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# **Intuitive and Deliberative Decision-Making in Negotiations**

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**Abstract:** This study departs from common conjecture by challenging the preference for deliberation or intuition, or both, in negotiations. In contrast to prior negotiation studies considering judgment precision, this study builds on underlying personality traits. Therefore, the findings are valid beyond the experimental context. This study conceptualizes and experimentally tests the impact of preference for intuitive and deliberate decision-making during negotiations in Chinese, German, and Polish cultures. Contrasting an emotional with a neutral setting, the paper evaluates the impact preference for intuition and deliberation have on negotiation outcome. The results challenge the frequent assumption made in negotiation analysis: Deliberative negotiators are superior.

**Keywords:** Decision-making; deliberation; intuition; negotiation; preference for intuition, and deliberation PID.

#### Introduction

In the context of negotiations, the role of intuition and deliberation in decision-making remains unclear (Kesting & Nielsen, 2020). This is particularly true in the contrast of different cultural settings (Caputo et al., 2019). Depending on their domain, researchers have described the different influences of intuition and deliberation on decision making and negotiations. Scholars in business research emphasize the advantages of deliberation.

Negotiation is a process in which at least two parties interact while attempting to specify the terms of their interdependence (Patton & Balakrishnan, 2010). Since managers are engaging in international negotiations to a greater extent (Reynolds, Simintiras, & Vlachou, 2003), they not only have to understand the factors and the processes that contribute to a satisfying outcome (Ott et al., 2016), but also the cultural values and the related negotiation tactics (Chan & Ng, 2016). If the negotiation process is structured according to the participants' mental maps, it is possible to achieve higher efficiency, satisfaction, and profits. Thus, the teams, processes, and design of interactions have a significant impact on individual companies and the global economy (Patton & Balakrishnan, 2010). Simon (1976) stated that incomplete information, a limited ability to seek alternatives, and incomplete insight into future consequences are all key constraints on decision making. Deeper knowledge of the decision-making process provides insights for managers, enabling them to make better decisions. Neither cognitive abilities nor experience or prior knowledge alone can lead to competent decisions (Barclay & Bunn, 2006).

Building upon Patton and Balakrishnan (2010), this study conceptualizes and experimentally tests differences in preference for intuitive or deliberative decision making and the ensuing impact on the negotiation outcome. The main focus of this study is the investigation of the preference for intuition and preference for deliberation as personality-related determinants in negotiators with different cultural backgrounds. The

objective of the paper is to analyze the (inter-) dependencies of the preference for intuition and deliberation for negotiators from China, Poland, and Germany. The research design builds upon a confirmatory test of the Preference for Intuition and Deliberation Inventory (PID) in three cultures. The accompanying evaluation of the (inter-) dependencies with the negotiation outcome is of an exploratory nature.

Similar to other negotiation-effecting determinants, the perceived need for deliberation is rooted in the individual's cultural imprints. However, experimental evidence is mainly limited to Western cultures. Firstly, clarifying the impact of the negotiator's preference for deliberation or intuition on the negotiation results, and secondly, clarifying the generalizability across cultures is this study's contribution.

For both purposes, a suitable assessment of the negotiators' preference for deliberation or intuition is needed. The remainder of this paper is organized into five sections. Section two gives an overview of the conceptual framework and focuses on deliberation and intuition in decision-making processes as well as the PID types. In section three we introduce our study and present its results in section four. The paper closes with a discussion.

## **Conceptual framework**

#### Deliberation and intuition in decision-making: cross-currents and complements

In their daily life, managers are used to facing situations in which they make intuitive and deliberative decisions without being aware of these modes. Notably, neither are mutually exclusive, provoking an either-or decision, because the underlying mental processes can be simultaneous or changing (very fast) during the same decision.

"Intuition involves a sense of knowing without knowing how one knows. Intuition involves a sense of knowing based on unconscious information processing." (Epstein, 2010, p. 296).

In business research (e.g., Dinnar & Susskind, 2018; García-Peñalvo & Conde, 2014; Winkler, Kuklinski, & Moser, 2015), it is often an implicit assumption and sometimes explicitly clear: the more deliberate a decision is, the better it is (Kesting & Nielsen, 2020). In contrast to that school, Dijksterhuis et al. (2009) argue that it is a fallacy to believe exhaustive thinking leads to better decisions. The effect that thinking about decisions has is dependent on the individual situation (Susskind, 2017).

