

Why Do students Negotiate? The Impact of Objectives on Behavior, Process & Outcomes

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Abstract

Motivation of the negotiation experiments participants affects their behavior and performance. We asked students participating in online experiments to assess the subjective importance of seven objectives associated with the negotiation. Based on the responses we identified three types of motivation. We also identified four participants' profiles which differ in the assessment of the significance of the motivations. These profiles have a significant impact on some aspects of the negotiation process and its results. The implications of the relationship between different types of motivation and the negotiators' behavior and the results they achieved are discussed.

Keywords: negotiation experiments, on-line experiments, motivation, e-negotiation, intrinsic motivation, extrinsic motivation, motivation profiles

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1. Intrinsic and Extrinsic Motivations

Typically, behavioral experiments, including negotiations involve students. In some situations they are paid a fee, which may have a performance component. In other situations students participate in experiments as part of the coursework, for example, an assignment. Teich et al. (2000, p. 348) stress the significance of providing the participants with proper motivation; one that has particular relevance for students. What is the proper motivation and what are the implications of using different type of motivations are important questions for setting up and evaluating laboratory and online experiments.

Motivation of the experiment participants needs to be in-line with the expectations of the experimenter. Financial rewards, which include flat-fee and performance payments, provide extrinsic motivation. They have been widely used in economics and social studies to assure that the students (and other subjects) not only follow the instructions and perform the activities comprising the experiment, but that they are engaged and interested in doing this. The rarely stated assumption is that the task is not sufficiently interesting or engaging for the participants to be intrinsically motivated.

Extrinsic motivation includes also other instruments than financial rewards. It refers to the performance in an activity achieved because of the perception that the performance has strong impact on the achievement of valued outcomes which are different from the activity itself. Thus, in addition to direct payment, improved job performance, promotion and social reciprocity are other examples of extrinsic motivation (Davis, Bagozzi et al. 1992; Fehr and Gächter 2000).

Studies on reinforcement, reward and motivation produce interesting albeit not conclusive results. Some researchers observed that participants involved in interesting tasks who did not receive a reward were more engaged in performing them than participants who were given a reward. Deci (1971), in an early study, showed that paying participants and giving them other tangible rewards for performing an interesting task decreased their interest in the task and its results. This means that extrinsic rewards may undermine intrinsic motivation, which would be a very troubling result for many experimenters.

Since the 1970s a number of studies have been conducted but the results are mixed. One meta-analysis showed that the undermining effect may indeed take place, however, a careful experimental design can reduce it so that the effect is inconsequential (Cameron and Pierce 1994). A more recent meta-analysis both criticizes the earlier one and re-states that tangible rewards have a substantial undermining effect (Deci, Koestner et al. 2001).

Behavioral economics heavily relies on experiments; therefore the issue of extrinsic motivation obtained through proper incentives is of key importance. Experimental economists predominantly rely on monetary rewards assuming that they induce better performance of participants (Croson 2005). Perhaps not surprisingly, the “appropriate reward” becomes an important issue Camerer and Hogarth (1999) review of 74 studies led them to conclude that financial incentives have strong effect on judgment and decision tasks but have weaker effect in games and auctions. Gneezy and Rustichini (2000, p.) note: “In our experiments, we find

that whenever money is offered, a larger amount yields a higher performance. ... [However] participants who were offered a small payoff gave a worse performance than those who were offered no compensation at all." The undermining effect of extrinsic motivation, known in economics as "crowding out", is troublesome because it is one of the key anomalies suggesting that raising monetary incentive reduces, rather than increases, supply (Frey and Jegen 2001). Benabou and Tirole (2003) also report the negative impact of incentives on intrinsic motivation, which affects performance.

One notable difference between many economic experiments and these conducted in psychology, education, and management is context, which may or may not make the task interesting and relevant. Economic experiments are typically context-free and describe abstract situations. In contrast, psychological experiments and, in particular, those conducted in such domains as management, marketing and information systems are richer in context as they often rely on using meaningful and realistic cases.

In negotiation research motivation is/tends to be considered in terms of influencing the negotiators' specific types of activities. Most often researchers look into ways of influencing the parties to cooperate, get out of the "fixed pie" syndrome, and achieve integrative agreements (Thompson 1991; Kemp and Smith 1994; De Dreu, Koole et al. 2000). These studies report on the application of a single type of motivation which is narrowly focused.

Little is known about the role of different types of motivation in negotiation experiments. One exception is an early study reported by Kelley et al., (1970). The authors conducted eight experiments in which two different reward systems were used: money and points. They observed that monetary rewards produced better results because there was less conflict, fewer hard bargaining, fewer threats; the agreements were reached faster and the participants were less willing to revoke them. Despite the authors' contention, these results may indicate that the use of points caused that the participants were more interested and more involved in the actual negotiation (e.g., they were more competitive and took longer to negotiate), while the use of money led the participants to be willing to achieve agreements quickly so that they could be paid. Again, this result may be troublesome to researchers who undertake experimental studies. It highlights the impact that different types of incentives may have on participants' motivation. Importance of different types of motivation and stresses that the silent assumption of using a particular type of incentive (often money) is questionable.

