

**J. L. Kellogg Graduate School of Management  
Information Processing Seminar**

Fall 2007  
12:30-3:30 Tuesday

Professors Tybout and Sternthal

This course examines how people process information as a basis for making judgments. Among the issues discussed are how people acquire information from external sources, how such information is related to prior knowledge, and how this store of knowledge guides judgments.

The goal of the course is to provide a theoretical foundation for understanding how people make judgments and to suggest how theoretical notions might be tested experimentally. We shall discuss the criteria for a rigorous test of theory and consider when a research program has made sufficient progress to warrant publication. The course is NOT intended to provide a comprehensive survey of extant knowledge in consumer behavior, nor does it offer an exhaustive analysis of the particular topics that are covered. Instead, the goal is to develop general theoretical notions and methodological skills that students can then apply to any behavioral science topic that interest them.

The course is divided into two segments. The first five weeks will cover foundational material about how people make judgments. The second five weeks will focus on special topics (context effects, expertise, and depletion) as vehicles for enriching your understanding of how people make judgments.

**Course materials: Readings posted on course website**

**Assignments:**

The written assignments are designed to build your skills as you progress through the course. In addition to the written assignments listed below, you will be called upon to prepare brief presentations for the class from time to time. Your class participation will count for 25% of your grade.

- 1) **Assignment 1:** Critique an assigned article. The article distributed in the second class and your critique will be due at the start of the third class. (15% of grade)
- 2) **Assignment 2:** Prepare a response to reviewers for Grant and Tybout (2005). This assignment is due at the start of the fifth class (20% of grade).
- 3) **Assignment 3:** Develop a research proposal on a topic of your choosing. The proposal should include four sections: 1) An introduction section that identifies the problem, sketches what is known about it, and indicates the gap that is being filled by the present research, 2) A review of the literature in a manner that motivates the current inquiry and indicates the advance made if the predictions were to be sustained by the data, 3) A description of the method including the stimulus, procedure and measures and 4) A graphical display of the predicted

findings and an explanation for these findings in theoretical terms. The first two sections should be about 10 pages in length and the entire paper between 15-20 pages. A rough outline of your research idea should be submitted in Week 8 for approval and feedback. You will present your proposal in class in Week 10 and a final version of the proposal is due that day. The proposal will count for 40% of your grade.

## Weekly Outline

- |                          |   |  |
|--------------------------|---|--|
| 1. Oct. 2 <sup>nd</sup>  | Theory and Method in Consumer Research (Tybout)                               | Posted readings                              |
| 2. Oct. 9 <sup>th</sup>  | Memory as a Tool (Sternthal)  | Posted readings                              |
| 3. Oct. 16 <sup>th</sup> | Memory as a Tool (Sternthal)<br>Memory Organization & Categorization (Tybout) | Posted readings<br><b>Assignment 1 Due</b>   |
| 4. Oct. 23 <sup>rd</sup> | Memory Organization and Categorization (Tybout)                               | Posted readings                              |
| 5. Oct. 30 <sup>th</sup> | Attribution Theory and Managing The Journal Review Process (Tybout)           | Posted readings<br><b>Assignment 2 Due</b>   |
| 6. Nov. 6 <sup>th</sup>  | Context Effects (Sternthal and Tybout)  | Posted readings                              |
| 7. Nov. 13 <sup>th</sup> | Regulatory Depletion (Sternthal)  | Posted readings                              |
| 8. Nov. 20 <sup>th</sup> | Meta-cognition (Sternthal)  | Posted readings<br><b>Draft Proposal Due</b> |
| 9. Nov. 27 <sup>th</sup> | The Future of Consumer Research (Tybout)                                      | Posted readings                              |
| 10. Dec. 4 <sup>th</sup> | Student Presentations   | <b>Assignment 3 Due</b>                      |

## **Week 1: Course Introduction Class Preparation**

### **Ferber 1977**

What is the perspective that Ferber adopts? (E.g., economist, statistician, or psychologist; theoretician or practitioner).

