RAN KIVETZ, ODED NETZER, and V. SRINIVASAN*

Building on the work of Dhar, Menon, and Maach (2004), this commentary describes how the compromise effect models developed in the work of Kivetz, Netzer, and Srinivasan (2004) can be extended to predict complex (business-to-business) purchase decisions and additional behavioral context effects. The authors clarify their general modeling approach and outline how it applies to choices among solutions (augmented products) and group decision making. They then hypothesize about the influence of business-to-business and technology markets on various context effects (e.g., compromise and asymmetric dominance). They show how the models incorporate various context effects and discuss ideas for further research.

Extending Compromise Effect Models to Complex Buying Situations and Other Context Effects

All models are wrong; some are useful.

—George E. Box

In our previous research (Kivetz, Netzer, and Srinivasan [KNS] 2004), we set out to incorporate the compromise effect in formal choice models and to test whether such models outperform the standard value-maximization model. We found that modeling the local choice context leads to superior predictions and fit compared with the traditional model and a stronger (naive) model that adjusts for possible biases in utility measurement. The estimation and validation of the alternative models also highlighted (1) the theoretical and empirical equivalence of loss aversion and contextual concavity (or diminishing sensitivity) and (2) the superiority of models that use a single reference point over "tournament models" in which each option serves as a reference point for all other options in the set (cf. Tversky and Simonson 1993).

In their commentary, Dhar, Menon, and Maach (DMM; 2004) raise several important and interesting questions pertaining to such issues as the influence of complex purchase environments, the challenge of modeling multiperson decision making, and the need to examine other context effects (e.g., polarization). This commentary clarifies our position on these issues and suggests how the KNS models may accommodate the points that DMM raise.

As DMM (2004) mention, in the process of testing the alternative models, we generalized the compromise effect by demonstrating that it systematically affected choices in larger sets of products and attributes than has been previously shown (see KNS 2004, Empirical Application 2). We agree with DMM that it is highly worthwhile to conduct research aimed at understanding how the compromise effect may operate in various purchase settings (e.g., consumer versus business-to-business [B2B]) and choice contexts (e.g., individual versus group decision making). However, our main research objective was to design and validate choice models that predict compromise and other context effects. We subsequently detail how our modeling approach can be applied in several of the complex buying situations that DMM discuss.

GENERAL MODELING APPROACH

The alternative models that we proposed are paramorphic, "as-if" models that are intended to improve predictive validity rather than explore underlying decision processes. At the same time, the models are motivated by theory from economics and behavioral decision research: The contextual concavity model (CCM) and the normalized contextual concavity model (NCCM) are based on the notion of diminishing sensitivity and the loss-aversion model (LAM) on prospect theory (Tversky and Kahneman 1991). Because the models are paramorphic, they can capture compromise and other context effects regardless of the particular underlying mechanism or decision process. For example, as DMM (2004) note, Wernerfelt (1995) and Prelec, Wernerfelt, and

*Ran Kivetz is Sidney Taurel Associate Professor of Business (e-mail: rk566@columbia.edu), and Oded Netzer is Assistant Professor of Marketing (e-mail: on2110@columbia.edu), Graduate School of Business, Columbia University. V. "Seenu" Srinivasan is Adams Distinguished Professor of Management, Graduate School of Business, Stanford University (e-mail: srinivasan_seenu@gsb.stanford.edu).

Zettelmeyer (1997) propose a rational inference explanation for the compromise effect. They argue that consumers are uncertain about their preference toward specific attribute values, but they are more certain about how their preferences compare with those of other consumers. Furthermore, consumers are assumed to use the choice set to infer the distribution of other consumers' tastes and the range of product offerings in the market. Such context-based inferences may generate compromise effects. Regardless of the debate about whether the compromise effect is due to rational inferences or a counternormative decision bias (see Drolet, Simonson, and Tversky 2000; Tversky and Simonson 1993), our paramorphic models capture the effect.

We agree with DMM (2004) that the compromise effect reflects the construction of preferences (Payne, Bettman, and Johnson 1992), and we accordingly model choice as contingent on the local set of options. Specifically, our modeling approach assumes that the individual-level utilities (partworths) of attribute levels are known and have been measured at a global (context-independent) level, by preference measurement methods such as conjoint analysis. That is, customers are assumed to have some degree of absolute or intrinsic valuation of the choice options. However, the (absolute) context-independent utilities are then transformed by the model parameters (concavity or loss aversion) according to the relationship among the evaluated options. Thus, according to the models, the overall value of an option is sensitive to the local choice context. Because the options surrounding a specific alternative can be varied and often controlled by the marketer, the models imply that preference is endogenous to the local choice set and is labile rather than stable.

