

The Importance of Starting Right: The Influence of Accurate Intuition on Performance in Salesperson– Customer Interactions

Salespeople make two types of judgments about customers in face-to-face interactions: those that are more intuitive and those that are more deliberative. The authors evaluate the influence of accurate intuitive and deliberative judgments on the performance of salespeople. To evaluate this influence, the authors employ matched survey, observational, and objective field data obtained before, during, and after salesperson–customer interactions. The results reveal that accurate intuitive judgments improve selling performance by enabling more appropriate initial sales strategies. These judgments not only help increase the effectiveness of salespeople’s selling efforts but also reduce the amount of selling time, resulting in improved selling efficiency. However, performance is compromised when inaccurate deliberative judgments follow accurate intuitive judgments. The findings also identify different antecedents to judgment accuracy. Intuitive accuracy is influenced by domain-specific experience, similarity to the customer, and empathy for the customer, whereas listening skills and customer orientation influence deliberative accuracy.

Keywords: customer needs, salesperson performance, intuition, thin-slice research, cognitive-experiential self-theory

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Personal selling continues to be an important way for companies to generate revenue (Raynor and Ahmed 2013). As a result, the most recent estimates available suggest that U.S. companies spent approximately \$20 billion in 2013 on sales training with the hopes of improving their sales forces’ selling skills (Association for Talent Development 2013). Nevertheless, regardless of the personal selling skills taught in training, selling effectively requires salespeople to make accurate judgments about their customers (Dixon and Adamson 2011; Rackham 1988; Weitz 1981).

Research on salespeople’s judgments of their customers has focused on two types of judgments: those based on

either deliberative or intuitive processing of customer information. Research has evaluated the accuracy of each type of judgment but not the two together. Homburg, Wieseke, and Bornemann (2009) find that accurate deliberative judgments of customers’ needs improve sales outcomes. In their research, salespeople’s judgments were made after customer interactions and involved thoughtful, more deliberative analyses of information provided by customers. Similarly, Mullins et al. (2014) find that the accuracy of salespeople’s relationship quality judgments, made after many interactions with customers, improves the profit salespeople generate from customers. However, research regarding judgments that involve mostly intuitive processes indicates that salespeople’s judgment accuracy about customers also affects sales outcomes. McFarland, Challagalla, and Shervani (2006) show that salespeople who accurately judge customers’ communication styles have greater influence, and Kidwell, McFarland, and Avila (2007) find that accurately reading customers’ emotions enhances the effects of both adaptive and customer-oriented behaviors on sales performance. In a related but distinct study, Locander, Mulki, and Weinberg (2014) evaluate the effect of salespeople’s preferences to process information intuitively and deliberately, finding that salespeople who prefer both processing styles adapt more to their customers. However, this focus still leaves the effects of salespeople’s information

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processing styles on salespeople's ability to make accurate judgments an open question for additional research.

Again, the extant literature has demonstrated that the accuracy of both intuitive and deliberative judgments is important; however, this literature does not explain how the accuracy of these two judgments differs, nor does it investigate the effects of being accurate in these two judgments simultaneously. Furthermore, questions remain with respect to the link between information processing styles and judgment accuracy. In Table 1, we summarize the present literature on salespeople's perceptual accuracy of customers and information processing styles to highlight the research gaps we address and the way our work contributes to this literature.

With these research gaps in mind, we propose an integrative framework to examine perceptual accuracy in judging customers' needs. We chose to study needs over other customer characteristics because the cornerstone of good marketing is understanding customers' needs (Kotler and Keller 2011), and salespeople's knowledge of customers' needs determines the appropriateness of their sales strategies (Weitz 1981). Drawing from Dane and Pratt's (2007) work on decision making, we define "intuition" as judgments that derive from rapid, nonconscious, and holistic associations and "deliberation" as judgments that derive from slower, conscious, and analytical associations. Thus, our key constructs, intuitive accuracy and deliberative accuracy, are the extent to which salespeople's judgments based largely on intuition or deliberation are accurate.

Our framework examines the consequences and antecedents of accurate intuitive and deliberative judgments. We use three central tenets of thin-slice research (Ambady 2010) as the foundation of our consequences of accuracy framework: intuitive judgments, even in tasks that have previously been considered primarily analytical, such as assessing customer needs, can be accurate (Tenet 1); accurate intuitive judgments can provide benefits in decision making (Tenet 2); and deliberation can facilitate or derail the benefits of accurate intuitive judgments (Tenet 3). In evaluating antecedents, we draw on cognitive-experiential self-theory (CEST; Epstein 2003, 2010) to understand how salespeople process information when they use intuition and deliberation, and from this we identify potential antecedents of accurate intuitive and deliberative judgments.

We conduct our study with field data collected from 330 salesperson–customer dyads. We obtain responses before, during, and after the salesperson–customer interaction. Our research makes four contributions to the literature. First, it shows that accurate intuitive judgments of customers' needs improve not only performance but also efficiency by enabling salespeople to enact tailored sales strategies early. Second, it enriches understanding of the salesperson's customer perception process by showing that both intuitive and deliberative accuracy are necessary for positive outcomes. We find that accurate deliberative judgments do not substitute for inaccurate intuitive judgments, and the benefits of accurate intuitive judgments are wasted if followed by inaccurate deliberative judgments. Salespeople need to be perceptually ambidextrous—that is, accurate in both their intuitive and deliberative judgments. In the context of our

study, we find that when salespeople are perceptually ambidextrous, selling efficiency is improved by approximately 138%, an increase of more than \$1,300 in sales per hour. Third, this research improves understanding of what causes ineffective sales processes by demonstrating that when salespeople make inaccurate initial judgments, show products outside the customer's budget, or fail to accurately adapt their perceptions throughout the sales process, sales outcomes are compromised. Fourth, the antecedents of accurate intuitive and deliberative judgments are distinct. Intuitive accuracy is improved by experience, empathy, and salesperson–customer similarity, whereas deliberative accuracy is improved by customer orientation and listening skills.

Theoretical Foundation

Intuitive Versus Deliberative Judgments

We adopted three elements in the definition of intuitive judgments from Dane and Pratt (2007). First, these judgments are made rapidly; they are quick, snap judgments. Second, they are made unconsciously and automatically. Third, they involve holistic associations: observed cues are matched to patterns available in memory. This third element is the critical component of the intuitive judgment process because the pattern triggers a course of action associated with it from memory (Dane and Pratt 2007; Gore and Sadler-Smith 2011; Klein 1997). If the judgment is accurate, the course of action is more likely to be appropriate. It is this pattern-matching element of intuitive judgments that enables early, appropriate behavior.

We also adopted three corresponding elements in the definition of deliberative judgments. These judgments are made (1) more slowly, (2) more consciously, and (3) through analytical, componential associations. Appropriate behavioral responses require integrating across the components observed and deliberatively constructing a course of action.

Person Perception Process

Many models propose processes by which people make judgments about others. One widely adopted model in social psychology research on person perception indicates that the process has three sequential stages: categorization, characterization, and correction (Gilbert, Pelham, and Krull 1988; Quattrone 1982; Trope 1986). Each stage provides input to the next stage of processing. Categorization is an automatic process by which an observer classifies a target on the basis of the target's similarity to a group or schema (Macrae and Bodenhausen 2000). The process of categorization is a necessary means for people to make simple, efficient judgments about others because humans are constrained by cognitive resources (Bodenhausen 1988). After categorizing the target, the observer draws on relevant knowledge from his or her mental categories to make a prediction about that target's future behavior (Ross and Spalding 1994). This part of the process, termed characterization, is also an automatic process based on past experiences and

TABLE 1
Overview of Research on Perceptual Accuracy and Information Processing Styles

	The Current Research	Mullins et al. (2014)	Homburg, Wieseke, and Bornemann (2009)	Kidwell, McFarland, and Avila (2007); McFarland, Challagalla, and Shervani (2006)	Locander, Mulki, and Weinberg (2014)
Focus of Study Regarding Salespeople's Judgments About Customers					
Salesperson judgment variable	Customer needs	Relationship quality	Customer needs	Buyer personality and affect	—
Context of judgments	Salesperson–customer interaction	Long-term relationships	Salesperson–customer interaction	Salesperson–customer interaction	—
Accuracy measure	Discrepancy index	Response surface	Discrepancy index	Influence match, Mayer–Salovey–Caruso Emotional Intelligence Test	—
Consequences of Perceptual Accuracy Studied					
Intuitive accuracy	H ₁ <u>Objective Data</u> Selling effectiveness: •Customer purchase likelihood •Customer purchase amount •Selling time •Selling efficiency	—	—	Effectiveness of: •Selling tactics •Adaptive selling •Customer-oriented selling	—
Deliberative accuracy	H ₃	<u>Objective Data</u> Account profitability	<u>Survey Data</u> •Customer willingness to pay •Customer satisfaction	—	—
Intuitive accuracy x deliberative accuracy	H ₂	—	—	—	—
Underlying mechanisms (tested)	H ₄	—	—	—	—
Perceptual Accuracy Antecedents Studied					
Intuitive accuracy	H ₇ H ₈ H ₉	—	—	—	—
Deliberative accuracy	H ₅ H ₆	•Customer orientation •Salesperson self-efficacy •Similarity with customers	•Customer orientation •Empathy •Acquaintance with customers	—	—
Intuition and Deliberation					
Conceptualization	Salesperson accuracy judgment based on intuitive or deliberative processing of information	Salesperson accuracy judgment based on deliberative processing of information	Salesperson accuracy judgment based on deliberative processing of information	Salesperson accuracy judgment based on intuitive processing of information	Salesperson trait: preference for processing information intuitively or deliberately
Information Processing Style					
Importance	Associated with antecedents of perceptual accuracy	—	—	—	Enhances adaptive selling effectiveness

knowledge (Gilbert, Pelham, and Krull 1988). The final stage, correction, is a controlled, effortful, and cognitive process by which observers correct their initial categorization and characterizations of the target if they believe they were wrong. In summary, person perception involves a sequential process by which intuitive judgments, made spontaneously and quickly, provide input to subsequent, slower deliberative judgments.

Person perception research is not new to sales research. Prior research in this area has consistently demonstrated that the accuracy of salespeople's judgments of their customers is important to performance. However, that research has examined intuitive or deliberative judgments in isolation. For example, research has shown that salespeople's perceptual accuracy of customers' personality traits (McFarland, Challagalla, and Shervani 2006) and emotions (Kidwell, McFarland, and Avila 2007), which are rooted in intuitive processing, improves sales performance. Similarly, research has found that salespeople's deliberative judgments of customers' needs (Homburg, Wieseke, and Bornemann 2009) and relationship quality (Mullins et al. 2014) influence performance. Although the sales literature has suggested that both judgments are important for performance, a person perception process that includes both intuitive and deliberative judgments has not been evaluated. In this research, we evaluate the interactive effects of intuitive and deliberative judgments on sales outcomes to gain a better understanding of the customer perception process. To predict an interactive effect of these two types of judgments, we draw from thin-slice research, a paradigm nested in the person perception literature.

Consequences of Salesperson's Perceptual Accuracy

Thin-Slice Research

Thin-slice research suggests that people can use brief exposures to another person's behavior (termed "thin slice") to make accurate intuitive predictions about that person's traits, intentions, and future behaviors (for a review, see Ambady, Bernieri, and Richeson 2000). Thin-slice judgments involve pattern matching. People intuitively recognize and match lower-level cues, such as facial expressions and other nonverbal cues (e.g., hand gestures, jewelry, clothing, environment), with higher-order knowledge (e.g., schemas, stereotypes) to categorize and characterize others (Freeman and Ambady 2011).

