Inspired by Kelley and Stahelski (1970), we examined self- and peer-evaluations of negotiator behavior and how they related to actual performance. People had more accurate perceptions of their pie-slicing skills than their pie-expanding skills. Pie-expanders tended to see others as more competitive in general than did pie-slicers. Meanwhile, pie-slicers outperformed pie-expanders. Further, those who saw themselves as more competitive than others perceived them to be performed best.

In 1970, Kelley and Stahelski conducted what became a landmark investigation of self and other perceptions of cooperation and competition in negotiations. Kelley and Stahelski found that cooperators accurately perceive the world to be made up of a heterogeneous mix of cooperative and competitive people. Competitors, on the other hand, tend to inaccurately perceive everyone to be competitors. This difference in perception, of course, has implications for behavior—competitors opt for competitive behavior with everyone they encounter, whereas cooperators assume a more diverse approach, complementing their more accurate perceptions. Kelley and Stahelski’s theory and empirical demonstration opened the door for a nuanced investigation of self and other perceptions in negotiations. Curiously, in the 30 intervening years of research on negotiations, few empirical studies on self and other perception were conducted; rather, the following three decades of research were dedicated to exploring the impact of judgment biases, following the lead of Tversky and Kahneman (1974; see also Bazerman, Curhan, Moore, & Valley, 2000 for a review). The present study seeks to further explore the impact of self and other perceptions in negotiations. Whereas Kelley and Stahelski focused on “cooperators” and “competitors,” we focus on the conceptually distinct, though related, behavioral categories of resource-creation (pie-expanding) and resource-claiming (pie-slicing).

In this paper, we generate and test several hypotheses centering on how self-perceptions influence our perceptions of others; how others’ perceptions of us influence how we evaluate them; and how perceptions may influence actual performance. We begin by reviewing research on person perception in negotiation. Next, we examine the key elements of negotiation and then describe our research investigation.

**Person Perception in Negotiation: Kelley & Stahelski’s Insight**

In Kelley and Stahelski’s (1970) study, they classified participants as either cooperators or competitors. Next, participants were paired to play against one another in a standard prisoner’s dilemma game, in which negotiators made a simple choice: Cooperate or defect. If both parties cooperated, mutual gain was highest. However, there was temptation for both parties to defect, given that payoffs for the defecting party were higher under all conditions than if she cooperated. In addition, participants were asked to judge the social-motivational orientation of their opponent.

As one might expect, if a cooperater played against another cooperater, both cooperated. Further, if a competitor played against a competitor, both tended to compete. The interesting situation occurred when a competitor encountered a cooperater. The cooperater accurately perceived the competitive nature of the competitor; however, the competitor mistook the cooperater for a competitor, and thus played competitively. Eventually the cooperater began to
compete, thus confirming the erroneous perception held by the competitor. Kelley and Stahelski concluded that people with cooperative inclinations understand the world to be heterogeneous with respect to competitive and cooperative inclinations. Competitors, likely reinforced by a long history of similar interactions, see the world as homogeneous with respect to such inclinations, and remain blind to the way their own competitive tendencies create the social world they misperceive.¹

**The Dual Tasks of Integrative and Distributive Bargaining**

The key tasks involved in negotiation are integrative bargaining (pie-expanding) and distributive bargaining (pie-slicing). Walton and McKersie’s (1965) theory of negotiation clearly identified integrative bargaining and distributive bargaining as the key tasks of negotiation. “Integrative bargaining refers to the system of activities which is instrumental to the attainment of objectives which are not in fundamental conflict with those of the other party and which therefore can be integrated to some degree… Integrative potential exists when the nature of a problem permits solutions which benefit both parties, or at least when the gains of one party do not represent equal sacrifices by the other” (p. 5). In contrast, distributive bargaining is “… the complex system of activities instrumental to the attainment of one party’s goals when they are in basic conflict with those of the other party… What game theorists refer to as fixed-sum games are the situations we have in mind: one person’s gain is a loss to the other” (p. 4).

