

ACR Doctoral Consortium Session:  
**The Economics of Consumer  
Choice and Behavior**

**Consumer Behavior in Conjoint Choice**

Michel Wedel

# Conjoint Choice Experiment and Model

Conjoint Choice Experiments have been popular in the “economics” approach, but, due to **experimental** nature lend themselves well to development and testing of behavioral theory

$$U_j = X_j \beta_j + \varepsilon_j,$$

$J$  individuals

$K$  choice sets

$M$  alternatives

$S$  attribute levels

$\varepsilon_j \sim$  *Normal*  
*Logistic*

Utility Maximization leads to Multinomial Logit or Probit

# Individual Differences

$$\beta_j \sim N(\beta, \Sigma)$$

$$\beta_j \sim \sum_s \pi_s N(\beta_s, \Sigma_s)$$

$$\beta_j \sim F$$

$$F \sim DP$$

Thus: much progress has been made but little explanation for individual differences has been provided:

This seems to begin to change recently

# Behavioral Issues Investigated

- Context Effects

- ~ Haaijer, Wedel, Vriens, Wansbeek (1998) formulate a model with covariance structures across choice sets or within choice sets, and interpret the differences between those models as reflecting local and background contrast effects, where the latter are found to be much stronger

- Attitude Accessibility

- ~ Haaijer, Kamakura and Wedel (2000) incorporate response latencies in the covariance of individual differences, and interpret results in terms of differences in attitude accessibility. Response times were found to indicate accessibility, but the direction of the effect depends on task specifications

- Evolution of Consumer Utility

- ~ Liechty, Fong and DeSarbo (2004) and Otter (2004) propose switching-regime models, that allow the importances of attributes to change at discrete points in time during the task, presumably reflecting learning. Switch-points in consumer preference formation were found, indicating that preferences evolve during the course of the task.

# Behavioral Issues Investigated

- Non-compensatory decision processes
  - ~ Gilbride and Allenby (2004) accommodate conjunctive, disjunctive and compensatory screening rules by allowing individual level cutoffs for the attributes and reveal evidence for individual level screening.
- Inferences on missing attributes
  - ~ Bradlow, Hu and Ho (2004) model how respondents infer missing levels of product attributes by developing a learning based imputation model and show that consumers construct, rather than retrieve part worths.

# Summary

- Rather than being a tool for assessment of preference structure based on economic utility maximization, conjoint choice analysis recently seems to become a tool to represent and investigate behavioral theories in consumer choice
- The experimental nature of conjoint choice tasks lends itself very well to investigate behavioral theories, and fits well in the behavioral research tradition
- The full potential of conjoint choice experiments in that respect still remains untapped. Research is needed that is based on foundations and recent developments in behavioral decision theory, and involves collaboration of researchers in consumer behavior and statistical modeling

# Some Opportunities for Research

- Can different decision rules be untangled through theory & design?
- Can preference evolution be untangled through theory & design?
- How do people chose hedonic products?
- What is the role of brand equity, perceptual, attitudinal and esthetic variables?
- How do people deal with attribute uncertainty?
- What is the role of context and uncertain attributes?