What does that perspective assume will be generalized?

What role do relevance, sample size, and representativeness play in theoretical research?

The issue of student subjects continues to be a concern in the literature (see Peterson 2001 and Wells 2001)

### **Calder, Phillips, & Tybout 1981**

How does the CPT framework address Ferber's concerns?

What role does internal validity, construct validity, and external validity play in research intended for effects application versus theory application?

How is construct validity established? What is the relationship between internal validity, random assignment, and construct validity?

Can you determine whether a particular research design will yield results with high construct validity a priori (i.e., before the study is run)?

How do studies designed to test theory differ from those designed to test theory-based interventions? (See Tybout, Calder & Sternthal 1981 as an example of an intervention test.)

What is the philosophical rationale underlying effects application and how does it differ from the one underlying theory application?

### **Tybout, Calder & Sternthal 1981**

What are the strengths and weaknesses of this study from the standpoint of an intervention falsification?

### **Lynch 1982**

Does Lynch endorse Ferber's view of the value of statistical sampling in achieving "externally valid" or generalizable results?

How would CPT respond to Lynch's observation regarding background factors and the threat that they pose to external validity?

### **Sternthal, Tybout & Calder 1987**

Are manipulation checks and cognitive response measures necessary for a rigorous test of theory?

Why *wouldn't* you include manipulation checks, cognitive response measures, and measures of background variables in a study?

When is a theory test judged to be adequate according to the comparative approach?

Why might journal reviewers resist judging research using the comparative approach?

### **Sternthal, Tybout & Calder 1994**

Why might a "*post hoc*" explanation be preferred to an "*a priori*" one?

When selecting multiple dependent measures in theoretical research, what should be the criterion for choosing these measures?

### **Calder & Tybout 1987**

What makes the position outlined in this paper controversial?

How do the three types of knowledge relate to each other?

### **Wells 2001 and Peterson 2001**

These articles are included primarily to illustrate that debates/misunderstandings related to the issues discussed in the earlier paper listed above continue. (Don't worry if you don't understand the meta-analysis discussed in the Peterson article—just try to understand the underlying logic.)

## **Week 2: Memory as a Tool Class Preparation**

What is the theoretical advance represented by Cacioppo and Petty, Anand and Sternthal, Meyers-Levy, Malaviya and Sternthal and Van Osselaer and Janiszewski? On the basis of these articles, develop a description of how people use persuasive communication information in making judgments.

### **Cacioppo and Petty 1979**

What is the main finding of exposures on attitude?

How is this outcome explained? What is the construct represented by repetition (page 106)

Why are exposure effects attenuated or obliterated when measurement immediately follows stimulus presentation?

Why use zero reps along with 1, 3, 5?

What do you make of the thoughts measure? Why is it included and what inferences does it allow?

Are attitude and recall measures indicators of the same construct or different constructs?

### **Anand and Sternthal 1990**

What is the main finding of the study?

How are these outcomes explained?

Why is Cacioppo and Petty's version of two-factor theory superior to Berlyne's view? Why is the opposite true? Try explaining Smith and Dorfman's findings using Cacioppo & Petty's notion of elaboration.

What contribution does the pilot study make to the findings? It shows hook with music is more difficult than read but easier than music. What other explanation would be viable?

Is a manipulation check always needed? Is it needed for repetition less than for say complexity, or is it always needed?

### **Meyers-Levy 1991**

The design of the experiment involves 3 levels of ad claim set size (8,4,2) and 3 levels of processing focus (relational organizer, item image, and no focus control) about an apartment. What constructs do these variables represent?

Why have a no processing focus control group? When is such a group warranted or should a no treatment control be included in all experimental investigations?

Why vary what is at 2, 4 and 8? Why not just one –safety 2, aesthetics 4 and convenience 8?

### **Malaviya et al., 1996**

This study varies the context (competitive, unrelated) and the message type (image, attribute) on judgments. What is the main finding and how is it explained?