Raiffa (1982) also addressed the dual tasks of integrative and distributive negotiation. According to Raiffa, all negotiators are motivated to expand the pie, but there can be much difficulty in terms of how to divide the pie. However, and somewhat paradoxically, it is expanding the pie that seems to give people the most difficulty. Several hundred research investigations conducted in the past 15 years have focused their attention on the integrative task of bargaining and have produced strong and conclusive evidence that people are not very effective at expanding the pie (see Bazerman et al., 2000).

In Kelley’s (1966) integrative bargaining task, two players attempt to reach mutual agreement; thus, there is lesser uncertainty about one’s own eventual payoff, in contrast to the prisoner’s dilemma game, in which parties make choices but are uncertain of what the other party is going to do. Further, in the integrative bargaining task, the nature of parties’ interests vis-à-vis one another is not readily apparent. The integrative bargaining task is constructed so that there exists ample opportunity to expand the pie of resources by trading off interests, but there is also an element of competition; the parties must agree how to divide the pie. For example, Kelley (1966) used a simple, three-issue game that contained nine options for each issue, labeled A through I. Parties had opposing interests for each of the three issues (i.e., party 1 preferred option A for all three issues; party 2 preferred option I). Many parties compromised by settling on E for each issue. However, what was not immediately apparent to the parties was that some issues were more important than others, such that an A-E-I solution resulted in greater profit for both parties than did an E-E-E solution. Very few players got the A-E-I solution because they erroneously perceived the situation as a fixed-pie (i.e., distributive) situation (Bazerman & Neale, 1983; Thompson & Hastie, 1990). Perceiving integrative potential is critical for parties to reach more optimal outcomes.

Lax and Sebenius (1986), in their book *The Manager as Negotiator*, developed the most thorough treatment of the dual tasks of negotiation, which they referred to as: creating resources and claiming resources. They argued that the tasks of integrative bargaining are separate and distinct from the tasks of distributive bargaining. Understanding the tasks as distinct suggests the possibility that individuals will be more adept at, or inclined towards, one task rather than the other.

¹ This tendency perhaps explains the persistence of economists’ inaccurate predictions regarding human behavior in social dilemma situations. As Frank, Gilovich & Regan (1993) demonstrated, economists themselves behave in more obviously game-theoretic (i.e., competitive) ways than people in general. Kelley and Stahelski’s findings would suggest that economists’ behavioral tendencies may create and reinforce their social/behavioral predictions.
This is conceptually similar to Kelley & Stahelski’s finding that people tend toward cooperative or competitive approaches to a social dilemma. It further suggests the value of understanding better how perceptions of people’s pie-expanding (integrative bargaining) and pie-slicing (distributive bargaining) skills and tendencies affect negotiations and negotiation performance. That brings us to the present investigation

**Present Investigation**

We used the two key tasks of negotiation, expanding the pie and slicing the pie, to examine relationships between self-evaluations, peer-evaluations, and actual negotiation performance. We developed four major hypotheses, guided by Kelley and Stahelski’s (1970) investigation and research and theory on the dual tasks of integrative and distributive bargaining.

The first three hypotheses focus on self- and peer-evaluations. Our first hypothesis was that people would show greater self-insight about their pie-slicing skills than they would about their pie-expanding skills. In particular, we expected that people’s self-views would be consistent with other’s views of them when it came to pie-slicing, but that this would not be true for pie-expanding skills. Put another way, we predicted that people would, on average, have a more accurate calibration between their own perceptions of their pie-slicing skills and the perceptions of others than they would in the realm of pie-expanding skills. For the purposes of this paper, we will refer to the alignment of self and other perceptions as degrees of “social calibration.” People who perceive their skills as others perceive them will be referred to as having well calibrated views, while those whose own perceptions are out of line with others’ perceptions will be referred to as having comparatively poor calibration.

