Adoption of Cognitive Reference Points in Negotiations

Kristensen, H., & Gärling, T. Adoption of cognitive reference points in negotiations. Göteborg Psychological Reports, 1996, 26, No. 5. If an initial offer is adopted as a cognitive reference point in a price negotiation was examined in a series of four experiments. In these experiments a total of 236 undergraduate students of psychology and business administration judged selling prices of attractive products. Experiments 1 to 3 showed that subjects adopted as a reference point an initial offer above the selling price. However, the choice of reference point was also influenced by an estimated market price below the selling price. In Experiment 4 a market price defined as the buyers' reservation price was adopted as a reference point although an initial offer above the selling price also had an effect. The results may be consistent with previous findings showing that the reservation price (a buyer's highest acceptable price) is a dominant reference point if it is assumed that the reservation price changes depending on information provided.

Key words: Negotiation, decision making, consumers choice.
give and take or perform and receive in a transaction between them (Rubin & Brown, 1975). Negotiations are necessary whenever people attempt to come to an agreement without resorting to fighting. The ability to negotiate is thus crucial for the achievement of important goals.

It has been pointed out that the following five features characterize negotiations: (a) People believe that they have conflicting interests; (b) Communication is possible; (c) Intermediate solutions or compromises are possible; (d) Parties may make provisional offers and counteroffers; and (e) Offers do not determine outcomes until they are accepted by both parties (Chertkoff & Esser, 1976; Cross, 1965; Schelling, 1960). In addition, negotiations differ with respect to whether they concern one or several outcome attributes. For instance, in negotiations about the purchase of a commodity, price is sometimes the only outcome attribute. Additional outcome attributes are introduced in this example if, for instance, terms of purchase are also negotiable.

A distinction is made between fixed-sum or distributive and variable-sum or integrative negotiations with more than one outcome attribute (Thompson, 1990; Walton & McKersie, 1965). The former refers to when negotiators’ interests are perfectly negatively correlated. In integrative negotiations, on the other hand, a negative correlation does not exist for all outcome attributes. It has been argued that most negotiations are integrative (Pruitt & Rubin, 1986; Raiffa, 1982; Walton & McKersie, 1965) since two people are unlikely to have completely opposed preferences across many outcome attributes. However, as the "fixed-pie" bias (Bazerman, Magliozi, & Neale, 1985) witnesses to, negotiators have difficulties in making tradeoffs in integrative negotiations. Negotiations may therefore often proceed rather independently from one to another outcome attribute. In the present research we are concerned with bargaining about price which is an important attribute in most business negotiations. Such negotiations are by definition distributive or competitive: The seller wants to sell at the highest price, whereas the buyer wants to buy at the lowest price. No transaction will take place unless the seller and buyer agree on a price.

Some descriptive theories of negotiations are primarily concerned with negotiators’ cognitions (Thomson, 1990). For instance, it has been suggested that negotiators evaluate offers relative to multiple cognitive reference points (Kahneman, 1992; Neale & Bazerman, 1991; Neale, Huber, & Norcraft, 1987). The concept of reference point was introduced in prospect theory (Kahneman & Tversky, 1979; Tversky, & Kahneman, 1991; Tversky & Kahneman, 1992). In this theory unidimensional (e.g., monetary) decision outcomes are coded as gains or losses relative to a reference point. Thus, if negotiators adopt different reference points they may frame offers differently (i.e., as gains or losses). For instance, Neale, Huber, and Norcraft (1987) argued that buyers adopt a loss or negative frame whereas sellers adopt a gain or positive frame. This is understandable if a product or service of indeterminate value is being exchanged for money with a determinate value. Adoption of a positive or negative frame has empirically been found to affect the outcome of dyadic negotiations.
(Bazerman et al., 1985; Neale & Bazerman, 1985; Neale et al., 1987). In this connection, the distinction between reference point and anchor point should be noted (Kahneman, 1992). As shown by Northcraft and Neale (1987), anchor points play a decisive role for negotiators’ offers. Cognitive reference points affect how offers are perceived.