Three consistent themes or "central tenets" of thin-slice research shed light on the interactive influence of intuitive and deliberative accuracy on the person perception process in personal selling. First, thin-slice research claims that many tasks that seem best suited for analytical analysis, such as assessing customer needs, can be solved through the intuitive system (Ambady, Bernieri, and Richeson 2000). Second, because people make intuitive judgments unconsciously and before deliberation (Ambady 2010; Epstein 2010; Gilbert, Pelham, and Krull 1988), intuitive thinking can improve decision-making effectiveness and speed.

Third, deliberation can either facilitate or derail the benefits of accurate intuitive thinking (Ambady 2010). We expand on each of these tenets in our conceptual framework.

As Figure 1 summarizes, we develop a conceptual framework to suggest how a salesperson's perceptual accuracy (including both intuitive and deliberative accuracy) in evaluating customer needs interactively influences the performance outcomes of a sales exchange. This framework builds on prior research on salespeople's ability to assess customer needs that isolates the effects of deliberative accuracy on customer-reported outcomes (i.e., Homburg, Wieseke, and Bornemann 2009). In the next three subsections, we detail specific hypotheses using the tenets of thin-slice research as our foundation.

Tenet 1: Intuitive Judgments Can Be Accurate

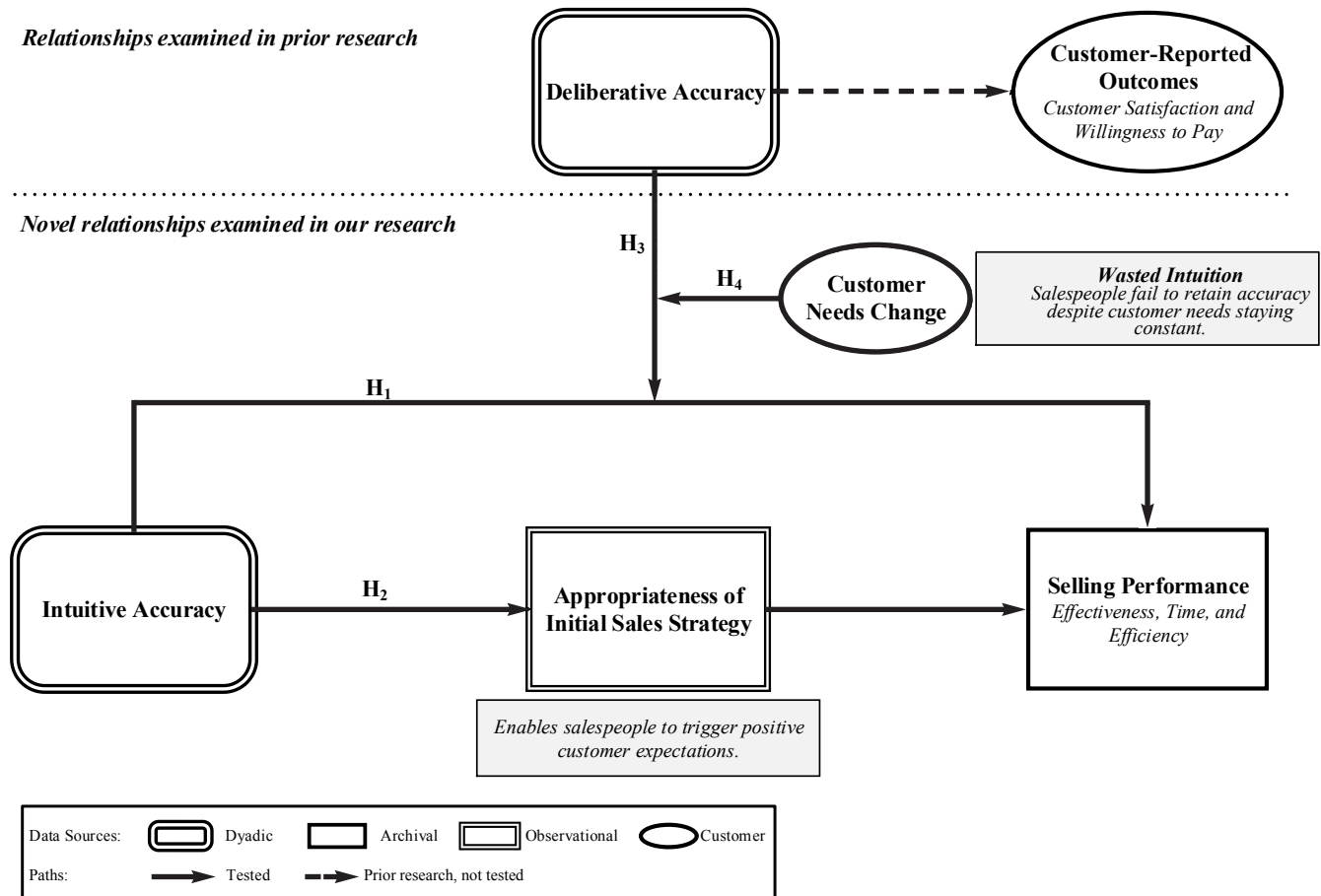
People spontaneously and unconsciously evaluate others and their environment from thin slices of information (Ambady, Krabbenhoft, and Hogan 2006). In their study on thin-slice research, Ambady and Rosenthal (1993) investigate strangers' ability to evaluate a teacher's effectiveness in the classroom, a task considered deliberative (i.e., in need of considerable observation and thought). They find that the strangers were able to predict end-of-the-semester teacher effectiveness after viewing brief (less than 30 seconds) silent videos of the teacher's nonverbal behavior. This finding, accurate perception through a brief glimpse, has been replicated in a wide range of contexts involving tasks that are seemingly analytical, such as job performance evaluations (Ambady, Krabbenhoft, and Hogan 2006), intelligence evaluations (Borkenau et al. 2004), Big Five personality trait evaluations (Carney, Colvin, and Hall 2007), and deception detection (Albrechtsen, Meissner, and Susa 2009). We expect that a task such as assessing customer needs, traditionally considered a deliberative task, can be accurately assessed intuitively. With this body of research well established in several contexts, we focus our hypotheses on the second and third tenets of thin-slice research.

Tenet 2: Accurate Intuitions Provide Benefits in Decision Making

Prior research has linked accurate intuitive judgments to task performance. Accurate intuition can result in larger salary raises (Byron, Terranova, and Nowicki 2007), higher ranks in organizations (Hall and Halberstadt 1994), and higher ratings from supervisors (Elfenbein and Ambady 2002). This research and related research on pattern matching (Klein 1997) have concluded that intuitive thinking improves decision-making effectiveness by allowing for better synthesis and selection from complex information and, as a result, enhances performance. The improved selection and synthesis of complex information also improves the speed of decision making, enhancing task efficiency as well (Dane and Pratt 2009; Klein 1997).

Therefore, we suggest that intuitive accuracy influences sales performance in two ways. First, intuitive accuracy improves the selling effectiveness of the salesperson's decision-making efforts: Does the customer purchase, and if so,

FIGURE 1
Consequences of Salesperson's Perceptual Accuracy of Customer Needs



how much does the customer spend? Second, intuitive accuracy improves decision-making speed, decreasing the selling time. Together, intuitive accuracy improves selling efficiency by enhancing the output (i.e., effectiveness) of the salesperson's efforts and decreasing the inputs (i.e., time). Thus,

H₁: A salesperson's intuitive accuracy (a) improves selling effectiveness and (b) reduces selling time, resulting in (c) improved selling efficiency.

For successful sales interactions, salespeople must decide on the appropriate sales strategy for each customer (Weitz, Sujan, and Sujan 1986). Appropriate sales strategies are strategies tailored to match the needs of an individual customer and thus critically depend on accurate perception of these needs (Weitz 1981). Intuition research has indicated that intuitive judgments, when accurate, improve task speed and effectiveness when people perform appropriate actions at the start of the task (Johnson and Raab 2003; Klein 1997, 2008). Through intuitive pattern recognition of information from their environment, people are able to identify and immediately enact an appropriate course of action rather than having to wait to deliberate and enact an optimal action significantly later (Klein 1997). The tailoring

of initial selling behavior to the customer's needs represents a good first-move advantage.

When enacted initially, an appropriate sales strategy is likely to raise sales performance (Parasuraman, Zeithaml, and Berry 1985; Solomon et al. 1985). Evans et al. (2000) suggest that sales performance is enhanced by initial appropriate behaviors because these behaviors trigger positive expectations. In summary, intuitive accuracy's effect on sales performance, selling time, and selling efficiency is explained by an appropriate, tailored initial sales strategy.

H₂: The appropriateness of the initial sales strategy mediates the relationship between intuitive accuracy and (a) selling effectiveness, (b) selling time, and (c) selling efficiency.

Tenet 3: Deliberative Thinking Can Facilitate or Derail Intuitive Judgments

Facilitative effects: perceptual ambidexterity. Homburg, Wieseke, and Bornemann (2009) investigate the role of deliberative accuracy on customer satisfaction and perceptions of value. They find that more accurate judgments, made after a verbal exchange, lead to positive outcomes. We suggest that intuitive accuracy improves salespeople's decision making by helping them select a more appropriate

initial selling strategy, which in turn triggers positive customer expectations early in the interaction. Accurate intuitive judgments followed by accurate deliberative judgments should lead to positive performance outcomes because salespeople preserve these positive expectations. How does high intuitive accuracy paired with high deliberative accuracy compare with combinations in which one or the other judgments are inaccurate?

First, what happens when a salesperson has high intuitive accuracy but low deliberative accuracy? Although the salesperson may have started the sales process right and, as a result, created positive expectations, his or her subsequent behaviors are no longer appropriately tailored. Because positive impressions created by positive expectations are less sticky than negative impressions created by negative expectations, people are likely to revise their initial positive impressions when they observe selling behaviors that do not fit their needs later in the interaction (Kruglanski and Freund 1983; Kruglanski and Webster 1996; Ybarra 2001). This research suggests that although accurate intuitions start the interaction with positive impressions, customers revise these impressions downward if sales behaviors are not consistent with their preferences. Therefore, high intuitive accuracy followed by low deliberative accuracy should lead to lower sales outcomes.

Second, what happens when a salesperson starts the interaction with low intuitive accuracy but develops high deliberative accuracy? In this situation, salespeople begin with a poor understanding of the customers' needs and are likely to engage initially in inappropriate selling behaviors; however, they are able to uncover the customers' needs after conversation and deliberative thinking. Previously, we suggested that when intuitive inaccuracy is low, the salesperson's initial selling behavior is likely to create negative impressions. Initial negative impressions are more difficult to correct and are stickier than initial positive impressions. Customers will hold on to or isolate this negative information and fail to revise it regardless of subsequent positive information (Kruglanski and Freund 1983; Kruglanski and Webster 1996). As a result, the combination of low intuitive accuracy and high deliberative accuracy should lead to lower sales performance.

Third, salespeople with both low intuitive and deliberative accuracy, simply because they never get the customers' needs right, are unlikely to be successful. To summarize these arguments, we suggest that selling effectiveness is the highest when salespeople are perceptually ambidextrous—that is, accurate at both intuitive and deliberative judgments.

H_{3a}: Selling effectiveness is greater when both a salesperson's intuitive accuracy and deliberative accuracy are high than when one or both of these accuracies are low.

Significant research, including that associated with salespeople (e.g., Suján, Bettman, and Suján 1986), has shown that correcting judgments is particularly effortful. Salespeople's updating of their intuitive judgment should increase the interaction duration of a sales encounter. As a result, we expect that when salespeople's intuitive and deliberative accuracy are the same (i.e., both are inaccurate

or both are accurate), the amount of time selling should be less because effortful correction is less likely to have occurred. Illustratively, when both judgments are inaccurate, we expect the sales interaction to end quickly, as salespeople would fail to understand the customer's needs. When both judgments are accurate, we expect the sales interaction to take less time, as salespeople have to spend less effort and time understanding the customer's needs.