Our prediction was driven by three key ideas. First, the distributive (pie-slicing) element of negotiation is more intuitive than the creative (pie-expanding) element. That is, people have presumably been evaluating their pie-slicing abilities for quite some time, but pie-expansion often comes as a revelation for students of negotiation. In fact, Walton and McKersie (1965) argue that distributive tasks are “‘bargaining’ in the strictest sense of the word,” and “the type of activity most familiar to students of negotiations” (p. 4). The second reason relates to egocentrism. Simply, we expected egocentrism to be rampant when it comes to evaluating one’s own creative skills. We expected egocentrism to be generally present in self-evaluations, but the realm of pie-expanding is somewhat more subjective and less anchored by the “facts” of resource distribution than is the realm of pie-slicing, thereby leaving individuals greater latitude for self-aggrandizing evaluations. Finally, we anticipated that it would be more difficult, on average, for participants to discern what constituted comparatively better or worse value creation. The measure of the potential size of a given negotiation “pie” is more difficult to determine with certainty than it is to determine the proportion of the pie a particular party manages to claim.

Our second hypothesis was concerned with how adept pie-slicers (value claimers) view the world. We predicted that pie-slicers would tend to evaluate others as less-skilled in the realm of pie-slicing than themselves, and that, given a focus on slicing instead of expanding, they would simultaneously evaluate people as poorer at pie-expansion than people less adept at pie-slicing.

Our third hypothesis concerned the perceptions held by adept pie-expanders. We predicted that skillful pie-expanders should perceive others to be more focused on pie-slicing compared to less skilled pie-expanders. This prediction derives from the view that people who are adept at expanding the pie have had to deal with people who are heavily focused on claiming. Also present is our supposition that, on average, those who are adept at something may have some natural inclination or tendency that reinforces their skill. This would certainly be consistent with Kelley & Stahelski’s categorization of people into the categories “cooperator” and “competitor.” One can also see the conceptual parallel between pie-expanding and cooperation, and between pie-slicing and competition.
Fourth, we predicted that people who are regarded to be pie-slicers (value claimers) would be more effective in garnering a healthy slice of the bargaining pie. We reasoned that pie-slicing skills are more transparent to others and hence will be a better predictor of actual performance than perceptions of pie-expanding skills.

Method

Participants

A total of 66 MBA students participated in the investigation. The students were enrolled in one of two sections of a 10-week course that met two times a week for 100 minutes per session. The data were collected during week nine of the course, after all students had at least one opportunity to directly interact with every other student enrolled in the class.

Self- and Peer-Evaluation Measures

The key measures were students’ self-ratings of their pie-expanding and pie-slicing skills and their ratings of everyone else in the course on these two measures. Each student received a one-page form with the name of every classmate, including herself, printed on a different row in a large matrix. Beside each printed name were two spaces for ratings of that person (one for pie-expanding skills; the other for pie-slicing skills). Each student was then given 20 minutes to rate each student on the two separate skills, defined as “ability to expand the pie” and “ability to slice the pie.” Thus, each student gave two ratings for every student in the class, including herself. The ratings for pie-expanding were on a three-point scale with 1 = poor; 2 = OK; 3 = superior. The ratings for pie-slicing were on a three-point scale, with 1 = very cooperative (soft); 2 = wants even split; 3 = very competitive (hard). Further, students were told to write “N/A” (not applicable) for anyone for whom they felt they had insufficient information to evaluate. Across both sections, students completed 73% of the potential ratings of their fellow classmates.

Students were clearly told in writing as well as by the instructor that their ratings would remain completely confidential and not be revealed to any of the ratees at any time. They were told that ratings would be aggregated for their own private use.

Performance Outcomes

During the course, students engaged in a total of 3 one-on-one in-class exercises with other students. Students were randomly matched with others to negotiate during each negotiation with the only restriction being that they were matched with someone with whom they had not previously negotiated. One of the tasks was purely distributive; the other two contained both integrative as well as distributive elements.

For each negotiation, students were assigned a z-score that reflected their performance on the negotiation as compared to other people who also played their role. For example, in a two party buyer-seller negotiation, separate z-scores were computed for sellers and buyers.

Results

Data analysis involved the creation of a large matrix, with the name of the student rater on each row and the name of the student to be rated on each column. Thus, analyzing down the columns provided information on how students were rated by their peers; analyzing across a row provided information on how students rated others. The data matrices were computed separately for each of the two classes and then the means, both column-wise and row-wise, were combined
across the two classes. The performance data for the negotiations were included in the data set as well. The results below first report the findings for self- and peer-evaluations and then the results for performance. Although we did not predict any effects for gender, we conducted the appropriate tests, and found no evidence of gender effects in terms of any of the hypotheses and major effects reported below.