Our earlier experiments, discussions with participants, and reviews of other studies led us to reconsider that assumption (Kersten, Köszegi et al. 2003; Vetschera, Kersten et al. 2006; Weber, Kersten et al. 2006). Being no longer sure that Inspire users negotiated because they became involved in the process and wanted to achieve an agreement and/or were interested in the application of technology to conflict management and resolution, we decided to ask the participants about their objectives. As a result we formulated nine objectives that can guide the participants' behavior and influence their performance.

Table 1. The proposed objectives and the items.

Objectives	Items
Please tell us how important each of the objectives was for you in this negotiation.	
1. Achieving as high a rating for the agreement as possible.	Rating
2. Applying and testing my negotiation skills.	Skills
3. Establishing a friendly atmosphere with my counterpart.	Atmosphere
4. Learning about myself as a negotiator.	Learning
5. Learning a new system and using its functions.	System
6. Acquiring knowledge which is required for the assignment.	Assignment
7. Learning how to negotiate online.	Online
8. Getting paid per hour.	Payment
9. Achieving monetary reward for performance.	Reward

Three objectives represent extrinsic motivation (6. Assignment, 8. Payment, and 9. Reward). The remaining six objectives represent intrinsic motivation.

In this paper we report the results of an exploratory study in which only the first seven objectives were considered. The wide-spread use of monetary incentives limits its relevance. There are two reasons behind this study. One reason is that the participants needed to negotiate in order to write their assignment (Objective no. 6), which indicates extrinsic motivation. We believe that (apart of the ethical issues) the assignment-driven extrinsic motivation conflicts with financial rewards, which is also an extrinsic motivation. The second reason is that a combination of non-monetary motivations may provide a uniform set of effective motivational instruments.

The paper has five more sections. The negotiation experiment is discussed in Section 2. In Section 3 the participants' motivation is discussed; in it we propose four motivational profiles. The implications of the different motivations are presented in Section 4. The influences of three particular objectives on the negotiation and its results, and the negotiator's assessments are given in Section 5. Concluding comments and discussion are given in Section 6.

2. Experimental Design

The data was collected through a Web-based bilateral negotiation experiment. The participants were university students from six universities: two in Austria, and one in Canada, Poland, the U.S.A. and Taiwan. The negotiators were given three weeks, however, they could finish earlier or, if needed, request deadline extension. The negotiations were part of students' class activities.

The experiment involved representatives of two companies who needed to negotiate a contract. Both sides were informed about the earlier discussions between the executives and were asked to finalize the negotiation. They were also informed about the availability of other suppliers and buyers so that they could terminate this negotiation and open a new one.

There were four issues, which the participants needed to discuss. The values of three issues

(price, delivery time and payment) had quantitative values; one issue (warranty policy) had both qualitative and quantitative components. The participants were not given detailed preference structure; instead they were told about issue priority and the issue values (options) were ordered according to their importance. The preferences for the three quantitative issues were opposite but the case suggested non-linear preferences. This suggestion, together with the fact that each participant made his own decision regarding the preference values, created strong possibility for integrative trade-offs. The qualitative issue was ordered differently for each of the two negotiators, that is, the best and worst options for one negotiator were neither best nor worst for the other and vice versa (i.e., they were in-between the other negotiator’s best and worst options).

All participants were given the same assignment based on the negotiations. The assignment comprised a list of open-end questions regarding the negotiation process and its assessment. To reflect course requirements, which were different at each university, the marking scheme was different for each group. The grade scheme of the task ranged from 10% to 25% across the groups. No grades were given for the negotiation performance. Students did not need to achieve an agreement. They also could terminate their negotiation and request a new one.

To assure privacy, instructors did not have access to the negotiation data during the time course duration. They obtained anonymized data eight weeks after the final exams.

After the students registered online they were randomly matched into dyads. A dyad comprised students coming from different universities. The negotiations were anonymous, that is, participants used pseudonyms which were assigned to them. However, during the negotiation they could use a free text messages and inform their negotiation counterparts about themselves.

The participants filled out the online pre- and post-interaction questionnaires respectively before and after the negotiations. The seven objectives which we selected (see Table 1) were presented at the end of the post-interaction questionnaire. They were measured on 7-point Likert scale (from “not important at all” to “extremely important”).

3. Participants’ Motivations

In total, 282 students participated in the Inspire negotiations. Data analysis is based on 151 complete responses obtained from 268 participants who negotiated during the same period. Most of the participants were between 20 and 30 years old and the number of female and male participants was almost equal. Over 96% of participants had not used any decision/negotiation support systems before and more than 92% never participated in negotiation experiments. The demographics of the participants are summarized in Table 2.

Table 2. Demographics of the participants.

