed sufficient. Taking the outside option, however, involves forgoing the chance of substantially increasing each firm’s profit as the sum of outside options adds up to only half of the joint profit, i.e. P(X) + P(Y) = P(X,Y)/2. Moreover, the outside option of firm X (the strong firm) is four times that of firm Y (the weak firm). In case a firm takes the outside option, the negotiation ends with both firms being paid their respective amounts P(X) and P(Y). In case of agreement, the negotiation also ends and both firms are paid the share of the joint profit they have agreed upon. Table 2 depicts the parameters for our experimental variables in Chinese Yuan and Euro.

[2] We decided to implement a repeated bargaing setup because repeated interactions have been suggested to be more suitable representations of natural bargaining situations than one-shot games (Davis and Holt (1993), Thompson (1990), see also Chuah et al. (2014)).

Variables	Summer School 2006, Chengdu	Summer School 2007, Bonn
Joint profit: P(XY)	1,500 Chinese Yuan	300 Euro
Outside Option X: P(X)	600 Chinese Yuan	120 Euro
Outside Option Y: P(Y)	150 Chinese Yuan	30 Euro
Relation P(X):P(Y)	4:1	4:1

Table 2: Joint profit, outside options and relation between outside options

2.3 Procedure

Team assignment

The bargaining experiment was conducted in the morning of the very first day of the respective summer school and lasted for about three hours. After having arrived at the venue of the experiment, participants were randomly assigned to six same-nationality teams consisting of five[3] participants each – either from China or Germany. In total, we had three Chinese and three German teams in each of the two summer schools. Each team represented a firm in the negotiation experiment. Teams were randomly assigned to negotiate with a same-culture or a foreign team but were only informed about their bargaining counterparts' nationalities when being told about the outcome of a contest which determined whether a team was assigned the role of the strong firm X or the role of the weak firm Y.

Contest

Before the negotiation started, three times two randomly matched teams were brought to three separate rooms. Each team was informed that they were randomly assigned to negotiate with either a Chinese or a German team but they would not negotiate with the team they were playing the contest against. Team members were then provided with the introductory instructions of the experiment, which explained the general bargaining situation.[4] A native speaker read out the instructions aloud and answered the participants' questions. Next, the contest started. For that purpose, we distributed to each team member a popular science text in Chinese or German, which was identical for all teams. Teams had seven minutes time for reading. We then collected the text and each team had to jointly take a quiz consisting of 15 questions concerning the text they had read just before. They were allowed at most five minutes to complete the task. Experimenters took the time from handing out the quiz sheet until teams handed it back and wrote the time on the answering sheet. Then the number of correct answers was calculated. The team that came up with the most correct answers – or, in case of a tie, needed less time – won the contest and was assigned the role of firm X (i.e. the strong firm).

[3] One German team consisted of only four members due to one summer school applicant's last-minute cancellation.

[4] All material distributed to the participants was either in German or in Chinese, the latter being translated from the German version by using the back-translation method (Brislin (1970)). It is important to instruct participants in their native language because the native-ness of the language in which the experiment is presented may affect their behaviour; see e.g. Costa et al. (2014a,b).

Negotiation

After the contest, each team was led to the within-firm discussion room by the experimenter responsible for the respective team. Each room was equipped with a ready to start video camera. There teams were informed about having won the contest or not, i.e. representing firm X or Y, and about the nationality of the members of their opponent team, i.e. Chinese or German. Team members were then provided with additional instructions that carefully explained the organization, procedures, and parameters of the negotiation. Instructions were again read out aloud by the experimenter, who also answered team members' questions. Finally, the experimenter switched on the video camera and left the room.

The experiment started with a pre-negotiation phase, which lasted at most 20 minutes and consisted of the first within-firm discussion. Teams were free to discuss whatever they wanted. After the pre-negotiation phase, the first between-firm negotiation round of at most 10 minutes followed. Negotiating teams were led to a separate negotiation room different from the within-firm discussion rooms – also equipped with a video camera. Again, both teams were free to discuss whatever they liked. In inter-cultural negotiation constellations, an interpreter, fluent in Chinese and German, was available and could be consulted when needed. If firms did not agree on how to split the joint profit within the first between-firm negotiation round, firms returned to their respective within-firm discussion rooms for another discussion of at most 10 minutes. Alternating between within-firm discussions and between-firm negotiations could continue until the pre-specified bargaining time of three hours had expired.

In the event that bargaining parties failed to reach an agreement on how to split the joint profit before the total negotiation time was up, they would have been paid their respective outside options. Neither this case nor taking the outside option during the ongoing negotiation actually happened as all teams reached an agreement within the allotted time. If the members of a firm would have taken their outside option, they would have had to unilaterally state their decision on a sheet of paper and sign it. If an agreement between the teams was reached, all members of both firms had to sign a bilateral agreement contract during the respective between-firm negotiation round. Co-negotiator teams were then paid in cash the share of the joint profit they had agreed upon and were dismissed.

In order to simplify the notation, we will subsequently convert all amounts into Euro at an exchange rate of 1 Euro = 5 Chinese Yuan if not mentioned otherwise. We state all amounts in shares of firm Y, i.e. either Y's demands or X's offers to Y. Firm X's share is calculated by subtracting Y's share from the joint profit of 300 Euro.

Procedural script

Conducting the experiment required substantial preparatory effort. An organizing team of up to ten people had to act in a coordinated manner. We therefore wrote an extensive procedural script in English explaining in great detail how to prepare for the experiment and how to carry out the procedural steps described above. Four experimenters were present at both experiments in 2006 and 2007, in addition to the local organizing teams.

3. Potential determinants of the bargaining process

Before analysing our data, we describe factors that have been shown in the literature to affect bargaining processes and that are likely to also be influential in our experiment. These factors are aspirations, considerations regarding the equity principle and cultural values as well as characteristic negotiation behaviour in Germany and China. Note that due to the limited number of independent observations we do not present statistical tests but report observations and tendencies which, in our view, might provide important insights into bargaining behaviour and influencing factors in our experiment.

3.1 Aspiration levels

The concept of aspiration levels, i.e. (distributive) goals people strive for, has been found to have great explanatory power for describing and understanding observed behaviour in bargaining situations (for an overview cf. Thompson (1990), see also (Siegel and Fouraker, (1960), Tietz (1983), Klemisch-Ahlert (1996)). Researchers have used different methods to retrieve aspirations: Specific goals are assigned to the negotiators (see e.g. Thompson (1995)), aspirations are derived from offers and demands (e.g. Kuon and Uhlich (1993)) or negotiators are required to explicitly state their bargaining goals before starting the negotiation (e.g. Tietz (1975, 1978), Tietz and Weber (1972), Tietz and Bartos (1983)).