**Calibration and Self-Enhancement**

Our first hypothesis was that when it came to pie-slicing styles, people’s self-evaluations would be consistent with other’s evaluations of them, but that when it came to pie-expanding, people’s self-evaluations would not be related to the evaluations given to them by others. This hypothesis was supported: Self-evaluations of pie-slicing were significantly related to how peers rated the self, \( r (N = 61) = .59, p < .0001 \). However, self-evaluations of pie-expanding skills were unrelated to peer evaluations, \( r (N = 60) = .11, p > .38 \).

**Egocentric Bias**

The results supported the hypothesis that self-evaluations of pie-expanding skills would be self-serving. People rated themselves as more skilled at pie-expansion than their peers rated them. Such egocentric bias was also evident in our participants’ self and other-perceptions. We calculated the difference between self-ratings and ratings given to the self by peers. If there was no self-enhancement, the difference should have been zero. In terms of pie-expanding, people were distinctly self-serving in their evaluations, rating themselves nearly 4/10 of a point more favorably than their peers on the 3 point scale, \( M \) difference self – class evaluations = .35, standard deviation = .56). Further, this difference was significantly greater than 0, \( t (59) = 4.83, p < .0001 \).

We anticipated that there would be greater variation in what kind of pie-slicing style would be understood to be socially desirable than there was in the pie-expanding realm. Since the styles were framed as 1= very cooperative, 2=wants even split, and 3=very competitive, we predicted people would prefer to see themselves as “very cooperative,” or at least leaning in that direction. Therefore, we calculated the ego-centric bias score on pie-slicing by subtracting self-evaluation scores from peer-evaluation scores. In terms of pie-slicing, people were self-serving as well: seeing themselves as more cooperative in their resource-claiming style than their peers saw them, \( M \) difference = .15, standard deviation = .55). This difference was also significantly different than zero, \( t (60) = 2.06, p < .05 \). A comparison of the egocentrism scores revealed that people demonstrated more pronounced egocentric bias in evaluating their pie-expanding skills than their pie-slicing skills, \( t (59) = 2.206, p < .035 \).

**How Self Perceptions Influence Perceptions of Others**

**How pie-slicers (value claimers) view the world.** We hypothesized that people who perceive themselves to be competitive pie-slicers would be inclined to see others as “soft” when it comes to slicing the pie, and also not particularly adept at expanding the pie. This hypothesis was supported by two statistical tests. First, people who were regarded by their peers to be competitive pie-slicers rated others as softer when it came to slicing the pie than those who are perceived by their peers to be very cooperative when it came to pie-slicing, \( r (N = 63) = -.32, p < .012 \). An ANOVA using a median split (high vs. low) based on peers’ pie-slicing evaluations also supported the prediction that people who were seen by their peers to be competitive pie-slicers perceived others to be softer when it came to pie-slicing \( M \) pie-slicing score = 2.137) than do people who are perceived to be more cooperative when it comes to pie-slicing \( M \) pie-slicing score = 2.268), \( F (1, 61) = 11.16, p < .001 \).
Our other hypothesis was that people who were perceived to be competitive pie-slicers (value-claimers) would tend to see the world as more of a fixed-pie place, wherein people do not expand the pie. Indeed, the more competitive participants were perceived to be at pie-slicing, the less likely they were to perceive others to be competitive at expanding the pie, $r (N = 63) = -.34, p < .008$. An ANOVA on the median split variable also supported this prediction: High pie-slicers (more competitive in this realm as defined by their peers) see their classmates as less likely to be skilled at expanding the pie ($M$ pie-expanding score = 2.15) than low pie-slicers do ($M$ pie-expanding score = 2.258), $F (1, 61) = 6.622, p < .015$.