	Groups	Percent (%)
Negotiation role	Buyer	51.7
	Supplier	48.3

	20 or less	24.5
Age group	21-25	57.6
	26-30	13.2
	30 or older	4.7
	Female	51.0
Gender	Male	49.0
	Business & management	53.7
Program of study	Information technology	35.1
	Others	11.2
	No	96.7
Experience with decision/negotiation support systems	Yes	3.3
	No	92.1
Experience in negotiation experiment	Yes	7.9

3.1 From Seven to Three Objectives

First we performed a correlation analysis of the 7 items. Table 3 shows significant relationships among them, which indicates that they either explain common factor(s) or are affected by high-level construct(s).

Table 3. Correlation among objectives.

	Rating	Skills	Atmosphere	Learning	System	Assignment	Online
Rating	1						
Skills	0.449 **	1					
Atmosphere	0.219 **	0.335**	1				
Learning	0.270 **	0.578 **	0.514 **	1			
System	0.190 *	0.394 **	0.305 **	0.458 **	1		
Assignment	0.385 **	0.613 **	0.321 **	0.457 **	0.572 **	1	
Online	0.303 **	0.586 **	0.300 **	0.542 **	0.658 **	0.641 **	1

* significant at the 0.05 level (2-tailed); ** significant at the 0.01 level (2-tailed).

The significant correlations among the objectives (items) led to exploratory factor analysis. A maximum likelihood method was used to explore whether there are common factors which explain the sample data. One outlier was found and excluded from the subsequent analysis concerning the normality requirements. The results of the exploratory factor analysis are presented in Table 4.

A single factor model (Model 1) shows that two items (Rating and Atmosphere) load very low and that there are five items which load on one factor. The Chi-square test indicated that one factor could explain five items (significance at 1%). A three factor model (Model 2) was used to represent the seven items, including two single-item factors.

This result led us to revisit the meaning of the objectives and the relationship between the five

objectives which can be represented by single factor.

The first objective (Rating) identifies the negotiator's interests in the *substantive* results because rating is an aggregate that describes the overall value of the four substantive issues. The second objective (Atmosphere) describes the process and its friendliness. Negotiators' interest in process, their counterparts and the friendly atmosphere are indicative to the *relational* results (Guetzkow and Gyr 1954). The two objectives: Rating and Relational reflect intrinsic motivation because the negotiators do not need to provide any information about the achievement of these objectives or their components.

Table 4. Exploratory factor analysis.

Model 1		Model 2			
Item	Factor 1	Item	Factor 1	Factor 2	Factor 3
Rating	0.447 *	Rating	1.000 **		
Skills	0.765 **	Skills		0.751 **	
Atmosphere	0.468 *	Atmosphere			1.000 **
Learning	0.702 **	Learning		0.685 **	
System	0.698 **	System		0.708 **	
Assignment	0.774 **	Assignment		0.769 **	
Online	0.841 **	Online		0.859 **	

* significant at the 0.05 level (2-tailed); ** significant at the 0.01 level (2-tailed).

The remaining five objectives refer to various aspects of *learning*. The need to write the negotiation assignment is one of these objectives. Motivation which is oriented on the assignment work that entails a grade is extrinsic. Although the participants were not graded on their negotiation performance but on their description of the process and its assessment, we may conjecture that the participants' expectation regarding the assignment's quality was correlated with their involvement in the negotiation. The recognition that four objectives are intrinsic and one is extrinsic may be troublesome if there indeed was a significant difference between these objectives.

Well-researched meta-studies (e.g., Cameron and Pierce 1994; Camerer and Hogarth 1999; Deci, Koestner et al. 2001) give different conclusions as to how intrinsic and extrinsic motivating factors influence behavior. The distinction between these two broad categories is also not well defined and in some situations they may coexist and support one another. To complicate the matters Hoffman and Novak (Hoffman and Novak 1996) claim that goal-directed behavior is extrinsically motivated while experiential behavior is intrinsically motivated (see also Novak, Hoffman et al. 2003). If we were to use this categorization, then we would have to conclude that all the nine objectives refer to certain achievements, thus they should be considered extrinsic.

This, we think, is the case with the motivation related to learning. It may be seen as intrinsic, because it is not directly associated with any reward obtained from performing an activity. On

the other hand, learning may be considered as increasing the person’s ability and making her better equipped to obtain a job, better career or promotion. The difficulty is that these two categories of motivations are not well defined and a particular type may be considered to belong to either or both of them (Calder and Staw 1975; Ryan and Deci 2000). In this case, acquiring new or improving old skills and knowledge may be considered as an extrinsic motivation. Therefore, we have grounds to hypothesize that the aggregate objective Learning reflects a coherent/comprehensive set of motivational types. We believe that the fact that its component belongs to both broad classes does not undermine its relevance and usefulness.

3.2 Four Profiles of Negotiators’ Motivations

Frequency analysis of the three factors describing the objectives indicates that we can recode the factor values (7 for Substantive and Relational, and 35 for Learning) to three values for each factor. The importance of the distribution of the objectives is given in Table 5. We can see that 6% or less of the participants stated that none of the objectives was important for them. For over 60% learning was an important objective and for 42% all three objectives were important.