Subject to the specific situation and the assumptions made by the decision-maker, exhaustive thinking leads to better decisions (e.g., Ward & Fasolo, 2001; Newell & Broder, 2008). Challenging this view, Dijksterhuis, and Nordgren (2006), as well as Igou and Bless (2007), argue that unconscious thought leads to better decisions in an uncertain environment or during complex decisions. Strick et al. (2011) provide a detailed overview of decisions made under conditions of uncertainty. To summarize their results, deliberate decision-makers are affected by a plethora of biases, whereas intuitive decision-makers might assess the importance of information more precisely (Dijksterhuis et al., 2009). In this vein, intuitive decision-makers might take advantage of focusing on the essential information. Other researchers (e.g., Kersten, Roszkowska, & Wachowicz, 2017; Mousavi & Gigerenzer, 2014) discuss the effects of heuristics as a form of intuitive decision-making in a business context. Furthermore, Albers et al. (2000) show that many people wonder what to do next and therefore choose an easy solution. This behavior turns out to be risky, especially in situations – like negotiations – with time pressure, a false weighing of

information, and the existence of biases. Summarizing these results, the false weighing of information likely leads to high losses of money as well as damage to good relationships. Payne et al. (2008) doubt the generalizability of such studies because intuition is situational per se. According to Shanks (2006), it is important to understand in which situations the use of intuitive decision-making has a positive outcome and what kind of limitations can be expected.

Overall, the two main schools of thought – recommending facts-based deliberative vs. intuitive decision making – have not achieved a consensus yet. In negotiation-related publications, we identified previous research that guides and supports negotiators to focus on facts and to minimize the intuitive factor (Julmi, 2019). Contrastingly, experimental evidence from psychology suggests that intuitive decision-making might outperform the deliberative approach. Notably, this fits the evolutionary developed practice of a substantial proportion of everyday business-related negotiations conducted by both experts and laymen.

# Assessing the negotiators' preference for intuition and deliberation

In order to build upon well-established psychological research methods, we identify standardized inventories covering the preference for intuition by means of personality traits. Subsequently, we expound on our choice of the PID.

- (i) The Myers-Briggs Type Indicator (Myers, 1962) is rooted in the scheme of psychological types introduced by Jung (1960). Besides other aims, it makes it possible to capture the individuals' disposition to decide intuitively. Major criticism arises from socially desirable answers and missing affective elements. Therefore, we consider this inventory to be less suitable in our research context.
- (ii) The Rational-Experience Inventory (Epstein et al., 1996) is based on Cognitive-Experiential Self-Theory. Keller, Bohner, and Erb (2000) criticize that it mixes intuitive and heuristic behavior. Due to this shortcoming in capturing intuition, we follow the authors in not utilizing it in our study.
- (iii) The Preference for Intuition and Deliberation Inventory (Betsch, 2004) captures affect and cognition-based decisions systematically based on the intuitive or deliberative decision preferences of a subject. It provides an assessment of the individuals' normative attitude towards the decision modes. One advantage of this specification is that intuition and deliberation are two independent constructs and not two extremes on the same continuum. Here, intuition covers the object-related affects and deliberation captures the object-related reflective cognition. Thus, this approach makes it possible to map individuals who end up in intuitive decision-making although their prior decision-making process is deliberate.

This more general coverage of intuition and deliberation in combination with the specification of two independent constructs is the rationale for selecting the PID.

Regarding the interpretation of the types, we built upon the results of Betsch (2004). Therefore, we expect intuitive negotiators to decide easier and faster than deliberate ones. This characteristic does not imply a lack of motivation in accuracy but is due to a higher degree of decisiveness and openness to new experiences. The higher preference for intuitive decision-making is unrelated to the use of cognitive decision-making strategies.

Deliberate decision processes are more time-consuming and require complex cognitive resources. Especially precise and perfectionist individuals have a higher propensity for deliberation. This holds for individuals with the preferences for a clear structure as well.

The ability for logical reasoning is independent of the preference of the one or the other decision-making mode.

This study departs from the prevalent theory by challenging the preference for deliberation or intuition. In contrast to prior negotiation studies considering the precisions of judgments (Albers et al., 2000; Dijksterhuis et al., 2009; Mega, Gigerenzer, & Volz, 2015) we refer to the underlying personality traits. Therefore, we expect to reveal results that are valid beyond the context of the experimental setting of our study. This contribution aims to advance both negotiation theory (by means of the superiority of deliberate or intuitive negotiators) and cross-cultural psychology (by means of questioning the cultural influences). On these grounds, the subsequent results might be generalized to other marketing-relevant domains covering decision-making processes such as management decision process modeling or consumer choices (Xiao, Zhang, & Basadur, 2016).

For the quantitative assessment, this study goes beyond the initial development contexts of the inventories (PID in Germany, Rational-Experience Inventory in the US). This transfer to divergent cultural settings has already been established by Mikusková, Hanák, and Cavojová (2015). The PID confirms high internal consistency and turns out to be valid in other cultures as well. The latter is relevant for this study because prior research identified no indication that preference for intuition or preference for deliberation is culturally influenced. These preferences appear generally valid and should be independent of the culture. Therefore, we propose,

P1: The appearance of the preference for intuition and deliberation (PID-types) is unrelated to culture.

The basis for testing the proposition is the concept of national culture. More important than the existence or non-existence of differences in the appearance of the four types is the question related to the negotiation outcome. Do negotiators with a high preference for deliberation and a low preference for intuition have an advantage?