Our approach differs from the literature mentioned insofar as we actually observe whether people spontaneously discuss aspirations during the within-firm discussion or the between-firm negotiation rounds. Nevertheless, we draw on the work of Tietz and co-authors because the aspiration levels and expectations they requested from their experimental subjects are very likely to be important determinants of the bargaining process in our experiment as well. These aspiration levels are: First demand/offer, Planned bargaining outcome, Bargaining outcome regarded as attainable, Planned conflict threat, and Planned conflict limit (Tietz (1975)). Requested expectations are Counterpart's expected first demand/offer and Counterpart's expected conflict limit. We screened the verbal transcripts for these aspiration levels and expectations. Thus, we are able to analyse whether, and if so, which of the aspiration levels and expectations the teams discuss.

3.2 The equity principle

In economic distribution conflicts like the bargaining situation we are analysing, an amount of money often has to be allocated to two or more parties. If they have the same bargaining power in terms of their outside options, then an Equal Split (ES) is a reasonable outcome. If, however, bargaining power is asymmetric because negotiators have relevantly different options outside the deal, the solution concept is likely to be more complex. Still, the number of expected outcomes seems limited as certain *equitable* allocations appear to attract subjects' attention. They entail equitable divisions as given by Selten's (1978, 1987) general definition of the equity principle, where the amount in question is distributed among the

parties involved in such a way that each party is treated equally according to a particular standard.[5]

Consider a group of n members 1,2,…,n and an amount r of money to be divided among these members. A division of r is a vector (r_1,…,r_n,) with $r_i \geq 0$ for I = 1,…,n and r_1+…+ r_n,= r. r_i is called the share of member i and w_i the weight of member i, with I =1,2,…,n. The equity principle requires the following relation to hold:

$$\frac{r_1}{w_1}=\frac{r_2}{w_2}=\ldots=\frac{r_n}{w_n}.$$

The application of the equity principle only gives rise in special cases to an equal split of r (Selten (1987)). In many situations, in particular in asymmetric ones, there are good reasons for an uneven split. The rationale is that different amounts can be thought of as being at stake for allocation – the *standard of distribution* in Selten's (1978) terminology – and additionally a different quota can applied to the standard of distribution – the *standard of comparison* – to arrive at the final outcome (see below).

Table 3 shows prominent equitable allocations in our experiment, which in previous bargaining experiments have been shown to guide negotiators' decisions. Only the equity norm ES provides both bargaining parties with an equal amount of money (150 Euro for both firms) because an egalitarian standard of comparison is applied to the joint profit, the agreed-upon standard of distribution. The equity norm Split the Difference (SD) provides bargainers with different payoffs (120 Euro for the strong, 30 Euro for the weak firm) even though the allocation is also based on an egalitarian standard of comparison. This is due to the fact that it is not the joint profit that serves as the standard of distribution but rather the joint profit minus the sum of both outside options, i.e. P(XY) – (P(X) + P(Y)). The equity norm Proportional Split (PS) is also based on P(XY) as the standard of distribution, yet the standard of comparison is proportional to outside options. Applying PS results in an extremely unequal distribution of the joint profit (240 Euro for the strong and 60 Euro for the weak firm) as firm X's payoff amounts to four times the payoff of firm Y and PS maps the relation in outside options in our experiment.[6]

Even though the number of applicable equity standards might be – and in our experiment actually is – limited, there is potential for conflicts (Selten (1978, 1987)). For instance, when both firms agree on the standard of distribution to be the joint profit, but firm X strives for PS and firm Y for ES, they arrive at rather divergent payoffs. This may render an agreement rather difficult or even impossible if none of the bargaining parties is willing to make concessions.

[5] The criterion of proportionality that underlies the generalized equity principle has already been put forward by Aristotle (see, e.g., Frankena (1966)).

[6] The equity norms ES, SD, and PS have been previously discussed in the literature but not in relation to an equity-principle characterization. For PS, see early papers by Adams (1965), Komorita and Kravitz (1979), McClintock et al. (1984). For SD, see Nash (1953). When we assume outside options to be regarded as threat points, then SD follows from the Nash bargaining solution; see e.g. Chiu and Yang (1999) for a discussion.

Equity norm	Standard of Distribution	Standard of Comparison	Payoff Team X	Payoff Team Y
Equal Split (ES)	Joint profit P(XY)	Egalitarian	150	150
Split the Difference (SD)	Joint profit minus sum of outside options P(XY)–(P(X)+P(Y))	Egalitarian	195	105
Proportional Split (PS)	Joint profit P(XY)	Proportional to outside options	240	60

Table 3: Equity norms, standards of distribution and comparison applicable in our experiment

It has been shown that particularly equitable allocations are termed fair (see e.g. Hennig-Schmidt (2002), Walkowitz and Hennig-Schmidt. (2010)). Each of the three equitable allocations displayed in Table 3 can be justified as a fair distribution as all of them comprise an element of fairness: ES can be termed fair from an equality point of view; SD can be termed fair because it combines taking account of the outside options with an equality point of view by sharing the surplus equally; PS can be termed fair because it keeps the relation in outside options.

Selten (1978) hypothesized a strong link between the equity principle and aspirations in that considerations of equity may be important when aspiration levels are formed (Selten (1978: 280)). This conjecture has been confirmed in bargaining experiments by e.g. Hennig-Schmidt (2002), Hennig-Schmidt et al. (2010), Hennig-Schmidt et al. (2011). If Selten's hypothesis is corroborated not only in our German but also in our Chinese sample, this would speak for a rather universal validity of the equity principle and related aspiration formation.

3.3 Cultural values and negotiation characteristics

It has been shown that cultural values also affect bargaining behaviour (e.g. Ohbuchi et al. (1999), Smyser (2003), Faure and Fang (2008), Chuah et al. (2014)). Moreover, different culture-related negotiation styles are a major source of misunderstandings in Sino-Western business negotiations (Fang (1999), Faure (1999), Fang (2006), Ma et al. (2015)). In the following paragraphs, we give a brief account of the meaning and cultural background of those cultural values and negotiation characteristics discussed in the literature that are likely to influence bargaining behaviour and to show up in the team discussions of our experiment, such as, for instance, fairness, harmony, face, guanxi, and bargaining style. By screening our text protocols for these values and characteristics, we actually found that they affect the negotiation process with regard to either the German or Chinese teams, respectively or for both (see Section 4.3). Briefly elaborating on those cultural values and negotiation characteristics seems important to us in order to stress their significance and to make readers aware of and familiar with concepts prevailing in the respective culture. This may help to avoid underestimating their importance when dealing with Chinese or German negotiation partners.