Table 5. Frequency of objectives’ importance.

	Rank	Substantive (%)	Learning (%)	Relational (%)
Unimportant	1	9 (6)	10 (6/7)	14 (9.3)
Neutral	2	78 (52)	45 (30)	72 (48)
Important	3	63 (42)	95 (63.3)	64 (42.7)

Cluster analysis shows that there are only 3 persons in the group for whom every objective is unimportant and one person for whom two objectives are unimportant and one important. For the remaining 145 participants at least two objectives are neutral. The four data-points representing the four distinct participants were removed from further analysis.

Using K-means cluster analysis, we obtained four clusters, for which each of the three objectives (dimensions) is significant (less than 0.001). Strength of participants’ motivation in each of the clusters is given in Table 6.

Each cluster represents a group of participants. They have different *motivation profiles*, which are characterized by values of the three objectives. In Table 6, the profiles are briefly summarized in the row Motivation; the number of participants in each cluster is given in the last row.

Table 6. Participant motivation profiles based on objectives’ importance.

	Clusters (centers)			
	Cluster 1	Cluster 2	Cluster 3	Cluster 4
Substantive	Neutral (1.96)	Neutral (2.06)	Important (3.00)	Neutral (1.93)
Learning	Neutral (1.81)	Important (2.91)	Somewhat important (2.66)	Important (3.00)

	Clusters (centers)			
	Cluster 1	Cluster 2	Cluster 3	Cluster 4
Relational	Neutral (2.26)	Neutral (1.69)	Somewhat important (2.51)	Important (3.00)
Motivation	<i>No motivation to negotiate</i>	<i>Focus on learning</i>	<i>Focus on substantive outcomes</i>	<i>Focus on relationship and learning</i>
# participants	27	32	59	27

4. Motivation Implications

We are interested in differences between participants in different clusters. First, we explore if the participants' characteristics affected their motivation. Subsequently, we study if the motivations affected the process and its results and the negotiator's assessment of own and their counterparts' behaviors. Finally, we consider the relationship between motivation and satisfaction.

4.1 Negotiator's Personality Traits and Other Characteristics

The differences in the participant profiles may be due to their personality traits, gender, culture and education.

The numbers of participants in each group are different (Table 6), therefore, we used analysis of variance (ANOVA) to test whether there were any significant differences in terms of the demographics between the groups. The results showed that the negotiators' background did not significantly vary across the profiles, such as gender, age, English proficiency and past experience in negotiations.

4.2 Process and Outcomes

The negotiation process may be described in terms of the form of information exchanged and the length of the process. The Inspire users negotiate exchanging information in three ways: (1) offers without text containing explanations, arguments, etc., (2) offers accompanied by free text messages; and (3) free-text messages without offers. The length of the process is measured in days.

One of the indicators of the negotiation approach is the opening offer and the first counteroffer. These offers often show the competitive/collaborative approach of the negotiators. Therefore, we considered ratings of the first offer made by each participant. We have also decided to consider the total length of all messages, which may be a proxy for the negotiators interest in the process and relationship.

Analysis of the data did not show any statistical significance for the four profiles having an impact on information exchange, negotiation length, and rating of the first offers. The results indicate, however, differences between the groups that warrant further studies. For example, participants who had no motivation to negotiate achieved the lowest rating and those who were focused on learning and/or relationship exchanged more information than others.

Agreement rating significantly varied across the four profiles (0.000), which was tested using

ANOVA. Participants who focused on substantive outcomes achieved the highest agreement rating.

4.3 Assessments of Own and Counterpart's Behavior

Upon completion of the experiment, the participants were asked to report the assessment of their own behavior and the behavior of their counterparts. They evaluated their behavior on seven dimensions shown in Figure 1.

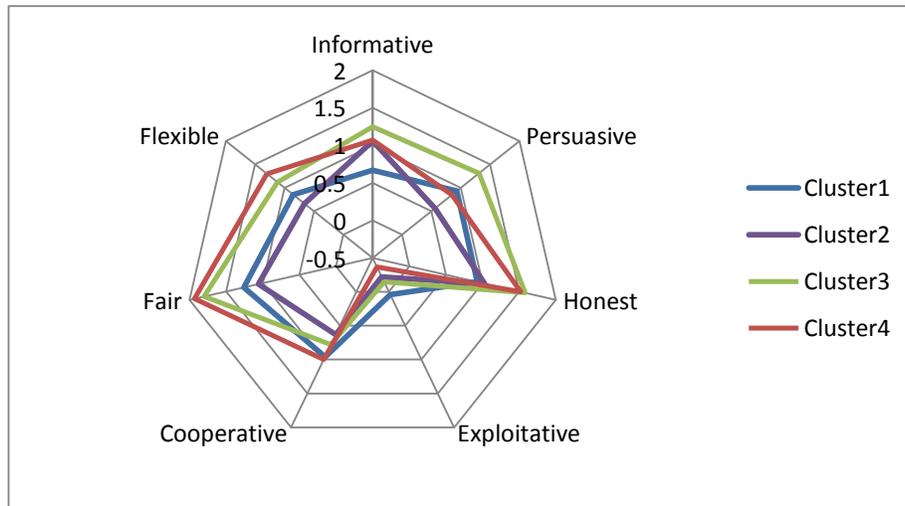


Fig. 1. Perceived own behavior.