Stanovich and West (2000) proceed on the assumption that most people fall back into their intuitive system (system 1) during decision processes like negotiations. Summarizing the scholarly discussion by psychologists, it is neither good nor bad per se to make decisions intuitively or deliberatively (Kahneman, 2003; Payne et al., 2008). Dijksterhuis et al. (2009) show with numerous experiments that those intuitive decisions can also be superior. These results are explained by the higher probability of decision makers' misleading assumptions and the influence of several biases in deliberate decision making.

Many management-oriented scientists like Bazerman (2006) assume that too many negotiators rely on their intuition and gut feeling during negotiations. Consistent with this is the argumentation from Fisher et al. (1991). They assume in their Harvard Method that deliberative-oriented negotiators are superior.

In this manner, negotiators with a high preference for deliberate decisions should be superior, while negotiators with a high preference for intuitive decisions would face a disadvantage. Taking the insights of the above-mentioned psychologists into account, a definite rule should not be possible. Therefore, the situative negotiators should end up with superior results compared to other negotiators.

Complementing these two conflicting schools of thought according to intuition and deliberation, Albers et al. (2000) show that many negotiators do not know exactly what they want (especially in difficult situations) and, therefore, choose easy solutions. In these situations, emotions play a substantial role, because of their relevance in assessing a

situation. Deliberate negotiators are more likely to be affected by this. It must be assumed that the positive influence might become reverse in a neutral scenario.

Table 1 provides an overview of the postulated influences of the preference for intuition and deliberation on the outcome in negotiations. The PID presents four different types of persons: intuitive (I); deliberative (D), situative high scoring (S+), and situative low scoring (S-).

Table 1. Proposition P<sub>2</sub>

		Culture		
	Type	Chinese	Polish	German
le	I	-	-	-
	D(i)	+	+	+
utra	S-(i)	+	+	+
Neutral	S+	+	+	+
	I	-	-	-
Emotional	D(i)	-	-	-
	S-(i)	+	+	+
	S+	+	+	+

Evaluating the proposition depicted in Table 1, the results add evidence to the discussion of the best negotiator fitting a specific task. Moreover, we contribute to cross-cultural psychology by challenging the personality's performance in neutral and emotional scenarios.

# Study

To test the exogenous influences of the preference for intuition and deliberation on the negotiation outcomes in a multicultural setting, a design with a sufficient amount of observations is needed. In principle, field and laboratory experiments are suitable for such an investigation. The advantage of laboratory experiments in contrast to field experiments is the possibility to manipulate and control the situation (Goodwin, 2002). Role-play-negotiations are an appropriate instrument in the negotiation research (e.g., Dreu & van Lange, 1995). It enables the implementation, control, and manipulation of the main characteristics of real negotiations. Typical manipulations are distinct information about the profits or offer-counteroffer-sequences (van Kleef, Dreu, & Manstead, 2004). In this study, we link the individual outcomes of the negotiations to personality traits. To do this we combined the questionnaire-based psychometric tests with the role-play.

A central element to evaluate negotiations is the outcome (individual or joint). Salacuse (2009) emphasizes that the negotiation outcome is influenced by negotiators' (i) style, (ii) culture, and (iii) profession. In this study, we assess the variances of these antecedents by means of the PID and measure the culture of the negotiators on an individual level. Since our participants are homogeneous with respect to their professional background, we have no explanatory variances in this dimension. Therefore, the research design of our study (see Figure 1) consists of person-related characteristics (culture and PID), two different negotiation tasks (neutral and emotional scenario), and a success measurement (winner vs. loser, individual outcomes, and efficiency). In this manner, we contribute to the work of Ott et al. (2016), building a DNA of negotiations. The formal structure of the experimental negotiation tasks is based on Coleman (1973). Its usability and adequateness for negotiation experiments have been confirmed in several settings (Gupta, 1989; Raith, 2000). Following the advice of Perdue and Summers (1986), the efficiency of

our manipulation by means of neutral and emotional negotiation settings is checked and confirmed in a pre-test.

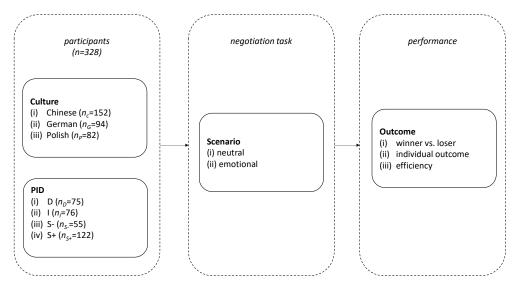


Figure 1. Research design

#### Person related characteristics

#### Culture

Culture is measured as a control variable with the Hofstede (2001) dimensions.

#### PID

The PID is a questionnaire-based psychometric test and entails four different types of persons: intuitive (I); deliberate (D), situative high scoring (S+), and situative low scoring (S-). Individuals who score above the median on intuition and below the median on deliberation are assigned to type I. Individuals scoring above the median on deliberation and below on intuition are labeled as type D. Depending on the situation, individuals scoring high or low on both dimensions are more likely to choose the deliberative or intuitive decision making. Type S+ describes individuals with high scores for intuition and deliberation, whereas type S- is characterized by individuals with low scores on both dimensions (Betsch, 2004).