Fairness

Justice and fairness, in the sense of impartiality and lack of bias towards anybody (Webster (1995)), are of central concern in Western thinking. Chinese thinking, with its deep links to Confucianism/Taoism (Jullien (2004)), has a different notion of fairness. Justice is conceived as the fulfillment of role expectations (Chiu and Hong (1997)), and different justice standards apply for different social relations and roles (Zhang and Yang (1998)). In Western countries, fairness has become a central issue in the theoretical and experimental literature on social preferences (e.g. Fehr and Schmidt (1999), Bolton and Ockenfels (2000), Rabin (1993), Dufwenberg and Kirchsteiger (2004), Falk and Fischbacher (2006)). This literature privileges symmetric situations and implicitly leans towards egalitarian principles. In contrast, the asymmetric outside option relation of our experiment is unbiased as it allows for analysing whether fairness is also attributed to unequal distributions, in particular when applying equity norms.

Harmony (hexie 和谐)

Harmony is a Confucian principle that plays an important role in Chinese society, despite the rapid societal changes in recent years (Faure (1999)). In addition to avoiding conflicts and thus interpersonal frictions, harmony may strengthen relationships and contribute to solving inter-relational problems (Leung et al., (2002), Chen and Tjosvold (2007)). In a negotiation, this could mean that bargainers aim at non-competitive behaviour (Chuah et al., 2014), thereby establishing and maintaining non-conflicting social relations within and between firms in order to reach mutual agreements.

Face (mianzi, 面子)

“Face is the respect, pride, and dignity of an individual as a consequence of his/her social achievement and the practice of it“ (Leung and Chan (2003: 1575)). Face encompasses a person’s sense of honor, integrity or shame (Cheng (1986)), as well as his or her good moral standing in the community (Chuah et al. (2014), and enhances one’s own relative position while also providing many kinds of privileges (Hwang (1987)). Facework comprises various social skills to protect one’s own face and the face of others (Leung and Chan (2003)), with keeping harmony being an important means for not losing face (Ho (1976), Faure (1999), Schulz (2007)). Although concerns for face and facework are also important in Western (low-context) cultures – for instance, Western negotiators are rather sensitive to criticism (Katz (2006)) – these concerns are generally much more important in high-context cultures like China (Cohen (1991), Faure and Fang (2008)). Because maintaining face is so important, high-context negotiators tend to avoid uncertainty and losing in a conflict, which is much less the case in low-context cultures (Cohen (1991)).

Guanxi (关系)

Guanxi is an informal network of acquaintances the members of which are connected by mutual obligations in terms of support (Faure (1999)). Guanxi relations always involve an obligation to reciprocate (Leung et al. (1996)) and are not confined to private connections but relate to business as well. Therefore, in China, a negotiation process is a mixture of business

and private contacts (Boisot (1994), Fang (1999), Alon (2003)). Often friendship connections are developed before starting business transactions (Morris and Gelfand (2004)). Contrarily, Western negotiators are likely to separate business from their private life (Grave (2007)). For them the deal tends to be more important than the personal relationship (Salacuse (2003)), while this is less the case for Chinese negotiators (Sibenius and Qian (2008)).

Bargaining style

Western negotiators favor a direct, explicit, and low-context style of communicating their bargaining objectives (see e.g. Brett (2000), Salacuse (2003), Smyser (2003), Thomson (2005)). Chinese negotiators, in contrast, prefer an indirect, implicit, subtle, and high-context style of communication (see, e.g. Hall (1977), Pye (1986, 1992), Fang (1999), Schulz (2006)). They try much more than German negotiators to influence their counterparts, indirectly attempting to infer information from the personal exchange (Thompson (2009)).

4. Results

In this section, we first study the bargaining process based on the offers of firms X and the demands of firms Y during the between-firm negotiation rounds. This is the information negotiators typically exchange when bargaining with each other. We will also analyse negotiators' aspiration levels and examine how the bargaining process is affected and structured by these goals. Moreover, we will study the application of equity norms that potentially lay behind offers and demands. Finally, we will explore cultural peculiarities – for instance, fairness, harmony, face, guanxi, and bargaining style – which might potentially influence the bargaining process.

4.1 Offers and demands

We start with analysing the bargaining process. Table 4 shows that all 12 negotiations ended in agreement. A remarkable first result is the very important role that the equity principle plays in our experiment, not only with regard to offers and demands but also concerning aspiration level formation, as our later analyses will show. We found equitable allocations to characterize 56% of all bids in the bargaining process. Moreover, all offers/demands in the first between-firm negotiation round are equitable allocations - either the first or the second bid. This holds for German and Chinese teams, for firms X and firms Y. Across teams, we find a notable regularity in the first between-firm negotiation round. All firms X offer PS (60 Euro), and all firms Y ask for ES (150 Euro). CC06_X makes a first SD offer (105 Euro) in the third between-firm negotiation round, which CC06_Y accepts in the fourth between-firm negotiation round without having stated another demand. The transcripts of the pre-negotiation phase, however, reveal that also CC06_X and CC06_Y discuss offering/demanding PS and ES, respectively, but then they do not announce these bids in the first between-firm negotiation round.

	Offers and demands in between-firm negotiation rounds				
Team	**1**	**2**	**3**	**4**	**5**
GG06_X	50,60	60	70	90	**100**
GG06_Y	150	150	140	100	**100**
CC06_X			105,100	**105**	
CC06_Y				**105**	
GC06_X[G]	60	60	80	**105**	
GC06_Y[C]	150	120	120	**105**	
GG07_X	60	60	**105**		
GG07_Y	150	150	120,110,**105**		
CC07_X	60	60	80	90	100, **105**
CC07_Y	150	150	150	125	**105**
CG07_X[C]	60	60	83	80,88,**90**	
CG07_Y[G]	150	105	94	**90**	

Note: All amounts are shares for firm Y and stated in Euro. Final agreements are in bold face.

Table 4: Offers and demands during the bargaining process

The equity principle appears to have an important impact when opening the negotiation. It delineates the range of negotiation outcomes and serves as a reasonable, well-justifiable, well-justified and widely used anchor in our experiment. The importance carries over to final outcomes. Four of the six negotiations end with both teams approving SD (105 Euro). Of these, team GG07_Y reduces the SD-offer symbolically by offering to pay for a coffee for all team members of firm X. Two negotiations end in non-equitable outcomes: CG07 agrees on 90 Euro, GG06 on 100 Euro.

