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## An Examination of Naive and Experienced Negotiators

[Interpersonal Relations and Group Processes]

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## Abstract

A total of 20 Ss engaged in 7 different, 2-party negotiation tasks to examine the effects of experience on judgment accuracy, behavior, and outcomes in negotiation. Negotiators bargained with naive negotiators who had either no experience or just a single previous experience; the total amount of experience in each bargaining pair was controlled for. Joint outcomes could be increased by trading off pairs of issues (logrolling) and by identifying issues for which both people had compatible interests. Logrolling improved as negotiators gained experience, but negotiators' ability to identify compatible issues did not. Negotiators were more successful in logrolling issues when the naive person had a single previous bargaining experience as opposed to no experience. Highly experienced bargainers claimed a larger share of the joint resources at the expense of their naive opponents. High aspirations, small concessions, and proposing several different offers predicted superior performance. The accuracy of negotiators' judgments about their opponent paralleled their performance, suggesting judgment accuracy is a key ingredient for reaching integrative agreement.

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Common sense and empirical observation suggest that a relationship exists between experience and performance. Experience tends to improve performance in a wide variety of cognitive and behavioral tasks ([Blackburn, 1936](#); [Chase & Simon, 1973](#)). Although it is tempting to conclude that practice makes perfect, recent research in the area of social judgment and decision making suggests that experience and even expertise does not reliably improve performance ([Ball, Bazerman, and Carroll, in press](#); [Brehmer, 1980](#); [Goldberg, 1968](#); [Mumpower and Hammond, 1974](#)). In fact, [Brehmer \(1980\)](#) concluded after examining the effects of experience on judgment and decision making, "Our further analysis of the problem has shown ... that our faith in experience is, if not totally without foundation, so at least far from well grounded" (p. 239).

One important application of decision making is negotiation. *Negotiation* is a decision-making process in which people mutually decide how to allocate scarce resources ([Pruitt, 1983](#)). Negotiation is necessary whenever conflict erupts and there are no fixed or established rules or procedures to resolve conflict and whenever people want to search for agreements without resorting to aggression or open fighting ([Lewicki & Litterer, 1985](#)). We negotiate with friends, spouses, and co-workers for a variety of scarce resources, including tangible goods such as money and commodities as well as intangible goods such as services, information, rights, and prestige. Clearly, negotiation is essential for anyone who must interact with other people to accomplish their objectives.

Despite the obvious prevalence and importance of negotiation, substantial evidence suggests that people often fail to attain readily available and mutually beneficial outcomes (for reviews, see [Neale & Northcraft, in press-a](#); [Thompson, in press-b](#)). Many negotiation situations contain potential for joint gain; these are known as *integrative* negotiations ([Follett, 1940](#); [Raiffa, 1982](#); [Walton and McKersie, 1965](#)). Unfortunately, negotiators often fail to reach integrative outcomes. A classic example concerns a dispute between two sisters for an orange ([Follett, 1940](#)). The sisters agree to compromise and cut the orange in half. One sister drinks the juice and throws the peel away; the other sister uses the peel for a cake and throws the juice away. In the heat of argument, the sisters overlooked the integrative solution of giving all the juice to one sister and the entire peel to the other sister. The critical point is

that compromises are not necessarily the best way to settle conflicts. Integrative agreements are typically nonobvious solutions that are based on the analysis of parties' underlying interests rather than their stated positions ([Pruitt, 1983](#)).

The conclusion that is based on a growing body of research is that negotiation performance is frequently far less than optimal. However, many of the studies on which this conclusion is based have been examinations of single, or one-shot, negotiations. This research paradigm stands in sharp contrast to most people's experience with negotiation as a frequent, everyday behavior, often involving repeated interactions with others. Just as most real-life decisions are continuous in time, rather than isolated, with opportunities to benefit from experience ([Hogarth, 1981](#)), many negotiation situations involve repeated experiences ([Raiffa, 1982](#); [Wolf, 1983](#)). According to [Hogarth \(1981\)](#), experience provides people with feedback that they can use to correct their judgments. Researchers have begun to question the usefulness of one-shot decision tasks ([Camerer, 1987](#); [Grether & Plott, 1979](#); [Hogarth, 1981](#)). A modest but important set of studies have begun to address the question of whether people bargain more effectively if they gain experience. This research falls into two general areas: studies of expert negotiators and studies of behavior in experimental bargaining markets.<sup>1</sup>

## Studies of Experts <sup>1</sup>

A popular view is that experts—people who negotiate for a living—should perform well in novel bargaining situations or at least better than novices. [Neale and Northcraft \(1986\)](#) compared experts' performance with amateurs' performance in a novel, integrative bargaining task. The experts were corporate real estate executives with an average of 10 years of experience; the amateurs were undergraduate and graduate students at a state university. The experts were more successful in reaching integrative outcomes. [Scholz, Fleischer, and Bentpup \(1982\)](#) compared professionals (head buyers of West German department stores) with nonprofessionals (vocational retraining students) on an integrative bargaining task. Professionals resolved conflicts more quickly than did nonprofessionals but did not differ in terms of joint outcomes. One problem with the comparison of professionals with nonprofessionals is the inability to infer a causal relationship between experience or expertise and performance; professionals differ from novices in a number of ways. Partly as a result, some researchers have manipulated experience and observed its effects on bargaining outcomes.