Meyers-Levy argues that item-specific processing guides judgment. Malaviya contends that it is item and relational processing that affect judgment. What explains this discrepancy in view? Examine Meyer-Levy's attitude data in attempting to reconcile the differences ( page 365).

It would seem that both item-specific and relational processing is not operative in Cacioppo and Petty's study. Does this compromise the adequacy of Malaviya's explanation?

### **Van Osselaer and Janiszewski, 2001**

This study suggests that individuals engage in two types of processing when learning about brand features. Describe each type of learning and when each is likely to occur.

Evaluate the adequacy of the evidence offered in support of the notion that there are two types of learning processes.

### **Rethans, Swasy and Marks 1986**

What is the logic for including knowledge, time and repetition as the independent variables? In general, after you have selected one independent variable, what is the strategy for selecting other independent variables?

Examine the effect of the treatments (the independent variables) on attitudes. Although these effects are not significant, assume for the moment they are and explain the pattern of data they represent.

What is the effect of presenting the focal ads in a program context? What effect would you theorize that the spacing of the ads might have on respondents judgments? What outcome would you anticipate if the target ads were massed rather than spaced?

## **Week 3: Memory as a Tool: Effects of Resource Allocation**

### **Memory as a Tool: Limited Processing**

The material we reviewed to this point examines information processing notions under conditions of moderate to substantial cognitive resource availability. How do message recipients process information under conditions of impoverished resources? The papers by Petty, Cacioppo and Schumann, Sujan, and Meyers-Levy address this issue.

#### **Petty, Cacioppo and Schumann 1983**

In reading Petty et al. closely examine the stimulus material they used. How were the various message cues (source, assertion and support) arrayed on the page? What insight does this provide about the outcomes obtained? What is the role played by argument strength and source? Do they have theoretical status? If so, what construct(s) do they represent? What is the construct represented by central and peripheral processing? Is it possible that source is central and message arguments are peripheral? Is it possible that both are central? When you have a three-factor design, what is the level of effect expected (main, two-way, three-way)?

#### **Sujan 1985**

What do Sujan's findings suggest about how experts make judgments? What do they tell you about novices? According to Sujan, how do novices become experts? We questioned the value of valenced thoughts, noting that these were only different in method from scaled attitude measures. Does the same concern apply to Sujan's thought measures? Explain why there is an inconsistency in the inference about the extent of processing that emerges from the thought and attitude data.

#### **Roehm and Sternthal 2001**

What does this article contribute to our understanding of how novices become experts? Which other strategies can novices use to enhance their expertise? What effect would a positive mood have on expert's judgments when they allocated substantial resources to the processing task?

#### **Meyers-Levy and Peracchio 1995**

What advance does Meyers-Levy and Peracchio's view represent in relation to Anand and Sternthal's view of resource matching? What construct is represented by color, color highlighting and black and white?

#### **Gilbert, 1991**

What is Gilbert's view of how memory operates? What is the implication for consumer research?

**Meyvis and Janiszewski 2002**

Provide a critique of this article. What is learned from the empirical work? Describe the process that accounts for dilution effects. Develop a follow-up study to further the theoretical account of dilution effects.

## **Week 4: Memory Organization and Categorization Class Preparation**

### **I. Types of Categories**

#### **A. Taxonomic: Rosch 1977**

What is the function of taxonomic categories?

How are taxonomic categories constructed?

How do superordinate, basic, and subordinate categories differ?

#### **B. Barsalou 1991** (Focus on sections I, II: The remainder of the article may be skimmed)

What is the function of goal-derived categories?

How are goal-derived categories constructed?

What predicts membership in a goal-derived category?

### **II. Categorization Processes: Cohen and Basu 1987**

Cohen and Basu offer a framework for classifying models of categorization that is based on three dimensions; (1) the category representation, (2) whether the comparison process is analytic/nonanalytical, and (3) whether the comparison process is automatic/deliberate.