SD has several characteristics that make it particularly suitable for a compromise, given the parameters of our experiment. As the joint profit amounts to twice the sum of the outside options, P(XY) = 2(P(X) + P(Y)), SD is the midpoint between the PS and ES. Nearly all firms X started the negotiation by offering PS, and all firms Y started by demanding ES. Therefore, agreeing on SD meant that both firms make the same total amount of concessions. Settling at the above-mentioned midpoint meets a further manifestation of the equity principle in bargaining, i.e. agreeing on the midpoint between bargainers' proposals.[7] Four negotiation pairs (GG06, GC06, GG07, CC07) arrived at an agreement just in the middle between their initial bids, meaning that both teams conceded the same amounts. Interestingly, none of the

[7] We found a further manifestation of the equity principle, namely proposing the midpoint between the two bargainers' previous proposals. Here, the standard of distribution is the bargaining range spanned by both bargainers' last proposals, to which an egalitarian standard of comparison is applied. In the second between-firm negotiation round, CG07_X[C] offered PS and CG07_Y[G] demanded SD. The midpoint of the resulting bargaining range is 83 Euro, which CG07_X[C] offered in the following third between-firm negotiation round. CG07_Y[G] then computed the midpoint of the resulting new bargaining range, comprising their own last SD-demand and team Y's last offer, and demanded 94 Euro (see Table 4).

teams explicitly recognized this fact. Five negotiation pairs, i.e. 10 teams, used the principle of successive mutual concessions (GG06, GC06, GG07, CC07 CG07). According to Tietz (1978), mutual successive (counter) concessions and equal total concessions of both bargainers are a requirement for calling a bargaining process “fair”.

Table 4 also reveals other interesting findings. As to bargaining duration, the shortest negotiation lasted for three between-firm negotiation rounds and the two longest ones for five. Chinese negotiations on average last slightly longer than German ones in terms of between-firm negotiation rounds (on average 4.3 rounds for Chinese teams vs. 4 for German teams; intra-cultural negotiations: 4.5 rounds for Chinese teams vs. 4 for German teams; inter-cultural negotiations: 4 rounds). German firms are much faster in terms of the duration of between-firm negotiation rounds in minutes. Finally, Chinese firms are more successful than German ones on average. Disregarding the coffee offer of GG07_Y, German firms Y (firms X) achieve a final profit of 98.33 Euro (196.67 Euro) whereas the respective Chinese firms realize 105 Euro (200 Euro).

4.2 Aspiration levels

We next examine whether the German and Chinese teams in our experiment plan the bargaining process in the pre-negotiation phase by forming aspiration levels and by building expectations, as discussed in subsection 3.1. We also describe the categories and the coding process, relate aspirations to final agreements and discuss the importance of splitting the surplus equally for the negotiation process.

Categories and coding

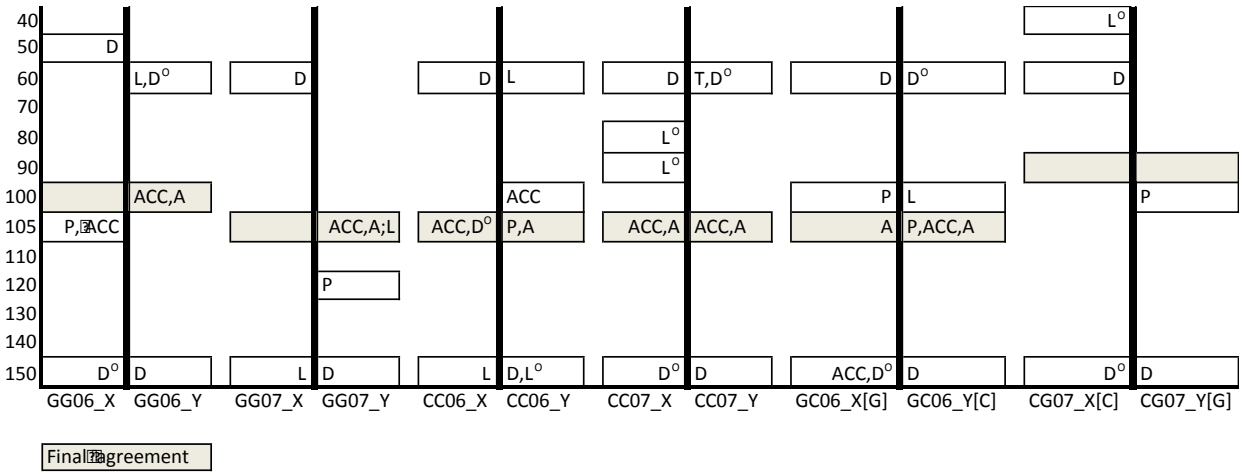
The categories in the present study are the aspiration levels and expectations, as described in Table 5. Coders screened the transcripts and assigned the respective text segments to these categories. Recall that we did not ask teams to explicitly state their aspiration levels, which meant that sometimes goals were not explicitly stated and we had to extract the meaning from the text. To guarantee consistent and transparent text assignment, we defined precise rules for how to code the text. We also screened the transcripts for expectations expressed during the bargaining process.

Aspiration level	Description
First Offer/Demand (D)	The amount teams present to their bargaining counterparts most often in the first between-team negotiation round. D has also been called “tactical aspiration level” (Kuon and Uhlich (1993)) and is directly observable by both teams.
Planned Outcome (P)	The final outcome a team is striving for. P is usually lower than D to enable a tactical reserve (Tietz (1975)) for concessions.
Attainable Outcome (A)	The bargaining outcome regarded as attainable comprises two characteristics: It is seen as attainable and it gives sufficient satisfaction to be acceptable (Tietz (1975)).

Aspiration level	Description
Threat (T)	The threat to break off the negotiation is taken into consideration when offers and demands of both teams are not only incompatible but also if a (not too much) lower outcome would not be tolerable.
Conflict Limit (L)	The planned conflict limit is the offer/demand that is inacceptable and will lead to breaking off the negotiation.
Acceptable Outcome (ACC)	Our transcripts reveal an additional aspiration level, which represents an outcome that is acceptable for a team. ACC neither has the connotation of being attainable nor of being the lowest acceptable agreement according to Tietz and Bartos (1983).
Expectations	**Description**
Counterpart's First Demand/Offer (D^O)	Expectation regarding counterpart's first demand/offer.
Counterpart's Conflict Limit (L^O)	Expectation regarding counterpart's conflict limit.

Table 5: Categories of aspiration levels and expectations in our experiment

Figure 1 shows the aspiration levels and expectations that our coding procedure revealed in the pre-negotiation phase.[8] Sometimes values for different aspiration levels coincide (see also Selten (2000)).