In their work, DMM (2004) propose important factors other than the composition of the choice set that may influence the construction of preferences, such as the duration of the purchase decision, the number of agents making the decision, and whether the alternatives are cogenerated by the seller and buyer. We subsequently detail how the models can be extended to accommodate several of these complex buying settings, and we acknowledge the cases that are beyond the scope of our analysis.

It is important to emphasize that the alternative models account for heterogeneity in consumer tastes. In particular, the models consist of individual-level utility functions (i.e., the context-independent partworths), which capture not only the intrinsic valuation of each attribute level by each consumer but also the differences between consumers in their relative attribute-importance weights (i.e., relative tastes). However, we did not estimate the models' context-effect parameters (e.g., concavity, loss aversion) at the individual level. We believe that the incorporation of heterogeneity in the parameter space, by using methods such as hierarchical Bayes (e.g., Rossi and Allenby 2003), is a fertile ground for further research. A combination of the estimation of heterogeneity in the context-dependent parameters with experimental work may improve the understanding of individual differences in the decision process and the susceptibility to the compromise effect.

MODELING COMPLEX BUYING DECISIONS

An important contribution of DMM (2004) is the extension of the compromise effect to complex purchase environments such as industrial (B2B) marketing. Such buying contexts often involve augmented products (or solutions), group decision making, lengthy purchase (and thus decision) cycles, and solutions that are cogenerated by buyer and seller. Next, we outline how the KNS (2004) models can accommodate several of these more complicated choice settings.

Modeling Choice Among Solutions

We agree with DMM (2004) that a current trend in B2B and high-technology marketing is a growing emphasis on solutions and services. Such solutions include not only the product itself (e.g., hardware and/or software) but also presale training, installation, and financing, as well as aftersales support and warranty. The solution or "whole product" can even include the image, prestige, and expectations regarding the future performance of the brand and the vendor.

We believe that the KNS (2004) models are readily applicable to such situations. Specifically, the definition of "product" in conjoint analysis is not restricted to product features but refers to the "augmented product." Thus, a common practice in conjoint analysis applications is the measurement of customer preference for the augmented product. For example, a marketing research firm may use conjoint analysis to study customer preferences in the context of a new car purchase; such an application would estimate partworth utilities of different levels of not only fuel economy (miles per gallon) and acceleration (0–60 miles per hour) but also brand, financing, warranty, and aftersales service. To the extent that customers exhibit compromise (and other context) effects in a particular augmented product category, the KNS models capture these effects through the context-dependent parameters. It should also be noted that, similar to their ability to predict choice for augmented products, the models are not limited in terms of the number of attributes or alternatives.

Modeling Group Decision Making

An interesting and important issue that DMM (2004) raise is the effect of group decision making on the compromise effect. Compared with individual choice, multiperson purchase decision is likely to increase the perception of being evaluated (i.e., by the group). However, being evaluated has been shown to enhance group members' susceptibility to both the compromise effect and the asymmetric dominance (decoy) effect (Simonson 1989; Simonson and Nowlis 2000). Thus, we posit that group decision making magnifies context effects. Managers who advance a particular option can exploit the compromise effect by offering their decision-making group multiple alternatives, of which the preferred option is positioned as the compromise (cf. Hamilton 2003).

A greater tendency to choose compromise options by groups may also arise from the tussle involved in trading off between the preferences of multiple agents or constituencies. Such multiperson compromise effects are especially likely when attribute importances are negatively correlated across group members and the available options are located on the efficient frontier. For example, a chief marketing officer may wish to purchase the most sophisticated customer relationship management software available in the market, but the chief financial officer may focus on minimizing information technology costs; if this odd couple were to purchase jointly a new customer relationship management system for the company, they may well end up compromising on a system with intermediate quality and price compared with the quality and price of the other systems being considered. Furthermore, strong externalities in the utility functions of group members (e.g., members who weigh their associates' welfare in addition to their own), coupled with diminishing sensitivity in attribute valuations, are likely to generate a joint preference for compromise options.