## Experimental Bargaining Markets <sup>1</sup>

In experimental bargaining markets, initially naive negotiators gain experience by completing several bargaining transactions. Typically, a group of buyers interacts with a group of sellers. Negotiators are instructed to complete as many profitable transactions with other people as they can within a short amount of time, usually 25 min or less (cf. [Bazerman, Maglioni, & Neale, 1985](#)). The only restriction is that negotiators not interact with the same person more than once. In general, negotiation contracts become more integrative as bargainers complete more transactions ([Bazerman et al., 1985](#); [Neale, Huber, & Northcraft, 1987](#); [Neale & Northcraft, 1986](#)). However, because the task remains constant across negotiation transactions, the conclusion that experience improves performance is complicated by the alternative explanation that knowledge of the best solutions spreads through the market. Thus, it is unclear whether negotiators are learning general principles that are effective in many negotiation contexts or whether performance is limited to the specific negotiation task.

[Neale and Northcraft \(in press-b\)](#) suggested that high-quality negotiation outcomes occur in one of three ways: Negotiators may randomly happen upon effective strategies, negotiators may learn strategies that are effective for a given context, or negotiators may learn strategies that are effective across different circumstances. Analyses of behavior in bargaining markets do not allow a distinction between context-specific negotiation skills and more generalizable skills. One purpose of the present

study is to probe this distinction.

Another major limitation of previous research on the experience–performance relationship in negotiation is that bargaining experience is typically confounded with opponent experience. Simply, as the negotiator gains experience, their bargaining opponent does as well (e.g., expert negotiators are studied as they bargain with other experts; novices are studied as they bargain with other novices). Is it necessary that both parties have experience to reach integrative agreements, or may integrative agreements be reached when only one party has experience? Of course, a certain degree of interdependence exists in all negotiations. One purpose of the present study is to explore asymmetric bargaining situations.

When negotiators differ in terms of their experience, it is important not only to examine the joint value of outcomes attained but also how negotiators distribute resources among themselves. As [Lax and Sebenius \(1985\)](#) note, negotiation does not involve just creating resources but also distributing or claiming resources. A highly experienced negotiator bargaining with a naive individual may reach an integrative outcome, but the highly experienced negotiator may claim the lion's share of available resources. I will examine how asymmetries in bargaining affect the distribution of resources within the negotiation pair.

## Overview of the Study [↗](#)

The study has three distinctive features. First, I examine the generalizability of negotiation behavior. Negotiators are challenged with different bargaining tasks requiring unique patterns of tradeoffs and agreements to reach integrative outcomes. Thus, unlike bargains in market studies, in this study, negotiators cannot apply the same solution repeatedly to reach integrative agreement. Second, I examine the effect of asymmetric experience on negotiation behavior and outcomes. Specifically, experienced bargainers negotiate with naive bargainers: I vary the experience each negotiator has while holding the total amount of experience in the pair constant. For example, in one round of bargaining, the experienced negotiator has three trials of experience; the naive negotiator has one; in another round, the experienced negotiator has four trials of experience; the naive negotiator has none. Finally, I examine judgment accuracy as a possible mechanism by which experience may improve performance. I examine negotiator's judgments of the other party and the relationship between judgment accuracy and performance. According to the cognitive approach to negotiation, accurate judgment is a key ingredient for reaching integrative agreements ([Thompson, in press-b](#); [Thompson & Hastie, in press](#)).

## Method [↗](#)

### Subjects and Procedure [↗](#)

A total of 100 subjects participated in partial fulfillment of an introductory psychology course requirement. A total of 20 subjects were randomly assigned to the high-experience group. Negotiators in the high-experience group engaged in seven negotiation tasks and bargained with a different person in every task. Their opponents came from a pool of 80 subjects (naive group). The experimental design is presented in [Table 1](#). As can be seen in [Table 1](#), neither party had experience with the task prior to Round 1. In Round 2, both parties had a single previous experience. In Rounds 3, 5, and 7, negotiators in the high-experience group negotiated with parties who had no experience with the task; in Rounds 4 and 6, negotiators in the high-experience group negotiated with parties who had no previous experience with the task. Thus, the relative distribution of experience varied within each bargaining pair. This allowed a comparison between the concentrated experience rounds (Rounds 3, 5, and 7) and the distributed experience rounds (Rounds 2, 4, and 6) while the total amount of experience in the negotiation pair was held constant. Specifically, Round 2 was

comparable with Round 3; Round 4 was comparable with Round 5; Round 6 was comparable with Round 7.

Experience	Negotiation round						
	1	2	3	4	5	6	7
High-experience bargainer	E <sub>1,0</sub>	E <sub>1,1</sub>	E <sub>1,2</sub>	E <sub>1,3</sub>	E <sub>1,4</sub>	E <sub>1,5</sub>	E <sub>1,6</sub>
Naive bargainer	N <sub>1,0</sub>	N <sub>2,1</sub>	N <sub>3,0</sub>	N <sub>4,1</sub>	N <sub>5,0</sub>	N <sub>6,1</sub>	N <sub>7,0</sub>
Total amount of experience in pair	0	2	2	4	4	6	6

*Note.* The first subscript identifies the subject. The second subscript indicates the amount of experience that subject has. The concentrated experience condition includes the rounds in which the naive party does not have any experience (Rounds 3, 5, and 7); the distributed experience condition includes the rounds in which the naive party has one previous experience (Rounds 2, 4, and 6).

Table 1 Experimental Design

The subjects were given the following instructions:

The purpose of this study is to examine negotiation behavior. You will negotiate with another party in a task in which there are five issues to be resolved (see attached payoff schedule). The “payoff” schedule describes all the possible ways that you can settle this negotiation and how many points you can get for each alternative agreement. Your goal is to maximize the number of points you gain for yourself. Please note that failure to reach agreement on all five issues after 25 minutes will result in both persons earning zero points.