H_{3b}: Selling time is shorter when both a salesperson's intuitive accuracy and deliberative accuracy are the same than when one is high and the other is low.

Selling efficiency is the ratio of output to input. Combining the previous two arguments, we posit that selling efficiency should be the highest when both intuitive and deliberative accuracy are high because this combination results in the highest selling effectiveness and the least selling time.

H_{3c}: Selling efficiency is greater when both a salesperson's intuitive accuracy and deliberative accuracy are high than when one or both of these accuracies are low.

Deliberative effects: wasted intuition. Intuitive evaluations occur unconsciously and with little effort. The perceiver cannot readily identify the basis for these evaluations. Should the perceiver deliberately reflect on what prompted these evaluations, in all likelihood the focus would be on a different set of cues and, consequently, different evaluations. Accurate intuitive judgments may, as a result, give way to inaccurate deliberative judgments (Ambady 2010; Dane and Pratt 2007). Research on consumer decision making echoes this suggestion. Nordgren and Dijksterhuis (2009) find that deliberation impedes customers' decision making by influencing how they weight information and attributes. Wilson and Schooler (1991) demonstrate that when consumers think too much about their purchase decisions, the quality of their choices decreases. In their perceptions of customers, salespeople can make accurate intuitive judgments about their needs but, as a result of subsequent deliberation, replace them with inaccurate judgments. This should compromise their performance. We term this "wasted intuition."

The sales interaction is a dynamic process during which not only the salesperson's perceptions of the customer's needs but also the customer's needs can change. Unambiguously, intuition is wasted when the customer's needs do not change but the salesperson inappropriately corrects an accurate intuitive judgment of these needs with an inaccurate deliberative judgment. We delineate situations in which customer needs do not change from those in which they do, and we evaluate situations in which needs do not change the effects of deliberative inaccuracy following intuitive accuracy. Thus,

H₄: When the change in customer needs over the course of the interaction is low and intuitive accuracy is high, high deliberative accuracy (a) improves selling effectiveness and (b) decreases selling time, resulting in (c) improved selling efficiency.

Antecedents of Salesperson's Perceptual Accuracy

CEST

Our hypotheses thus far suggest performance benefits from intuitive accuracy and, given intuitive accuracy, from deliberative accuracy. Should these hypotheses receive support, they would raise the question of how intuitive and deliberative accuracy can be enhanced. We investigate a set of potential antecedents, presented in Figure 2, to these two types of accuracies. We relied on CEST to propose hypotheses related to these antecedents.

The origins of Dane and Pratt's (2007, 2009) conceptualization of intuition and deliberation trace back to Epstein's (1973) dual-system theory. Epstein suggests that humans employ two thinking styles: one that is more intuitive and one that is more analytical. The intuitive style is more emotional, unconscious, holistic, and associative; based on "vibes" and nonverbal cues; and crudely differentiated and integrated—characteristic of the thinking of non-human animals. The analytical style is more effortful, slower, and rational; is based on logic and evidence; and provides justification—more in keeping with science. When

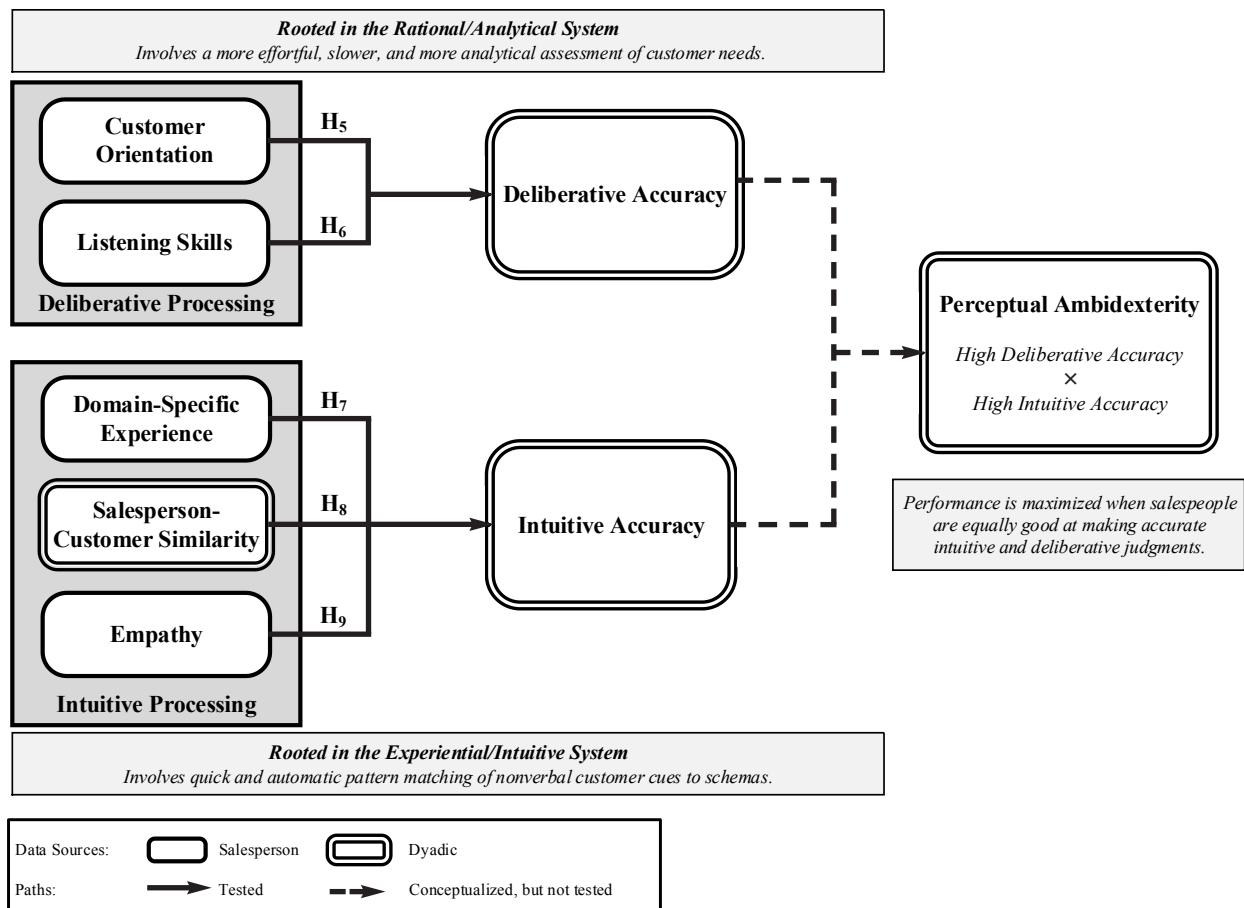
the intuitive processing mode is favored, the thinking style should enable intuitive accuracy, and when the analytical processing mode is favored, the thinking style should enable deliberative accuracy. Although deliberative and intuitive processes occasionally suffer from judgmental biases, across time and situations, both deliberative and intuitive accuracy are likely to be enhanced by subscribing to the corresponding style (Pacini and Epstein 1999).

Antecedents of Deliberative Accuracy

Two highly touted characteristics of salespeople are a customer orientation and listening skills. Both require deliberative processing of information. Next, we evaluate whether these skills improve deliberative accuracy.

Saxe and Weitz (1982, p. 343) define a customer orientation as "the practice of the marketing concept at the level of the individual salesperson and customer." It requires understanding customers' needs by asking questions, listening to answers, and, in a problem-solving manner, using this information to deduce the best offerings for fulfilling those needs. Homburg, Wieseke, and Bornemann (2009) demonstrate that salespeople with a customer orientation make more accurate deliberative judgments about their customers' needs. Thus,

FIGURE 2
Antecedents of Salesperson's Perceptual Accuracy of Customer Needs



H₅: Salespeople's customer orientation is positively related to their deliberative accuracy.

Listening skills have been linked with person perception accuracy (Garland 1981). Drollinger, Comer, and Warrington (2006) describe evaluative listening as a process used to understand, interpret, evaluate, and remember verbal information gathered during the sales interaction. The process is largely deliberative. Homburg, Wieseke, and Bornemann (2009) suggest that listening skills allow for the uncovering of customers' needs. They highlight the importance of "conversational skills necessary for gathering accurate information about customer needs" (p. 66). Because listening skills require deliberative processing to uncover a customer's needs, we suggest the following:

H₆: Salespeople's listening skills are positively related to their deliberative accuracy.

Antecedents of Intuitive Accuracy

Several perspectives on intuition suggest that domain-specific experience enables accurate intuitive judgments. With experience, people recognize patterns in what they observe and link these patterns with responses that are contextually appropriate (Dane and Pratt 2007, 2009; Kahneman and Klein 2009). In one of the first studies on intuitive pattern matching, Simon (1987) shows that grandmaster chess players can play up to 50 chess games simultaneously without loss of performance because they can quickly, usually within seconds, glance at a chess board and make a move on the basis of their experiences with chess piece formations. Thin-slice research focuses on pattern matching, learned through experience, not of chess piece formations but of nonverbal cues such as hand gestures, facial expressions, postures, and even appearance (Ambady 2010; Weisbuch and Ambady 2010). Through experience, salespeople learn to piece together patterns of customers' cues and quickly connect the patterns with needs.

H₇: Salespeople's domain-specific experience is positively related to their intuitive accuracy.

People's intuitive pattern-matching ability should improve when they are making judgments about people similar to themselves. Because people tend to interact more with others who are similar to themselves (in age, gender, and ethnicity), they learn to identify patterns of nonverbal cues in similar others earlier (Ambady, Hallahan, and Conner 1999; Fiske 1993). They may also read cues in similar others more easily because of considerable self-knowledge, even of nonverbal behaviors. Thus,

H₈: Salesperson-customer similarity is positively related to intuitive accuracy.

Finally, empathy is a person's perception of another person's internal state that automatically activates a representation of that person's state (Preston and De Waal 2002). A highly empathic person "is skilled at decoding cues related to another's feelings or behavior and therefore is accurate in predicting another's feelings or behavior" (Losoya and Eisenberg 2001, p. 22). Because empathy involves intuitive

processing and is associated with understanding of a person's internal state, such as needs, we suggest the following:

H₉: Salespeople's empathy is positively related to their intuitive accuracy.

Method

Research Context

To test our hypotheses, we recruited the assistance of a mid-size U.S.-based specialty retailer. The firm permitted us to approach different store locations and request participation by the salespeople at these stores. We provided the firm with a summary of our findings and detailed recommendations on how to improve its salespeople's perceptual accuracy.

We recruited this retailer for our study because it provides an ideal context to investigate salespeople's intuitive and deliberative judgments of their customers. First, this retailer primarily sells one product line, mattresses, carrying six to ten brands ranging in price from \$199 to \$4,349. The retailer's product selection varied enough in brand and price for us to assess whether intuitive and deliberative judgments play key roles in the final purchase decision but was not so complex as to hamper the measurement of these two constructs. Second, the firm operates approximately 100 stores in the research area that spans a wide range of demographics (e.g., ethnicity, income). To make our sample as balanced as possible and to control for external factors that might have biased our results, we asked the firm to help us select stores that serve diverse customer populations. Third, the retail context involved close salesperson-customer interactions, which were necessary for testing our hypotheses. Fourth, salespeople are primarily incentivized through commission. Thus, they are motivated to identify customer needs efficiently to maximize their earning potential. Fifth, each store location has a glass window exterior, so salespeople can easily see customers as they drive up to the store, park, and enter the store.