An important issue raised by White, Valley, Bazerman, Neale, and Peck (1994) is what determines negotiators’ adoption of cognitive reference points. Like Kahneman (1992), they argued that bargainers faced with multiple sources of information simplify and allow only one reference point to dominate. It was also suggested that perceptually salient pieces of information which make sense in the decision-making context are adopted as reference points. In their study of dyadic bargaining about house prices, White et al. (1994) found that reservation price or resistance point (a buyer’s highest acceptable price) was a dominant reference point. Irrespective of salience of market price and aspiration price, the reservation price remained the point above which buyers experienced that they incurred a loss.

In price negotiations there are several potential reference points other than the reservation price. Both informal observations and some early previous research (e.g., Benton, Kelley, & Liebling, 1972; Hamner, 1974; Liebert, Smith, Hill, & Kieffer, 1968; see Chertkoff & Conley, 1967, for review) suggest that an initial offer may be adopted as reference point. An initial offer is salient due to its primacy. It is easy to imagine that if the seller asks a higher price than the initial offer (or any subsequent offer), the buyer would experience this price as a loss and be unwilling to buy even though it is below the reservation price. Conversely, as illustrated in Figure 1, a subsequent offer above the reservation price may be experienced as a gain and the buyer may be willing to buy. Previous research on concession rates appear to be consistent with this view (see, e.g., Carnevale & Pruitt, 1992, for review). The concept of reference point may contribute to a cognitive explanation of such results.

The primary aim of the present series of four experiments was to examine whether an initial offer is adopted as a cognitive reference point. In contrast to previous research demonstrating framing effects (Bazerman, Magliozzi, & Neale, 1985; Carster, de Dreu, Carnevale, Emans, & van de Vliert, 1994; Neale & Bazerman, 1985; Neale, Huber, & Northcraft, 1987), subjects were asked to judge offers rather than to participate in negotiations in which they give counteroffers. By means of this procedure it is possible to directly determine how an initial offer affects the negotiator’s perception of a selling price. Adoption of an initial offer as a reference point is then indicated if the negotiator changes from perceiving the selling price as a loss (or gain) in the absence of an initial offer to perceiving the selling price as a gain (or loss) in its presence. To investigate if subjects would act in accordance with their perceptions of the selling price, they were also asked to indicate whether or not they would buy at that price.
In all experiments an initial offer was varied in a simulated price negotiation to find out whether or not it is adopted as a reference point. As has been noted, White et al. (1994) found that the reservation price was a dominant reference point whereas a market price and aspiration price were ignored. In Experiments 1-3 a reservation price below the initial offer was induced in a prephase. Information about other potential reference points such as market price was included to contrast them to the initial offer. In Experiment 4 a reservation price was induced as part of the task subjects faced.

**Experiment 1**

The aim of Experiment 1 was to investigate if an initial offer is adopted as a cognitive reference point in a price negotiation. Such may be the case since the initial offer is perceptually salient due to its primacy. An initial offer may also be adopted as a reference point because it provides information about the market price. If the latter is an important reason for adopting a reference point, one may expect that the initial offer will be ignored if it is much above some other estimate of the market price. In this case subjects should find the initial offer to be irrelevant and instead adopt the other estimate as a reference point. In Experiment 1 subjects were offered prices for condominia which they wanted to buy. They were given market prices estimated by experts, which (for buyers) were lower than the finally offered selling prices. The initial offer varied from equal to the selling price to much higher than the selling price. As a
consequence, the difference between the selling price and the estimated market price also varied. If the initial offer is adopted as a reference point, a lower selling price was expected to be perceived as a gain. In contrast, if the market price is adopted as a reference point, the (higher) selling price was expected to be perceived as a loss.

It has been shown (Neale, Huber, & Northcraft, 1987) that buyers adopt a loss frame whereas sellers adopt a gain frame. Because of their loss frame buyers may be less inclined to adopt an initial offer as reference point, whereas sellers may be more inclined to. In Experiment 1 subjects were assigned the roles of either buyers or sellers. The bargaining situations were symmetrical in that for sellers the initial offer was lower than or equal to the selling price which was in turn lower than the estimated market price.