As an incentive, the subjects were informed that a \$100 cash prize would be awarded to one individual at the end of the academic term contingent upon his or her performance, so that the probability of winning the prize was related to the number of points he or she earned (Roth & Malouf, 1979; Thompson & Hastie, in press).<sup>2</sup> The experimenter provided subjects with specific negotiation instructions, a payoff schedule, and a short quiz to ensure that subjects understood their schedules. The quiz asked subjects to indicate which issue was most important, which was least important, and what their ideal solution would be. The experimenter checked answers to every question; subjects in error were told to attempt the item again. Most subjects were correct on their first attempt; virtually all were correct on their second attempt. Negotiators bargained for a maximum of 25 min. Subjects negotiated face to face with no restrictions on their communication except that they were told not to physically exchange their payoff schedules (cf. Pruitt & Lewis, 1975).<sup>3</sup>

## Task and Materials [+](#)

Negotiators engaged in a different task in each round of bargaining. Each task contained five issues to be resolved: Two issues could be traded off, or *logrolled*, to maximize joint gain, one issue was one in which negotiators had perfectly compatible interests, and two issues were purely fixed-sum. A sample negotiation task is presented in the [Appendix](#). In the task presented in the [Appendix](#), negotiators have different priorities for the salary and medical issues and may logroll these issues to maximize joint gain (e.g., high salary for low medical coverage). Negotiators have the same preferences for the starting date (compatible issue), and agreeing on August 1 increases joint gain. The raise and the vacation are purely distributive issues; whatever one party gains, the other loses in a direct, fixed-sum fashion.

A total of eight different negotiation tasks were used in the experiment.<sup>4</sup> Each task involved a different negotiation situation, and a different solution was necessary to reach an integrative outcome. Each task differed in terms of the issues involved: the issues required to be logrolled to maximize joint gain and the issues for which negotiators shared compatible interests. So, for example, in one task negotiators bargained as an employer, concerning the salary, vacation, raise, starting date, and medical benefits for an employee; in another task, negotiators bargained as a tenant negotiating the rent, security deposit, move in date, utilities, and lease length for an apartment. Furthermore, the serial position of each type of issue (e.g., logroll, compatible) was changed in each negotiation. Negotiators were told they should not compare the number of points earned in one round with those earned in another because each task was based on a different point scale. Of course, for analysis purposes points were standardized to allow performance to be compared across the different tasks. The order in which subjects completed the tasks was randomized, and experienced subjects were assigned to one of eight random orders. Pretesting indicated that there were no effects for type of task or presentation order on judgment accuracy or performance ([Thompson, 1988](#)).

## Dependent Measures <sup>†</sup>

### Negotiation performance. <sup>†</sup>

Two measures of joint performance were computed for each negotiation dyad: a logrolling score and a compatibility score.<sup>5</sup> The logrolling score reflected the degree to which parties traded off the two issues for which they had different priorities (e.g., salary and medical, see the [Appendix](#)). The compatible score was the number of points negotiators earned on the compatible issue (e.g., August 1 start date, see the [Appendix](#)). In addition to joint profit, the distribution of points within bargaining pairs was examined to determine whether the experienced negotiators claimed a larger share of the resources in relation to their naive opponent.

### Judgments of the other party. <sup>†</sup>

Judgment accuracy scores were computed for each negotiator, following each negotiation, by examining their perceptions of the other party's interests for the negotiation issues. Specifically, following each negotiation, the experimenter provided each subject with a blank payoff schedule and the following instructions:

Below is a blank payoff schedule similar to the one that has been given to you in this negotiation situation. At this time, we would like you to "fill in the numbers" to indicate what you think the other negotiator's payoff schedule looks like. Your only hint is that the lowest number on their chart is zero and the highest is 400.<sup>6</sup>

From this fill-in-the-blank questionnaire, measures of judgment accuracy were computed by examining deviations between negotiators' estimates and the true values.<sup>7</sup>

Two measures of judgment accuracy were used: logrolling accuracy and compatibility accuracy.<sup>8</sup> Logrolling accuracy measured whether negotiators accurately perceived that two of the issues (e.g., salary and medical, see the [Appendix](#)) differed in importance to the other party. For example, if the employee assumed that the employer values salary the most and medical coverage the least, he or she would have a low accuracy score. Specifically, the accuracy score was computed by summing the absolute deviations of the subject's estimates from the target negotiator's actual values for the two logrolling issues.<sup>9</sup> Negotiators' accuracy scores were summed to form a joint score.

Compatibility accuracy measured whether negotiators realized that they had interests on one issue that were perfectly compatible with those of the other party (e.g., August 1 start date). For example, if the employee assumed that the employer preferred to start in June or July, he or she would have a

low accuracy score. For this measure, negotiators were assigned a score of 0 if they accurately realized that the other party's interests were compatible with their own and a score of 1 if they failed to realize that the other party's interests were the same as their own. Scores were based on the fill-in-the-blank measure; the summed absolute difference formula was not used because the focus was not on judgments of importance or magnitude but on the direction of preference. Simply, did the other party realize that the later starting dates were to be preferred over earlier ones? Again, accuracy scores were summed to form a dyad score, ranging from 0 to 2, in which a score of 0 indicated that both parties accurately perceived the compatible issue, a score of 1 indicated that one party accurately perceived the compatible issue but the other did not; a score of 2 indicated that both members of the pair failed to perceive the compatible issue.