However, when we look at how self-defined competitive pie-slicers rate others, there is no relationship, $r (61) = -.13, p > .3$, suggesting that it is how others perceive us that is a better predictor of how we see others than our own self-evaluations. Consistent with the data on egocentric bias, people in general seem to view others more accurately than people see themselves.

**How pie-expanders (creative people) view the world.** We hypothesized that people who were skillful (high) pie-expanders (as evaluated by their peers) would be likely to see others as “harder,” or more competitive than people who were not pie-expanders (low on this dimension). We argued that perhaps one reason why high pie-expanders are adept at expanding the pie is so that they can better deal with people who are competitive (high) pie-slicers. Indeed, Raiffa (1982) made the point that the best way of claiming more resources is to grow the pie so that there are more resources to be divided. This may be especially true for those whose cooperative inclinations make them more natural at expanding the pie. This hypothesis was supported. A median-split variable was computed that categorized participants as “high” or “low” in terms of their classmates’ evaluations of their pie-expanding skills. High pie-expanders saw their classmates as more competitive in general ($M$ pie-slicing score = 2.253) than did low pie-expanders ($M$ pie-slicing score = 2.165), $F (1, 61) = 4.681, p < .035$. There was no significant difference between high pie-expanders’ and low pie-expanders’ views of other people’s pie-expanding abilities ($M = 2.176$ and $M = 2.182$ respectively); $F (1, 61) = .064, p > .8$.

**Perceived Variability of Peers**

Recall that Kelley and Stahelski (1970) found that cooperators tend to see the world as heterogeneous in terms of people’s tendencies to be either cooperators or competitors, whereas competitors see the world as homogenous – made up exclusively of competitors. In our study, those who perceived themselves to be adept pie-expanders (i.e., most skilled at creating value) were more likely to perceive variation in pie-expanding abilities than those who perceived themselves to be less adept pie-expanders. We compared the perceived variance in high versus low pie-expanders’ ratings of their peers. High pie-expanders perceived more variability among their peers with regard to pie-expanding skills ($M = .631$, standard deviation score) than did low pie-expanders ($M = .56$), $F (1, 58) = 3.927, p = .05$. This seems consistent, conceptually, with Kelley and Stahelski; those who see themselves as integrative in their approach, and skilled in that respect, perceive greater variability in the degree to which others are integrative. However, those who perceived themselves to have the most competitive pie-slicing style saw more variation in pie-slicing style ($M = .7$, standard deviation) than did those who perceived themselves to have more cooperative styles ($M = .64$), $F (1, 59) = 3.13$, $p < .09$. Therefore, people tended to see greatest variability in abilities pertaining to the tasks at which they were most accomplished themselves.

**Performance Data**

Pie-slicing Evaluations and Performance. We first examined the relationship between individuals’ pie-slicing styles as evaluated by their peers and their actual performance. There were significant positive correlations between peer-evaluations of pie-slicing and actual performance: people regarded as more competitive in pie-slicing style ended up with more resources in two of the three negotiations, $r (64) = .5, p < .001$ and $r (63) = .28, p < .03$. Moreover, self-ratings of pie-
slicing style were significantly related to actual performance as well, with those who regarded themselves to be superior at claiming resources actually getting a larger slice of the pie in two of the three negotiations, \( r (53) = .37, p < .008; \) and \( r (59) = .55, p < .001. \) These results provide support for our fourth hypothesis.

**Pie-expanding Evaluations and Performance.** Next, we examined whether pie-expanding skills predicted actual performance. They didn’t. Pie-expanding styles as evaluated by peers did not predict performance; moreover, self-ratings of pie-expanding skills did not predict performance.

**Calibration and Performance**

We also examined the relationship between calibrated social perceptions and performance. We had predicted that the better the calibration between self and other-perceptions, the better a negotiator would perform. This prediction was not supported. Instead, participants who saw themselves as having a more competitive style than their peers thought they had did better. In other words, people who understood themselves to be competitive but were perceived to be more cooperative by their peers performed best in two of the three negotiations, \( r (53) = -.36, p < .009; \) and \( r (59) = -.33, p < .015. \) It looks like it may pay off to be a “closet competitor.” There were no significant relationships between perceptions of pie-expanding skills and negotiation performance.

