

# Emerging Perspectives in Decision Making

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Joel Huber, Duke  
John Lynch, Duke  
Drazen Prelec, MIT  
Teck Ho, UC Berkeley

# The Meanings of “Emerging” (Webster’s Dictionary)

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- Calling for prompt action: urgent
- Arising as a natural or logical consequence
- Newly formed or prominent

# The Meanings of “Emerging” (Ho Dictionary)

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- ❑ What ever Drazen, Joel, John, and Teck say and like
- ❑ Integrates and improves on existing paradigms (e.g., more accurate predictions)
- ❑ Appeals to a larger set of audiences (behavioral, empirical, and analytical researchers)

# Discussion Agenda

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- ❑ Non-Conscious Goal Activation: Joel Huber
- ❑ Resource Slack and Discount Rates for Time Versus Money: John Lynch
- ❑ Behavioral Economics and Marketing: Drazen Prelec
- ❑ Bounded Rationality in Markets: Teck Ho

# Bounded Rationality in Markets (1)

Behavioral Regularities	Standard Assumption	New Model Specification Reference Example	Marketing Application Example
<b>1. Revised Utility Function</b>			
- Reference point and loss aversion	- Expected Utility Theory	- Prospect Theory Kahneman and Tversky (1979)	- Two-part tariff - double marginalization problem
- Nonlinearity in probability	- Independence axiom	- Probability weighted function Prelec (1998)	- Promotion and sales
- Fairness	- Self-interested	- Inequality aversion Fehr and Schmidt (1999)	- Price discrimination
- Impatience	- Exponential discounting	- Hyperbolic Discounting Ainslie (1975)	- Retail markdowns
- Menu-dependent	- Independent of menu	- Ratio of relative advantages and disadvantages Tversky and Simonson (1993)	- Product line design and pricing

# Bounded Rationality in Markets (2)

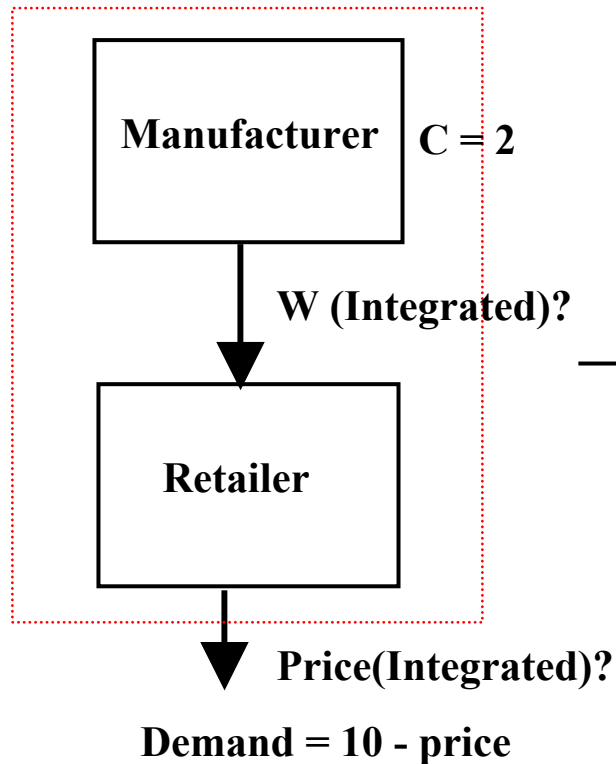
Behavioral Regularities	Standard Assumption	New Model Specification	Marketing Application
		Example	Example
<b>2. Bounded Computation Ability</b>			
- Limited memory	- Unlimited	- Discrete price categories Rubinstein (1993)	- Monopolistic pricing
- Limited Thinking Steps	- Rational expectation	- Cognitive hierarchy Camerer, Ho, Chong (2003)	- Market entry competition
- Myopic and learn	- Instant equilibration	- Experience weighted attraction Camerer and Ho (1999)	- Lowest price guarantee competition

# Example: Design of Distribution Contract

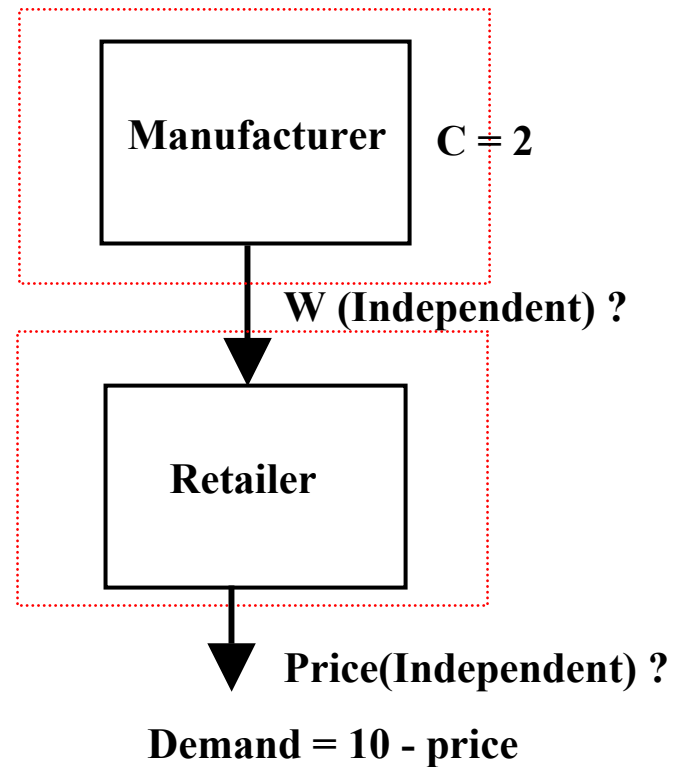
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# Integrated versus Independent Channels