# Negotiation task

#### Neutral scenario

Aiming at an exhaustive evaluation of the influences, we choose a neutral and an emotional scenario. The design of the neutral negotiation scenario builds upon the systematic observations and evaluations of real-world negotiations of a German manufacturer of test systems with its customers. We identified and used typical items and demands for creating the scenario. The participants negotiated price, payment, discount, delivery, guarantee, availability of spare parts, cancellation expenses, and other services. In our experiment, the manufacturer and customer got a description of the situation and the task. Both have conflicting utilities, but a joint interest in the transaction and strive for an advantage without hard conflicts.

#### Emotional scenario

The emotional scenario follows a different design. A hotel and a tour operator negotiate the conditions for the next season. Both have opposite interests, but the task embraces the potential for a serious conflict.

The hotel managers in the experimental groups got additional information about the other party in a closed envelope to intensify their negative emotions. The experimental investigator emphasized that this additional information must be used for individual advantage and is exclusive to the hotel manager. The tour operators' parties did not get corresponding information about the hotel managers. This artificial information asymmetry led to a situation where tour operators felt offended and reacted with negative emotions. We pre-tested this practice of emotional manipulation and validated it with the help of video analysis and qualitative personal feedback.

# **Performance**

#### Winner vs. loser

A negotiator is considered a winner when the overall outcome is higher than the outcome of the counterpart. This measurement is related to the performance in the dyad. The advantage of this procedure is that this simple measurement is not sensitive to differences in the outcomes by means of cultural effects and the qualification level of respondents. Even if negotiators from one culture negotiate better, in the winner-loser comparison this effect does not play a role.

#### Individual Outcome

The individual outcome is similar to the individual profits and represents the overall values the negotiator gets at the end of the negotiation.

#### **Efficiency**

Efficiency is measured as the sum of the individual outcomes. This measurement is based on Raiffa (1982) and is also named joint gains or joint profits. One common disadvantage of this measurement is that negotiations with a strong difference in outcome are considered inefficient.

# Data and results

#### Data

Embedded in a two-day negotiation training, MBA or Master Students (n=328) from China (nc=152), Germany (nc=94) and Poland (nc=82) participated in this experiment. To avoid misinterpretations and mistakes due to language problems all tasks and questionnaires were translated to the participants' language and back-translated to English for validation of equivalence. To ensure the comparability of the negotiations all participants were equipped with identical rules.

The assessment of preferences for deliberation and intuition by using self-administrated paper-and-pencil-based questionnaires is well established. This procedure is easy and flexible to integrate into the experiment but increases the likelihood of missing values in the responses. In empirical research, missing values are a common problem, but they are rarely explicitly addressed in marketing or management-related scholarly publications. If just a few values are missing, many researchers just eliminate those cases. Others just replace the missing values with the mean and accept the lower variance in their data (Little & Rubin, 1987). In this paper, we use the multiple imputations with an MCMC-procedure to handle missing values maintaining the statistical features and the structure of relations reflected in the data. Due to the small amount of missing at random values

(2.42 %), only three datasets are needed to maintain the statistical properties of the data. This procedure is common nowadays in studies and is addressed more often in recent research (e.g., Coussement et al., 2014; Plath & Stevenson, 2005; Williams & Martinez-Perez, 2014).

#### Result 1: PID Types of the Respondents

Following the psychometric basic research, we predicted that the appearance of the preference for intuition and deliberation (PID-types) is unrelated to culture. Therefore, the distribution of the four types should not differ significantly from one country compared to another. In a first step, we applied the procedure suggested by (Betsch, 2004) to identify the four different types.

We have  $n_I = 76$  intuitive and  $n_D = 75$  deliberate participants in our sample. The situational type with low scores  $n_{S-} = 55$  is underrepresented while the situational type with high scores  $n_{S+} = 122$  is overrepresented.

In a second step, we tested our hypothesis with a one-way ANOVA. We found no significant differences between or within the subsamples by country. Therefore, we prove that the appearance of the four PID-types is not related to the culture the participants come from. This indicates that the preference for intuition or deliberation is culturally independent.  $P_1$  is supported.

#### Result 2: Impact of PID Types in a neutral setting

For assessing how the PID-types influence the negotiation outcome we conducted a winner-loser comparison by means of a binary logit. The link function relates Winner (Y = 1) and looser (Y = 0) to the categorical variables  $D, I, S_{-}, S_{+}$ . Further consideration of the countries shows that the likelihood to be a winner is only significantly different for German negotiators.

Table 2. Results of the Logistic Regression for the German Sample

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Type	$oldsymbol{eta}_K$	Sig.	P(Y=1)	
D	-2.197	0.068*	0.500	
I	-2.485	0.056*	0.429	
S-	-2.197	0.083*	0.500	
$S_{+}$			0.900	

The regression model presented in the Table has a good adaption with a deviance of 43.586. The omnibus test of the model coefficients is acceptable with a  $\chi^2 = 6.375$  and 3 degrees of freedom ( $\alpha$ < 0.1) and the Hosmer-Lemeshow test indicates a good adaption.