Does this framework pertain to taxonomic or goal-derived categories?

What is your evaluation of this framework?

What construct(s) do you think underlies the dimensions of the framework?

### **III. Implications of Categorization**

A. Schema Congruity (i.e., the match or overlap between an individual's knowledge and new information) and Evaluation

#### **1) Mandler 1982**

Mandler predicts an inverted U relationship between schema congruity and evaluation. What is the process that he argues underlies this relationship?

Specifically, what factors may contribute to the positive response to moderate incongruity?

How is Mandler's theorizing similar to/different from Berlyne's and Petty and Cacioppo's (discussed in Session 2)?

## 2) **Meyers-Levy and Tybout 1989**

This research draws upon Mandler's theorizing to develop the hypotheses and Rosch's notions of taxonomic categories to operationalize the levels of congruity.

What construct(s) underlie the independent variables in Experiment 1?

Why are the results for dogmatics in Experiment 1 observed irrespective of the level of dogmatism in Experiments 2 and 3?

Do the measures added in Experiment 2 (recall and cognitive response) and Experiment 3 (reaction time and certainty) rule out any rival explanations that would be viable if only evaluations were measured? If so, what were these explanations?

The effects on evaluations are reliably stronger at post-taste than at pretaste. Does this mean that the post-taste findings are somehow confounded? Why might stronger effects emerge at post-taste?

## 3) **Peracchio and Tybout 1996**

This paper is a replication and extension of Meyers-Levy and Tybout 1989.

How and why does the effect of schema congruity vary as a function of expertise?

What conditions must exist to observed process-generated affect?

## 4) **Maoz and Tybout 2002**

This paper is also a conceptual replication and extension of Meyers-Levy and Tybout.

How do the findings of this research qualify Mandler's theorizing?

What further insight into process-generated affect is gained?

## 5) **Campbell and Goodstein 2001**

In this paper the authors report 3 experiments demonstrating that the advantage of moderate incongruity is limited to low risk situations. Can you think of conditions

under which the advantage of moderate incongruity might emerge despite some significant level of risk?

6) **Garbarino and Edell 1997**

How do the findings of this study extend the analysis of process-generated affect?

7) **Ratneshwar, Pechmann, and Shocker 1996**

When will consideration sets be taxonomic (within product type) and when will they be goal-derived (across product type)?

What is there a plausible rival explanation for the authors' interpretation of their findings?

8) **Poynor and Diehl 2007**

This paper served as the basis for a job talk on September 26<sup>th</sup>. Assess its contribution to the categorization literature.

## **Session 5: Attribution Theory and Managing a Paper through the Review Process**

This week's session will be divided into two parts. In the first half of class, we will discuss. To prepare, you should begin by reading the Folkes 1988 paper. It provides a general perspective, describing the key propositions and findings in this literature and offering an overview of consumer research on the topic.

Next, you should read three papers that utilize some general principles related to Attribution Theory: Folkes 1984 paper, Tybout, Sternthal and Calder 1983, and Tybout and Scott 1983 paper. Pick one of these papers, evaluate its contribution and offer a suggestion for extending the work, perhaps by linking the research to another stream of literature.

The final two attribution papers (Bem 1972, Darley and Pittman 2003) are posted as resource papers. I encourage you to read them, if not in the next week, sometime during your studies.

In the second half of class, we will discuss how to manage a paper through the review process. Grant and Tybout (2005) draws on notions of attribution theory in hypothesizing about how temporal frame affects the information used to form an evaluation. This paper is followed by the initial review feedback that we received from JCR. Read through these documents and then write a brief document (3-5 pages) summarizing how you would recommend the authors respond to these reviews. Be as specific as possible. After we discuss the reviews, I will provide a copy of the revised paper and the revision note.