Data Collection

Our data collection consisted of three stages: prestudy qualitative interviews, a field study, and a salesperson post-study survey. Initially, we conducted a series of qualitative, in-depth interviews. In total, we completed 45 semistructured interviews with 2 sales and marketing executives, 3 store managers, 10 sales associates, and 30 potential customers. Each interview was approximately 30 minutes long. The primary purpose of the qualitative interviews was to generate a list of shopping-related needs of a typical prospective mattress customer. From these interviews, we created an initial list of 11 needs. To validate the list of needs, we pretested the survey and briefly discussed the shopping needs measures with 85 customers. During the pretest, we further refined the list by combining needs that were essentially the same (e.g., support, firmness) or deleting needs customers consistently rated as unimportant. Through this process, we identified six shopping-related needs when customers buy a mattress: brand, feel, financing availability, price, product return, and salesperson service quality.

Next, we conducted an intensive field study over four months at 15 store locations. To evaluate salespeople's intuitive and deliberative accuracy, we intercepted salespeople and customers both before and after the sales interaction. At different times during each week, pairs of trained interviewers (research assistants [RAs] 1 and 2) intercepted and observed both customers and salespeople, which resulted in the collection of five distinct pieces of data: customer preinteraction survey, salesperson preinteraction survey, customer postinteraction survey, salesperson postinteraction survey, and observational data. The RAs received approximately 40 hours of training on how to administer the survey; however, they were blind to the research hypotheses to reduce potential biases. The RAs informed customers and salespeople before they completed the survey that their individual responses were confidential and would not be shared with anyone outside the research team. We received completed surveys from 356 of the 365 customers, for a response rate of 97.5%. We removed 26 dyads in which the salesperson had previously interacted with the customer from our analysis to ensure that intuitive judgments were not based on prior knowledge, which left 330 first-time-encounter salesperson–customer dyads. More than half (51%) of the customers in our sample purchased a mattress with an average retail price of \$1,203. The sales interaction took approximately 34 minutes on average.

Finally, on completion of the field study, we surveyed all the salespeople who participated in the field study (48 in total). This questionnaire asked the salespeople about their traits, competencies, and demographic information. All 48 salespeople completed their surveys. Most of the salespeople (60%) were men. The average age of the salespeople was 30.8 years, with an average of 3.8 years of sales experience at the firm. We paired these 48 responses with the responses from the 330 salesperson–customer dyads from the field study. Details of the field study regarding procedure, store layout, salesperson and customer demographics, and descriptive statistics of shopping needs appear in the “Field Study Details” section of the Web Appendix.

Measures

Salesperson's intuitive and deliberative accuracy. To measure a salesperson's intuitive and deliberative accuracy of customer needs, we followed the approach outlined by Homburg, Wieseke, and Bornemann (2009). Before and after a sales interaction, customers were asked to rank in order of importance the six needs that emerged through our qualitative interviews. At the same time, salespeople were asked to rank their perceptions of the customers' importance of the needs before and after interacting with them.¹ We then calculated intuitive (deliberative) accuracy by

¹We checked the level of variation in both customer and salesperson rankings of needs to rule out the possibility that (1) all customers had the same set of needs and (2) salespeople had the same beliefs about customer needs regardless of the customer. As the “Field Study Details” section in the Web Appendix shows, customer and salesperson rankings of needs varied significantly, thus ruling out both these possibilities.

summing the absolute value of the difference between the customer's and the salesperson's preinteraction (postinteraction) rank for each need. This method created a discrepancy index,² which measures a salesperson's ability to determine the magnitude or importance of a need over a set of alternative needs (Tiggle et al. 1982). We transformed each discrepancy index by subtracting it from the maximum possible discrepancy index so that higher scores represented greater accuracy.

Because intuitive judgments can inform later deliberative judgments (Epstein 2010; Gilbert, Pelham, and Krull 1988), a salesperson's deliberative accuracy may depend on his or her intuitive accuracy. Our data show a modest relationship between intuitive and deliberative accuracy ($r = .33, p < .01$). We addressed the potential dependency of intuitive and deliberative accuracy in two ways. First, we prewhitened our deliberative accuracy measure. Prewhitening is a method often used to remove the dependency of two variables that might have a lagged relationship (Chatfield 2003). Second, we controlled for the potential dependency between the linear and interactive effects, intuitive \times deliberative accuracy, by prewhitening our interaction term (e.g., Hennig-Thurau, Houston, and Heitjans 2009). As a result of prewhitening, intuitive accuracy, deliberative accuracy, and intuitive \times deliberative accuracy are no longer correlated for our analyses.

Consequences of perceptual accuracy. For the consequences of intuitive and deliberative accuracy (i.e., performance outcomes of the salesperson–customer interaction), we obtained data from company records and from observing the sales interaction. We measured salesperson effectiveness by whether the customer purchased or not (purchase) and how much the customer spent (purchase amount). For purchase, we coded the salesperson–customer interaction as a purchase only if the interaction resulted in the sale of a mattress. We measured purchase amount as the amount spent on the mattress bought. If the customer did not buy a mattress, we recorded “\$0” for the amount spent. We measured selling time as the amount of time in minutes the salesperson and customer interacted from the start of the interaction to the point at which the customer decided to buy or not to buy. The distribution of selling time displayed right-tail skewness; thus, we used the log of selling time for our analysis. For selling efficiency, we divided the amount spent by selling time.

Our consequences framework includes two intuitive processing variables: appropriateness of initial sales strategy and customer needs change. We measured appropriateness of initial sales strategy as the extent to which the first

²Tiggle et al. (1982) identify a “profile accuracy index” as an alternative method to the discrepancy index for calculating accuracy of perceptions involving multiple attributes. This approach involves correlating the set of responses from both the perceiver and the target. The correlations of the discrepancy indices and profile accuracy indices for intuitive and deliberative accuracy were .93 and .94, respectively. The discrepancy index is also similar to calculating Euclidean distance. The correlations of the discrepancy index and Euclidean distance were .94 and .95, respectively.

product shown to the customer during the sales interaction matched the customer's initial product preferences, which we obtained before the sales interaction. Although other initial sales strategies exist (e.g., questioning techniques), we chose the initial product shown because we could measure the appropriateness of this strategy objectively and unobtrusively. We quantified the appropriateness of initial sales strategy as the sum of three matched scores based on three product characteristics: brand, feel, and budget. Brand match was coded as 1 if the brand of the first mattress shown was the same as the brand the customer reported interest in before the sales interaction. Feel match was coded as 1 if the mattress top (i.e., pillow top, memory foam, or firm) was the same as the top in which the customer reported interest before the sales interaction. We calculated budget match as the absolute difference between the customer's budget and the retail price of the first mattress. Budget match was coded as 1 if the budget accuracy was in the top quartile of our sample and 0 otherwise. We calculated appropriateness of initial sales strategy as the sum of brand, top, and budget matches, with 3 as the maximum match and 0 as the minimum match. We calculated customer needs change as the sum of the change in a customer's rank across all six shopping needs from pre- to postinteraction, with higher values signifying greater change.

We included customer and salesperson priors as covariates in our consequences framework. While predicting purchase, we controlled for how likely the customer would be to purchase before the sales interaction (customer's initial purchase likelihood) and the salesperson's perceptions of this likelihood (intuition of purchase likelihood). We measured this likelihood on an 11-point scale (0 = "no chance that the customer will purchase today," and 10 = "the customer will definitely purchase today"). While predicting purchase amount, we controlled for how much the customer expected to spend before the sales interaction (customer's initial budget) and how much the salesperson thought the customer would spend (intuition of budget). We measured these variables by asking for the maximum amount that the customer was willing to spend on a mattress. These covariates enabled us to test the effects of intuitive accuracy, deliberative accuracy, and the combination of the two on purchase and purchase amount while controlling for the customer's initial shopping intentions and the salesperson's initial impressions of those intentions.

Antecedents of perceptual accuracy. We adapted the measures of our three latent constructs—customer orientation (Saxe and Weitz 1982), listening skills (Drollinger, Comer, and Warrington 2006), and empathy (Barrett-Lennard 1981)—to match our context and measured each using seven-point Likert scales. We measured domain-specific experience as the number of years the salesperson worked with the firm in a sales position. We evaluated salesperson–customer similarity with three measures: gender similarity, ethnic similarity, and age similarity. For gender and ethnic similarity, we coded each salesperson–customer pair as 1 for a match and 0 for a mismatch. For age similarity, we

used the absolute difference between the salesperson's and the customer's ages. So that higher values would represent more similarity, we subtracted this absolute difference from the maximum absolute difference found in our sample. We included two covariates in our antecedents framework. We controlled for salesperson age to tease out age from domain-specific experience. We also controlled for salesperson gender, which was coded as 1 for women and 0 for men.

As Bagozzi and Yi (1988) recommend, all Cronbach's alpha coefficients and composite reliabilities were greater than .70 for latent constructs. All latent constructs demonstrated acceptable average variance extracted and divergent validity according to Fornell and Larcker's (1981) suggested criteria. To account for the possibility of multicollinearity, we examined the variance inflation factors of all variables. The variables in our study yielded variance inflation factors between 1.0 and 2.4, indicating no problems with multicollinearity (Kleinbaum et al. 1998). Table WA1 in the Web Appendix presents all measures and their sources, and Table WA2 lists descriptive statistics.

Hypothesis Testing and Results

Consequences of Salesperson's Perceptual Accuracy of Customer Needs

For the consequences component, we initially tested the data to determine whether they followed a two-level framework. Operationally, we ran a random intercept model for each dependent variable and nested the salesperson–customer interactions at the salesperson level (Singer 1998). However, little variance in the dependent variables occurred at Level 2, so a two-level framework was not warranted. As such, we tested H_1 , H_3 , and H_4 by using binary logistic regression for our purchase criterion and linear regression for purchase amount, selling time, and selling efficiency criteria. Following Hayes (2013), we tested whether the appropriateness of initial sales strategy mediates the relationship between intuitive accuracy and selling performance (H_2) by using an indirect-effects model with bootstrapping methods.

Tenet 1: intuitive judgments can be accurate. Although we did not formally hypothesize that salespeople's intuitive judgments are generally accurate, our data enabled us to evaluate this phenomenon, which prior research has examined in other contexts. To do so, we estimated whether the accuracy of salespeople's intuitive judgments, on average, was better than random chance. Operationally, we compared the intuitive accuracy found in our data with a randomly created accuracy score. We developed this random accuracy score by simulating each salesperson's intuitive judgment through a random ranking of needs and matching this with the customer responses from our data. After 1,000 simulations of the 330 salesperson–customer dyads, random accuracy averaged 6.34, with a standard deviation of 3.50. Replicating findings documented in prior research on a task generally considered analytic, salesperson's intuitive

accuracy was significantly better than the accuracy based on random chance (mean difference = 2.76, $p < .01$).

Tenet 2: accurate intuitions provide benefits in decision making. H_1 and H_2 suggest that accurate intuitive judgments can provide benefits to the salesperson decision-making process. As Table 2 shows, the results from the main-effects models illustrate two potential benefits. The results reveal that intuitive accuracy has a positive, significant effect on selling effectiveness, purchase (Model 1: $b = .231, p < .01$), and purchase amount (Model 3: $b = 77.75, p < .01$), in support of H_{1a} . However, intuitive accuracy does not influence selling time (Model 5: $b = -.001, n.s.$), failing to support H_{1b} . In support of H_{1c} , intuitive accuracy has a positive, significant effect on efficiency (Model 7: $b = 2.72, p < .01$).