 $S_+$  negotiators have a probability of 90 % to win the negotiations. D and  $S_-$  negotiators have a probability of 50 %. The probability of I winning is the lowest at 42.9 %. In this condition (a neutral scenario in a German setting) the preference for intuition seems to be slightly negative. In Chinese or Polish negotiators no significant differences can be observed.

Regarding the individual outcome and efficiency, no determining effect of the PID can be observed.

# Result 3: Impact of PID Types in an emotional setting

The focus on the emotional scenario shows interesting results as well (see Table 3). Corresponding to the neutral scenario, the probability to be a winner or loser of the

Chinese participants was not affected by the four PID-types. In the Polish subsample, the S- negotiator has the highest probability to be a winner, while again the German type I negotiators have the lowest probability to be a winner.

Table 3. Results of the Logistic Regression Polish and German Sample

Sample	Type	$\beta_K$	Sig.	Y
	D	0.357	0.592	0.462
sh	I	0.174	0.752	0.417
Polish	S-	1.322	0.060*	0.692
	$S_{+}$			0.375
	D	-0.515	0.355	0.458
nan	I	-1.128	0.074*	0.333
German	S-	-0.173	0.762	0.583
J	$S_{+}$			0.607

The results in Table 3 clarify the remarkable different influences of the PID-types, taking into account that their appearance is not different between the Chinese, German and Polish samples.

While the singular preference for intuition versus deliberation in the Chinese and Polish samples does not influence the probability to be a winner in a negotiation, intuitive negotiators in the German sample in both neutral and emotional situations have a disadvantage. Polish type S- negotiators have the highest probability to win in an emotional situation. The superior probability for S+ negotiators in the German sample is also supported by the results of linear regression. The German S+ negotiators also had superior outcomes in comparison to the other types. Regarding efficiency, we do not find any effects.

#### **Overall reflection**

The influence of the PID-types on the probability to win or lose a negotiation differs from one culture to another (see Table for an overview). General statements about the role of the PID types in negotiation can hardly be done.

Table 4. Superior Negotiators per Scenario, Culture, and Success Measurement

Setting	Culture	Winner vs. Loser	Individual Outcome	Efficiency
Te.	Chinese	n.s.	n.s.	n.s.
neutral	German	S+	n.s.	n.s.
u u	Polish	n.s.	n.s.	n.s.
ıal	Chinese	n.s.	n.s	n.s.
emotional	German	$S_{+}$	$S_{+}$	n.s.
em	Polish	S-	n.s.	n.s.

Note. n.s. – not significant.

Conservatively speaking, it turns out that situational-type negotiators have an advantage by trend. Domination of the pure intuitive or the pure deliberate negotiator cannot be

observed. Furthermore, besides the probability to win or lose a negotiation (with a given scenario and partner), we also considered the individual outcome and efficiency (sum of the individual outcomes). It turns out that only in the German subsample do the S+ negotiators perform significantly better. For all other subsamples and scenarios, we conclude that no influence of the preference for intuition and deliberation on the outcome is observed. Regarding the efficiency, we do not identify any determination of the outcome due to the PID type.

Taking these additional results into account, we argue that a relation of the preference for intuition and deliberation on the probability to become a winner or loser might exist in some cultures, but we do not see any influence on the individual outcome or the efficiency.

# Contributions, discussion, and conclusion

# This study's contributions to theory building

This study contributes to the current status of negotiation knowledge by determining the consequences of negotiators' preference for deliberation or intuition. Departing from prior studies considering the precision of judgments (Albers et al., 2000) we refer to the underlying personality traits. Therefore, the results of the paper are expected to be valid beyond the experimental setting of this study.

Experimental evidence suggests that conclusions regarding the possible advantages of the deliberative persons (who need to be highly accurate in their preparations to be successful in the negotiations) are not as clear as is assumed in business research (e.g., García-Peñalvo & Conde, 2014; Winkler et al., 2015). Conservatively speaking, situational-type negotiators have an advantage by trend. The dominance of the pure intuitive or the pure deliberate negotiator is not observed. Dependent on an emotional or neutral negotiation scenario the influences are positive or negative. 's (1991) assumption that deliberation generally leads to better results is not supported in emotional scenarios.

Becoming precise, even the distinction of neutral and emotional negotiation settings does not provide the negotiators with robust guidance, because the cultural framing supersedes the effects. For instance, we could not identify any difference in the results between the two scenarios for the Chinese subsample. Our results suggest that the cultural framing effects are on a higher level than the effects introduced by deliberative intuitive preferences of the negotiators.

Notably, the distribution of the preference for intuition or deliberation does not vary with the cultures. This might be a fundamental contribution of assessing the preferences of decision-makers in divergent cultures by utilizing the PID (Betsch, 2004). All the attempts of relating the preference for deliberate decisions to culture might be misleading. If this turns out to be consistent, it means that culture influences the interaction process of the joint decisions, but is independent of the development of general preferences in the context of socialization of the decision-maker. The mechanisms, how the preference for intuition and deliberation enfolds its effects need to be challenged by further research.