## Behavioral measures. [↑](#)

Negotiations were audio-recorded with subjects' consent. The contents of negotiators' interactions were transcribed, and four general types of behavior were examined: the number and creativity of suggestions made by bargainers, negotiators' aspirations, the mean level of negotiators' offers, and the pattern and type of concessions made (if any) during negotiation. The final coding scheme included 10 measures: *number* (the number of five-issue offers suggested by each negotiator during each negotiation round), *unique* (the number of qualitatively different offers suggested), *aspiration* (the individual point value of the first five-issue offer suggested by the negotiator), *first-joint* (the joint point (total) value of the first five-issue offer suggested), *average-self* (the average individual value of offers suggested), *average-other* (the average value to the other party of offers suggested), *average-logroll* (the average logrolling value of offers suggested), *average-compatibility* (the average compatible value of offers made), *concession* (the individual point value, either positive or negative, of the difference between the negotiator's first offer and their last offer), and *generosity* (the point value, either positive or negative, of the difference between the negotiator's first offer to the other party and his or her last offer to the other party). Three coders read the written transcripts and identified the offers suggested by bargainers. The reliability coefficients for this measure all exceeded .92. A data set was created that contained all of the offers suggested by bargainers during each negotiation round. A computer program was written to calculate the value of each of the variables described earlier in this paragraph for each negotiator and for each round of bargaining.<sup>10</sup>

## Results [↑](#)

### Negotiation Performance [↑](#)

#### Logrolling. [↑](#)

Logrolling measures the extent to which negotiators make trade-offs between issues that differ in importance to each party (e.g., negotiators who compromised on the salary and medical issues, \$22,000 and 60% coverage, had lower logrolling scores than did negotiators who traded off these two issues, \$24,000 and 20% coverage, see the [Appendix](#)). Logrolling scores ranged from 299 to 760 ( $M = 629$ ,  $SD = 95.2$ , across all rounds). The logrolling scores for each of the seven rounds were entered into a repeated measures analysis of variance (ANOVA). There was a significant main effect across the seven rounds of negotiation,  $F(6, 14) = 5.82$ ,  $p < .004$ . Next, an orthogonal polynomial trend analysis was performed, using logrolling scores as a repeated measures variable. There was a significant linear effect: Negotiators created more joint profit through logrolling as they completed more negotiation rounds,  $F(1, 19) = 6.44$ ,  $p < .02$ . There was also a significant quadratic effect,  $F(1, 19) = 4.93$ ,  $p < .04$ , and a significant sextic effect,  $F(1, 19) = 11.88$ ,  $p < .003$ . No other trend components were significant. The effects of the relative distribution of experience in the bargaining pair may be examined by the sextic component. Specifically, logrolling performance in the distributed experience rounds (Rounds 2, 4, and 6) was greater than in the concentrated experience rounds (Rounds 3, 5, and 7). No other trend components were significant. These effects are illustrated in [Figure 1](#).

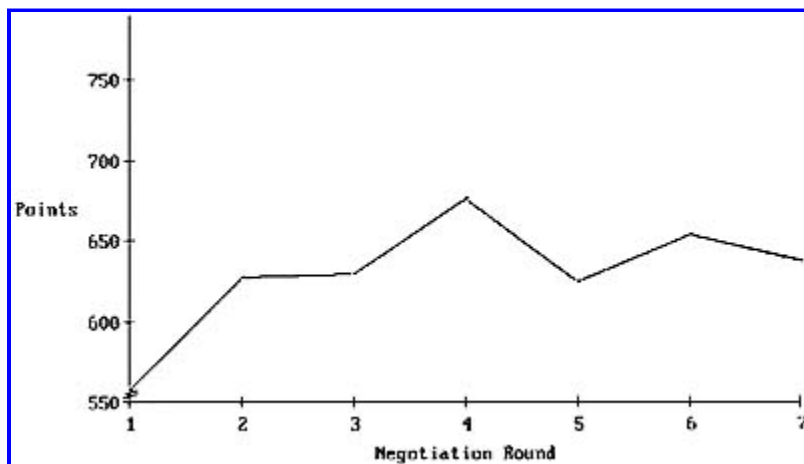


Figure 1. Logrolling performance as a function of negotiation round.

### Compatible issues. [↑](#)

This measure of performance examines the agreement that negotiators reached on issues in which they had preferences identical to those of the other party (e.g., parties who settled for June 15 had a lower compatibility score than did those who settled for July 15 or August 1, see [Appendix](#)). Across all negotiations, 80% of the negotiators reached the optimal outcome for the compatible issue; 20% of the negotiation pairs settled for suboptimal outcomes. A total of 6 pairs of negotiators (30%) reached the optimal choice on the compatible issue in every bargaining round; the remaining 14 pairs (70%) failed to choose the best alternative in at least one negotiation ( $M = 2$  negotiations). The compatibility scores for each of the seven rounds were entered into a repeated measures ANOVA; the effect was not significant, indicating that performance on this measure did not improve or worsen as negotiators gained experience.

### Individual performance. [↑](#)

Did highly experienced negotiators earn more profit in relation to their naive opponent? The hypothesis that the experienced negotiator would earn more than half of the total amount of resources was tested against the null hypothesis that the experienced party would get exactly half of the total joint outcome. This analysis examined negotiators' performance in Rounds 3–7 (recall that in Rounds 1 and 2, both negotiators were equal in terms of experience). Experienced negotiators tended to claim more than half of the joint profit, and by definition their naive opponent received less than half of the total amount of resources,  $F(1, 19) = 3.54, p < .07$ , with experienced negotiators earning an average of 660.96 points and naive negotiators earning an average of 593.63 points.