H_2 proposes that intuitive accuracy provides a good first-move advantage by enabling the salesperson to perform appropriate initial selling strategies. To test whether the appropriateness of initial sales strategy mediates the relationship between intuitive accuracy and performance outcomes, we estimated an indirect-effects model with bootstrapping methods (Hayes 2013). As Preacher, Rucker, and Hayes (2007) suggest, we focus on the indirect effects. We found that the appropriateness of the initial sales strategy mediates the relationship between intuitive accuracy and purchase (total indirect effect = .033, 95% confidence interval [CI] = [.0131, .0619]), purchase amount (total indi-

rect effect = 17.25; 95% CI = [8.15, 28.80]), selling time (total indirect effect = $-.007$; 95% CI = $[-.015, -.002]$), and selling efficiency (total indirect effect = .733; 95% CI = [.379, 1.211]) because, in all four cases, the indirect effect was significantly different from zero. In summary, the results indicate that the appropriateness of initial sales strategy mediates the relationship between intuitive accuracy and selling performance, in support of H_{2a} – H_{2c} .

Tenet 3: deliberative thinking can facilitate or derail intuitive judgments. H_3 and H_4 address the interactive influence of intuitive accuracy and deliberative accuracy. In H_3 , we investigated whether deliberative thinking facilitates intuitive judgments. We found that intuitive accuracy interacts with deliberative accuracy while predicting purchase (Model 2: $b = .026, p < .05$), purchase amount (Model 4: $b = 12.53, p < .01$), selling time (Model 6: $b = -.008, p < .01$), and selling efficiency (Model 8: $b = .52, p < .01$), in support of H_{3a} – H_{3c} . We predicted that the highest sales effectiveness (purchase and purchase amount) would occur when both intuitive and deliberative accuracy were high. Figure 3 depicts these results. We found that sales effectiveness is the highest when intuitive and deliberative accuracy are both high (Figure 3, Panels A and B), providing further support for H_{3a} . We also found that when intuitive and deliberative accuracy are the same, selling time is shorter than when one is high and the other is low, in support of H_{3b} (Panel C).

TABLE 2
Regression Results for Consequences of Salesperson's Perceptual Accuracy

	Selling Effectiveness							
	Purchase		Purchase Amount		Selling Time		Selling Efficiency	
	Model 1: Main Effects	Model 2: IA × DA	Model 3: Main Effects	Model 4: IA × DA	Model 5: Main Effects	Model 6: IA × DA	Model 7: Main Effects	Model 8: IA × DA
Predictor Effects								
Intercept	.014 (.129)	.055 (.132)	631.56** (48.15)	633.85** (48.15)	3.390** (.033)	3.390** (.033)	17.93** (1.57)	18.07** (1.53)
Intuitive accuracy (IA)	.231** (.043)	.240** (.044)	77.75** (14.53)	80.20** (14.36)	-.001 (.010)	-.001 (.010)	2.72** (.46)	2.78** (.46)
Deliberative accuracy (DA) ^a	.136** (.041)	.139** (.042)	54.07*** (14.92)	55.56** (15.01)	.026* (.010)	.026* (.010)	1.60** (.47)	1.66** (.46)
Interaction Effects								
IA × DA ^a		.026* (.013)		12.53** (4.17)		-.008** (.003)		.52** (.13)
Covariates								
Customer's initial purchase likelihood	.274** (.050)	.274** (.050)						
Intuition of purchase likelihood	.084 (.058)	.087 (.059)						
Customer's initial budget			.124** (.043)	.126** (.043)				
Intuition of budget			.091 (.066)	.107 (.065)				
Cox–Snell R ²	.26	.27						
Adjusted R ²			.14	.17	.02	.03	.12	.16

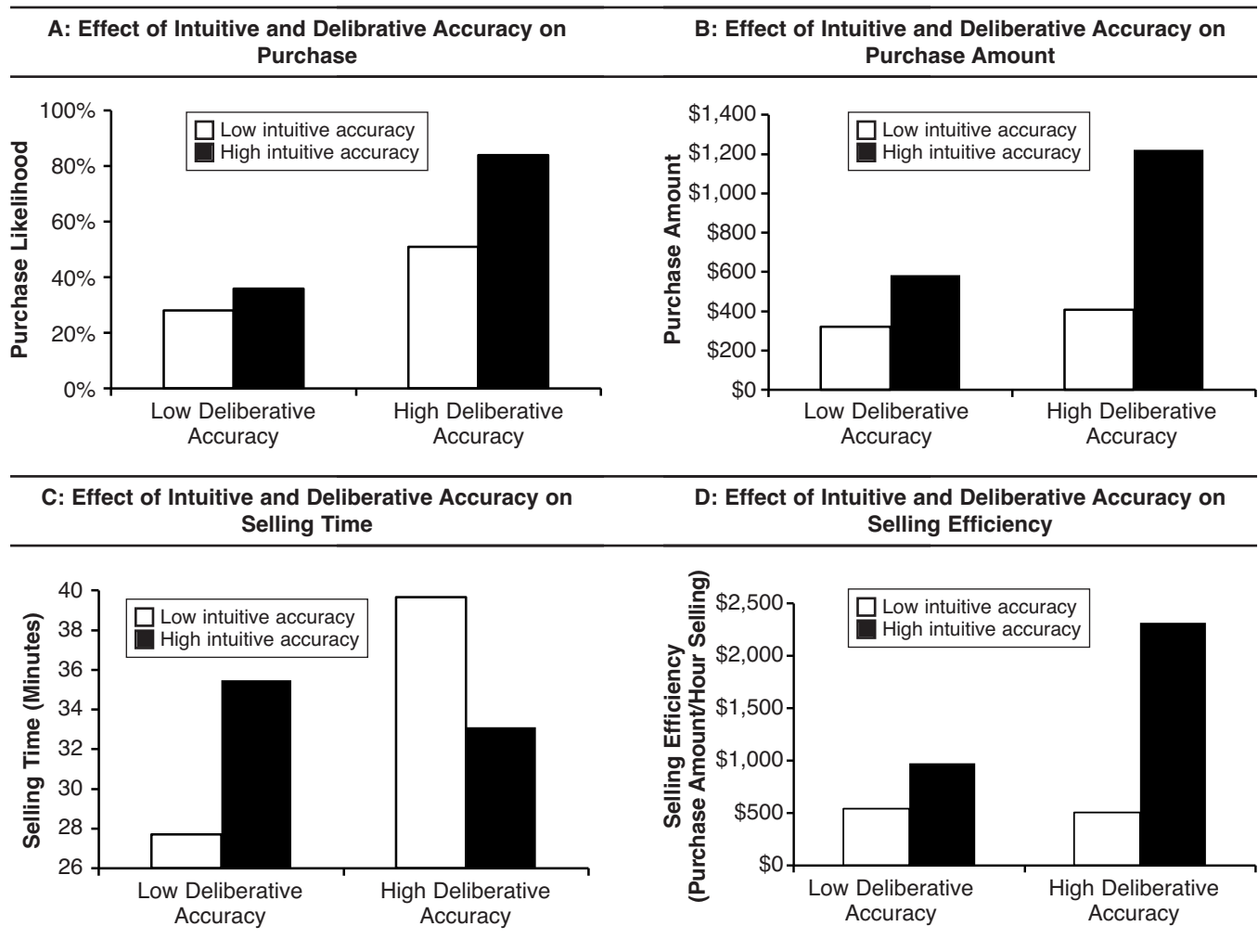
* $p < .05$.

** $p < .01$.

^aPrewhitened terms.

Notes: Two-tailed tests of significance. Models 1, 3, 5, and 7 are main-effects models. Models 2, 4, 6, and 8 include the intuitive accuracy × deliberative accuracy interaction.

FIGURE 3
Effect of Intuitive and Deliberative Accuracy on Selling Performance



Finally, we found that selling efficiency is the highest when both intuitive and deliberative accuracy are high, in support of H_{3c} (Panel D).

To test whether a salesperson's deliberation derails the benefits of his or her accurate intuitive judgments on selling effectiveness (H_{4a}), time (H_{4b}), and efficiency (H_{4c}), we calculated the extent to which a customer's needs changed over the interaction. We restricted the analysis to the condition in which customer needs changed little to test whether wasted intuition can explain the effect of high intuitive accuracy and low deliberative accuracy on selling performance. Because the extent to which customer needs change is continuous, we performed a spotlight analysis for when customer needs changed little (1 standard deviation below the mean) rather than dichotomizing this variable (Fitzsimons 2008). The results from this analysis indicate that when customer needs change little, the interaction between intuitive accuracy and deliberative accuracy significantly predicts purchase ($b = .05, p < .05$), purchase amount ($b = 13.65, p < .05$), selling time ($b = -.0121, p < .01$), and selling efficiency ($b = .071, p < .01$). When isolating situations

when customer needs change little, we found the same patterns as H_3 : selling performance is lower when high intuitive accuracy is followed by low deliberative accuracy than when it is followed by high deliberative accuracy. Performance is compromised when inaccurate deliberation follows accurate intuition by needlessly altering the earlier judgment. These results provide support for H_{4a} – H_{4c} .

Antecedents of Salesperson's Perceptual Accuracy of Customer Needs

For the antecedents, the data structure followed a two-level framework, with 23% and 17% of the variation in intuitive and deliberative accuracy, respectively, residing at Level 2, the salesperson level (Luke 2004). Thus, following the procedures Singer (1998) outlines for testing multilevel models, we tested our antecedent hypotheses (H_5 – H_6) by matching the salesperson–customer interaction measures (Level 1) with salesperson characteristics (Level 2) and centering all predictor variables on their grand mean when applicable. Table 3 presents the results of the antecedents of deliberative and intuitive accuracy for four models. For both delib-

erative and intuitive accuracy, we provide the results for a Level 1–only model (customer-level predictors) and full model (customer- and salesperson-level predictors).

The results for the antecedents of deliberative accuracy appear in Model 2 in Table 3. Consistent with H₅, customer orientation ($b = .792, p < .01$) has a positive effect on salespeople’s deliberative accuracy. Salesperson listening skills also have a positive effect on deliberative accuracy ($b = .689, p < .05$), in support of H₆. Model 4 displays the results for the antecedents of intuitive accuracy. Domain-specific experience is positively related to intuitive accuracy ($b = .204, p < .01$), in support of H₇. We found qualified support for H₈. Gender similarity ($b = 1.277, p < .01$) and ethnic similarity ($b = .958, p < .01$) are positively related to intuitive accuracy; however, age similarity is not ($b = -.003, n.s.$). Empathy is positively related to intuitive accuracy ($b = .621, p < .01$), in support of H₉.

The previous analysis determined whether the effects of antecedents were significantly different from zero. We also evaluated whether the effects of these two sets of antecedents differed between each type of accuracy. We performed a difference-in-coefficients test for each antecedent, for deliberative and intuitive accuracy; the last

column of Table 3 reports the results of this analysis. For deliberative accuracy, the effects of a customer orientation ($z = -1.74, p < .05$) and listening skills ($z = -2.64, p < .01$) had a greater impact on deliberative accuracy than on intuitive accuracy. Domain-specific experience ($z = 2.91, p < .01$) had a greater impact on intuitive accuracy. Salesperson–customer similarity had a greater impact on intuitive accuracy for gender ($z = 3.45, p < .01$) and ethnic ($z = 1.95, p < .05$) similarity but not on that for age similarity ($z = .41, n.s.$). Finally, empathy ($z = 1.54, p < .10$) had a marginally greater impact on intuitive accuracy. When we evaluated the effects of the antecedents on intuitive and deliberative accuracy while allowing the two to correlate, we found that empathy now predicted deliberative accuracy as well ($b = .426, p < .05$) and had an equal impact on both accuracies ($z = .76, n.s.$).