## **Week 6: Context Effects in Judgment**

### **Herr 1989**

1. Under what conditions does Herr observe an assimilation effect and under what conditions does he find contrast. How does he explain when each of these outcomes occurs. Is assimilation or contrast considered to be the default option (that is, the one decision makers are likely to follow more naturally)?
2. Herr anticipated that extremity would moderate the findings on the basis of his previous research. How does he explain the failure to replicate this outcome in Experiment 1?
3. In Experiment 1, Herr uses gender as a moderator to support his theorizing post hoc. In Experiment 2, he finds additional support for his theorizing, using a measure of extent of prior knowledge. Which procedure is more rigorous and does Experiment 2 make his test more compelling?

### **Martin and Seta 1990**

4. Under what conditions does Martin find assimilation and under what conditions does he find contrast? How does he explain these outcomes? Is assimilation or contrast the default option?
5. Can Martin's theorizing be used to explain Herr's findings? Can Herr's theorizing be used to explain Martin's data?

### **Meyers-Levy and Tybout 1997**

6. Martin observes assimilation for low need for cognition (NFC) respondents and contrast for high NFC. Meyers-Levy and Tybout report both assimilation and contrast for high NFC respondents on the evaluation measure. They also find assimilation and contrast irrespective of NFC on their features measures. How do you reconcile these seemingly disparate outcomes?
7. Critics of current assimilation contrast research argue that the demonstration of these phenomena is compromised the absence of a no prime control group. Inclusion of such a group along with, say, a positive and negative prime would better document whether judgments are more attributable to the positive or negative prime.
8. Meyers-Levy and Tybout measure judgments both before and after respondents sample the product. Stronger effects emerge at posttaste. How would you explain the presence of stronger effects at posttaste? Does the taste experience compromise Meyers-Levy and Tybout's explanation of their results?

### **Petty and Wegener 1993**

9. What is Petty and Wegener's key finding and what contribution does it make to work on assimilation and contrast? Under what conditions might you expect spontaneous contrast versus spontaneous assimilation.

**Stapel, Koomen and Zeelenberg 1998, Moskowitz and Skurnik 1999**

10. How do Stapel and Moskowitz explain contrast effects? What are your conclusions about the preconditions underlying when contrast is due to comparison and when it is due to correction?

**Raghunathan and. Irwin 2001**

11. Describe the key findings reported by Raghunathan and Irwin. What explanation do they offer for these findings? Can you develop another account for these data?

**Schwartz and Bless, 2005**

12. This paper provides a review of work on context effects. How does the inclusion/exclusion model account for assimilation, comparison contrast and correction contrast effects? What factors determine which of these effects is likely to occur?

## **Week 7: Regulatory Depletion**

### **Carver and Scheier 1998**

Describe the feedback model for self-regulation developed by Carver and Scheier.

### **Muraven, Tice, and Baumeister 1998**

Describe the regulatory depletion effect. How does the Strength model explain this outcome? What sort of demonstration would be required to falsify this view? How would Carver and Scheier's feedback control system account for regulatory depletion effects?

### **Vohs and Schmeichel 2003**

What advance is made by Vohs and Schmeichel in explaining regulatory depletion effects? Are their findings consistent with the Strength model? Can their results be explained in terms of Carver and Scheier's feedback view?

### **Baumeister, DeWall, Ciarocco, and Twenge 2005**

Are the findings reported in this paper consistent with the strength model? Are they consistent with Carver and Scheier's feedback model?

### **Gailliot, Baumeister, Dewall, Maner in press**

What are the implications of Gailliot's finding for the strength model and the feedback model of self-regulation?

### **Snyder 1974**

What impact would variations in self-monitoring have on the regulatory depletion effect?

On the basis of your reading of the regulatory depletion literature, develop a theoretical view that describes the process by which depletion occurs and anticipates how it may be overcome.

### **Vohs and Faber 2007**

Identify strategies for limiting the effects of depletion on consumption. What other implications for consumption are implied by depletion effects?