Figure 2 depicts the overview of the self-assessment differences for each cluster. Based on ANOVA, we obtained significant differences for only two behaviors: persuasive (0.01) and fair (0.002). The negotiators who focused on substantive outcomes considered themselves the most persuasive and those who focused on learning—the least. Negotiators who focused on both learning and relationship considered themselves the fairest, while those who focused on substantive outcomes—the least.

We also asked the participants to assess their counterparts on nine dimensions shown in Figure 2. We can see that the differences between the clusters are more pronounced. Indeed, from the ANOVA test we obtained that four counterpart behaviors were significantly different: cooperative (0.003), trustworthy (0.037), likeable (0.000), fair (0.000) and flexible (0.005), and one behavior: honest, was slightly significant (0.053).

The most cooperative, flexible and honest counterparts were found by negotiators who focused on substantive outcomes. They also found their counterparts the least exploitative. These assessments may be related to the fact that these negotiators achieved the highest rating of the agreements.

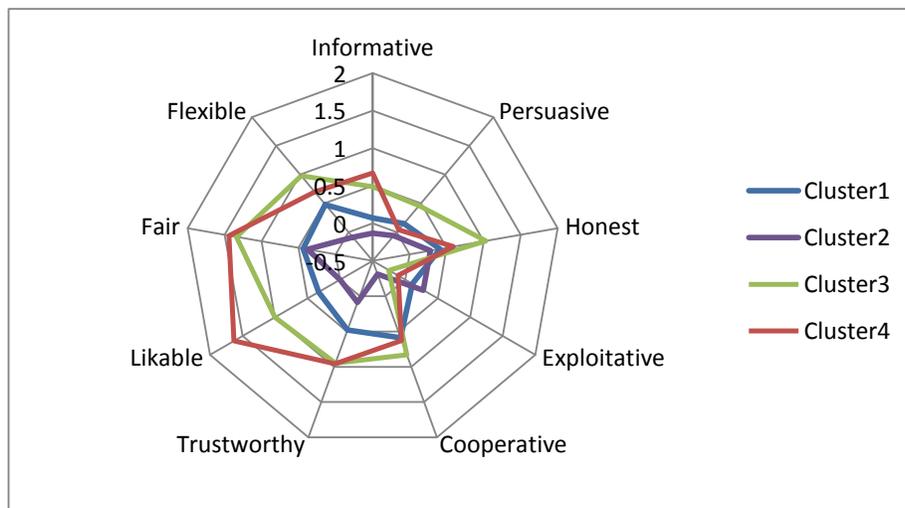


Fig. 2. Perceived counterparts' behavior.

Participants who focused both on relationship and learning considered their counterparts to be the most likable and fair. Together with the participants who focused on substantive outcomes they saw their counterparts trustworthy.

We also note (see Figure 2) that those who did not want to negotiate (Cluster 1) and those who were focused on learning did not value their counterparts highly. One difference is the exploitation assessment; while it was not ranked high, the highest value was given by participants focused on learning.

4.4 Satisfaction

E-negotiations involve social, economic and technical aspects. The participants may, therefore, assess these different aspects differently and be satisfied with some facets of the whole exercise more than with others. Yu's (2007) review of literature on satisfaction indicates that seven different types may be identified. They are shown in Figure 3. We have also considered the negotiator's overall satisfaction.

We compared the patterns of satisfaction (i.e. the eight different types of satisfaction) between the four profiles, using ANOVA. The results showed that the four profiles were significantly different in terms of the overall satisfaction (0.001), satisfaction with information (0.011), and satisfaction with self-performance (0.018).

Participants focused on both learning and relationship (cluster 4) expressed the highest overall satisfaction and also satisfaction with relationship, information and communication. In particular their overall satisfaction is very high: the average rating is 0.5 on the scale (-0.6; 0.6)

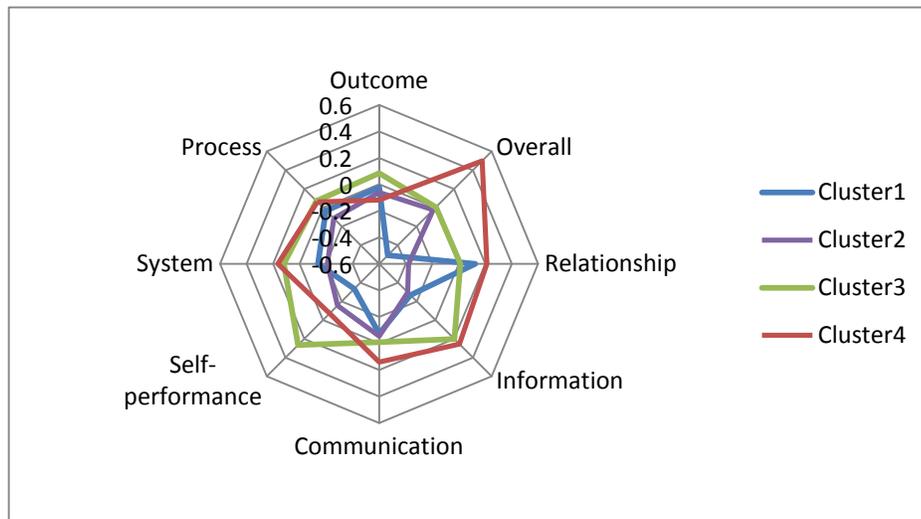


Fig. 3. Negotiators' different types of satisfaction.