Aspiration levels: D: First Demand/Offer, P: Planned Outcome, A: Attainable Outcome, T: Threat, L: Conflict Limit, ACC: Acceptable Outcome; *Expectations*: D^O: Counterpart's First Demand/Offer, L^O: Counterpart's Conflict Limit; *Final agreement:* marked in grey

Figure 1: Aspiration levels and expectations in the pre-negotiation phase and final agreements

[8] See also Table A1 in Appendix II for a slightly more detailed account of our findings.

Pre-negotiation phase: Aspiration formation

The pre-negotiation phase appears to have an important function in the bargaining process. All teams already formulate bargaining goals in this phase. However, not all teams plan the negotiation as carefully as one might have expected since several teams do not discuss all of the aspiration levels described in Table 5.

All 12 firms discuss their First Demand/Offer because at some point they will have to make an offer or state a demand. The Planned Outcome is mentioned by only four German and two Chinese firms, even though it is certainly an important goal that structures the whole bargaining process. The Acceptable Outcome apparently is more important as four German and five Chinese firms discuss what they perceive as an acceptable outcome. The Attainable Outcome is discussed by three German and four Chinese firms, which are more or less the same teams that made the Acceptable Outcome a topic. Threat is brought up by only one Chinese team. Interestingly, this team in later between-firm negotiation rounds extensively threatened to break off the negotiation. Six teams discuss the Conflict Limit, three German and three Chinese teams.

These findings (and Table A2 in Appendix II) reveal a slight tendency for the Planned outcome to be more important for German than for Chinese firms, which lends some support to the thesis that Germans focus more on final outcomes than Chinese do (Alon (2003), Smyser (2003)). We observe that Y-firms seem to plan the bargaining process more carefully in that more Y- than X-teams discuss specific aspiration levels. Thus, it seems to be more important for disadvantaged firms to plan their own strategies in order to not be forced into making substantial concessions during the negotiation. This seems particularly true for the Chinese Y-firms, which actually achieved higher profits than German Y-firms. Strategic thinking has been of great importance in China for more than 2000 years (c.f. in warfare Sunzi (2001)), with strategic deliberations still being essential in everyday life, in particular in business (von Senger (1988, 2004), Chiao (2008), Wee (2008)).[9] The familiarity of Chinese people with tactical and strategic thinking seem to help these groups.

We find that equity considerations also play an important role with regard to aspiration formation in the pre-negotiation phase. In the German firms, 70% of all aspiration levels (64% when excluding First Offers/Demands) are equitable allocations. In the Chinese firms the percentage is much higher (90%; 87% when excluding First Offers/Demands); see Table A2. The other aspiration levels found in all teams are numbers divisible by 10 and exhibit aspects of prominence theory (see e.g. Albers and Albers (1983), Selten (1987), Hennig-Schmidt et al. (2011)).

Pre-negotiation phase: Expectations

In the pre-negotiation phase, teams have no information whatsoever about their counterpart's goals as the first between-team negotiation round has not yet started. It is, therefore, reasonable for a team to form expectations about the opponent firm's goals and to

[9] How e.g. Germans employ and perceive strategic thinking differs substantially, however.

estimate whether these are compatible with their own aspiration levels. Thus, expectations about others' objectives may affect the formation of teams' own goals.

Eight of the teams indeed formed expectations about their counterpart's First Offer/Demand, i.e. three German and five Chinese teams. Seven of them anticipated the opening offer/demand correctly, with only one team deviating by 10 Euros. Only three Chinese teams anticipated their counterpart's Conflict Limit, one of them correctly.

For expectations on First Offers/Demands, equity is again important as all expected first offers/demands are equitable allocations. This only applies for one of the expected Conflict Limits. In general, more Chinese than German teams (eight vs. three) incorporate their counterparts' aspiration levels into their own mental models and deliberations. Again this may be due to their familiarity with strategic thinking. In contrast to aspiration levels, more X- than Y-firms form expectations (seven vs. four).

Aspirations relative to final agreements

Figure 1 and Table A1 illustrate that four final agreements coincide with SD (GG07, CC06, CC07, GC06). The other two outcomes are prominent numbers (100 and 90 Euro). Eight firms anticipate the final agreement in terms of one or more aspiration levels in the pre-negotiation phase. In one Chinese and three German firms, the final agreement did not correspond to any aspiration level stated in the pre-negotiation phase (GG06_X, GG07_X, CG07_Y[G], CG07_X[C]).

We found that more Chinese than German firms (five vs. three) reach a final agreement that coincides with one of the aspiration levels they defined in the pre-negotiation phase (see Figure 1). Moreover, Chinese X- and Y-firms are able to mutually balance their aspiration levels in the final agreements. This is in the spirit of the aspiration balancing principle formulated by Tietz (1978), which requires that the final agreement coincide with the highest mutually achievable aspiration level. In the Chinese intra-cultural negotiations, the final agreement matches the aspiration level of their respective counterpart for all four firms[10], whereas this does not hold for any German-German encounter. In inter-cultural negotiations, one Chinese and one German firm's final outcome match the same aspiration level (GC06_Y[C] and GC06_X[G]). While Chinese seem to predict the goals of their fellow-country bargaining counterparts much better than Germans do, there appears to be no difference in this regard between Germans and Chinese in inter-cultural negotiations.

We also found tactical considerations to guide the bargaining process. Seven of the 12 firms had already formulated the final agreement as an aspiration level in the pre-negotiation phase, either as the Planned, Attainable or Acceptable Outcome. However, no firm presented this goal as an opening offer or demand. The expectation that early offerings might induce counterparts to ask for further concessions probably represents the reason

[10] This holds if we assume that Attainable outcome and Acceptable outcome are more or less equivalent. Even if we relax this assumption, all Chinese firms match an aspiration level of their Chinese counterpart, which does not hold in intra-cultural German negotiations.

behind this behaviour[11]. This seems especially plausible if the latter have a tactical reserve, i.e. there is a difference between First offer/demand (or one of the later bids) and one of the aspiration levels Planned outcome, Acceptable outcome, or Attainable outcome. A typical example for how reducing tactical reserves too early can provoke painful concessions is CG07_Y[G]. In the second between-firm negotiation round, they reduced their demand from ES to SD, a concession of 45 Euro. This, however, did not induce their Chinese counterpart to make a similarly high counter-concession. In contrast, they took the new demand as the starting point for calculating the midpoint between both offers/demands, and this procedure continued for the next two between-firm negotiation rounds. Thus, CG07_Y[G] had to give in by 60 Euro, the largest concession of all 12 firms, in order to reach an agreement.