Buyers and sellers are usually likely to have some knowledge about current price trends in markets. If buyers perceive the price trend to be increasing they may find offers more attractive than if they perceive it to be decreasing. The reverse would be true for sellers. In different conditions the price trend was either increasing or decreasing. Since an increasing price trend should weaken buyer’s loss frame, they may be more apt to adopt the initial offer as a reference point than if the price trend is decreasing. The opposite may be expected for sellers.

**Method**

*Subjects.* Sixty undergraduate students of business administration and 60 undergraduate students of psychology participated as part of a course requirement. Equal numbers of subjects from the two student groups were randomly assigned to each of four conditions. At the time of the study the students of business administration were enrolled in a course in investments which was indirectly related to the topic of price negotiation.

*Procedure.* Subjects who answered a brief questionnaire in class were either assigned the role of sellers or buyers of a condominium. The groups were then each divided in half and one group of sellers and buyers were told that the price trend was increasing, whereas the other groups were told it was decreasing.

All subjects were in the questionnaire presented some market information indicating the actual price ranges of condominiums in the metropolitan area where they were living. To induce subjects to think of their reservation price, buyers were asked to indicate the highest prices they would pay and sellers to indicate the lowest prices they would accept. Buyer’s reservation prices were on average below the initial offer.\(^1\)

\(^1\)Irrespective of whether subjects adopt the indicated reservation price or the initial offer as reference point, they will perceive the selling price as a gain. However, only if the initial offer is adopted, subjects’ ratings of satisfaction with the selling price will vary with the initial offer.
(M=$47,850 \textsuperscript{2} and SD=$5,560 but above the selling prices, whereas sellers´ reservation prices (M=$50,250 and SD=$4,320) were on average above the initial offers but below the selling prices.

Subsequently, buyers were requested to make five ratings of how satisfied or dissatisfied they would be with different selling prices. Price was the only factor that the subjects had to take into account since they were told that the condominiums in all other respects were equally attractive. Ratings of the selling price were given on a scale ranging from 10 (very dissatisfied) to 90 (very satisfied) through 50 (neither satisfied nor dissatisfied). Buyers were also asked to indicate how likely they would be to buy the condominium on a 6-point scale with verbally defined steps (almost certainly, very likely, rather likely, rather unlikely, very unlikely, and almost certainly not).

The estimated market prices were $3,000 lower than the selling prices and the seller’s initial offers were either the same, or $3,000, $6,000, $12,000, or $24,000 higher than the selling prices. The selling prices varied across subjects in five equal steps from $40,000 to $54,000. All subjects received different selling prices for each of the initial offers. The initial offer, the selling price, and the estimated market price were presented on a separate page for each condominium. The order of the initial offers was individually randomized for each subject.

The procedure was essentially the same for sellers except that the selling prices were $3,000 lower than the estimated market prices. The selling prices were the same as for buyers whereas the initial offers were the same, or $3,000, $6,000, $12,000, or $24,000 lower.

**Results**

In this and the following experiments, the ratings of satisfaction with the selling price were transformed by subtracting 50. The ratings of likelihood to buy or sell were coded on a scale ranging from -3 (almost certainly not) to 3 (almost certainly). A positive value therefore represents a positive evaluation (gain) and that subjects are likely to buy or sell, while a negative value represents a negative evaluation (loss) and that subjects are not likely to buy or sell. All statistical analyses were performed on averages across the different levels of the selling price.

Figure 2 shows that, irrespective of price trend, buyers and sellers became increasingly more satisfied with the (identical) selling price and more likely to buy or sell when the initial offer increased. Parallel 2 (students of business administration vs. students of psychology) by 2 (buyer vs. seller role) by 2 (increasing vs. decreasing price trend) by 5 (initial offer) mixed analyses of variance (ANOVAs) with repeated measures on the last factor were performed separately on the satisfaction and likelihood ratings. The main effects of initial offer were highly significant, F(4, 448) = 13.48, p<.001, and F(4, 448) = 10.31, p<.001, respectively. A

\textsuperscript{2}Converted from Swedish currency to US Dollars
trend analysis with equal logarithmic steps of the initial offer showed that the main effects were confined to the loglinear trend.