Was this effect more likely to occur in the concentrated rounds when the naive negotiator had no experience (Rounds 3, 5, and 7) than in the distributed rounds when the naive negotiator had a previous bargaining experience (Rounds 2, 4, and 6)? A trend analysis was performed, using the dependent measure described earlier: in Rounds 2–7. The linear, quadratic, cubic, and quartic trends were not significant. The highest order trend, the quintic trend, was significant,  $F(1, 19) = 4.41, p < .05$ . Experienced bargainers were more likely to claim more than 50% of the total amount of resources when their naive opponent did not have any experience (Rounds 3, 5, and 7) than when their naive opponent had one previous bargaining experience (Rounds 2, 4, and 6). This pattern is illustrated in [Figure 2](#).

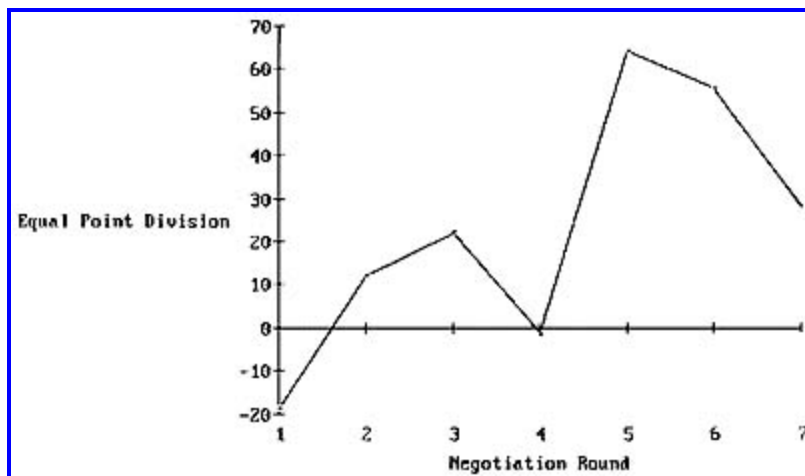


Figure 2. Points earned by experienced negotiator measured in terms of deviations from an equal split of the joint profit of the negotiation pair.

### Negotiator Judgment [↑](#)

#### Logrolling accuracy. [↑](#)

Logrolling accuracy measures negotiators' perceptions of the relative importance of issues to the other party (e.g., does the employer realize that the employee is more concerned with salary than with medical coverage?). Accuracy scores ranged from 0 to 415.8 ( $M = 245.3$ ,  $SD = 101.1$ , where lower values indicate more accurate judgments). The accuracy scores for each of the seven rounds were entered into a repeated measures ANOVA. There was a significant main effect for negotiation round,  $F(6, 15) = 3.65$ ,  $p < .03$ . Next, an orthogonal polynomial trend analysis was performed, using accuracy scores as repeated measures variables. The linear effect was significant: Negotiators made more accurate judgments as they completed more negotiation rounds,  $F(1, 19) = 13.08$ ,  $p < .002$ . No other trend components were significant. These effects are illustrated in Figure 3. Again, the effects of the relative distribution of experience in the bargaining pair may be addressed by the sextic component, which was nonsignificant in this case,  $F(1, 19) = 1.71$ ,  $p < .20$ .

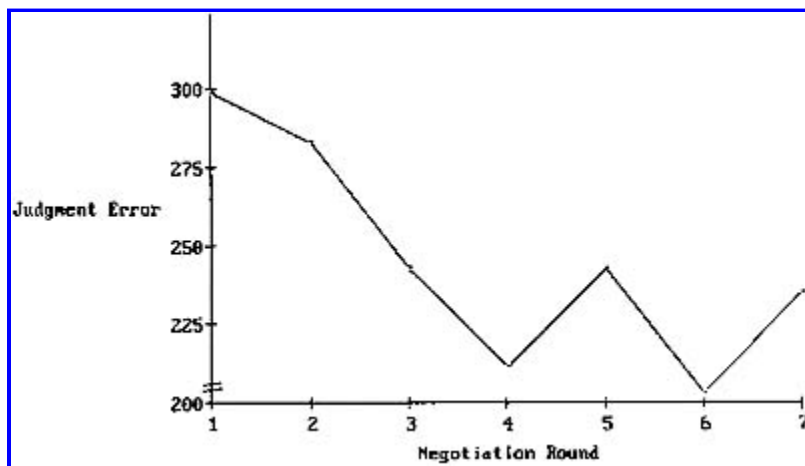


Figure 3. Error in negotiators' judgments of the other party as a function of negotiation round.

#### Compatibility accuracy. [↑](#)

Compatibility accuracy measures whether negotiators realize that they have interests that are compatible with those of the other party (e.g., does the employer realize that the employee prefers August 1?). At least 1 negotiator in 71% of all negotiation pairs failed to realize that the other party

had some interests that were perfectly compatible with their own. Did experience affect negotiators' ability to accurately identify compatible interests? The accuracy scores for each of the seven rounds were entered into a repeated measures ANOVA. The overall effect for the seven rounds was not significant,  $F < 1$ .

## Negotiation Behavior [↑](#)

I examined negotiators' behavior to explore the processes of negotiation and to identify the behaviors associated with successful performance. Analyses were performed using 13 of the 20 negotiation sessions. (Seven of the sessions were not used because one or more rounds were missing or inaudible because of problems with equipment.)