The importance of splitting the surplus equally

SD plays an important role in our experiment as the final agreement of four of the negotiations. Moreover, 10 of the 12 teams formulated SD as a bargaining goal in the pre-negotiation phase (see Figure 1). The two remaining teams (CG07_X[C], GG06_Y) never discussed SD. It seems that SD is agreed upon as a final result only if both bargainers have already discussed this allocation in the pre-negotiation phase.

Why is SD such a prominent allocation in our experiment for German as well as for Chinese bargainers? One important characteristic is the equal split of the surplus, which combines the X-firms' claims for getting more than half of the joint profit with the element of equality by splitting the surplus equally. As already illustrated, SD is the midpoint between PS and ES, given the parameters of our experiment. And for those negotiations where firms X started with an opening offer of PS, settling at SD meant that both firms make the same level of total concessions. In addition, they meet at the midpoint between first offer and demand. SD thus meets the needs of both Chinese and German firms for the mutually acceptable justification of an allocation. Moreover, it satisfies the German teams' requirement to provide an allocation's fairness property.

4.3 Motivational, behavioural and argumentational peculiarities

The previous subsections showed many similarities between the Chinese and the German teams. This applies to First offers/demands, final agreements, and the equitable allocations PS, ES, and SD that serve as anchors for forming aspiration levels. In this section, we turn to observed peculiarities. Chinese Y-firms not only seem to plan their own negotiation more carefully than German Y-firms do, but also many more Chinese than Germans firms incorporate their counterparts' bargaining goals into their mental models and deliberations. This fact might be one reason why the former achieve higher profits than the latter. In the following, we will look more deeply into motivational, behavioural and argumentational features of the Chinese and the German bargaining teams. The fact that the firms employ the respective arguments provides evidence that they are rather important for them.

Pre-negotiation phase

[11] See e.g. GG06_X, 375: "…wenn wir denen diese 375 anbieten würden, dann würden die noch mal wieder kommen und noch mehr haben wollen…". [„…if we offer them these 375 they would come again and still ask for more…"]. Similar discussions are found in other firms as well.

We found that when preparing their bargaining strategies and tactics, Chinese teams apply techniques that Germans only use to a much lesser extent or not at all.[12] These techniques are described in detail below.

Gathering information: More Chinese than German firms (six vs. two) plan to observe their counterparts carefully during the between-firm negotiation and to gather as much information as possible on their true bargaining goals, as well as on the role specific team members play in their counterpart's firm. They even appoint one or more members of their own team who are responsible for this task.

Anticipating the counterpart's behaviour: Even though all teams try to predict their counterpart's behaviour in the pre-negotiation phase, Chinese do this in a much more sophisticated way. Several teams simulate the later between-firm negotiations by assigning the counterpart's role to one or two members of their own team. They put into practice what Selten (2000) calls "imaginary bargaining". He introduces this procedure as a cognitive process for anticipating jointly agreeable solutions in non-cooperative one-shot games.[13]

Role play: Pursuing the Western concept of "Good Cop/Bad Cop" tactics is discussed in four German firms during the pre-negotiation phase but is not used consistently in the between-firm negotiations. Four of the six Chinese teams discuss tactics that appear to be similar to "Good Cop/Bad Cop" but are in fact different (see Hupert (2012)). White, Red and Black Face are institutionalised as Beijing Opera characters and are well known to Chinese people. The main colors of the masks are of great importance in revealing, for example, the personality of a character (e.g. Xu (2003)). Not only do Chinese firms in our experiment appoint the different roles to different members of their own team, they also apply them consistently in the between-firm negotiations. Interestingly, the Chinese X- and Y-firms use these tactics only in intra-cultural negotiations.

Harmony: Analysing the transcripts shows that all Chinese firms in CC06 and CC07 make harmony an explicit argument. Moreover, both firms in CC06 create a harmonious non-competitive atmosphere, aim at building relationships between both firms, and avoid touching the bargaining issue. Firm X made a first offer only in the third between-firm negotiation round, which firm Y accepted in the subsequent fourth between-firm negotiation round (see Table 4). Harmony is not an explicit issue for German teams, even though they aim at creating a friendly yet professional bargaining environment (GG07_X; GG07_Y, CG07_Y).

Face: Interestingly, we found only one Chinese but two German firms discussing about protecting their own face and not damaging the counterpart's face. One of the German firms discussed face in an inter-cultural negotiation, the other even in an intra-cultural negotiation. The same firm made face an issue at the end of the between-firm discussions.

[12] In CC06, some technical problems with video taping occurred. We therefore have no transcripts of CC06_X except for the pre-negotiation phase, and we miss the very last part of the fourth between-firm negotiation round. This does not affect our analysis, however.

[13] This procedure was also applied more often by Chinese than by German teams in a one-shot non-cooperative videotaped ultimatum game (Geng (2004)).

Between-firm negotiation phases

When making offers and demands during the between-firm negotiations, firms request and seek to provide good arguments to make their claim acceptable for their counterpart.

Fairness: All 12 teams discuss what in their view is a fair allocation. However, the weight they put on the fairness argument differs considerably depending on their cultural background. All German teams request specific explanations and justifications for why an offer/demand is fair. Fairness is particularly attributed to the equitable distributions ES, PS, and SD. As each of the three allocations comprise an element of fairness, the rather large discrepancies on the fairness issue lead to extensive discussions whenever a German team is involved in the negotiation, irrespective of whether the counterpart is German or Chinese. Chinese teams also talk about fairness but to a much lesser extent. For them the equity property of an allocation seems to be a sufficient justification. In inter-cultural negotiations, Chinese are sometimes astonished about how important the fairness issue seems to be for a German counterpart.[14] Our findings, reflect the view of Bicchieri (1999), who states that fairness is context dependent, and also lend support to Morris and Gelfand (2004), who state that the reason or rationale one has to give for one's own decision appears to be heavily influenced by one's own culture.

Guanxi: We found one Chinese intra-cultural negotiation to comply particularly well with the Chinese habit of making friendship connections before starting the negotiation. Both firms in CC06 discuss all kinds of private issues before they actually start talking about business only in the third between-firm negotiation round. When occasionally the bargaining issue is cautiously raised, it is met by laughter from all of the other team members and by pointing to the fact that there is still enough time left to postpone business. This does not mean, however, that teams do not gather as much information on the opponent team as possible (see above). Contrarily, the tendency of Western negotiators to separate business from their private life is nicely demonstrated in GG06. The negotiator of GG06_X refuses to accept the argument of GG06_Y that agreeing on ES would be wise due to potential bad feelings when meeting after the bargaining experiment and drinking beer together: "I can separate business from my private life well."