Whereas sellers on average were always positive to the selling price and likely to sell, buyers were not positive unless the initial offer was $6,000 or more above the selling price and only then were they likely to buy. The main effects of role reached significance, $F(1, 112) = 8.00$, $p<.01$, for ratings of satisfaction, and $F(1, 112) = 22.71$, $p<.001$, for ratings of likelihood. Confined to the former, role furthermore interacted reliably with initial offer, $F(4, 448) = 2.41$, $p<.05$. As substantiated by a significant difference in the quartic trend, sellers’ satisfaction ratings showed systematic deviations from a loglinear increase. This was also true for buyers, although the deviations were different.

A decreasing price trend made sellers more positive and likely to sell ($M= 10.2$ and $M= 1.1$), whereas an increasing price trend made them less positive and likely to sell ($M= 3.6$ and $M= 0.2$). The opposite effects of price trend were observed for buyers ($M= -4.0$ and $M= -0.2$ for decreasing price trend, $M=3.3$ and $M=0.2$ for increasing price trend). In support of these observations, the interactions between role and price trend were significant, $F(1, 112) = 7.29$, $p<.01$, on ratings of satisfaction, and $F(1, 112) = 4.81$, $p<.05$, on ratings of likelihood. The interaction involving role, price trend, and initial offer did not reach significance, $F(4, 448) < 1$. For satisfaction ratings the fourway interaction also involving student group was however significant, $F(4, 448) = 2.58$, $p<.05$. Separate ANOVAs for each student group suggested that the effects reported above were somewhat stronger for psychology students than for students of business administration.

**Discussion**

The results of Experiment 1 showed that increasing the initial offer relative to the selling price made subjects in the role of buyers rate the selling price more favorably. In addition, they became more likely to buy. The results also indicated that in the role of sellers subjects were similarly affected. When a buyer initially offered a price which was raised, subjects in the role of seller became more favorable and likely to sell. These aspects of the results were consistent with the interpretation that in both the roles of seller and buyer, the initial offer rather than the estimated market price was adopted as a reference point. However, subjects in the buyer role were first negative in their ratings of the selling price as if they adopted the estimated market price as the reference point, then they became positive when the initial offer was increased still further.
Figure 2. Mean ratings of satisfaction with selling price and of likelihood to buy or sell as buyer and seller related to initial offer.

Although the results in the different role conditions were symmetrical with respect to the effect of the initial offer, sellers evaluated the selling price more favourably and were more likely to complete a transaction than buyers were. The observed difference appears to be consistent with Neale et al.’s (1987) finding that sellers adopt a gain frame in evaluating
a selling price (something to be obtained) whereas buyers adopt a loss frame (something to be given up).

Price trend also affected buyers and sellers differently in the expected way: Whereas buyers became more positive to the selling price when the price trend was increasing, sellers became more positive when the price trend was decreasing.

**Experiment 2**

In Experiment 1 subjects appeared to adopt the initial offer as a cognitive reference point. An important reason may be its perceptual salience. In Experiment 2 an attempt was made to decrease this perceptual salience by first presenting the initial offer on a separate page, then presenting the selling price on another page together with the estimated market price. When evaluating the selling price, subjects were therefore expected to be more likely to adopt the estimated market price as a reference point. An overall negative evaluation was expected which did not vary with the initial offer.

Another reason why the initial offer was adopted as a reference point may be that it is perceived as reliable information about the market price, perhaps more reliable than a market price estimated by an expert as was the case in Experiment 1. Credibility may however decrease if the initial offer differs too much from the estimated market price. Since in Experiment 1 the initial offer was adopted as a reference point irrespective of its difference from the estimated market price, this difference was increased in Experiment 2. In addition, the difference between the selling price and the estimated market price was either the same as in Experiment 1 or larger. Increasing the difference both between the initial offer and the selling price and between the latter and the estimated market price was expected to cause subjects to adopt the estimated market price as a reference point. It was thus expected that the buyers would evaluate the selling price negatively and not be willing to buy irrespective of the initial offer.

The credibility of the initial offer was also manipulated by means of information about the seller. In one condition the seller was an unknown person, whereas in another condition he or she was a near-acquaintance. Although the initial offer was made less salient, subjects may in the latter condition still adopt the initial offer as a reference point because they trust the seller. Thus, they would evaluate the selling price as more favorable when the initial offer increases and be more willing to buy.