General Discussion

Theory Development

Prior research has shown that both the deliberative and intuitive accuracy with which salespeople perceive their

TABLE 3
Multilevel Results for Antecedents of Salesperson’s Perceptual Accuracy

	Deliberative Accuracy ^a		Intuitive Accuracy		Coefficient Difference Test z-Statistic
	Model 1: Level 1 Only	Model 2: Full Model	Model 3: Level 1 Only	Model 4: Full Model	
Intercept	10.006*** (.945)	11.490*** (1.26)	7.297*** (.907)	8.689*** (1.222)	
Customer-Level Predictors (Level 1)					
Gender similarity	-.099 (.349)	-.387 (.340)	1.630*** (.347)	1.277*** (.343)	3.45***
Ethnic similarity	.080 (.366)	.006 (.344)	1.298*** (.357)	.958*** (.345)	1.95**
Age similarity	.003 (.016)	-.012 (.015)	.006 (.016)	-.003 (.016)	.41
Salesperson-Level Predictors (Level 2)					
Customer orientation		.792*** (.301)		.071 (.286)	-1.74**
Listening skills		.689** (.264)		-.254 (.241)	-2.64***
Domain-specific experience		.002 (.051)		.204*** (.047)	2.91***
Empathy		.210 (.194)		.621*** (.184)	1.54*
Covariates					
Age		-.009 (.029)		-.022 (.028)	-.32
Gender		-.117 (.421)		.317 (.393)	.75
Increase in model fit	$\Delta\chi^2 = 27.98, d.f. = 6^{***}$		$\Delta\chi^2 = 15.03, d.f. = 6^{**}$		
Pseudo-R²					
Kreft and De Leeuw (1998)	.000	.229	.142	.247	

* $p < .10$.

** $p < .05$.

*** $p < .01$.

^aPrewhitened deliberative accuracy.

Notes: One-tailed tests of significance.

customers influences their selling effectiveness. For example, an accurate, deliberative assessment of customers' shopping-related needs has been shown to improve customer-reported satisfaction and willingness to pay (Homburg, Wieseke, and Bornemann 2009). Other research has shown that an accurate, intuitive assessment of a customer's traits and emotions improves selling effectiveness when accompanied by appropriate influence tactics (McFarland, Challagalla, and Shervani 2006) and by enhancing the effects of adaptive and customer-oriented selling (Kidwell, McFarland, and Avila 2007). Our study takes this research a step further by simultaneously evaluating intuitive and deliberative accuracies, suggesting that both accuracies are necessary to achieve selling effectiveness. In addition, we examine the effect of both accuracies on selling time and efficiency. Our study also investigates antecedents of intuitive and deliberative accuracy to determine whether they emanate from different strengths. We use information processing styles to identify antecedents of intuitive and deliberative accuracy. As a result, we integrate the perceptual accuracy and information processing style literatures into one framework.

Consequences of perceptual accuracy. Traditional models of person perception suggest a sequential process. First, a salesperson categorizes and characterizes a customer by recognizing surface-level cues and by drawing on schemas and stereotypes. This process is automatic and intuitive. Second, the salesperson evaluates his or her intuitive judgments to determine whether they need correction. This process is controlled and deliberative. With this framework, we apply three central tenets of thin-slice research to investigate the influence of accurate intuitive and deliberative judgments and suggest the process by which these effects occur.

Consistent with demonstrations in domains other than sales, we observe that salespeople can make accurate intuitive judgments of their customers' needs. Prior research has suggested that accuracy is better achieved through deliberative thinking. The surprising accuracy of intuitive judgments is the foundation of thin-slice research (Tenet 1). Our findings show that accurate intuitive judgments improve salespeople's decision making during sales interactions (this follows from Tenet 2 of thin-slice research). Accurate intuitive judgments, when evaluated independent of deliberative judgments, positively affect salesperson effectiveness by increasing the customer's purchase likelihood and amount spent. Evaluating a mechanism that explains the intuitive accuracy–performance relationship, we find mediation by the appropriateness of the first product shown: a manifestation of the salesperson's ability to start the interaction with appropriate selling strategies.

We also find that subsequent deliberation can facilitate or derail intuitive accuracy (Tenet 3). We observe that accurate deliberative accuracy facilitates the effect of intuitive accuracy on performance outcomes. Figure 3 illustrates that selling efficiency is highest when both accuracies are high. We term high intuitive followed by high deliberative accuracy as “perceptual ambidexterity” to highlight our finding

that salespeople need to be accurate in both judgments for optimal performance benefits. We find that deliberative inaccuracy derails the benefits of accurate intuitive judgments. Focusing our evaluation on customers whose needs stay the same over the interaction, we find that salespeople who start with a high intuitive accuracy but, after deliberation, “correct” their earlier judgments have lower selling effectiveness, longer selling times, and, as a result, lower selling efficiency. That is, deliberation can waste intuition.

The idea that intuitive judgments are formed unconsciously, as hunches, and that introspection can cause people to question and fallaciously “correct” our hunches is one of the more profound ideas underlying thin-slice theory. Demonstrating this, Wilson and Schooler (1991) asked students to rank jams on the basis of texture and taste under two conditions: either with or without providing justification for the ranking. Under the first condition, students' rankings correlated at .55 with experts' rankings, while under the second condition the correlation was only .11. Providing reasons and deliberating on why they were ranking the jam at a certain level was enough to replace accurate intuitive judgments with inaccurate deliberative judgments. Consistently, we found that salespeople who did not deliberate over their intuitive judgments of customer needs performed better than those who did, incorrectly revising their earlier judgments.

Antecedents of perceptual accuracy. Prior research has not evaluated whether the same or different antecedents drive deliberative and intuitive accuracy. Filling this gap, we use principles from CEST (Epstein 2010) as the basis for proposing antecedents. We suggest that when an intuitive processing mode is favored, this thinking style enables intuitive accuracy. In contrast, when an analytical processing mode is favored, deliberative accuracy is enabled. From this, we identify domain-specific experience, similarity with the customer, and empathy as antecedents that improve intuitive accuracy. We identify a customer orientation and listening skills as antecedents that improve deliberative accuracy. We show that empathy does not have an effect on deliberative accuracy when intuitive accuracy is controlled for.

Processing style and performance: mediating role of judgment accuracy. Research has investigated salespeople's preferred information processing styles and self-reported sales performance with mixed findings. Preliminary work in this area has found that both deliberative and intuitive processing styles improve sales performance (Deeter-Schmelz and Sojka 2007; Sojka and Deeter-Schmelz 2008). In contrast, Locander, Mulki, and Weinberg (2014) find that deliberative processing style does and intuitive processing style does not directly affect performance. In other domains, the effects of these processing styles on task performance have been inconsistent as well (see, e.g., Armstrong, Cools, and Sadler-Smith 2012).

Zaki and Ochsner (2011) suggest that the accuracy of judgments mediates the effect of processing style and performance. By incorporating antecedents rooted in intuitive and deliberative processing preferences, intuitive and delib-

erative accuracy, and performance in one conceptual framework, our research provides support for Zaki and Ochsner's perspective by demonstrating that perceptual accuracy serves as the bridge between processing style and performance. Processing style enhances performance only when it provides for accurate judgments.

Perceptual ambidexterity. Our findings indicate that for a successful salesperson–customer interaction, salespeople need perceptual ambidexterity (i.e., being skillful at both intuitive and deliberative accuracy). This finding is consistent with recent work in marketing on other ambidextrous behaviors. Jasmand, Blazeovic, and De Ruyter (2012) find that service representatives' ability to perform unrelated and, at times, conflicting behaviors, such as service provisions and cross-/up-selling activities, leads to improved sales performance and efficiency. Rapp et al. (2013) find that customer-facing firms must possess service ambidexterity to maximize the returns of both exploration and exploitation through social media. This research suggests that salespeople must be adept at distinct, even contradictory, skills.

Managerial Implications

We began this article by stressing that personal selling performance is critical to firms' financial performance. Although personal selling is heavily dependent on salespeople's judgments of their customers, important questions remain about what makes salespeople accurate in their judgments and about the impact of these judgments on the outcomes of sales interactions.

Our findings inform managers that salespeople make two types of judgments about their customers during face-to-face encounters—intuitive and deliberative judgments—and that these judgments affect selling performance. Importantly, we advocate that salespeople need to be able to make both these judgments accurately, for each customer, to ensure optimal performance. We find that when salespeople make accurate intuitive and deliberative judgments, their performance, judged by the amount sold per hour, improves by more than 130%. We show that overthinking, which leads to deliberative inaccuracy, reduces performance. Our research provides managers with guidance on ways to improve the performance of their sales force by identifying factors that enhance the accuracy of intuitive and deliberative salesperson judgments. Our findings also suggest that the appropriateness of initial selling strategies is critical for personal selling success.

Prioritizing assessment of salesperson perceptual accuracy. Our research highlights the importance of assessing salespeople's ability to make accurate judgments about their customers during face-to-face interactions. Many sales organizations employ sales processes predicated on salespeople's ability to accurately judge the characteristics of their customers and to perform appropriate actions on the basis of these judgments. For example, the widely adopted SPIN sales model involves perceiving customers' problems and value drivers to tailor sales strategies to these perceptions (Rackham 1988). The Challenger sales model also

involves judging when and how to engender and maintain a creative tension during a sales call (Dixon and Adamson 2011). Managers' awareness of their salespeople's ability to make accurate perceptual judgments should improve the successful implementation of these and other sales models.

Managers also need to be aware of their salespeople's ability to accurately judge their customers' emotions and goals, as they may be important drivers of salesperson performance as well. Managers need to evaluate both the intuitive and deliberative accuracy of these judgments because both are required for decision-making effectiveness, speed, and efficiency. Because the drivers of intuitive and deliberative accuracy differ, pinpointing salespeople's deficiencies would enable managers to tailor interventions that improve the performance of their sales force.

Training intuitive ability. Firms in the United States spent approximately \$20 billion in 2013 on training (Association for Talent Development 2013). Increasingly, more firms are using customer-oriented sales approaches, and as a result, their sales training has evolved to a focus on diagnosing and uncovering customer needs (Lassk et al. 2012). However, current approaches to training provide little guidance on how managers can improve their salespeople's ability to perceive customer needs intuitively.

Our research identifies a skill, empathy, that managers can teach their salespeople to improve their intuitive perceptual accuracy. Recent work in personal selling has suggested that empathy can be trained and that this training enhances performance (Homburg, Wieseke, and Borne-mann 2009; Peterson and Limbu 2009). Because empathy involves understanding customers' perspectives, we recommend that training of this type occur in the field.

Drawing from thin slices, we suggest that intuitive accuracy requires the ability to process information from the selling environment, particularly information about prospective customers. Research in marketing (e.g., MacInnis, Moorman, and Jaworski 1991; Sabnis et al. 2013) identifies salespeople's motivation, opportunity, and ability as a means for managers to improve salespeople's ability to process information and, as a result, improve their ability to make accurate intuitive judgments. Managers can influence salespeople's motivation to process customer information by drawing their attention to the importance of processing customer cues (MacInnis, Moorman, and Jaworski 1991), coaching salespeople to actively track and learn whether their first impressions were accurate, and creating a culture that values the importance of first impressions. Managers can influence salespeople's opportunity to process customer cues by designing storefronts that enable salespeople to clearly view customers before the sales interaction. When making judgments, salespeople should be coached to process customer information quickly so that they can process the information holistically (MacInnis, Moorman, and Jaworski 1991) and avoid the perils of overthinking. Finally, managers can screen and train salespeople for their ability to read and understand nonverbal cues using standardized tests (e.g., Profile of Nonverbal Sensitivity; Bänziger et al. 2011; Rosenthal et al. 1979). In addition to

training empathy, managers can improve salespeople's ability to read and understand nonverbal cues by identifying easily observable customer cues related to customer preferences and behaviors. For example, in our qualitative interviews, some salespeople indicated that they had learned that customer posture and physique determined the customer's needs and budget.