Bargaining style

Efficient outcome: The German firms strive for an overall efficient outcome or an acceptable payoff in reasonable time, i.e. the payoff per hour is more important than the absolute outcome. Chinese teams are different in that respect. For them the final payoff is vital, while the time they need to reach that agreement is less important.

[14]Members of the Chinese firm GC06_Y[C] are arguing in one of the within-firm discussions:
Member C2: "…他好像很注重这个东西。". "...es scheint, sie schätzen diese Sache sehr.". ["…apparently they put great emphasis on this issue.".]
Member C4: "他说什么?". "Was sagt er?". ["What is he talking about?"].
Member C1: "Fainess,公平 ". „Fairness, Fairness.".

Threatening to break off: Exiting the negotiation seems to be a more important argument for German than for Chinese firms as five of the former but only two of the latter threaten to break off the negotiation. Interestingly, it is predominantly Y-teams that use threat as an argument to enforce an acceptable outcome (three German and two Chinese). Only two X-teams consider relying on threats, and both are German.

Justifying bargaining goals: We find *similarities* between Chinese and Germans when analysing the respective arguments for justifying their bargaining goals. Five of the six X-firms put forth the argument about the large amount the Y-firm gains when accepting the X-firm's offer compared to Y's outside option. They also discuss the low amount they themselves would gain when accepting the Y-firm's demand. In contrast, five of the six Y-firms argue in terms of the loss the X-firm would incur compared to X's outside option in case of disagreement.[15] Moreover, all German and Chinese Y-firms argue that the entitlement of X-firms to receive a higher final payoff should be ignored and claim instead that the merit of having won the contest is irrelevant. They deny not only this backward-looking feature but also the forward-looking aspects of how outside options influence the bargaining process. All X-teams, in contrast, argue in favor of taking merit and outside options into account.

5. Conclusion

This study aims at better understanding bargaining and negotiation behaviour in general and, in particulary, that of Germans and Chinese. On a theoretical level, inter-cultural invariants of negotiation behaviour can be distinguished from culturally dependent aspects. On a practical level, a sound understanding of contextual influences of a cultural nature is an important prerequisite of coping with the challenges of Sino-German business transactions.

To identify inter-cultural similarities and differences, we observe Chinese and German teams in intra- and inter-cultural bargaining setups. Our analysis is based on verbal transcripts of video-recorded bargaining processes in repeated within-team discussions and between-team negotiations. Our experiment represents a comprehensive case study and provides fruitful insights from both a methodological and practical perspective.

Our findings demonstrate the general importance of aspiration formation (in combination with equity concerns) in intra- and inter-cultural negotiations. All teams formulate bargaining goals before the negotiation starts. These aspirations apparently help to structure the bargaining process as many features of the subsequent negotiation like offers, demands, final outcome, or concessions can be traced back to these previously formulated goals. Carefully preparing the negotiation, reasoning about the counterpart's aspirations, gathering as much information on the counterpart as possible, anticipating their behaviour by "imaginary bargaining", and using "role play" appear to be good strategies for reaching at least an acceptable negotiation outcome. Especially Chinese teams – which are, on average, more successful negotiators in our experiment as compared to Germans – make use of these techniques.

[15] The two remaining firms are CC06_X and CC06_Y, both of which did not talk about business prior to the third between-firm negotiation round.

The data also show that fairness and equity concerns play an important role in the negotiation processes. Particularly German teams repeatedly request specific explanations and justifications from their counterparts on why a proposed offer or demand can be considered fair. Chinese teams also talk about fairness issues but to a much lesser extent. Our Chinese and German bargainers often agree upon an allocation based on the equity norm of Split the Difference. Relying on this norm seems to represent a feasible and justifiable compromise for both parties that takes both negotiators' outside options into account. Equally splitting the surplus combines the strong teams' aspirations for more than half of the joint profit with an element of equality. Both parties finalize the deal at the exact midpoint between the typical first demand by the weaker party (Equal Split) and the typical first offer by the stronger party (Proportional Split), and both parties make exactly the same concessions in absolute monetary terms. Split the Difference satisfies the German teams' specific request that an allocation has to be fair.

Our verbal transcripts show that bargaining parties have the chance to reach mutually acceptable agreements if they carefully analyse the bargaining situation, including the potential impact of their own outside option, the amount initially at stake for negotiation, and, more importantly, their counterpart's outside option. Based on these variables, negotiators can effectively plan the bargaining process by defining the different standards of distribution and comparison the bargaining situation allows for, by formulating own aspirations, by reflecting about their counterpart's aspirations, by calculating fair/equitable allocations – especially compromises like Split the Difference – and by making them salient during the negotiation process.

One might argue that the strong impact of the equity principle in our study has no bearing in real-life negotiation contexts but is rather an artifact of our experimental design, which provides features that allow firms to easily calculate standards of distribution and comparison and, thus, equity norms. Even though it is true that our experiment relies on a simplified bargaining situation, solutions suggested by the equity principle also influence negotiations on economic distribution conflicts in real-life situations. These are, for instance, the formation of quota cartels (Selten (1978, 1987)), international business and trade negotiations (e.g. Mintu-Wimsatt (2005) Narlikar (2006)), as well as inter-country negotiations on resource allocations, e.g. water from the Caspian sea (cf. Sheikhmohammady et al. (2010)).

Addressing country peculiarities, we find support in our study for the idea that successful negotiators need specific traits, which Thompson (2009) lists as predictors of success in inter-cultural interactions. Those are, for instance, empathy, openness to different points of view, interest in the counterpart's culture, cultural flexibility, the ability to establish new inter-cultural relationships, patience, inter-cultural sensitivity, and skills in collaborative conflict resolution. Chinese firms should be aware that Germans tend to ask for justifiable offers or demands with regard to fairness considerations. They should also take into account that Germans do not aim at offending their Chinese bargaining counterpart by striving for an acceptable outcome within a given time frame and by separating business from private

relationships. Germans, on the other hand, are well-advised to be patient and invest time and resources in order to establish good relationships with their counterparts. They should be aware, however, that their Chinese counterparts, despite acting socially, are strategically collecting information and use tactics even in informal relations in order to reach their own goals. Moreover, Germans should refrain from using threats to breaking off the negotiation, which may not be credible – in particular when alternatives on the German side are missing - and, in addition, may be perceived as hostile and distort harmony.