**Method**

*Subjects.* Thirty-six undergraduate students of psychology participated as part of a course requirement. An equal number of subjects was randomly assigned to two conditions.
Procedure. The procedure was essentially the same as in the preceding experiment except for the following changes\(^3\). All subjects were assigned the role of buyers of a condominium. Half of them were told that the seller was a near-acquaintance, whereas the other half were told that the seller was a complete stranger. In the booklet the initial offer was presented first on a separate page, then on the following page the estimated market price and the selling price were presented. A blank page separated each of six replicates in which the selling price varied in steps from $40,500 to $52,500. The estimated market prices were either $3,000 or $6,000 lower and the seller’s initial offers the same, or $6,000 or $24,000 higher than the selling prices.

Results and Discussion

Figure 3 indicates that the results were similar to those obtained in the preceding experiment. As can be seen, ratings of satisfaction with the selling price and rated likelihood to buy increase with the initial offer. Parallel 2 (near-acquaintance vs. unknown seller) by 2 (market price) by 3 (initial offer) mixed ANOVAs with repeated measures on the last factor yielded significant effects of initial offer, \(F(2, 68) = 5.09, p<.01\), on the ratings of satisfaction, and \(F(2, 68) = 4.92, p<.01\), on the likelihood ratings. Thus, although the initial offer, unlike the estimated market price, was perceptually separated from the selling price, subjects appeared to adopt the initial offer as a reference point. Furthermore, despite that the initial offer differed even more from the estimated market price as compared to Experiment 1, subjects were not less inclined to adopt the former as a reference point. This was supported by subsequent trend analyses showing that only the loglinear trends were significant.

Decreasing the estimated market price made subjects negative to the selling price and unlikely to buy. In the ANOVAs the main effects of market price were highly significant, \(F(1, 34) = 23.66, p<.001\), on the ratings of satisfaction, and \(F(1, 34) = 55.05, p<.001\), on the ratings of likelihood. Although there was still an effect of the initial offer in each condition, when the market price was high the results did not confirm that the initial offer was adopted as a reference point. Market price also seemed to influence the choice of reference point.

The effect of information about the seller was weak. For the ratings of satisfaction alone, subjects rated the selling price more positively when the seller was a near-acquaintance than when he or she was a complete stranger (\(M=2.4\) and \(M= -5.7\)). The main effect of information about the seller reached significance, \(F(1, 34) = 4.64, p<.05\), but at \(p=.05\) no other effects involving this factor did. It is possible that subjects were more positive because the near-acquaintance was trusted. However, when considering whether or not to buy, attention was perhaps shifted towards the

\(^3\)The estimated reservation price was slightly lower (\(M=32,600, SD=3,080\)) although still on average higher than the selling price.
estimated market price. Inasmuch as the initial offer affected preference and likelihood ratings similarly in both groups, the type of information provided about the seller was perhaps not sufficient to make subjects more likely to adopt the initial offer as a reference point. In part this was a ceiling effect since the initial offer already had a strong impact. Still another reason may be that the estimated market price was not perceived to be reliable.

Figure 3. Mean ratings of satisfaction with selling price and of likelihood to buy related to market price and initial offer.
Experiment 3

In price negotiations a buyer frequently runs the risk of not being able to buy desired goods or services if he or she turns down an offer. If a selling price is framed as a loss, accepting the risk of refusing the offer should be more likely (Kahneman & Tversky, 1979; Tversky & Kahneman, 1992). Thus, if the selling price is perceived as a loss when a higher initial offer is adopted as a reference point, subjects would be unwilling to buy as opposed to if a market price lower than the selling price is adopted as a reference point. In the preceding experiments the results only showed that willingness to buy decreased. A possible reason is that subjects did not feel that they ran a risk if they did not chose to buy. In Experiment 3 the risk associated with not buying was therefore made more salient. In one group of subjects the initial offer was not reduced, whereas it was in another group.

Method

Subjects. Forty undergraduate students of psychology participated in return of financial compensation. Equal numbers of subjects were randomly assigned to four conditions.