The issue of whether groups are more likely than individuals to select compromise (and asymmetrically dominating) options merits further research. Given the paramorphic nature of our models, we believe that they can accommodate multiperson decision making and capture context effects when they occur in such settings. More specifically, modeling advances (Arora and Allenby 1999) enable the estimation of group utility functions that consider the influence of individual members (rather than simply aggregate the preferences of the group members). We suggest a two-stage process to capture context effects in a multiperson (B2B) decision setting: In the first stage, the partworth utility space can be defined using Arora and Allenby's approach; in the second stage, our context-dependent models and parameters can be applied to the (context-independent) utility space. Application of this two-stage approach is straightforward and similar to the methodology we employed in our empirical applications. It is interesting to explore whether utility functions derived by such an approach as that of Arora and Allenby, combined with the KNS (2004) models, can indeed capture multiperson compromise effects.

MODELING THE POLARIZATION EFFECT

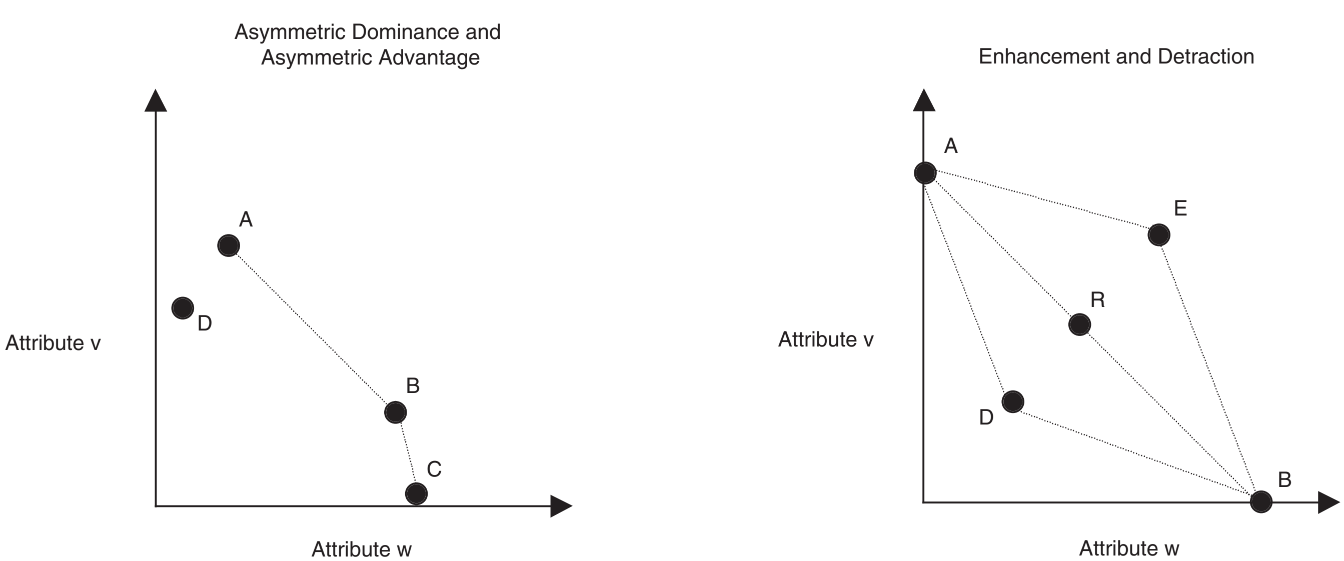
We concur with DMM (2004) that another issue that merits further research is the polarization effect. Simonson and Tversky (1992) label the finding that intermediate options fare better than extreme options as "extremeness aversion," and they argue that it leads to two types of effects: compromise, in cases in which both attributes exhibit extremeness aversion, and polarization, in cases in which only one attribute exhibits such an effect. According to polarization, the addition of a third option to a binary set will produce a bias against one of the extreme options but not against the other.

However, it should be noted that the phenomenon of compromise (or extremeness aversion) also includes a wide range of cases in which there is extremeness aversion (i.e., a bias in favor of intermediate values) on *both* attributes but in which the magnitude of this bias significantly differs across the attributes. Thus, compromise and polarization are best viewed not as the two sole states of extremeness aversion but as the two opposite ends of an extremeness aversion continuum. The polarization end of this continuum represents cases in which one or more attributes exhibit significant extremeness aversion and one or more attributes do not (e.g., because of loss aversion on the former but not the latter set of attributes). Conversely, the case of a purely symmetric compromise effect represents the opposite end of the continuum, whereby all attributes exhibit extremeness aversion of equal magnitude. In reality, it is likely that many choices will fall along the extremeness aversion continuum rather than at either end of it. Such choices will reveal significant extremeness aversion on both (or all) attributes, but the strength of this context effect will significantly vary across the attributes.