There are some examples in existing research that suggest that training salespeople's intuitive accuracy may be surprisingly simple. In a study aimed at determining which surgeons are more likely to be sued, Ambady et al. (2002) discovered that a concerned tone of voice, in contrast to a dominant tone of voice, while speaking with her or his patients significantly reduced the likelihood that a surgeon would be sued. Ebling and Levenson (2003) examined whether people who had little expertise in marital counseling could identify who would stay married and who would not from a 30-second video of couples interacting. When told what emotions to look for, nonexperts were accurate in their predictions of marital success 80% of the time. By encouraging salespeople to focus on specific cues, such as tone of voice and concrete emotions, training has the promise of improving intuitive accuracy.

Improving the sales process through appropriate initial selling strategies. A common selling strategy involves showing the customer the most expensive product at the start of the sales interaction. In doing so, salespeople can create a higher-priced anchor in customers' minds. According to research in behavioral economics, sales processes focused on anchoring and adjustment can increase how much the customer spends. Our research suggests otherwise. We find that inappropriate selling behaviors, such as showing the customer a product outside his or her budget, decrease the customer's likelihood to purchase, lower the amount the customer spends, and increase the amount of time taken to sell to the customer. Managers can improve sales performance by encouraging their salespeople to tailor selling strategies, including the product shown first, from the very start of the sales process.

Limitations and Further Research

Research design. We needed to evaluate both intuitive and deliberative accuracy with practicing salespeople in a natural environment and obtained the cooperation of one company. This company permitted us to interview customers and salespeople before and after the interaction and to observe them during the interaction. Had we worked with a different company, the nature of the product and the purchase process could conceivably have led to different effects. Although the generalizability of our findings should be established, research that examines accuracy by collecting data from both salespeople and their customers is scarce. Obtaining a company's cooperation is a daunting task even when assessing only one of the two types of accuracies.

With an alternative product type, the typical customer may enter the store not only with his or her needs already formulated but also with a specific choice identified. In such stores, salespeople's ability to advocate a product that matches

their customers' needs early in the interaction, on the basis of intuitive knowledge, is less likely to provide an advantage and, as a result, may be less important for performance. Another situation is when customers know their needs but hold them with less certainty. This low certainty implies that during the interaction, it is highly likely that their needs will change. In this situation as well, intuitive accuracy of customer needs and the consequent early advocacy of a matching product would provide less of an advantage. Because in both situations, customers and salespeople still hope to engage in a mutually beneficial relationship, the salesperson's intuitive accuracy of other customer characteristics could be important in the early stages of the relationship-building process. Research that tests our findings with alternative products, sales environments, and judgments is necessary to identify generalizability.

We measured accuracy using a discrepancy score. Although discrepancy scores have been used in previous person perception research and are considered appropriate when used during a single encounter (West and Kenny 2010), such as a sales interaction, it is still necessary for future researchers to evaluate them against alternative methods of assessing accuracy to identify weaknesses. As an alternative, we evaluated our discrepancy scores against correlation-based scores and found validation. Furthermore, we did not evaluate whether or the extent to which deliberative accuracy was indeed a result of effortful deliberation; rather, we used timing in the sequence to evaluate this measure, and further research that includes this evaluation would be valuable. Finally, we measured deliberative accuracy after the outcome of the interaction; however, this accuracy type would have been better measured after the salesperson had had the opportunity to verbally interact with the customer but before the customer made the decision to buy or not buy. Because firms would be very unlikely to permit researchers to interrupt a salesperson-customer exchange in the field, such research would need to be done in a laboratory setting with students role-playing salespeople and customers.

Trusting intuitive judgments. We demonstrated that overthinking through deliberation can cause salespeople to inappropriately "correct" their intuitive judgments. Research provides insight into how managers can heighten their salespeople's trust in their intuition. Ames et al. (2010) find that people trust their intuition more when they possess high self-efficacy, prefer intuitive to deliberative processing, and are instructed in the powers of intuition. Research has begun to examine the question of when salespeople should and should not trust their intuition. For example, Ames et al. show that when people have low levels of confidence in their intuitive judgment, they correctly abandon this judgment; people have a good idea of when they are simply guessing. In contrast, higher levels of confidence in intuition do not necessarily lead to more accurate judgments.

Heightening intuition for inexperienced salespeople. As Klein (2003, p. 36) states, "The key to using intuition effectively is experience." Our research finds that domain-specific experience is a prerequisite for intuitive accuracy. Because

intuition is automatic and involuntary, even inexperienced salespeople apply their intuition, only to discover that they are wrong. This may cause them to become hyperdeliberative and waste their intuition when they are right (Wilson 2009), painting a bleak picture for rookie salespeople's ability to achieve and take advantage of intuitive accuracy. However, research on learning goals (incremental implicit

theories) has suggested that salespeople with this orientation may be less concerned by the intuitive misjudgments they make and consider them a part of the development process (Plaks et al 2001). A worthy avenue for further research would be to identify how intuitive accuracy can be enhanced among inexperienced salespeople through learning goals or other orientations and abilities.

REFERENCES

- Albrechtsen, Justin S., Christian A. Meissner, and Kyle J. Susa (2009), "Can Intuition Improve Deception Detection Performance?" *Journal of Experimental Social Psychology*, 45 (4), 1052–55.
- Ambady, Nalini (2010), "The Perils of Pondering: Intuition and Thin Slice Judgments," *Psychological Inquiry*, 21 (4), 271–78.
- , Frank J. Bernieri, and Jennifer A. Richeson (2000), "Toward a Histology of Social Behavior: Judgmental Accuracy from Thin Slices of the Behavioral Stream," *Advances in Experimental Social Psychology*, 32, 201–271.
- , Mark Hallahan, and Brett Conner (1999), "Accuracy of Judgments of Sexual Orientation from Thin Slices of Behavior," *Journal of Personality and Social Psychology*, 77 (3), 538–47.
- , Mary A. Krabbenhoft, and Daniel Hogan (2006), "The 30-Second Sale: Using Thin-Slice Judgments," *Journal of Consumer Psychology*, 16 (1), 4–13.
- , Debi LaPlante, Thai Nguyen, Robert Rosenthal, Nigel Chaumeton, and Wendy Levinson (2002), "Surgeon's Tone of Voice: A Clue to Malpractice History," *Surgery*, 132 (1), 5–9.
- and Robert Rosenthal (1993), "Half a Minute: Predicting Teacher Evaluations from Thin Slices of Nonverbal Behavior and Physical Attractiveness," *Journal of Personality and Social Psychology*, 64 (3), 431–41.
- Ames, Daniel R., Lara K. Kammrath, Alexandra Suppes, and Niall Bolger (2010), "Not So Fast: The (Not-Quite-Complete) Dissociation Between Accuracy and Confidence in Thin-Slice Impressions," *Personality and Social Psychology Bulletin*, 36 (2), 264–77.
- Armstrong, Steven J., Eva Cools, and Eugene Sadler-Smith (2012), "Role of Cognitive Styles in Business and Management: Reviewing 40 Years of Research," *International Journal of Management Reviews*, 14 (3), 238–62.
- Association for Talent Development (2013), *State of the Industry Report*. Alexandria, VA: Association for Talent Development.
- Bagozzi, Richard P. and Youjae Yi (1988), "On the Evaluation of Structural Equation Models," *Journal of the Academy of Marketing Science*, 16 (1), 74–94.
- Bänziger, Tanja, Klaus R. Scherer, Judith A. Hall, and Robert Rosenthal (2011), "Introducing the MiniPONS: A Short Multichannel Version of the Profile of Nonverbal Sensitivity (PONS)," *Journal of Nonverbal Behavior*, 35 (3), 169–204.
- Barrett-Lennard, Godfrey T. (1981), "The Empathy Cycle: Refinement of a Nuclear Concept," *Journal of Counseling Psychology*, 28 (2), 91–100.
- Bodenhausen, Galen V. (1988), "Stereotypic Biases in Social Decision Making and Memory: Testing Process Models of Stereotype Use," *Journal of Personality and Social Psychology*, 55 (5), 726–37.
- Borkenau, Peter, Nadine Mauer, Rainer Riemann, Frank M. Spinath, and Alois Angleitner (2004), "Thin Slices of Behavior as Cues of Personality and Intelligence," *Journal of Personality and Social Psychology*, 86 (4), 599–614.
- Byron, Kristin, Sophia Terranova, and Stephen Nowicki Jr. (2007), "Nonverbal Emotion Recognition and Salespersons: Linking Ability to Perceived and Actual Success," *Journal of Applied Social Psychology*, 37 (11), 2600–2619.
- Carney, Dana R., C. Randall Colvin, and Judith A. Hall (2007), "A Thin Slice Perspective on the Accuracy of First Impressions," *Journal of Research in Personality*, 41 (5), 1054–72.
- Chatfield, Chris (2003), *The Analysis of Time Series: An Introduction*, 6th ed. Boca Raton, FL: CRC Press.
- Dane, Erik and Michael G. Pratt (2007), "Exploring Intuition and Its Role in Managerial Decision Making," *Academy of Management Review*, 32 (1), 33–54.
- and ——— (2009), "Conceptualizing and Measuring Intuition: A Review of Recent Trends," in *International Review of Industrial and Organizational Psychology*, Vol. 24, Gerard P. Hodgkinson and J.K. Ford, eds. Padstow, UK: John Wiley & Sons.
- Deeter-Schmelz, Dawn R. and Jane Z. Sojka (2007), "Personality Traits and Sales Performance: Exploring Differential Effects of Need for Cognition and Self-Monitoring," *Journal of Marketing Theory and Practice*, 15 (2), 145–57.
- Dixon, Matthew and Brent Adamson (2011), *The Challenger Sale: Taking Control of the Customer Conversation*. New York: Penguin Group.
- Drollinger, Tanya, Lucette B. Comer, and Patricia T. Warrington (2006), "Development and Validation of the Active Empathetic Listening Scale," *Psychology & Marketing*, 23 (2), 161–80.
- Ebling, Rachel and Robert W. Levenson (2003), "Who Are the Marital Experts?" *Journal of Marriage and Family*, 65 (1), 130–42.
- Elfenbein, Hillary A. and Nalini Ambady (2002), "Predicting Workplace Outcomes from the Ability to Eavesdrop on Feelings," *Journal of Applied Psychology*, 87 (5), 963–71.
- Epstein, Seymour (1973), "The Self-Concept Revisited: Or a Theory of a Theory," *American Psychologist*, 28 (5), 404–416.
- (2003), "Cognitive-Experiential Self-Theory of Personality," in *Handbook of Psychology*, Vol. 5, M.J. Lerner, ed. Hoboken, NJ: John Wiley & Sons.
- (2010), "Demystifying Intuition: What It Is, What It Does, and How It Does It," *Psychological Inquiry*, 21 (4), 295–312.
- Evans, Kenneth R., Robert E. Kleine, Timothy D. Landry, and Lawrence A. Crosby (2000), "How First Impressions of a Customer Impact Effectiveness in an Initial Sales Encounter," *Journal of the Academy of Marketing Science*, 28 (4), 512–26.
- Fiske, Susan T. (1993), "Social Cognition and Social Perception," *Annual Review of Psychology*, 44 (1), 155–94.
- Fitzsimons, Gavan J. (2008), "Editorial: Death to Dichotomizing," *Journal of Consumer Research*, 35 (1), 5–8.
- Fornell, Claes and David F. Larcker (1981), "Structural Equation Models with Unobservable Variables and Measurement Error: Algebra and Statistics," *Journal of Marketing Research*, 28 (February), 382–88.
- Freeman, Jonathan B. and Nalini Ambady (2011), "A Dynamic Interactive Theory of Person Construal," *Psychological Review*, 118 (2), 247–79.
- Garland, Diana R. (1981), "Training Married Couples in Listening Skills: Effects on Behavior, Perceptual Accuracy and Marital Adjustment," *Family Relations*, 30 (2), 297–306.