The second group with relatively high satisfaction is the participants focused on substantive outcomes (Cluster 3). They are the most satisfied with self-performance and the outcome (substantive). This means that these two groups achieved what they wanted.

The least satisfied are the remaining two groups (Clusters 1 and 2). While participants with no motivation to negotiate (Cluster 1) achieved a relatively high level of satisfaction with relationship, their overall satisfaction is the worst.

5. Impacts of the Three Objectives

The three objectives have been used to formulate four motivation profiles and to cluster the participants according to these profiles. In the previous section, we considered the relationship between the clusters. In this section we discuss the relationship between the three objectives and their impact on all 145 participants' activities and their results. We also look at the participants' assessments and satisfaction.

5.1 Process and Outcomes

The same process and outcome variables which were used for the analysis of the four clusters (Section 4.2) were used to analyze the impact of the objectives. The results of the ANOVA test are presented in Table 7.

Table 7. Objectives' impact on process and substantive outcome (ANOVA).

	Substantive outcomes		Learning		Relational outcomes	
	F	Sig.	F	Sig.	F	Sig.
No. of offers	0.15	0.86	0.13	0.88	0.63	0.53
No. of messages	0.20	0.82	0.25	0.78	1.50	0.23
No. offer+ message	0.75	0.47	0.35	0.70	1.22	0.30
Negotiation days	0.29	0.75	2.39	0.10	3.44	0.04*
Message length	0.83	0.44	1.21	0.30	1.75	0.18
1st offer rating	3.58	0.03*	0.31	0.74	0.72	0.49
Agreement rating	24.28	0.00**	4.76	0.01**	0.66	0.52

* significant at the 0.05 level (2-tailed); ** significant at the 0.01 level (2-tailed).

We found that the objectives affected both process and outcomes. Focus on the substantive outcomes lead to a higher rating of the first offer and result in a higher agreement rating. Learning also positively impacts the agreement rating, while Relational outcomes have significant impact on the length of the negotiation.

More detailed information about the selected variables and the objective levels is given in Table 8.

Table 8. Descriptive analysis of the means across objectives and groups.

	Objective importance	Substantive outcomes		Learning		Relational outcomes	
		N	Mean	N	Mean	N	Mean
Negotiation days	Unimportant	5	10.00	5	13	10	14.1
	Neutral	77	11.08	45	12.04	71	11.3
	Important	63	10.40	95	10.01	64	9.61**
Message length	Unimportant	5	1119	5	769	10	981
	Neutral	77	1477	45	1705	71	1729
	Important	63	1705	95	1538	64	1471
1st offer rating	Unimportant	5	72.60	5	81	10	90.2
	Neutral	77	83.18	45	86.11	71	84
	Important	63	88.16**	95	84.65	64	85.25
Agreement rating	Unimportant	5	42.60	5	45.8	8	76.38
	Neutral	65	62.18	37	67.14	57	68
	Important	54	80.17**	82	71.6**	59	69.44

* significant at the 0.05 level (2-tailed); ** significant at the 0.01 level (2-tailed).

The participants for whom substantive outcomes were important made higher opening offers; this may indicate that their approach was competitive. On average, their first offer was at the 88.2% level. They also achieved a much higher average rating of the agreement (80.2/100), much more than others who considered this objective neutral (62.2) or unimportant (42.6).

Interestingly, the more important the learning objective was for the negotiators, the higher was the agreement rating (about 25 points). However, their agreement was 10 points lower than those substantive outcome-oriented negotiators.

Somewhat unexpectedly, we found that the participants for whom the relational outcomes were important negotiated shorter than all other participants. This seems to surprise us as more time may be required to build relationship; however, one may consider that either they built a better relationship with their counterparts so that they were able to reach agreement faster, or they were not working as hard as those substantive people, to reach better deals.

5.2 Assessment of Own and Counterparts' Behavior

We compared the effects of the objectives on the negotiators' assessment of their own and their counterparts' behavior. The results of the MANOVA presented in Table 9, indicate that the three objectives impact some aspects of the behavior.

Table 9. Objectives' impact on the assessment of own and counterpart's behaviors.