## Week 8: Meta-Cognitive Judgments

### Content and Process-Based Judgments

Judgments depend not only on stimulus content, but also on individuals' reflections on the process by which judgments are made. Three papers are assigned that are relevant to this topic. **Schwarz (1998)** provides a review of literature. It documents the notion that the ease with which a decision is made is a meta-cognitive process that affects judgments. The **Wanke, Bohner and Jurkowsch (1997)** paper illustrates the experimental procedures used to demonstrate the ease effect, and the **Tybout et al. (2005)** paper explores conditions under which judgments are made on the basis of ease (process) and when they are made on the basis of content. In reading these papers, think about what factors other than prior knowledge might affect whether judgments are content or process based.

### Regulatory Mode and Regulatory Fit

Fit between individuals' goals for self-regulation and the means by which those goals are pursued can influence the judgments made: Fit produces a subjective experience that affects judgments. This prediction is referred to as the fit hypothesis. We examine this hypothesis in the context of regulatory mode. This entails an assessment of when individuals' regulatory goals fit with an information presentation that involves locomotion, which is characterized by movement from state to state, and when there is fit with a presentation that involves assessment, which is characterized by the opportunity to make comparisons. The **Kruglanski et al. (2000)** paper presents an overview of the regulatory mode concept. **Avnet and Higgins (2003)** report an empirical test of the fit hypothesis by documenting the correspondence between a goal involving regulatory mode and a mode means of goal pursuit. **Wan, Hong and Sternthal** document that there is fit between two disparate regulatory orientations: a regulatory focus goal orientation and a mode means of goal pursuit. What evidence is there for considering regulatory focus and regulatory mode to be disparate constructs. Finally, the paper by **Gollwitzer, Heckhausen and Steller (1990)** reports another perspective that is closely related to regulatory mode. Assess how mode and mindset correspond, and what additional insight emerges from the mindset notion.

## **Week 9: The Future of Consumer Research**

In this session we consider the question of progress in consumer research—is progress possible and what would it be like? We also return to the methodological issues raised at the outset of the course and contrast the approach to consumer research covered in this seminar with an alternative approach—sometimes labeled postmodern or qualitative consumer research.

### **Wells 1993**

Wells is clearly disappointed in what consumer researchers have accomplished to date. Why? What criteria is Wells using to judge progress in consumer research?

Wells offers five guidelines for increasing the contributions and progress made by consumer researchers. What are the merits and limitations of each of these guidelines?

Consider the suggestion that consumer researchers should begin with how the research results will be implemented and “research backwards” (Guideline 5). Try to adopt this approach and design a study that you would consider it worthwhile to conduct. (You need only be prepared to sketch such a study in broad terms.)

### **Lodish, et al 1995**

You need to only SKIM this paper to gain a general sense of the methodology and the conclusions drawn. Don't spend time trying to digest all the details of the analysis because we won't discuss the technical aspects of the analysis.

Instead, think about how this type of research fits with Wells' objectives and guidelines for consumer research. Is this the type of work that Wells would like to see more of? Why or why not?

### **Petty and Cacioppo 1996**

Petty and Cacioppo offer a response to the criticisms of consumer research presented by Wells (and others). On what grounds do they defend student subjects and lab settings? How do they respond to the charge that theory testers rarely abandon their theory when they obtain unexpected results (i.e., null effects or effects that were not anticipated)? Is Petty and Cacioppo's position consistent with a Comparative Approach to theory testing?

### **Winer 1999**

The debate about the role of external validity and theory applications continues. In this paper Winer suggests that laboratory studies be complemented by scanner panel studies to enhance the external validity of the findings. He offers three specific examples to

support his argument. How would Calder and Tybout respond to Winer's article? How would you respond?

### **Hilton 1995**

This paper serves as general background reading for considering BDT research. It makes it apparent that many of the seemingly counterintuitive effects produced in such research are artifacts of norms of communication and, thus, are of limited theoretical interest. The challenge for BDT research is to turn attention to the theoretically interesting preconditions for observing various effects.

### **Denzin 2001**

Denzin offers a postmodern view of research and the possibility for progress. How would you respond to this paper?