It is important to emphasize that the KNS (2004) models are "general" compromise models in the sense that they can incorporate any form of extremeness aversion, with either equal or different magnitude across attributes. Therefore, the models can also accommodate the special case of polarization, in which there is extremeness aversion with respect to one attribute (or set of attributes) but not another. The models capture the various extremeness aversion effects through their context-dependent parameters. For example,

Figure 1

CONTEXT EFFECTS DUE TO TRADE-OFF CONTRAST



in the speakers category of KNS's Empirical Application 1, the greater extremeness aversion of power relative to price was captured in the LAM by the significantly higher loss aversion parameter of the former attribute. Correspondingly, the CCM predicted this asymmetric effect through a concavity parameter that was significantly lower (i.e., more concave) for price than for power.

The enhanced extremeness aversion (or bias in favor) of power relative to price is consistent with prior findings that consumers avoid the lowest-price, lowest-quality option (Simonson and Tversky 1992) and that loss aversion is greater for quality than for price (Hardie, Johnson, and Fader 1993). More generally, the polarization effect and the evidence that the magnitude of loss aversion differs across attribute types (e.g., Dhar and Wertenbroch 2000; Tversky and Kahneman 1991; Viscusi, Magat, and Huber 1987) underscore the importance of investigating how extremeness aversion may vary across attributes. In this light, we believe that a contribution of our modeling framework is that it allows for identification, comparison, and statistical testing (through the contextual concavity or loss-aversion parameters) of the location of context effects along the extremeness aversion continuum.