	Substantive outcomes		Learning		Relational outcomes		Learning x Relational	
	F	Sig.	F	Sig.	F	Sig.	F	Sig.
<i>Own behavior</i>								
Informative	0.059	0.94	1.42	0.24	0.29	0.74	0.68	0.56
Persuasive	1.534	0.22	0.72	0.49	0.47	0.63	1.2	0.31
Honest	0.886	0.42	9.40	0.00**	6.92	0.00**	2.68	0.05*
Exploitative	1.07	0.35	1.86	0.16	0.15	0.88	0.24	0.87
Cooperative	0.036	0.96	0.05	0.95	0.32	0.72	0.54	0.65
Fair	0.077	0.93	1.94	0.15	7.81	0.00**	0.35	0.79
Flexible	2.037	0.14	2.64	0.08	1.23	0.29	1.28	0.29
<i>Counterpart's perceived behavior</i>								
Informative	0.132	0.88	0.07	0.93	0.01	0.90	0.96	0.42
Persuasive	0.284	0.75	0.87	0.42	0.12	0.89	1.31	0.28
Honest	1.379	0.26	0.62	0.54	0.86	0.43	1.54	0.21
Exploitative	4.623	0.01**	0.33	0.72	0.28	0.76	2.6	0.06
Cooperative	2.388	0.10	0.28	0.75	0.70	0.50	3.46	0.02**
Trustworthy	2.124	0.12	0.02	0.98	2.90	0.06	4.2	0.01**
Likable	1.107	0.33	1.72	0.18	0.80	0.45	4.05	0.01**
Fair	1.8	0.17	1.67	0.19	3.46	0.03**	3.52	0.02**
Flexible	2.101	0.12	2.02	0.14	0.19	0.83	2.3	0.08

* significant at the 0.05 level (2-tailed); ** significant at the 0.01 level (2-tailed).

The negotiators, who focused on the substantive outcomes, viewed their counterparts' behavior as significantly more exploitative. The learning objective affects the negotiators' assessment of own honesty but not of other behavioral assessment of the person and her counterpart (Table 9).

Table 9 shows that the negotiators' interests in achieving high relational outcomes results in their effort to be honest and fair. These negotiators viewed their counterparts also fair.

From MANOVA we obtained that for one interaction between two objectives several results were statistically significant. The two objectives are Learning and Relational, and the fact that they interact appears justified because a concern of having good atmosphere between two participants is likely helpful in learning. On the other hand interest in learning, which may be seen as inward-oriented, may be complemented with the outward-orientation of interest in achieving good relational outcomes. Recall that in one type of the motivational profile participants focus on both relational outcomes and learning (Table 6). There was also "no motivation to negotiate profile" in which neither of these objectives were important.

Negotiators who were concerned with both learning and relational outcomes considered themselves being honest and saw their counterparts being cooperative, trustworthy, likable and fair.

5.3 Satisfaction

Apart from the impact of objectives on the negotiation process, outcome and approaches, we also examined their effect on negotiators' satisfaction --an indicator of negotiation and system assessment. A series of regression analyses was carried out, in which the three objectives were predictors (i.e. independent variables) and each type of satisfaction was the dependent variable. The results are given in Table 10.

Overall, three types of satisfaction (relationship, information and self-performance) and the overall satisfaction were significantly affected by the objectives (all at 1% level with F test of R^2 change). Note that the adjusted R squares were small (less than 10%) for all the regressions except satisfaction with self-performance (13%). This indicates that the objectives alone can only predict small variation of satisfaction. Further studies may concern other factors such as achieved agreement and negotiation effort.

Table 10. Regression of three objectives on the eight types of satisfaction.

	Substantive		Learning		Relational		Adjusted	R^2	Sig. F
	Beta	Sig.	Beta	Sig.	Beta	Sig.	R^2	change	
Outcome	0.126	0.135	-0.017	0.841	0.027	0.745	-0.004	0.017	0.493
Overall	-0.051	0.523	0.302	0.000**	0.036	0.661	0.076	0.095	0.003**
Relationship	-0.042	0.606	-0.083	0.308	0.284	0.001**	0.063	0.082	0.007**

Information	0.057	0.484	0.111	0.176	0.250	0.002**	0.068	0.088	0.005**
Communication	-0.083	0.319	0.143	0.090	0.048	0.567	0.009	0.030	0.236
Self-performance	0.320	0.000**	0.168	0.034**	0.069	0.379	0.130	0.148	0.000**
System	0.005	0.957	0.086	0.304	0.167	0.047**	0.019	0.039	0.128
Process	0.020	0.810	0.156	0.065	-0.017	0.841	0.004	0.025	0.314

Overall satisfaction was significantly affected by the Learning objective (0.000), which may implicate that learners would be satisfied with their overall experience in e-negotiations. Learners were also more likely to be satisfied with their performance ($p < 0.034$), this was also the case with the negotiators who were mostly concerned with Substantive objective. Negotiators whose objectives were relational outcomes, on the other hand, were more likely to be satisfied with their relationship with the counterparts (0.001), the information exchanged through the negotiation (0.002), and the system that they used to negotiate (0.047).