In further research, this question of high practical relevance needs to be clarified. Notably, in the German subsample, in the neutral as well as the emotional scenario, situative negotiators have a higher probability to become the winner in a negotiation. Similarities are observed in the Polish subsample. Here *S*<sub>-</sub> negotiators are found to have an advantage.

Summarizing the findings conservatively, it can be said that the influence of the preference for intuition and deliberation is small and there is no type with a clear dominance over all cultures and scenarios. Since the study builds upon well-established personality traits, we expect these contributions to be valid beyond its geographical scope and the experimental setting. Nevertheless, this needs to be confirmed by further empirical work. More relevant, the PID-types have a certain (for the probability to become a winner or loser in some cultures and scenarios) relevance in negotiations. Their overall role must be clarified in social-psychological and culture-psychological research to identify the interaction of certain types in ideal process models for negotiations.

Considering the substantial situational dependence for the success of the individuals' decision-making process, our results suggest that contextual framing needs to be reconsidered. Here we aim to narrow the gap in current knowledge in the same vein as Elen et al. (2013) who test the influence of mood on attitude-behavior.

#### **Practical contribution**

Dependent on the culture of the negotiator and the circumstances of the negotiation, a situative negotiator would have an advantage. But there is neither a clear dominance for the preference for intuition nor deliberation. The consequences for the different types vary with the cultural context. Deriving cultural or nation-specific advice for preparing negotiations should be limited to national and cultural habits. Empirical evidence clearly indicates that a specific negotiator stereotype dominates a certain culture. However, the results show that the distribution of PID does not vary with the culture; practitioners should be warned to follow any advice based on stereotypes. This is in line with the suggestions of Ogliastri and Quintanilla (2016).

Notably, neither the folk-wisdom "to keep a cool head" nor the folk-wisdom "to go with one's gut" can be supported. Therefore, our results complement prior findings which contradict the conclusions of Bazerman and Malhotra (2006).

#### Conclusion

This study is the first study providing quantitative evidence on the role of the preference for intuition and deliberation in negotiations in different cultures and emotional settings. Statistical testing of our hypotheses leads to the conclusion that neither the preference for intuitive, for example using heuristics or using the gut feeling (Mousavi & Gigerenzer, 2014) nor deliberate decision making can be seen as superior in negotiations (Dijksterhuis & Nordgren, 2006). Depending on the culture of the negotiators and the emotional settings the effects of the PID on the probability to win or lose a negotiation differ. This opens fruitful venues for further research by extending this exploration of contextual effects in a systematic way. A situational linking (Rousseau & Fried, 2001) is well-matched to explore the interaction effects of divergent PID types and their consequences by means of mutual gains on a micro-level. Challenging "the comforts afforded by staying within that paradigm most tightly linked to the phenomena of interest" (Bamberger, 2008, p. 841), this paper provides a good reason to rethink or even contradict the paradigm of rational thinking in negotiations. This building block for theorizing is promoted by prominent scholars in the field (among them Bazerman & Neale, 1992; Malhotra & Bazerman, 2008; Raiffa, Richardson, & Metcalfe, 2002 and Fisher et al., 1991), who are mainly affiliated with Westernized scholarly contexts.