From a methodological point of view, our study can be seen as a kind of think-aloud study in a quasi-natural environment. It underlines the merits of using the video method for understanding negotiation processes as it reveals important "intentional" and "reasoning" details typically not accessible by other methods. Future research should include more teams and use different subjects (e.g. managers) to assess the validity of our findings. Practical applications in negotiation training at business schools and in schooling for industry purposes seem to be rather obvious. It is quite conceivable to train German teams to act Chinese in a bargaining situation and to let them then interact with Germans to train both sides and vice versa. We believe that such training courses could be practically useful.

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Appendix I: Methodological considerations .

In the following, we address methodological considerations relevant for our experimental study. These entail the challenges of cross-cultural and inter-cultural experiments, the video method as well as content analysing the transcripts of the videotaped discussions.

Cross-cultural and inter-cultural experiments

When running experiments in different cultures one must pay specific attention to issues like language, experimenter interactions and currency effects to ensure comparability across cultures (cf. Roth et al. (1991), Henrich et al. (2001), (2004), Herrmann et al. (2008a,b), Buchan et al. (2009, 2011), Farina et al. (2014)). These aspects were carefully taken into account when planning and conducting our experiment. All material was provided in the two native languages. The same native experimenters were present in both summer schools. Participants' rewards were calculated such that they provided sufficient incentives in Germany and China to take the task seriously.

Video experiments

Video recording an experiment has several advantages. Compared to other methods like exchanging written messages (see e.g. Cooper and Kagel (2005), Lügger et al. (2015))[16], it allows to actually observe decision making and a direct insight into participants' spontaneous argumentations and cognitive processes throughout the experiment. Moreover, videotaped experiments provide a much richer data set when comparing arguments across cultures. These arguments refer to identical situations during a decision making process, like, for instance, in our bargaining situation. Audio taping, in principle, serves the same purpose (see e.g. Klemisch-Ahlert 1996). Yet, potential drawbacks include that speakers often cannot be identified or understood – especially in heated debates – such that individual characteristics or arguments cannot be attributed to specific individuals (Orbell et al., 1988). Morover, non-verbal articulations are not recorded either.

Text protocols of a video experiment, therefore, provide a rich database for various research questions. The advantages of video experiments come at some costs, like a small number of observations due to the huge amount of verbal data to be analysed and a loss of control in a face-to-face bargaining setup. Also, the presence of the video technique may influence participants' behaviour due to the impact of the observation medium. While not denying such potential weaknesses we, however, believe that video experiments are a valuable complementary research method as it provides data that are difficult or impossible to gain by other elicitation methods, in particular when individual decision processes are not traceable. For a more detailed evaluation of video experiments see Hennig-Schmidt et al. (2010).

[16] Complex cognitive processes often need time to develop. Discussions like in video experiments are a suitable means to make such processes visible as arguments and counterarguments are likely to advance complex thought processes. Verbal data derived from written statements are much poorer in this respect (see Walkowitz and Hennig-Schmidt (2010)).

Content analysis

Our experiment provides video records of the within-firm discussions and the between-firm negotiations. Chinese and German students transcribed the videos having been especially trained for this task. All in all, our experiment provided 633 pages of transcripts including translations from Chinese into German. To address our research questions we content analysed the verbal data. Content analysis is a technique to extract required information from a body of – in our case verbal – material by systematically and objectively identifying specified characteristics of the data (Smith (2000)). Coding the verbal material operationalizes this information. It denotes the process of assigning text segments to pre-defined categories. Categories in the present study are distributive goals the teams are striving for, equity considerations, and cultural disparities. The frequency of teams articulating a category at least once is the measure that transfers the qualitative data into quantitative figures. A bilingual coder (cand. rer. pol. Na Yi) capable of analysing the Chinese and the German text protocols did the coding in close collaboration with one of the authors, Heike Hennig-Schmidt, and a bilingual member of the organizing team, Chaoliang Yang (see Yi (2008).

Appendix II: Tables

Table A1: Aspiration levels and expectations discussed in the pre-negotiation phase and final agreements

	Pre-negotiation phase									Final Agreement
	Own Aspiration Levels (AL)						Counterpart's Expected AL		SD discussed	
	D	P	ACC	A	T	L	D^O	L^O	SD (105)	F
GG06_X	50	105	105				150		105	100
GG06_Y	150		100	100		60	60			100
CC06_X	60		105			150	105		105	105
CC06_Y	150	105	100	105		60		150	105	105
GC06_X[G]	60	100	150	105			150		105	105
GC06_Y[C]	150	105	105	105		100	60,40		105	105
GG07_X	60					150			105	105-Coffee
GG07_Y	150	120	105	105		105			105	105-Coffee
CC07_X	60		105	105			150	[80-90]	105	105
CC07_Y	150		105	105	60		60		105	105
CG07_X[C]	60						150	40		90
CG07_Y[G]	150	100							105	90

Legend:
Aspiration levels (AL):
D: First Demand/Offer
P: Planned Outcome
ACC: Acceptable Outcome
A: Attainable Outcome
T: Threat
L: Conflict Limit
F: Final Agreement

Expectations: D^O: Counterpart's First Demand/Offer $L^{O:}$ Counterpart's Conflict Limit

Equitable Allocations: 150 = ES: Equal Split 105 = SD: Split the difference 60 = PS: Proportional Split

Table A2: Frequency of teams discussing specific aspiration levels and expectations

Frequency of teams discussing aspiration levels and expectations in within-firm discussion 1						
	G-teams		C- teams		All teams	
Aspiration levels						
D	(X: 3, Y: 3)	6	(X: 3, Y: 3)	6	(X: 6, Y: 6)	12
P	(X: 2, Y: 2)	4	(X: 0, Y: 2)	2	(X: 2, Y: 4)	6
ACC	(X: 2, Y: 2)	4	(X: 2, Y: 3)	5	(X: 4, Y: 5)	9
A	(X: 1, Y: 2)	3	(X: 1, Y: 3)	4	(X: 2, Y: 5)	7
T		0	(X: 0, Y: 1)	1	(X: 0, Y: 1)	1
L	(X: 1, Y: 2)	3	(X: 1, Y: 2)	3	(X: 2, Y: 4)	6
Sum	(X: 9, Y: 11)	20	(X: 7, Y: 14)	21	(X: 16, Y: 25)	41
Expectations						
D^O	(X: 2, Y: 1)	3	(X: 3, Y: 2)	5	(X: 5, Y: 3)	8
L^O		0	(X: 2, Y: 1)	3	(X: 2, Y: 1)	3
Sum	(X: 2, Y: 1)	3	(X: 5, Y: 3)	8	(X: 7, Y: 4)	11