Procedure. As in Experiment 2 subjects were assigned the role of buyers of a condominium. In contrast to Experiment 2, subjects were told that they could only stay in their present apartment for another two months. They were informed that condominiums were available on the market but that it was not known how many other buyers were interested. Subjects were therefore uncertain about whether or not they would be able to buy something attractive before being required to move. Market information about prices were presented although no estimates of reservation price were required.

In different subject groups the estimated market prices were either $3,000 or $6,000 lower than the selling prices which were varied in six equal steps from $40,500 to $52,500. For half of the subjects in each of these groups the seller's initial offers were the same and for the other half the offers were $24,000 higher than the selling prices. In other respects the procedure did not differ from the preceding experiments.

Results and Discussion

Table 1 shows that subjects were likely to buy and were more satisfied with the selling price when it was lower as compared to when it was equal to the initial offer. In the latter case subjects were not likely to buy, although they were in the former case. This was substantiated by 2 (market price) by 2 (initial offer) ANOVAs showing that the main effect of initial offer was significant on the likelihood ratings, $F(1, 36) = 4.95$,
$p<.05$, but not on the satisfaction ratings, $F(1, 36) < 1$. In this experiment the effect of the initial offer was thus, as expected, stronger on the ratings of likelihood to buy. The adoption of the initial offer as a reference point was confirmed. In contrast to Experiment 1, no effect was found of the estimated market price when it was varied between subjects.

Table 1

Mean Ratings of Satisfaction With Selling Price and of Likelihood to buy for Low and High Initial Offer

<table>
<thead>
<tr>
<th>Initial offer</th>
<th>Low</th>
<th>High</th>
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<tbody>
<tr>
<td>Satisfaction with selling price</td>
<td>-6.5</td>
<td>-0.6</td>
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<tr>
<td>Likelihood to buy</td>
<td>-0.7</td>
<td>0.1</td>
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</table>

Experiment 4

The results of Experiment 2 did not show that credibility of the initial offer is an important factor which induces subjects to adopt it as a reference point. Since the reason may be that the credibility manipulation did not have the intended effect, Experiment 4 was a conceptual replication of Experiment 2. In bargaining about the price of a commodity while visiting a foreign country as a tourist, the initial offer and the market price at home were varied in a factorial design making possible the assessment of their separate and combined effects. In this situation it is plausible to assume that the domestic market price is the buyer's reservation price (i.e., the highest price he or she is willing to pay). The subjects were also informed that in the particular country they were visiting, bargaining about price is very common. In this way, subjects were presumably induced to perceive the initial offer as incredible. Furthermore, an estimated price in the foreign market was also given. It was expected that if this price is adopted as a reference point, subjects would be negative to any selling price above it.
Method

Subjects. Forty undergraduate students of business administration participated as subjects as part of a course requirement. Equal numbers of subjects were randomly assigned to four conditions.

Procedure. Subjects were asked to imagine that they were tourists in a foreign country where they intended to purchase attractive durable goods at prices below the market price at home. They were also told that, as a rule, the prices are negotiable and that accurate information about market price is obtainable from the traveling agency.

In a booklet distributed to subjects in class, eight different durables (stereo, video camera, camera, VCR, cordless phone, jacket, leather bag, and wristwatch) were presented twice on separate pages. The presentation order was individually randomized for each subject. The selling price was different for each durable and varied in equal steps from $300 to $750. Subjects were also informed about the traveling agency’s estimates of the foreign market price, which were always $150 lower.

The initial price asked by the seller and the market price at home were also given with each item. In one group of subjects the initial offer was for one of the durables in each category $150 higher and for the other $300 higher than the selling price, whereas the market price at home was the same as the selling price. In another group the initial offer was the same whereas the market price at home was $150 or $300 higher. In a third group either the initial price was $150 higher and the market price at home $300 higher or the reverse. Finally, in a fourth group both the initial price and the market price at home were the same as the selling price.

Results and Discussion

Table 2 shows that with one single exception both the ratings of satisfaction with the price and the likelihood to buy change from negative to positive when the market price at home (the reservation price) decreases. Thus, the results indicate that the reservation price is adopted as a reference point. Parallel 2 (market price) by 2 (initial offer) ANOVAs yielded significant main effects of both factors on the satisfaction ratings, $F(1, 56) = 7.56, p<.01$, and $F(1, 56) = 47.31, p<.001$, and on the likelihood ratings, $F(1, 56) = 4.48, p<.05$, and $F(1, 56) = 90.64, p<.001$.