- Gilbert, Daniel T., Brett W. Pelham, and Douglass S. Krull (1988), "On Cognitive Busyness: When Person Perceivers Meet Persons Perceived," *Journal of Personality and Social Psychology*, 54 (5), 733–40.
- Gore, Julie and Eugene Sadler-Smith (2011), "Unpacking Intuition: A Process and Outcome Framework," *Review of General Psychology*, 15 (4), 304–376.
- Hall, Judith A. and Amy G. Halberstadt (1994), "'Subordination' and Sensitivity to Nonverbal Cues: A Study of Married Working Women," *Sex Roles*, 31 (3), 149–65.
- Hayes, Andrew F. (2013), *Introduction to Mediation, Moderation, and Conditional Process Analysis: A Regression-Based Approach*. New York: Guilford Press.
- Hennig-Thurau, Thorsten, Mark B. Houston, and Torsten Heitjans (2009), "Conceptualizing and Measuring the Monetary Value of Brand Extensions: The Case of Motion Pictures," *Journal of Marketing*, 73 (November), 167–83.
- Homburg, Christian, Jan Wieseke, and Torsten Bornemann (2009), "Implementing the Marketing Concept at the Employee–Customer Interface: The Role of Customer Need Knowledge," *Journal of Marketing*, 73 (July), 64–81.
- Jasmand, Claudia, Vera Blazevic, and Ko de Ruyter (2012), "Generating Sales While Providing Service: A Study of Customer Service Representatives' Ambidextrous Behavior," *Journal of Marketing*, 76 (January), 20–37.
- Johnson, Joseph G. and Markus Raab (2003), "Take the First: Option-Generation and Resulting Choices," *Organizational Behavior and Human Decision Processes*, 91 (2), 215–29.
- Kahneman, Daniel and Gary Klein (2009), "Conditions for Intuitive Expertise: A Failure to Disagree," *American Psychologist*, 64 (6), 515–26.
- Kidwell, Blair, Richard G. McFarland, and Ramon A. Avila (2007), "Perceiving Emotion in the Buyer–Seller Interchange: The Moderated Impact on Performance," *Journal of Personal Selling & Sales Management*, 27 (2), 119–32.
- Klein, Gary (1997), "The Recognition-Primed Decision (RPD) Model: Looking Back, Looking Forward," in *Naturalistic Decision Making*, Caroline E. Zsombok and Gary Klein, eds. Hillsdale, NJ: Lawrence Erlbaum Associates, 285–92.
- (2003), *The Power of Intuition: How to Use Your Gut Feelings to Make Better Decisions at Work*. New York: Random House.
- (2008), "Naturalistic Decision Making," *Human Factors: The Journal of the Human Factors and Ergonomics Society*, 50 (3), 456–60.
- Kleinbaum, David G., Kupper L. Lawrence, Keith E. Muller, and Azhar Nizam (1998), *Applied Regression Analysis and Other Multivariate Methods*. Pacific Grove, CA: Duxbury Press.
- Kotler, Philip and Kevin Keller (2011), *Marketing Management*, Vol. 14. Upper Saddle River, NJ: Prentice Hall.
- Kreft, Ita and Jan de Leeuw (1998), *Introducing Multilevel Modeling*. London: Sage Publications.
- Kruglanski, Arie W. and Tallie Freund (1983), "The Freezing and Unfreezing of Lay-Inferences: Effects on Impression Primacy, Ethnic Stereotyping, and Numerical Anchoring," *Journal of Experimental Social Psychology*, 19 (5), 448–68.
- and Donna M. Webster (1996), "Motivated Closing of the Mind: 'Seizing' and 'Freezing,'" *Psychological Review*, 103 (2), 263–83.
- Lassak, Felicia G., Thomas N. Ingram, Florian Kraus, and Rita Di Mascio (2012), "The Future of Sales Training: Challenges and Related Research Questions," *Journal of Personal Selling & Sales Management*, 32 (1), 141–54.
- Locander, David A., Jay P. Mulki, and Frankie J. Weinberg (2014), "How Do Salespeople Make Decisions? The Role of Emotions and Deliberation on Adaptive Selling, and the Moderating Role of Intuition," *Psychology & Marketing*, 31 (6), 387–403.
- Losoya, Sandra H. and Nancy Eisenberg (2001), "Affective Empathy," in *Interpersonal Sensitivity*, Judith A. Hall and Frank J. Bernieri, eds. Mahwah, NJ: Lawrence Erlbaum Associates, 21–45.
- Luke, Douglas A. (2004), *Multilevel Modeling*. Thousand Oaks, CA: Sage Publications.
- MacInnis, Deborah J., Christine Moorman, and Bernard J. Jaworski (1991), "Enhancing and Measuring Consumers' Motivation, Opportunity, and Ability to Process Brand Information from Ads," *Journal of Marketing*, 55 (October), 32–53.
- Macrae, C. Neil and Galen V. Bodenhausen (2000), "Social Cognition: Thinking Categorically About Others," *Annual Review of Psychology*, 51 (1), 93–120.
- McFarland, Richard G., Goutam N. Challagalla, and Tasadduq A. Shervani (2006), "Influence Tactics for Effective Adaptive Selling," *Journal of Marketing*, 70 (October), 103–117.
- Mullins, Ryan R., Michael Ahearne, Son K. Lam, Zachary R. Hall, and Jeffrey P. Boichuk (2014), "Know Your Customer: How Salesperson Perceptions of Customer Relationship Quality Form and Influence Account Profitability," *Journal of Marketing*, 78 (November), 38–58.
- Nordgren, Loran F. and Ap Dijksterhuis (2009), "The Devil Is in the Deliberation: Thinking Too Much Reduces Preference Consistency," *Journal of Consumer Research*, 36 (1), 39–46.
- Pacini, Rosemary and Seymour Epstein (1999), "The Relation of Rational and Experiential Information Processing Styles to Personality, Basic Beliefs, and the Ratio-Bias Phenomenon," *Journal of Personality and Social Psychology*, 76 (6), 972–87.
- Parasuraman, Anantharathan, Valarie A. Zeithaml, and Leonard L. Berry (1985), "A Conceptual Model of Service Quality and Its Implications for Future Research," *Journal of Marketing*, 49 (Fall), 41–50.
- Peterson, Robin T. and Yam Limbu (2009), "The Convergence of Mirroring and Empathy: Communications Training in Business-to-Business Personal Selling Persuasion Efforts," *Journal of Business-to-Business Marketing*, 16 (3), 193–219.
- Plaks, Jason E., Steven J. Stroessner, Carol S. Dweck, and Jeffrey W. Sherman (2001), "Person Theories and Attention Allocation: Preferences for Stereotypic Versus Counterstereotypic Information," *Journal of Personality and Social Psychology*, 80 (6), 876–93.
- Preacher, Kristopher J., Derek D. Rucker, and Andrew F. Hayes (2007), "Addressing Moderated Mediation Hypotheses: Theory, Methods, and Prescriptions," *Multivariate Behavioral Research*, 42 (1), 185–227.
- Preston, Stephanie D. and Frans De Waal (2002), "Empathy: Its Ultimate and Proximate Bases," *Behavioral and Brain Sciences*, 25 (1), 1–20.
- Quattrone, George A. (1982), "Overattribution and Unit Formation: When Behavior Engulfs the Person," *Journal of Personality and Social Psychology*, 42 (4), 593–607.
- Rackham, Neil (1988), *Spin Selling*. New York: McGraw-Hill.
- Rapp, Adam, Lauren Skinner Beitelspacher, Dhruv Grewal, and Douglas E. Hughes (2013), "Understanding Social Media Effects Across Seller, Retailer, and Consumer Interactions," *Journal of the Academy of Marketing Science*, 41 (5), 547–66.
- Raynor, Michael E. and Mumtaz Ahmed (2013), "Three Rules for Making a Company Truly Great," *Harvard Business Review*, 91 (April), 108–117.
- Rosenthal, Robert, Judith A. Hall, M. Robin DiMatteo, Peter L. Rogers, and Dane Archer (1979), *Sensitivity to Nonverbal Communication: The Pons Test*. Baltimore: Johns Hopkins University Press.
- Ross, Brian H. and Thomas L. Spalding (1994), "Concepts and Categories," in *Thinking and Problem Solving: Handbook of Perception and Cognition*, Vol. 2, Robert J. Sternberg, ed. San Diego: Academic Press

- Sabnis, Gaurav, Sharmila C. Chatterjee, Rajdeep Grewal, and Gary L. Lilien (2013), "The Sales Lead Black Hole: On Sales Reps' Follow-Up of Marketing Leads," *Journal of Marketing*, 77 (January), 52–67.
- Saxe, Robert and Barton A. Weitz (1982), "The SOCO Scale: A Measure of the Customer Orientation of Salespeople," *Journal of Marketing Research*, 19 (August), 343–51.
- Simon, Herbert A. (1987), "Making Management Decisions: The Role of Intuition and Emotion," *Academy of Management Executive*, 1 (1), 57–64.
- Singer, Judith D. (1998), "Using SAS PROC MIXED to Fit Multi-level Models, Hierarchical Models, and Individual Growth Models," *Journal of Educational and Behavioral Statistics*, 23 (4), 323–55.
- Sojka, Jane Z. and Dawn R. Deeter-Schmelz (2008), "Need for Cognition and Affective Orientation as Predictors of Sales Performance: An Investigation of Main and Interaction Effects," *Journal of Business and Psychology*, 22 (3), 179–90.
- Solomon, Michael R., Carol Surprenant, John A. Czepiel, and Evelyn G. Gutman (1985), "A Role Theory Perspective on Dyadic Interactions: The Service Encounter," *Journal of Marketing*, 49 (Winter), 99–111.
- Sujan, Mita, James R. Bettman, and Harish Sujan (1986), "Effects of Consumer Expectations on Information Processing in Selling Encounters," *Journal of Marketing Research*, 23 (November), 346–53.
- Tiggle, Ronald B., Mark D. Peters, Harold H. Kelley, and John Vincent (1982), "Correlational and Discrepancy Indices of Understanding and Their Relation to Marital Satisfaction," *Journal of Marriage and the Family*, 44 (1), 209–215.
- Trope, Yaacov (1986), "Identification and Inferential Processes in Dispositional Attribution," *Psychological Review*, 93 (3), 239–57.
- Weisbuch, Max and Nalini Ambady (2010), "Thin Slice Vision," in *The Science of Social Vision*, Reginald B. Adams Jr., Nalini Ambady, Ken Nakayama, and Shinsuke Shimojo, eds. New York: Oxford University Press.
- Weitz, Barton A. (1981), "Effectiveness in Sales Interactions: A Contingency Framework," *Journal of Marketing*, 45 (Winter), 85–103.
- , Harish Sujan, and Mita Sujan (1986), "Knowledge, Motivation, and Adaptive Behavior: A Framework for Improving Selling Effectiveness," *Journal of Marketing*, 50 (October), 174–91.
- West, Teresa V. and David A. Kenny (2011), "The Truth and Bias Model of Judgment," *Psychological Review*, 118 (2), 357–78.
- Wilson, Timothy D. (2009), *Strangers to Ourselves: Discovering the Adaptive Unconscious*. Cambridge, MA: Harvard University Press.
- and Jonathan W. Schooler (1991), "Thinking Too Much: Introspection Can Reduce the Quality of Preferences and Decisions," *Journal of Personality and Social Psychology*, 60 (2), 181–92.
- Ybarra, Oscar (2001), "When First Impressions Don't Last: The Role of Isolation and Adaptation Processes in the Revision of Evaluative Impressions," *Social Cognition*, 19 (5), 491–520.
- Zaki, Jamil and Kevin Ochsner (2011), "Reintegrating the Study of Accuracy into Social Cognition Research," *Psychological Inquiry*, 22 (3), 159–82.