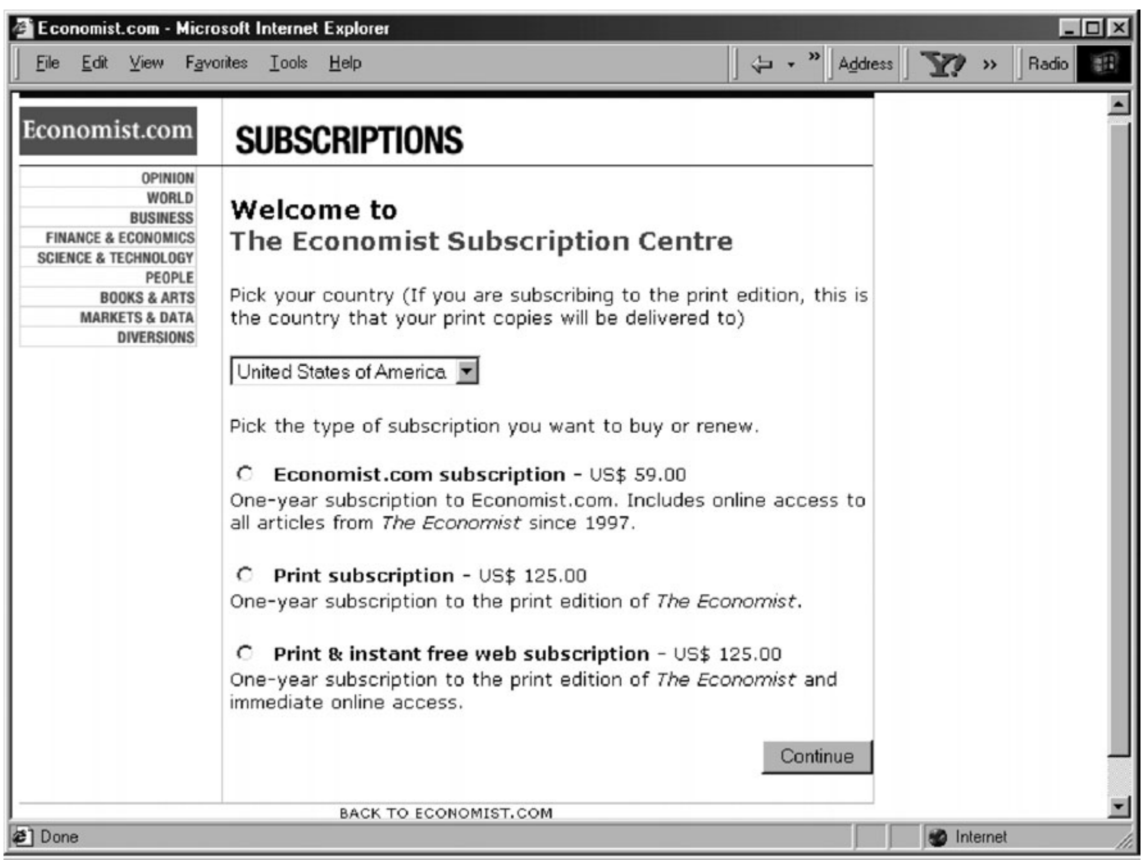
EXPLORING OTHER CONTEXT EFFECTS

The commentary of DMM (2004) highlights the importance of modeling and predicting context effects other than compromise. In addition to polarization, further research should investigate the conditions that promote such behavioral context effects as asymmetric dominance, asymmetric advantage, enhancement, and detraction (Huber, Payne, and Puto 1982; Simonson and Tversky 1992). Simonson and Tversky (1992) suggest that a single psychological mechanism, (local) "trade-off contrast," underlies the family of context effects. For example, the well-known asymmetric dominance effect implies that the addition of Option D to the set {A, B} will enhance the share of Option A relative to that of Option B, because Option D is dominated by Option A but not by Option B (see "Asymmetric Dominance and Asymmetric Advantage" in Figure 1). Similarly, in the asymmetric advantage case, the addition of Option C to the set {A, B} is expected to increase the attractiveness of Option B relative to that of Option A, because Option B has a clear advantage over Option C, whereas Option A does not.

Asymmetric dominance and advantage (decoy) effects can exert a powerful force on choice because they provide a compelling justification for the purchase of one option over another. We have observed such strong decoy effects in the MBA classroom: A group of students was asked to select its preferred *Economist* subscription from the triplet shown in Figure 2; students in another group were asked to select their preferred subscription from a choice set that excluded the (decoy) $125 print-only subscription option. The results

Figure 2

REAL-WORLD CHOICE SET CONSISTENT WITH A DECOY EFFECT



indicated a substantial asymmetric dominance effect: In the (real) triplet condition, 72% (21 of 29 MBA students) chose the \$125 print-and-Web subscription (the others chose the \$59 Web-only subscription) compared with only 43% (13 of 30) who chose this subscription in a binary set that lacked the decoy option (t = 2.4, $p < .02$).

The Influence of Complex Buying Settings on Decoy Effects

We believe that decoy effects may be prevalent in multiperson decisions that induce a concern about being evaluated. Managers who justify their decisions to colleagues and superiors may be especially enticed by options with a compelling purchase rationale, such as ones that offer an asymmetric dominance or advantage. The increased preference uncertainty, which DMM (2004) indicate characterizes information technology decision making, is also likely to increase the attractiveness of alternatives with asymmetric dominance. Furthermore, compared with consumer markets, in which deviations from the efficient frontier are likely to be quickly eliminated, the ambiguity, proprietary, and customized nature of B2B solutions implies that non-Pareto-optimal offerings may be more common. By definition, decoy effects require the existence of non-Pareto-optimal alternatives. Further research should investigate whether institutional buying environments and managerial (group) decision making are indeed more conducive to context effects.

The technology markets that DMM (2004) discuss also promote "versioning," that is, the offering of different versions degraded from essentially the same (high-end) product or information (Shapiro and Varian 1998). In turn, versioning facilitates the creation of compromise and decoy alternatives. As the *Economist* example illustrates, it is easy to generate different versions of information and Web-based offerings. Moreover, the complexity and multidimensionality of technology solutions implies that even hardware can be effectively versioned and offered in assortments that are intended to induce context effects.

For example, office managers who purchase a multifunction document system from Xerox face an assortment consistent with a decoy structure. As is shown in Figure 3, three systems are offered: the low-end Pro 35 system for \$10,000, the higher-quality Pro 45 system for \$12,800, and the expensive Pro 55 system for \$17,500. Despite their price differential, the Pro 45 and Pro 55 are identical on almost all attributes (both provide improved attribute levels from those of the Pro 35). Furthermore, although the ten-page-per-minute advantage of the Pro 45 compared with the Pro 35 (along with all other advantages of the Pro 45) only costs an additional \$2,800, the sole advantage of the Pro 55 over the Pro 45 (i.e., ten pages per minute) costs a whopping additional \$4,700. Given the (local) trade-off contrasts, the Pro 45 appears to enjoy an asymmetric advantage over the (possible decoy) Pro 55, whereas the Pro 35 does not. This assortment is represented by the set {A, B, C} in the left-hand panel of Figure 1, where attribute w indicates quality and attribute v represents (–) price.