## Descriptive analyses. [↑](#)

Analyses were first performed to examine behavior across all negotiators and bargaining rounds. The means for each measure are as follows: *number* ( $M = 8.7$ ,  $SD = 9.8$ ), *unique* ( $M = 4.9$ ,  $SD = 3.4$ ), *aspiration* ( $M = 660$ ,  $SD = 153.3$ , maximum possible = 920), *first-joint* ( $M = 1,203$ ,  $SD = 130.6$ , maximum possible = 1,360), *average-self* ( $M = 634.7$ ,  $SD = 106.8$ ), *average-other* ( $M = 561.7$ ,  $SD = 106.7$ ), *average-logroll* ( $M = 596.7$ ,  $SD = 84.54$ , maximum possible = 760), *average-compatibility* ( $M = 86.98$ ,  $SD = 15.46$ , maximum possible = 100), *concession* ( $M = 39.37$ ,  $SD = 131.9$ ), *generosity* ( $M = 58.26$ ,  $SD = 144.9$ ).

## Relationship between behavior and performance. [↑](#)

Highly experienced negotiators tended to earn higher individual payoffs in relation to their naive opponent. How did highly experienced negotiators successfully gain a larger share of the to-be-divided resources? As a way of addressing this question, a multiple regression analysis was performed in which the dependent variable, the division of resources between the highly experienced and naive negotiator in Rounds 3–7, was regressed on the 10 behavioral measures.<sup>11</sup> The dependent variable was the amount of resources in excess of 50% claimed by the highly experienced party. A setwise regression analysis was performed in which regression equations were estimated for all possible subsets of predictor variables. This analysis used the [Furnival-Wilson \(1974\)](#) algorithm to efficiently identify the subset of predictor variables and Mallows' Cp as a criterion to select the best set of predictors ([Daniel & Wood, 1971](#)). The amount of resources claimed by highly experienced negotiators in excess of 50% was best predicted by six variables: *number*, *unique*, *aspiration*, *average-other*, *concession*, and *average-compatibility*,  $F(6, 6) = 226.29$ ,  $p < .0001$ ,  $R^2 = .99$ . Specifically, experienced bargainers who were able to claim more than 50% of the joint amount of resources began with high aspirations  $t(12) = 7.55$ ,  $p < .001$ , made few concessions,  $t(12) = -10.14$ ,  $p < .001$ , made offers that were low in value to the other party,  $t(12) = -8.25$ ,  $p < .001$ , overall made fewer proposals,  $t(12) = -5.08$ ,  $p < .003$ , made more, rather than fewer, unique proposals,  $t(12) = 6.27$ ,  $p < .002$ , and made proposals for alternatives on the compatible issue that were suboptimal, rather than optimal,  $t(12) = -5.47$ ,  $p < .003$ .

## Discussion [↑](#)

People frequently fail to attain readily available and mutually beneficial agreements in negotiation. Instead, negotiators often settle for agreements they find less satisfying and rewarding than other readily available alternatives. Much of the evidence supporting this disturbing conclusion has been based on examinations of single, or one-shot, bargaining situations ([Thompson, in press-b](#)). The present research was motivated by theoretical and practical questions concerning the relationship between experience and performance: Does experience improve performance in negotiation? Do

negotiation skills generalize to different bargaining situations? Is it necessary that both parties have experience to reach integrative agreements? Do highly experienced negotiators claim more resources at the expense of naive opponents?

Previous research has shown that people who negotiate in the same bargaining situation perform better as they complete more bargains. However, this research paradigm is highly restrictive. Some people may encounter the same negotiation task repeatedly, but most people are faced with negotiation situations that involve different issues, alternatives, and interests. To examine whether experience improves performance in novel bargaining situations, I challenged negotiators with a series of different bargaining tasks requiring unique solutions to reach integrative agreement. Negotiators' ability to make mutually beneficial trade-offs, or to logroll, improved as they gained experience. However, their ability to recognize when they had interests that were perfectly compatible with those of the other party did not. These findings allow a more refined and general statement about the experience-performance relationship in negotiation: Logrolling skills are generalizable to different negotiation situations, but the ability to identify compatible issues is not.

Many real-life bargaining situations involve asymmetries in experience and knowledge (Raiffa, 1982). I examined negotiation processes and outcomes between highly experienced and naive negotiators. Naive negotiators either had no experience or had just a single experience with the task. Just a single experience on the part of the naive negotiator dramatically improved joint outcomes. This effect was observed even when the total amount of experience within the bargaining pair was held constant. These results suggest that the development of integrative agreements is a highly interdependent process, and a minimum amount of experience may be necessary to reach highly integrative outcomes.

The quality of joint outcomes in negotiation is a function of two factors. First, negotiators must suggest proposals that are integrative; second, negotiators must choose from among proposals suggested. Although it is obvious that an integrative offer must be made for an integrative outcome to result, the important point is that it is not necessary that both parties make integrative offers for an integrative outcome to be reached. So, theoretically, it is not necessary that naive negotiators make offers for an integrative outcome to be reached. However, the second process, selecting from among proposals, is an interdependent process: Both parties have to agree before a settlement is reached. The selection process is difficult because it is not obvious how bargainers should decide when to reject or accept offers. Negotiators who accept offers prematurely can thwart an otherwise integrative bargaining process. Perhaps completely naive negotiators thwarted the process of integrative bargaining by prematurely accepting proposals that did not yield high joint benefits. Negotiators with more bargaining experience may have been more reluctant to acquiesce.