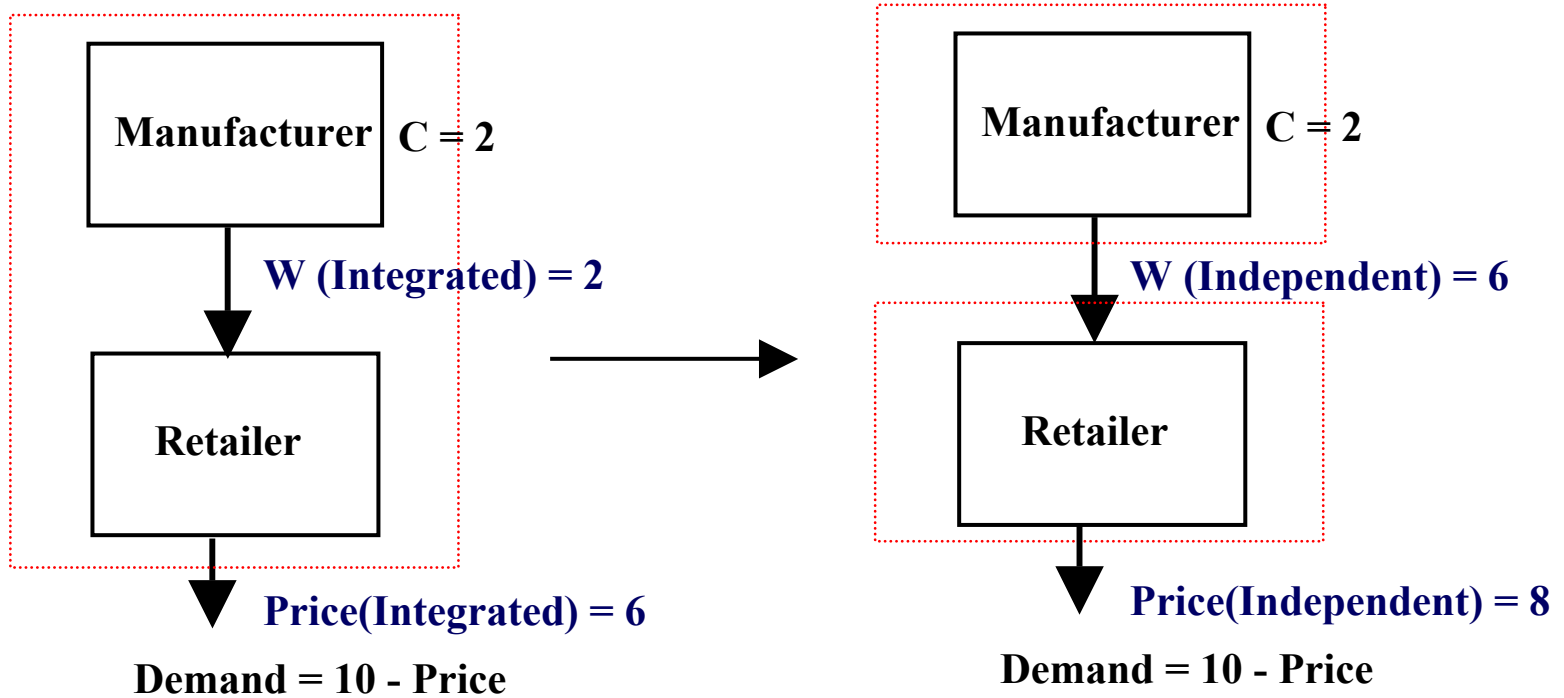
Integrated



Independent

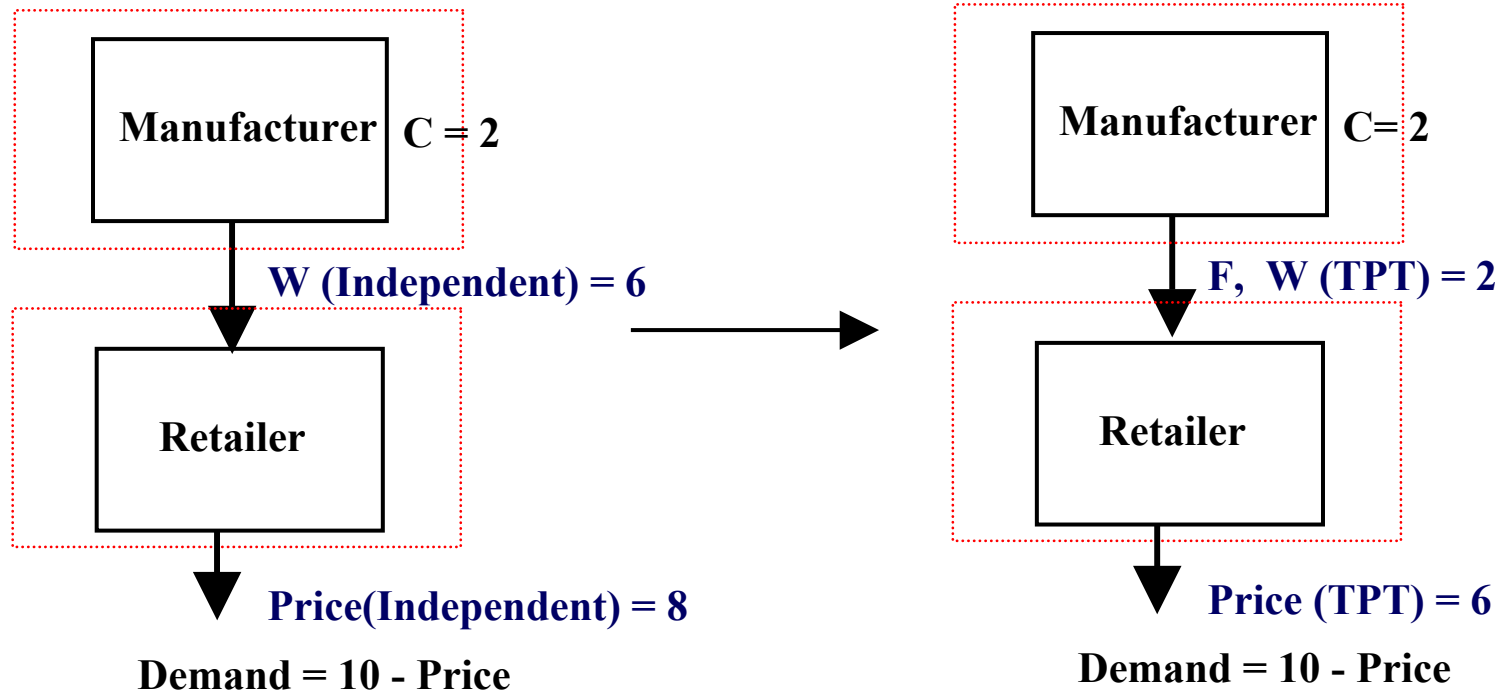


# Double Marginalization Problem



- ❑  $\text{Price (Integrated)} = 6 < \text{Price (Independent)} = 8$
- ❑  $\text{Total Profit (Integrated)} = 16 > \text{Total Profit (Independent)} = 12$

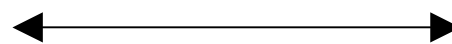
# Solution to Double Marginalization Problem: Two-Part Tariff (TPT)



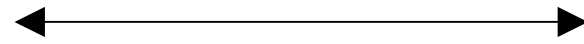
- ❑ Price (TPT) = Price (Integrated) = 6 < Price (Independent) = 8
- ❑ Total Profit (Integrated) = Total Profit (TPT) = 16  
> Total Profit (Independent) = 12

# Standard Theory and Experimental Results

	Theory INDEP W	Data INDEP W	Data INDEP TPT	Theory INDEP TPT
W	6	5.47	4.14	2
Price	8	7.74	6.94	6
Total Profit	12	12.48	14.68	16



No Difference



Significant Differences

# Loss Aversion and Mental Accounting

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- ❑ Up-front payment ( $F$ ) and variable payment ( $w \times \text{Demand}$ ) are kept in two separate mental accounts.
- ❑  $F$  is a loss that is incurred before any sales is realized and at the point where the reference profit is zero.
- ❑ Variable payment is incurred only after each unit of sales is realized.
- ❑  $\$1$  of up-front payment is equivalent to  $\$X$  of variable payment
- ❑ The value of  $\$X$  that maximizes the likelihood of observing the data turns out to be  $\$X = 1.5$



# Necessary Conditions for Generalization to Games and Markets

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- ❑ Simple and precise alternative
- ❑ Can be used as a productive tool to generate testable hypotheses in different settings
- ❑ Explains behaviors better in existing settings
- ❑ Generate interesting predictions in new market settings

# Key Takeaways

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- ❑ This **emerging** perspective spans traditional boundaries between consumer behavior (CB) and modeling (i.e., psychology and economics)
- ❑ The goal is help **you** to answer the question "are you a CB person or a modeler?" with "**both!**"