We tested whether the Xerox assortment shown in Figure 3 indeed induces a decoy (asymmetric advantage) effect. We employed MBA students as respondents and asked them to suppose that they were facility managers of a company that wanted to acquire a new multifunction document system. Students in one group were asked to select their preferred system from the triplet shown in Figure 3 (taken from the Xerox Web site); students in another group were asked

Figure 3

B2B CHOICE SET CONSISTENT WITH A DECOY EFFECT

	WorkCentre® Pro 35 Advanced Multifunction System	WorkCentre® Pro 45 Advanced Multifunction System	WorkCentre® Pro 55 Advanced Multifunction System
OUTPUT SPEED—printing and copying			
	35 images per minute (ipm) letter (8.5 x 11"/216 x 279 mm/A4)	45 images per minute (ipm) letter (8.5 x 11"/216 x 279 mm/A4)	55 images per minute (ipm) letter (8.5 x 11"/216 x 279 mm/A4)
	25 ipm legal (8.5 x 14"/216 x 356 mm)	36 ipm legal (8.5 x 14"/216 x 356 mm)	36 ipm legal (8.5 x 14"/216 x 356 mm)
	22 ipm ledger (11 x 17"/279 x 432 mm/A3)	31 ipm ledger (11 x 17"/279 x 432 mm/A3)	31 ipm ledger (11 x 17"/279 x 432 mm/A3)
FIRST-IMAGE-OUT TIME—letter size, from platen to offsetting catch tray			
	4.6 seconds	3.4 seconds	3.4 seconds

to select their preferred system from a set that excluded the (decoy) Pro 55 system. The results indicated a substantial asymmetric advantage effect: In the (real) triplet condition, the relative share of the Pro 45 system (compared with the Pro 35 system) was 89% (25 of 28 students), compared with only 71% (22 of 31) who chose this system in a binary set that lacked the decoy option ($t = 1.8$, $p < .05$).

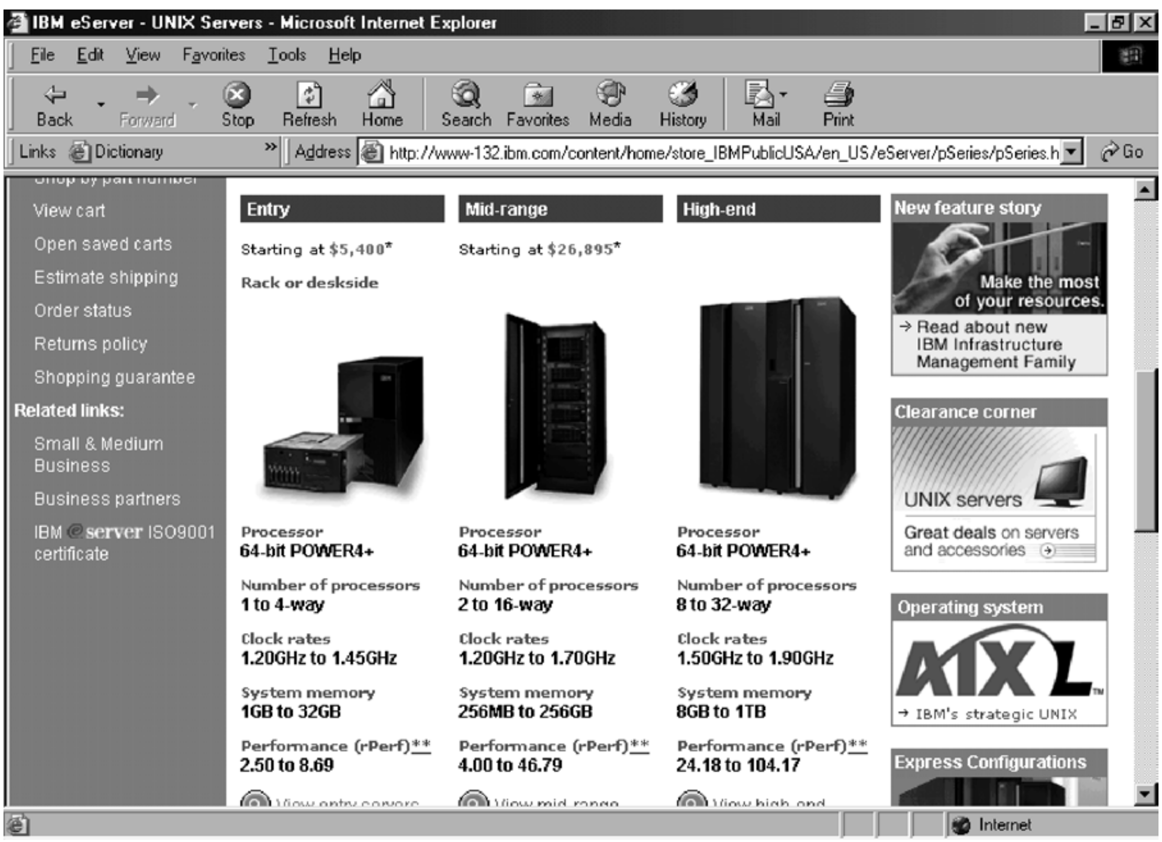
Figure 4 presents an additional, real-world B2B choice set, which in this case is consistent with a compromise structure. Specifically, IBM offers three UNIX servers—labeled "entry," "midrange," and "high end"—with increasing performance and price.