In addition, from the MANOVA test of the effects of the participants' objectives on their satisfaction, we obtained that: (1) for those participants who wanted to achieve high rating in the negotiation the substantive outcome and self-performance had significant impact on their satisfaction; (2) for those participants for whom the learning objective was important, both the process and overall experience significantly contributed to satisfaction; (3) relationally-oriented participants cared about the information aspect; and (4) those for whom both high level of learning and relational objectives were important were highly satisfied with the relationship with the counterpart and information.

In summary, participants' objectives do affect the negotiation process and outcomes, their behaviors and approaches, and their assessment of different aspects of the negotiations. Negotiators with different objectives approached the negotiation differently and reached different outcomes. They also assess the negotiations with different focuses which contribute to their satisfaction.

6. Conclusions

When reviewing literature on negotiation experiments, experiments with group and negotiation support systems, and e-negotiation experiments, we could not find discussion on the participants' objectives and/or motivation. Researchers in education and behavioral economics devote much effort on shaping or affecting motivation in desired directions. The differences between these two fields and experiments in management, sociology and information systems are significant.

Education literature focuses on incentives and the roles of extrinsic and intrinsic motivations on learning and knowledge acquisition. The role of the experiments is to determine what type of incentives helps the learning process. Therefore, the research objectives are quite different from the experiments in which researchers seek answers to conflict resolution in a simulated environment.

Behavioral economists focus on mechanism design and the deviations from the rational behavior of the mechanisms' users. They remove all, seemingly irrelevant, context and the interface in which the mechanism is, out of necessity, embodied.

Researchers in social sciences and information systems try to simulate reality in a laboratory or online environment. For the social scientists the context, the case and the process are very important; if they bear no resemblance to reality, the results would be uninteresting. For others, the interface and the interactions between the system and its users are the focus.

The findings of this study suggest that:

- 1) Our assumption regarding the Inspire users' motivation in participating was partially confirmed, i.e. they did try to gain both substantive and relational outcomes. It was, however, also partially wrong because many of the participants intended to learn (about themselves, skills, systems) only. This may bias the experimental design and thus results.
- 2) This study implies that context may have a significant impact on motivation. Context matters in terms of its role in the participants' motivation. The negotiation case, online environment, and anonymous interactions led most students to be engaged in the process. However, in this study we cannot distinguish the impact of the context in which the interactions took place and the broader task which was the assignment.
- 3) We found that the participants' motivations affect their behavior and thus outcomes. Their activities were purposeful and resulted in outcomes they wanted to achieve. For instance, those who highly rated substantive outcomes, made high opening offers and they reached better deals.
- 4) There is a relationship between the participants' motivation and the importance they attach to different aspects of the negotiations. The more they were motivated by certain issues (e.g. relational outcomes) the more they would weight these aspects of negotiation which support these issues (e.g., relationship building).

We have conducted analysis at the level of individual negotiator. Behavioral studies show that negotiators take into account their counterparts' actions and adjust their own appropriately. Therefore, analysis at the dyad-level is needed but, in order to do it we need significantly more cases than we collected in this experiment.

We have analyzed one experiment in which the participants were not rewarded. They engaged in the negotiation in order to obtain information relevant to the assignments they were required to do. Although they were neither paid for performance nor performance was relevant to their assignment, almost 41% were strongly interested in achieving a highly rated agreement. The others, however, were neutral on substantive outcomes. We plan to conduct experiments in which the participants are rewarded for performance and see if the reward changes this ratio.

When we formulated the nine objectives (Table 1), the distinction between intrinsic and extrinsic objectives was clear and it conformed to literature (Davis, Bagozzi et al. 1992; Fehr and Gächter 2000). Data analysis led us to combine five objectives into one (Learning), which has one extrinsic and four intrinsic components. Although all components refer to learning and knowledge, such an aggregation may be seen inappropriate. Our perspective changed after we noted that many studies are inconclusive and some contradict others. Learning motivation may be intrinsic, extrinsic or both because it may enrich the person and be a value in itself, it

may advance the person's career and reward (e.g., in terms of course grades), or it may both be pleasant and rewarding. This, unexpected result, indicates that some types of motivation may be intrinsic in one context but extrinsic in another.

Another implication from our study is that motivation, which occurs in real-life may play a significant role in experiments. We observed that only two objectives (Rating and Atmosphere) are related with the negotiation, which may mean that negotiation is seen as a "game" the participants are asked to play. The objective Learning is associated with the participants' real-life concerns and needs. This objective was very important for 39% of the participants and somewhat important for additional 39%. This means that the outcomes of the game may be strongly moderated by the experiential motivations (related to the process).

In real-life, not every negotiator is motivated by the substantive or relational outcomes. Many negotiations are conducted by people for whom this is part of their job and they are not rewarded based on the agreements they reach. Experiments in which students participate and in which there are no financial incentives may serve as a good proxy for such situations. Also, assessment of the characteristics (e.g. negotiation approach) of those negotiators for whom substantive and relational outcomes were important, irrespectively of no reward being offered for their achievement may also provide useful insights.

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