#### References

- Albers, W., Selten, R., Pope, R., & Vogt, B. (2000). Experimental evidence for attractions to chance. *German Economic Review*, 1(2), 113.
- Bamberger, P. (2008). From the editors: Beyond contextualization: Using context theories to narrow the micro-macro gap in management research. *The Academy of Management Journal*, 51(5), 839–846. http://www.jstor.org/stable/20159544
- Barclay, D. W., & Bunn, M. D. (2006). Process heuristics in organizational buying: starting to fill a gap. *Journal of Business Research*, 59(2), 186–194. https://doi.org/10.1016/j.jbusres.2005.08.003
- Bazerman, M. H. (2006). The Mind of the Negotiator: In Negotiation, Think Before You "Blink". *Negotiation*, 9(10), 1-3.
- Bazerman, M. H., & Malhotra, D. (2006, July 21). When Not to Trust Your Gut. http://hbswk.hbs.edu/item/5465.html
- Bazerman, M. H., & Neale, M. (1992). Negotiating rationally. *Small Business Reports*, 17(6), 68–71.
- Betsch, C. (2004). Präferenz für Intuition und Deliberation [Preference for intuition and deliberation]. *Zeitschrift Für Differentielle Und Diagnostische Psychologie*, *25*(4), 179–197.
- Caputo, A., Ayoko, O. B., Amoo, N., & Menke, C. (2019). The relationship between cultural values, cultural intelligence and negotiation styles. *Journal of Business Research*, 99, 23–36. https://doi.org/10.1016/j.jbusres.2019.02.011
- Chan, S. H., & Ng, T. S. (2016). Ethical negotiation values of Chinese negotiators. *Journal of Business Research*, 69(2), 823–830. https://doi.org/10.1016/j.jbusres.2015.07.007
- Coleman, J. S. (1973). *The Mathematics of Collective Action* (1st ed.). Aldine.
- Coussement, K., Van den Bossche, Filip A.M., & Bock, K. W. de (2014). Data accuracy's impact on segmentation performance: benchmarking RFM analysis, logistic regression, and decision trees. *Journal of Business Research*, *67*(1), 2751–2758. https://doi.org/10.1016/j.jbusres.2012.09.024
- Dijksterhuis, A., Bos, M. W., van der Leij, A., & van Baaren, R. B. (2009). Predicting soccer matches after unconscious and conscious thought as a function of expertise. *Psychological Science*, *20*(11), 1381–1387.
- Dijksterhuis, A., & Nordgren, L. F. (2006). A theory of unconscious thought. *Psychological Science*, *1*(2), 95–109.
- Dinnar, S., & Susskind, L. (2018). The eight big negotiation mistakes that entrepreneurs make. *Negotiation Journal*, 34(4), 401–413. https://doi.org/10.1111/nejo.12244
- Dreu, C. de, & van Lange, P. (1995). The impact of social value orientations on negotiator cognition and behavior. *Personality and Social Psychology Bulletin*, *21*(11), 1178–1188
- Elen, M., D'Heer, E., Geuens, M., & Vermeir, I. (2013). The influence of mood on attitude-behavior consistency. *Journal of Business Research*, 66(7), 917–923. https://doi.org/10.1016/j.jbusres.2011.12.011
- Epstein, S. (2010). Demystifying intuition: What it is, what it does, and how it does it. *Psychological Inquiry*, *21*(4), 295–312.
- Epstein, S., Pacini, R., Denes-Raj, V., & Heier, H. (1996). Individual differences in intuitive-experiential and analytical-rational thinking styles. *Journal of Personality and Social Psychology*, 71(2), 390–405.
- Fisher, R., Ury, W. L., & Patton, B. M. (1991). *Getting to Yes: Negotiating an Agreement Without Giving in*. Random House.
- García-Peñalvo, F. J., & Conde, M. Á. (2014). Using informal learning for business decision-making and knowledge management. *Journal of Business Research*, 67(5), 686–691. https://doi.org/10.1016/j.jbusres.2013.11.028
- Goodwin, C. J. (2002). *Research in psychology: methods and design* (3. Edition). John Wiley & Sons.

- Gupta, S. (1989). Modeling integrative multiple issue bargaining. *Management Science*, 35(7), 788–806.
- Hofstede, G. (2001). *Culture's Consequences: Comparing Values, Behaviors, Institutions and Organizations Across Nations*. SAGE Publications.
- Igou, E. R., & Bless, H. (2007). Conversational expectations as a basis for order effects in persuasion. *Journal of Language and Social Psychology*, *26*(3), 260–273.
- Julmi, C. (2019). When rational decision-making becomes irrational: A critical assessment and re-conceptualization of intuition effectiveness. *Business Research*, *12*(1), 291–314. https://doi.org/10.1007/s40685-019-0096-4
- Jung, C. G. (1960). Psychologische Typen. Gesammelte Werke. Rascher.
- Kahneman, D. (2003). Maps of bounded rationality: Psychology for behavioral economics. *American Economic Review*, *93*(5), 1449–1475.
- Keller, J., Bohner, G., & Erb, H.-P. (2000). Intuitive und heuristische urteilsbildung verschiedene prozesse? *Zeitschrift Für Sozialpsychologie*, *31*(2), 87–101.
- Kersten, G., Roszkowska, E., & Wachowicz, T. (2017). The heuristics and biases in using the negotiation support systems. In M. Schoop & D. M. Kilgour (Eds.), Lecture Notes in Business Information Processing, 1865-1348: Vol. 293. Group Decision and Negotiation. A Socio-Technical Perspective: 17th International Conference, GDN 2017, Stuttgart, Germany, August 14-18, 2017, Proceedings / edited by Mareike Schoop, D. Marc Kilgour (Vol. 293, pp. 215–228). Springer International Publishing. https://doi.org/10.1007/978-3-319-63546-0\_16
- Kesting, P., & Nielsen, R. K. (2020). The meaning of intuition for the negotiation process and outcome. *Negotiation Journal*, *36*(3), 309–329. https://doi.org/10.1111/nejo.12330
- Little, R., & Rubin, D. B. (1987). Statistical Analysis with Missing Data. Wiley & Sons.
- Malhotra, D., & Bazerman, M. H. (2008). Psychological influence in negotiation: An introduction long overdue. *Journal of Management*, *34*(3), 509–531. https://doi.org/10.1177/0149206308316060
- Mega, L. F., Gigerenzer, G., & Volz, K. G. (2015). Do intuitive and deliberate judgments rely on two distinct neural systems? A case study in face processing. *Frontiers in Human Neuroscience*, *9*, 456. https://doi.org/10.3389/fnhum.2015.00456
- Mikusková, E. B., Hanák, R., & Cavojová, V. (2015). Appropriateness of two inventories measuring intuition (the PID and the REI) for Slovak population. *Studia Psychologica*, *57*(1), 63.
- Mousavi, S., & Gigerenzer, G. (2014). Risk, uncertainty, and heuristics. *Journal of Business Research*, 67(8), 1671–1678. https://doi.org/10.1016/j.jbusres.2014.02.013
- Myers, I. (1962). The Myers-Briggs type indicator. Consulting Psychologists Press.
- Newell, B., & Broder, A. (2008). Cognitive processes, models and metaphors in decision research. *Judgment and Decision Making*, *3*(3), 195–204.
- Ogliastri, E., & Quintanilla, C. (2016). Building cross-cultural negotiation prototypes in Latin American contexts from foreign executives' perceptions. *Journal of Business Research*, 69(2), 452–458. https://doi.org/10.1016/j.jbusres.2015.06.051
- 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(9), 3561-3571. https://doi.org/10.1016/j.jbusres.2016.01.007
- Patton, C., & Balakrishnan, P. V. (2010). The impact of expectation of future negotiation interaction on bargaining processes and outcomes. *Journal of Business Research*, 63(8), 809–816. https://doi.org/10.1016/j.jbusres.2009.07.002
- Payne, J. W., Samper, A., Bettman, J. R., & Luce M. F (2008). Boundary conditions on unconscious thought in complex decision making. *Psychological Science*, 19(11), 1118–1123.
- Perdue, B. C., & Summers, J. O. (1986). Checking the success of manipulations in marketing experiments. *Journal of Marketing Research*, 23(4), 317. https://doi.org/10.2307/3151807
- Plath, D., & Stevenson, T. H. (2005). Financial services consumption behavior across Hispanic American consumers. *Journal of Business Research*, *58*(8), 1089–1099. https://doi.org/10.1016/j.jbusres.2004.03.003