That subjects have a stronger tendency to adopt the domestic market price or the reservation price as a reference point is understandable given the fact that they were told that bargaining is very common. In contrast to the preceding experiments, subjects may in this case perceive the initial offer as less reliable. However, when the domestic market price at home was below and the initial offer above the selling price, subjects were influenced by both. In neither ANOVA the interactions between the initial offer and market price at home reached significance, $F(1, 156) = 1.34, p>.10$, on the satisfaction ratings, and $F(1, 156) = 1.24, p>.10$, on the
likelihood ratings. Thus, in line with other findings in the present experiments, a single reference point did not seem to dominate but rather that subjects also take into account other pieces of information.

Table 2 Mean Ratings of Satisfaction With Selling Price and of Likelihood to buy for High and Low Initial Offer and Market Price

<table>
<thead>
<tr>
<th>Initial offer and market price</th>
<th>Low</th>
<th>High</th>
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<tbody>
<tr>
<td>Satisfaction with selling price</td>
<td>-26.4</td>
<td>1.2</td>
</tr>
<tr>
<td></td>
<td>-13.0</td>
<td>6.6</td>
</tr>
<tr>
<td>Likelihood to buy</td>
<td>-2.1</td>
<td>-0.1</td>
</tr>
<tr>
<td></td>
<td>-1.5</td>
<td>0.1</td>
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General Discussion

Superficially, the present results are inconsistent with the conclusion drawn by White et al. (1994) that negotiators focus on only one reference point, the so-called "dominant reference point" effect. At least in some conditions of Experiments 1 to 3, the initial offer was adopted as a reference point. However, in Experiments 1 and 2 there was also clear evidence that the estimated market price influenced the choice of reference point. In Experiment 4 the domestic market price (or reservation price) was adopted as a reference point when the initial offer was as low as the selling price. When the initial offer was above the selling price and the market price below, subjects were influenced by both.

Although perhaps important, perceptual salience is not the sole reason why a piece of information is adopted as a reference point. A more general principle is that any information related to what subjects believe is at stake is utilized. If the purpose is to buy something, an estimated market price is thus clearly a potential reference point: Paying a price below the market price is a gain, paying a price above is a loss. The opposite would be true for the seller. However, since market prices fluctuate, expectations about the future market price may be even more important. In line with this reasoning, the results of Experiment 1 demonstrated effects of price trend on how likely subjects were to adopt the initial offer as a reference point. Also consistent with this reasoning is
that an initial offer gives information about the market price. If the information is assessed as reliable, a selling price lower than the initial offer is perceived as positive and increases the likelihood of buying. Support for this was in particular obtained in Experiment 4 where subjects did not as readily adopt the initial offer as a reference point when it clearly was a less reliable estimate of the market price.

Also inconsistent with the results of White et al. (1994) is the fact that in Experiments 1 to 3 the induced reservation price did not seem to be adopted as a reference point. In Experiment 4 the assumption was that the domestic market price would be perceived as a reservation price. Thus, in this experiment the reservation price was adopted as a reference point. However, the initial offer also had an effect. A reconciliation of these conflicting results may be that, in all experiments, the reservation price was adopted as a reference point although it changed depending on the availability of information such as an initial offer and an estimate of the market price. Thus, a reservation price is not solely determined by what a buyer believes he or she can afford. This hypothesis needs to be investigated in further experiments aimed at tracing changes in subjects’ reservation price.

Most of the results suggested that subjects’ choice of reference point was influenced by more than one piece of information. Since the adoption of a reference point is assumed to be all-or-none (Kahneman, 1992), the question must be raised how the present observations should be interpreted. One interpretation is that already mentioned: The adopted reference point is a reservation price which changes depending on different factors. Another possibility is that averages were computed across subjects who either adopted one or the other reference point. Still another possibility is that subjects changed over time between different reference points. Thus, subjects would be ambivalent in their evaluations of the offers (Gärling & Romanus, 1994; Kahneman, 1992). If this is the case, it would be of considerable interest to attempt to understand how such changes across time influence negotiations.

References