When negotiators differ in their experience or expertise, it is meaningful not only to examine joint outcomes but also to examine how negotiators distribute resources among themselves. Highly experienced negotiators tended to claim more resources at the expense of their naive opponents. This effect was magnified when the naive bargainer did not have any experience and was mitigated when the naive bargainer had a single previous bargaining experience. How were highly experienced bargainers able to take advantage of their naive opponents? Examination of negotiators' behavior provided some clues. Highly experienced bargainers made high initial demands, offered few concessions, and made offers that were low in value to the other party. Furthermore, they suggested fewer proposals during bargaining than did their less successful counterparts but suggested more qualitatively different or unique offers. Thus, making repeated demands may not be an effective method for claiming resources. Instead, a more effective method may be to suggest several different proposals that are of high value to the self. These relationships suggest some hypotheses about negotiation behavior and integrative outcomes; compelling causal explanations will require direct manipulation of negotiation behaviors.

Curiously, the proposals suggested by successful experienced bargainers were ones that were suboptimal in terms of the compatible issue. One speculation is that experienced bargainers use the compatible issue as a ploy to induce their naive opponent to make concessions on other issues. Simply, the experienced bargainer may have determined that their opponent had similar preferences on the compatible issue, pretended to prefer the least desirable alternative on the issue, and finally, feigned making a concession for the purpose of gaining on another issue. As one subject commented: "I tried to make it seem like I was doing a favor for her on some of the issues even though I was getting all of the points in that category"; another noted in his negotiation for a Toyota Camry, "I used the fact that the delivery date was my key to negotiations since our goals were the same, but I didn't let the seller know this fact.... I tried to use my advantage of the delivery date to get a double bonus."

One of the purposes of this research was to explore how experience improves performance. In the more general class of decision-making tasks, experience is thought to improve performance by providing people with feedback that they can use to make more accurate judgments ([Hogarth, 1981](#)). My view is that this process may also explain the relationship between experience and performance in negotiation. My hypothesis was that experience would improve negotiators' ability to make accurate judgments about the other party's interests. In support of this view, I found that the accuracy of negotiators' judgments about the other party improved with experience and generally paralleled improvements in performance, which suggests that judgment accuracy about the other party's interests is an important ingredient for negotiation performance ([Thompson, in press-a](#); [Thompson & Hastie, 1990](#)).

Although the accuracy of negotiators' judgments about their opponents' priorities improved with experience, their ability to accurately identify compatible issues did not. Most negotiators failed to realize that they had some interests that were perfectly compatible with those of the other party even after 25 min of bargaining. This finding is surprising and perplexing because it would seem that two people who want the same thing should be able to recognize this. Recognizing compatible interests may be more difficult than recognizing differences in priorities. Because most people enter negotiation with a fixed-sum perception ([Thompson & Hastie, in press](#)), the existence of compatible issues represents a violation of this perception, whereas the existence of different priorities only partially violates this perception. Simply, it may be perceptually easier for negotiators to accommodate beliefs about differences in priorities than the existence of compatible issues.

Despite the fact that most negotiators failed to realize that they shared compatible interests, most (80%) were able to settle for optimal outcomes on compatible issues. However, unlike logrolling performance, no clear learning pattern emerged. It wasn't the case that once a negotiator reached an optimal agreement on the compatible issue, they were able to do so in their subsequent negotiations. Instead, negotiators seemed to stumble into choosing the best alternative on compatible issues, reaching optimal agreements in some rounds but not in others. This finding is consistent with [Neale and Northcraft's \(in press-b\)](#) first account of how integrative outcomes are reached in bargaining: by accident.

The observation that negotiators reached optimal agreements on compatible issues even when they did not realize that the other party preferred the same choice indicates that negotiators often erroneously believe that they are coming out ahead of the other party. Of course, neither party suffers when optimal agreements are reached on compatible issues, both profit. This situation may be viewed as a variant of *benevolent misunderstanding* ([Deutsch, 1973](#)). The implications of such misunderstanding are largely unexplored. People may develop inflated confidence in their bargaining abilities, leading to more contentious bargaining behavior ([Neale & Bazerman, 1985](#)).

One of the aims of this research was to examine the generalizability of negotiation skills.

Negotiators in this study were challenged with different bargaining tasks, requiring unique patterns to reach optimal agreement. However, the tasks used in the present analysis contained certain common features—for example, all of the tasks were variable sum, and all contained five issues—and experience was concentrated in time and limited to a particular setting. An appreciable gap exists between the diversity of negotiation tasks encountered by negotiators in this experiment and the level of diversity negotiators undoubtedly encounter in real-life negotiation situations. Thus, it may be more difficult for people to learn from experience in real-life negotiations. I don't suggest that the present negotiations do not share any features common to real-life negotiation situations. Negotiators in the study were not interrupted, coached, or given feedback about their performance vis à vis the other party. These features characterize many real-life negotiations. Finally, I don't suggest that experience always has beneficial effects. Certain types of experience may hinder learning and performance in negotiation ([Thompson, in press-a](#)).

The study of experience in negotiation is important for at least three reasons: First, examination of negotiation behavior across different situations, people, and tasks defines the scope and generality of negotiation behavior and performance. Second, studies of experience inform prescriptive approaches and suggest methods for improving negotiation performance ([Bazerman, 1986](#); [Raiffa, 1982](#)). Finally, examination of experience is important for theoretical development. Models of expert decision making and negotiation may be developed from studies of highly experienced negotiators ([Kersten, Michalowski, Matwin, & Szpakowicz, 1988](#); [Kolodner & Simpson, 1989](#)).

