

Comment on Bradlow

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I'm pleased to see an academic such as Eric Bradlow emphasize the need to "balance theoretical understanding and model parsimony." Too often, academics suggest refinements or alternatives to existing conjoint methods that are complex, impractical, and not appreciably better than existing practice. Eric concentrates on practical issues, approaching problems and possible solutions from a practitioner/managerial focus. As conjoint analysis moved from the realm of the academic to the practitioner (in the 70s), the need for straightforward models that tended to work well in practice was critical. Indeed, for all the simplifications in typical conjoint analysis studies (especially, as Bradlow notes, the critical assumption of additivity), it has tended to work well in practice.

Regarding Bradlow's desire that more work be done in "within-task learning/variation," I'd like to call attention to some research that Rich Johnson and I published in 1996 [1]. We examined seven commercial discrete-choice conjoint data sets that included brand and price. Respondents completed at least 10 choice sets, involving tradeoffs between brand, price and other attributes. We found that respondents tended to place greater attention on brand relative to price in the first few choice sets relative to later choice sets. The derived importance of brand relative to price was 1.93 in set one and decreased to 0.99 by set ten. What happened? In the real world, buyers observe brands to be roughly correlated with prices, quality, and performance. Thus, buyers can save informational processing time by selecting based primarily on brand. In contrast, orthogonal (or nearly orthogonal) conjoint design plans exhibit no (or very low) correlations between brands and other attributes. Sometimes the best brands are shown with lower prices and lower degrees of performance and quality, and vice-versa. After a few choice tasks, respondents become aware that brands are no longer a reliable indicator in this shopping "laboratory" and then adapt their behavior. Johnson and I wrote [1] "One might argue that the very first task should be the best, since the respondent is less contaminated by the effect of previous questions. This seems likely to be true for impulse purchases. But, for real-world purchases in high-involvement categories, buyers probably spend more time considering the options, features, and pros and cons of each alternative. Later tasks seem to better reflect such behavior."

Bradlow highlights issues of preference variation due to trial or time. A single conjoint survey given at time 0 is not a good instrument for capturing either of these, as the respondent doesn't truly try a product or experience its benefits (or regret its deficiencies) over time. As a related point, some conjoint researchers are focusing more on capturing variations in part worth utility functions in terms of occasions rather than time. They seek answers to questions such as: "How do people's preferences for beer brands and their price sensitivity vary depending on the purchase occasion/situation: buying for a party, buying for personal consumption, buying for a friend?"

Proper and prevalent validation of conjoint methods is an ongoing problem in our industry. Conjoint analysis cannot capture many real-world effects that influence actual market shares. It assumes (among other things) equal information, availability, time on the market, effectiveness of sales force—not to mention the critical question of whether we've included all relevant attributes

that affect buyer behavior. Thus, validation in terms of correspondence to market share is a difficult proposition. Next, those organizations with access to validation data usually have little incentive to share results with others (for fear of losing some competitive advantage). In response, practitioners and academics alike have savored the limited validation cases and taken heart in the proposition that if conjoint analysis wasn't very predictive of buyer behavior, this certainly should have stymied its broad usage across industry over the last 30 years.

References

1. Johnson RM, Orme B. How Many Questions Should You Ask in Choice-Based Conjoint? *Advanced Research Techniques Forum* 1996, Beaver Creek, CO.