**Discussion**

The major findings of this study can be summarized as follows:

1. People’s perceptions of their own pie-slicing styles tend to be better calibrated with others’ perceptions of them than people’s perceptions of their own ability to expand the pie (create value);

2. People who are regarded as having a competitive pie-slicing style see others as soft when it comes to claiming resources and, compared to those who are regarded as having a more cooperative pie-slicing style, they also see others as less skilled when it comes to creating resources;

3. People who are regarded to be adept pie-expanders see others as more competitive in their slicing style than do those who are seen as less able to expand the pie;

4. Adept pie-slicers are more successful in their actual performance than adept pie-expanders; and

5. People who understand themselves to be competitive but are seen as less competitive by their peers are the people who perform best of all.

Our research investigation was largely inspired by Kelley and Stahelski’s investigation of cooperators and competitors in a prisoner’s dilemma. We used the classic integrative vs. distributive bargaining distinction to examine person perception in a series of negotiation tasks. We found that whereas people regard these tasks to be independent in terms of their own self-ratings, peer-evaluations of claiming and creating tend to have an inverse relationship, with people regarded as good pie-expanders also seen as weaker in terms of pie-slicing. Our performance data did not bear this out; there was no relationship, in fact, between people’s pie-expanding skills, as judged by their peers, and their actual performance. In contrast, there was a significant and positive relationship between people’s pie-slicing skills and their negotiation performance: people perceived to be pie-slicers were more successful at negotiating.
One of the most profound conclusions that may be drawn from the present investigation concerns the predictive power of peer-evaluations as compared to self-evaluations. Our data show quite consistently that it is peer ratings, as opposed to self-ratings, that predict how negotiators view others. Specifically, we found that people who are regarded by their peers to be effective “pie-slicers” tend to see others as particularly meek when it comes to pie-slicing. Further, these people also regard others to be particularly inept at expanding the pie. Perceiving one’s self to be a “pie-slicer” was not predictive of the perception of others. These results suggest that our own views about the world and others can be quite reliably predicted by how others view us. Perhaps others know us better than we know ourselves when it comes to our negotiating styles.

Another clear theme emerging from this investigation concerns the powerful role of egocentrism in self-ratings. We found that egocentric evaluations of pie-expanding abilities were rampant, with most people rating themselves nearly 4/10 of a point higher on creativity than their peers evaluated them. In contrast, egocentrism, while present in pie-slicing, or claiming, perceptions, was much less. In fact, self- and peer-perceptions of slicing behavior were correlated; but self- and peer-perceptions of pie-expanding skills were not. This can be explained in terms of how empirical evidence might “check” our egocentric tendencies. It is easier to get an objective measure of pie-slicing behavior than it is to get such a measure of pie-expanding behavior. In the absence of clear factual constraint, it is therefore easier to aggrandize our pie-expanding skills relative to how our peers see us.

Our analysis of how self- and peer-evaluations were related to actual negotiation performance revealed distinct findings for pie-slicing and pie-expanding. Overall, there was no apparent relationship between either self or peer-evaluations of pie-expanding skills and negotiation performance. In contrast, there was a strong and consistent relationship between self- and peer-evaluations of pie-slicing skills and performance. Specifically, negotiators who regard themselves to be effective at claiming resources do in fact fare better in their one-on-one negotiations. Furthermore, performance in negotiation can be reliably predicted by peer evaluations: those negotiators who are evaluated by their peers as particularly skilled in claiming resources do in fact perform substantially better.

Perhaps the most dramatic of the performance results was the finding that individuals who were seen by others to be less competitive than they saw themselves were those who performed best. This suggests that it may be optimal to be simultaneously focused on the slicing exercise while being perceived to be cooperative by negotiation counterparts. What is unclear from this data is whether these individuals deliberately tried to be seen as more cooperatively focused than they were, or whether such perceptions were a function of something fundamental about their style and orientation.

The present investigation was an exploratory first step back into the study of person perception in negotiations. It raises a number of interesting questions that demand closer investigation using different methods and settings – a process that we have already begun.

References