- Raiffa, H. (1982). *The Art and Science of Negotiation*. Belknap Press of Harvard University Press.
- Raiffa, H., Richardson, J., & Metcalfe, D. (2002). *Negotiation analysis: the science and art of collaborative decision making*. Belknap Press of Harvard University Press.
- Raith, M. (2000). Fair-negotiation procedures. *Mathematical Social Science*, 39(3), 303–322.
- Reynolds, N., Simintiras, A., & Vlachou, E. (2003). International business negotiations. *International Marketing Review*, 20(3), 236–261. https://doi.org/10.1108/02651330310477585
- Rousseau, D. M., & Fried, Y. (2001). Location, location, location: contextualizing organizational research. *Journal of Organizational Behavior*, 22(1), 1–13. https://doi.org/10.1002/job.78
- Salacuse, J. W. (2009). Intercultural negotiation in international business. In R. Lewicki, D. Saunders, & B. Barry (Eds.), *Negotiation: Reading, exercises and cases* (6th ed.). McGraw-Hill.
- Shanks, D. R. (2006). Complex choices better made unconsciously? *Science*, *313*(5788), 760–761.
- Simon, H. A. (1976). Administrative behavior (3rd ed.). Free Press.
- Stanovich, K. E., & West, R. F. (2000). Individual differences in reasoning: Implications for the rationality debate?. *Behavioral and Brain Sciences*, *23*(23), 645–726.
- Strick, M., Dijksterhuis, A., Bos, M. W., Sjoerdsma, A., van Baaren, R. B., & Nordgren, L. F. (2011). A meta-analysis on unconscious thought effects. *Social Cognition*, 29(6), 738–762. https://doi.org/10.1521/soco.2011.29.6.738
- Susskind, L. (2017). Balancing analysis and intuition. *Negotiation Journal*, 33(4), 323–327. https://doi.org/10.1111/nejo.12191
- van Kleef, G. A., Dreu, C. K. de, & Manstead, A. S. (2004). The interpersonal effects of emotions in negotiations: A motivated information processing approach. *Journal of Personality and Social Psychology*, 87(4), 510–528.
- Ward, E., & Fasolo, B. (2001). Decision technology. *Annual Review of Psychology*, *52*(1), 581–606.
- Williams, C. C., & Martinez-Perez, A. (2014). Why do consumers purchase goods and services in the informal economy?. *Journal of Business Research*, *67*(5), 802–806. https://doi.org/10.1016/j.jbusres.2013.11.048
- Winkler, J., Kuklinski, C. P. J.-W., & Moser, R. (2015). Decision making in emerging markets: the Delphi approach's contribution to coping with uncertainty and equivocality. *Journal of Business Research*, 68(5), 1118–1126. https://doi.org/10.1016/j.jbusres.2014.11.001
- Xiao, Y., Zhang, H., & Basadur, T. M. (2016). Does information sharing always improve team decision making? an examination of the hidden profile condition in new product development. *Journal of Business Research*, 69(2), 587–595. https://doi.org/10.1016/j.jbusres.2015.05.014

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