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## Appendix [+](#)

### Example of Negotiation Task: Personnel Department [+](#)

Bargainers are instructed that the number of points they get is in parentheses. In order to earn any points, negotiators must reach agreement on all five bargaining issues. The task contains two purely fixedsum issues (vacation, annual raise), two issues that may be logrolled, or traded off, to maximize joint gain (salary, medical coverage), and one compatible issue (starting date) in which bargainers have identical preferences. [\[Context Link\]](#)

Employee Payoff Schedule				
Salary	Vacation	Annual Raise	Start Date	Medical
\$24,000 (400)	3 wks (120)	15% (240)	Aug 1 (200)	100% (60)
\$23,000 (300)	2½ (90)	12% (180)	Jul 15 (150)	80% (45)
\$22,000 (200)	2 wks (60)	9% (120)	Jul 1 (100)	60% (30)
\$21,000 (100)	1½ (30)	6% (60)	Jun 15 (50)	40% (15)
\$20,000 (0)	1 wk (0)	3% (0)	Jun 1 (0)	20% (0)

Employer Payoff Schedule				
Salary	Vacation	Annual Raise	Start Date	Medical
\$24,000 (0)	3 wks (0)	15% (0)	Jun 1 (0)	100% (0)
\$23,000 (15)	2½ (30)	12% (50)	Jun 15 (50)	80% (100)
\$22,000 (30)	2 wks (60)	9% (120)	Jul 1 (100)	60% (200)
\$21,000 (45)	1½ (90)	6% (180)	Jul 15 (150)	40% (300)
\$20,000 (60)	1 wk (120)	3% (240)	Aug 1 (200)	20% (400)

Table. No caption available

<sup>1</sup>A large body of research has examined repeated-play prisoner's dilemma games ([Axelrod, 1984](#); [Deutsch, 1973](#); [Kelley & Stahelski, 1970](#); [Rubin & Brown, 1975](#)). Negotiation situations differ in important ways from prisoner's dilemmas in terms of the communication between parties, parties' ability to make provisional offers, the veto power each party has on any outcome other than the disagreement outcome, the parties' knowledge of the other's payoffs, and the structure of the task ([Bartos, 1972](#); [Rapoport, 1969](#); [Siegel & Fouraker, 1960](#)). [\[Context Link\]](#)

<sup>2</sup>The lottery procedure worked as follows: Subjects were assigned a number of tickets equal to the number of points they earned in all of their negotiations. Each ticket was entered into a pool, and one ticket was randomly drawn from the pool. The owner of the ticket received the cash prize. This procedure does not necessarily encourage competitive behavior (e.g., attempts to maximize difference between points for the self and the other, rather than simply maximizing one's own points) because subjects do not know (for sure) the other's payoff schedule and because subjects are told that a large number of participants' tickets will be entered into the pool. Thus, it is not in a subject's interest to compete with 1 person when 100 or so will be entered into the pool. [\[Context Link\]](#)

<sup>3</sup>Individual utility, or value, is not directly observable; negotiators may never be completely certain what the other party's real interests are ([Coombs & Avrunin, 1988](#)). [\[Context Link\]](#)

<sup>4</sup>One task involved a job contract in a personnel agency, one involved the purchase of an IBM computer, one involved the sale of a Toyota Camry, one involved the lease of an apartment on Hinman Avenue, one involved a position in an advertising agency, one involved the sale of a Macintosh computer, one involved renting a house on Forest Avenue, and one involved the purchase of a Ford Taurus. A complete description of all the negotiation tasks may be obtained from Leigh Thompson. [\[Context Link\]](#)

<sup>5</sup>An overall measure of joint performance (points earned on all five issues) was not used because such a measure would not be useful for the fixed-sum issues (i.e., two of the issues on each task will always sum to the same amount by definition). Thus, the question was whether to combine points earned on the two logrolling issues with points earned on the single compatible issue to form an overall measure of joint profit. This was not done because the two skills, logrolling and identifying compatible interests, have been found to be unrelated ([Thompson, in press-a](#)). [\[Context Link\]](#)

<sup>6</sup>The numerical bounds varied, depending on the negotiation task. [\[Context Link\]](#)

<sup>7</sup>One concern was that completing these judgment measures would influence the behavior of negotiators in the subsequent negotiation round. This possible reactive effect has been extensively explored and has been found to be minimal ([Thompson, 1988](#); [Thompson and Hastie, 1990, in press](#)). [\[Context Link\]](#)

<sup>8</sup>A complete analysis of accuracy in negotiation would also entail assessing negotiators' perceptions of the purely fixed-sum issues (e.g., vacation and raise, see [Appendix](#)). This was not done because previous analyses indicate little or no variance on this measure ([Thompson, 1988](#)). [\[Context Link\]](#)

<sup>9</sup>Specifically, the formula was  $[\text{abs}(400 - x) + \text{abs}(300 - x) + \text{abs}(200 - x) + (100 - x) + \text{abs}(0 - x) + \text{abs}(60 - x) + \text{abs}(45 - x) + \text{abs}(30 - x) + \text{abs}(15 - x) + \text{abs}(0 - x)]$ , in which abs = absolute value and  $\times$  = negotiator's estimate. [\[Context Link\]](#)

<sup>10</sup>A copy of the computer program may be obtained from Leigh Thompson. [\[Context Link\]](#)

<sup>11</sup>For analysis purposes, missing data were replaced with the mean for that variable. [\[Context Link\]](#)

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