Modeling Local Trade-Off Contrast Effects

The KNS (2004) models can capture asymmetric dominance and advantage effects. The contextual concavity models predict such effects because the addition of an asymmetrically dominated (or nearly dominated) alternative lowers the reference point of the attribute on which the now superior option previously had the lowest value in the choice set. For example, as is shown in the left-hand panel of Figure 1, the addition of Option D (C) to the set {A, B} lowers the reference point of attribute w (v), because the reference point is defined (in CCM) as the lowest attribute partworth in the local choice set. This shift in the reference point adds a utility gain with respect to attribute w (v) to both the superior Option A (B) and the nonsuperior Option B (A). However, given the diminishing sensitivity in partworth gains implied by contextual concavity, the impact of this new gain is attenuated the farther that the option is from the attribute reference point (i.e., the new gain looms larger for Option A [B]). Similarly, the addition of an asymmetrically dominated (or nearly dominated) alternative moves the reference point of the LAM (defined on the basis of the midpoints of the attribute ranges) closer to the now superior option. This leads to a shift in preference in favor of the superior option at the expense of the nonsuperior option, because compared with the new reference point, the former (latter) now has smaller (larger) losses. It should be noted that in certain specific cases (e.g., when the added alternative does not affect the attribute ranges), unireference models such as the contextual concavity models and the LAM cannot capture the asymmetric dominance and advantage effects, whereas tournament (multireference) models can. However, one unireference model that can theoretically capture such effects is the centroid model of Bodner and Prelec (1994). Their model, which employs loss aversion as an underlying mechanism, defines the single reference point using the averages of all atribute levels observed in the local choice set.

Simonson and Tversky (1992) also demonstrate a milder form of (local) trade-off contrast effects: enhancement and detraction (see the right-hand panel of Figure 1). According to enhancement, Option E fares better in the triplet {A, E,

Figure 4
B2B CHOICE SET CONSISTENT WITH A COMPROMISE EFFECT



B} than in any of the pairs {E, A} or {E, B}, such that $P_B(E; A) > P(E; A)$ and $P_A(E; B) > P(E; B)$. Because enhancement is consistent with the compromise effect, it is effectively incorporated in the contextual concavity models and the LAM. That is, compared with value maximization, the alternative models will predict a higher choice share for Option E than for the extremes.

Conversely, detraction implies that the middle option, Option D, will fare worse in the triplet {A, D, B} than in any of the pairs {D, A} or {D, B}, such that $P_B(D; A) < P(D; A)$ and $P_A(D; B) < P(D; B)$. Because detraction is inconsistent with the compromise effect, it cannot be captured by the CCM and NCCM (as long as the concavity parameters are smaller than one) or by tournament models such as the relative advantage model (as long as losses/disadvantages loom larger than gains/advantages). However, the LAM can simultaneously incorporate the opposite effects of extremeness aversion and detraction and can theoretically predict the latter context effect. In particular, detraction is captured because Option D is dominated by the LAM's reference Option R, whereas extremeness aversion is accounted for because Option D tends to have disadvantages of smaller magnitude (relative to Option R) than do the extreme Options A and B.

Overall, the KNS (2004) models can theoretically account for a wide range of context effects, including compromise, polarization, asymmetric dominance, and other local contrast effects. Consistent with DMM (2004), we argue that more research is needed on the full spectrum of (choice set) context effects. Such investigations could examine the impact of various institutional factors (e.g., size of decision-making unit, complexity of solution purchased) on the susceptibility to context effects. Researchers could also empirically test a unifying model that accounts for the greatest number of context effects across the widest range of choice situations.

CONCLUSION

In their work, DMM (2004) raise various interesting questions pertaining to the applicability of the compromise and other context effects to complex buying environments. These issues have important implications for understanding the underlying choice processes and for leveraging context effects in B2B and technology markets. Building on the issues that DMM raise, we have provided guidelines and future research directions for the extension of the compromise effect and its modeling. It is important to note that the KNS (2004) models are not intended to predict choice in all possible situations. For example, we agree with DMM that our models may not be applicable to certain complex buying settings, such as those in which large, complicated solutions are defined and purchased over an extended period of time and/or when such solutions are cogenerated by the seller and buyer. Nevertheless, the KNS models can be extended to many complex buying environments, such as when the purchase decision involves multiple decision makers and/or augmented products (solutions). We believe that the combination of experimental work with choice modeling and analysis of real-world secondary data offers fertile ground for studying the effects of the choice context in complex purchase settings. Such work will continue the fruitful endeavor of bridging the consumer behavior and marketing science disciplines.

REFERENCES

Arora, Neeraj and Greg M. Allenby (1999), "Measuring the Influence of Individual Preference Structures in Group Decision Making," *Journal of Marketing Research*, 36 (November), 476–87.

Bodner, Ronit and Drazen Prelec (1994), "The Centroid Model of Context-Dependent Choice," working paper, Sloan School of Management, Massachusetts Institute of Technology.

Dhar, Ravi, Anil Menon, and Bryan Maach (2004), "Toward Extending the Compromise Effect to Complex Buying Contexts," *Journal of Marketing Research*, 41 (August), 258–61.

——— and Klaus Wertenbroch (2000), "Consumer Choice Between Hedonic and Utilitarian Goods," *Journal of Marketing Research*, 37 (February), 60–71.

Drolet, Aimee L., Itamar Simonson, and Amos Tversky (2000), "Indifference Curves That Travel with the Choice Set," *Marketing Letters*, 11 (3), 199–209.

Hamilton, Rebecca W. (2003), "Why Do People Suggest What They Do Not Want? Using Context Effects to Influence Others' Choices," *Journal of Consumer Research*, 29 (March), 492–506.

Hardie, Bruce, Eric J. Johnson, and Peter Fader (1993), "Modeling Loss Aversion and Reference Dependence Effects on Brand Choice," *Marketing Science*, 12 (4), 378–94.

Huber, Joel, John W. Payne, and Christopher P. Puto (1982), "Adding Asymmetrically Dominated Alternatives: Violations of Regularity and the Similarity Hypothesis," *Journal of Consumer Research*, 9 (June), 90–98.

Kivetz, Ran, Oded Netzer, and V. Srinivasan (2004), "Alternative Models for Capturing the Compromise Effect," *Journal of Marketing Research*, 41 (August), 237–57.

Payne, John W., James R. Bettman, and Eric J. Johnson (1992), "Behavioral Decision Research: A Constructive Processing Perspective," *Annual Review of Psychology*, 43, 87–131.

Prelec, Drazen, Birger Wernerfelt, and Florian Zettelmeyer (1997), "The Role of Inference in Context Effects: Inferring What You Want from What Is Available," *Journal of Consumer Research*, 24 (June), 118–25.

Rossi, Peter E. and Greg M. Allenby (2003), "Bayesian Statistics and Marketing," *Marketing Science*, 22 (3), 304–328.

Shapiro, Carl and Hal R. Varian (1998), "Versioning: The Smart Way to Sell Information," *Harvard Business Review*, 76 (November–December), 106–114.

Simonson, Itamar (1989), "Choice Based on Reasons: The Case of Attraction and Compromise Effects," *Journal of Consumer Research*, 16 (2), 158–74.

——— and Stephen M. Nowlis (2000), "The Role of Explanations and Need for Uniqueness in Consumer Decision Making: Unconventional Choices Based on Reasons," *Journal of Consumer Research*, 27 (June), 49–68.

——— and Amos Tversky (1992), "Choice in Context: Tradeoff Contrast and Extremeness Aversion," *Journal of Marketing Research*, 29 (August), 281–95.

Tversky, Amos and Daniel Kahneman (1991), "Loss Aversion in Riskless Choice: A Reference-Dependent Model," *Quarterly Journal of Economics*, 106 (November), 1039–61.

——— and Itamar Simonson (1993), "Context-Dependent Preferences," *Management Science*, 39 (10), 1179–89.

Viscusi, W. Kip, Wesley A. Magat, and Joel Huber (1987), "An Investigation of the Rationality of Consumer Valuations of Multiple Health Risks," *RAND Journal of Economics*, 18 (4), 465–79.

Wernerfelt, Birger (1995), "A Rational Reconstruction of the Compromise Effect: Using Market Data to Infer Utilities," *Journal of Consumer Research*, 21 (March), 627–33.