

Knowing Where to Drop your Anchor - Varying Price Levels and Online Auction Behavior*

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Kashef A. Majid
The George Washington
University
School of Business
kashef@gwmail.gwu.edu

Andrew P. Bryant
The George Washington
University
School of Business
apbryant@gwmail.gwu.edu

Pradeep Rau
The George Washington
University
School of Business
prau@gwu.edu

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THE GEORGE
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Co-Creation of Prices

- E-Commerce has allowed for sellers and consumers to jointly determine pricing through such mechanisms as auctions or online bartering
- Co-creation of prices refers to the ability of consumers and sellers to determine the final price for a product, a seller may set an initial price; however, the consumer determines the final price based on what they are willing to pay
- The ability of consumers to determine the final price of the good or service has been one of the great successes of e-commerce
- For example, the online auction house “eBay.com” reported revenues of \$13 billion in 2010

Challenges of co-creation of prices

- Markets that allow consumers and sellers to co-create the price often contain a high degree of information asymmetry where sellers have greater knowledge of the product than buyers do
- The fear on the part of buyers is to overpay for a poor quality product
- The fear on the part of sellers is to sell a product for less than it is actually worth

Reducing Information Asymmetry

- Sellers attempt to signal to consumers the quality of their product through an array of different mechanisms including: guarantees, pictures, feedback, and certifications (Li, Srinivasan, and Sun 2009)
- The most salient cue however is the price of the good or service (Ariely and Simonson 2003)

Online auctions - an environment of price co-creation and information asymmetry

- The online auction house eBay.com contains millions of members worldwide, it operates an English style auction where items are placed for sale with a minimum bid price and consumers then compete for the item through bidding
- The travel portal “Priceline.com” operates a type of reverse auction format where consumers state the price they are willing to pay and then vendors can choose to accept or reject that price

Price moves in two different directions during co-creation



Interesting Questions

- If price is used as a cue as to the quality of the product then in a situation where price is co-created what impact will varying levels of pricing have on consumer valuations?
- Does the initial price of the product or service impact the final price of the product or service?
- What signals does a low/ high initial price send to consumers?

When progressing from a high price: Will a low initial price impact the valuations of the product/ service?

- Prior work has found that in an online auction format the low price reduces barriers to entry which in turn will foster competition that ultimately raises the price, thus reversing the anchoring effect (Ariely and Simonson 2003; Ku, Galinsky, Murnighan 2006)
- Traditional theory would argue that the low price would not only “anchor” valuations downward (Rao and Monroe 1989) but also raise questions as to the quality of the product/ service
- We argue that a lower price will lead to suspicions of quality and will ultimately anchor the valuation of the product/ service downwards

When progressing from a low price: Will a high initial price impact the valuations of the product/ service?

- Traditional theory would argue that a high initial price indicates a high demand for the product (Monroe 1973)
- Similar to the previous arguments, higher prices are associated with higher quality items (Rao and Monroe 1989)
- We argue that a higher initial price will signal quality and will ultimately anchor the valuation of the product/ service upwards

Exploring the questions of interest

- An experimental design using both the popular online auction house “eBay.com” and the travel portal “Priceline.com”
- Two studies
 - **Study 1** using eBay.com
 - 174 undergraduate business students who participated in exchange for course credit
 - **Study 2** using Priceline.com
 - 101 undergraduate business students who participated in exchange for course credit

Study 1 - Procedure

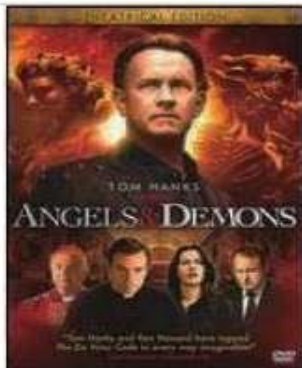
- A graphics designer was brought in to capture the webpage of an item for sale on eBay.com and manipulate both the number of bidders and the price of the item
- A DVD of the movie “Angels and Demons” was chosen as the item for sale based on its appeal to the sample
- The dependent variable was consumer willingness to pay for the item

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Stock photo

Angels and Demons (DVD 2009) New / Sealed

*

The Da Vinci Code Angels and Demons

Item condition: **Brand New**

Time left: 8h 56m 13s (Mar 22, 2010 16:42:18 PDT)

Bid history: 10 bids

Current bid: **US \$9.50**Your max bid: **US \$**

(Enter US \$14.00 or more)

Shipping: **\$1.98** US Postal Service Media Mail [See more services](#) |
[See all details](#)

Estimated delivery within 7-14 business days

Returns: 7 day money back, buyer pays return shipping | [Read details](#)

Other item info

Item number: 120543965289

Item location: Marietta, GA, United States

Ships to: United States

Payments: [PayPal](#) [See details](#)
[Share](#) [Print](#) [Report item](#)

Description

Shipping and payments

Last updated on 06:03:49 PM PDT, Mar 17, 2010 [View all revisions](#)

Item specifics - DVDs

Format: DVD
 Leading Role: Tom Hanks
 Release Date: Nov 24, 2009
 UPC: 043396243705
 Region: DVD: 1 (US, CA)

Edition: Theatrical Edition
 Rating: PG-13
 Genre: Action, Adventure
 Sub-Genre: --
 Condition: Brand New

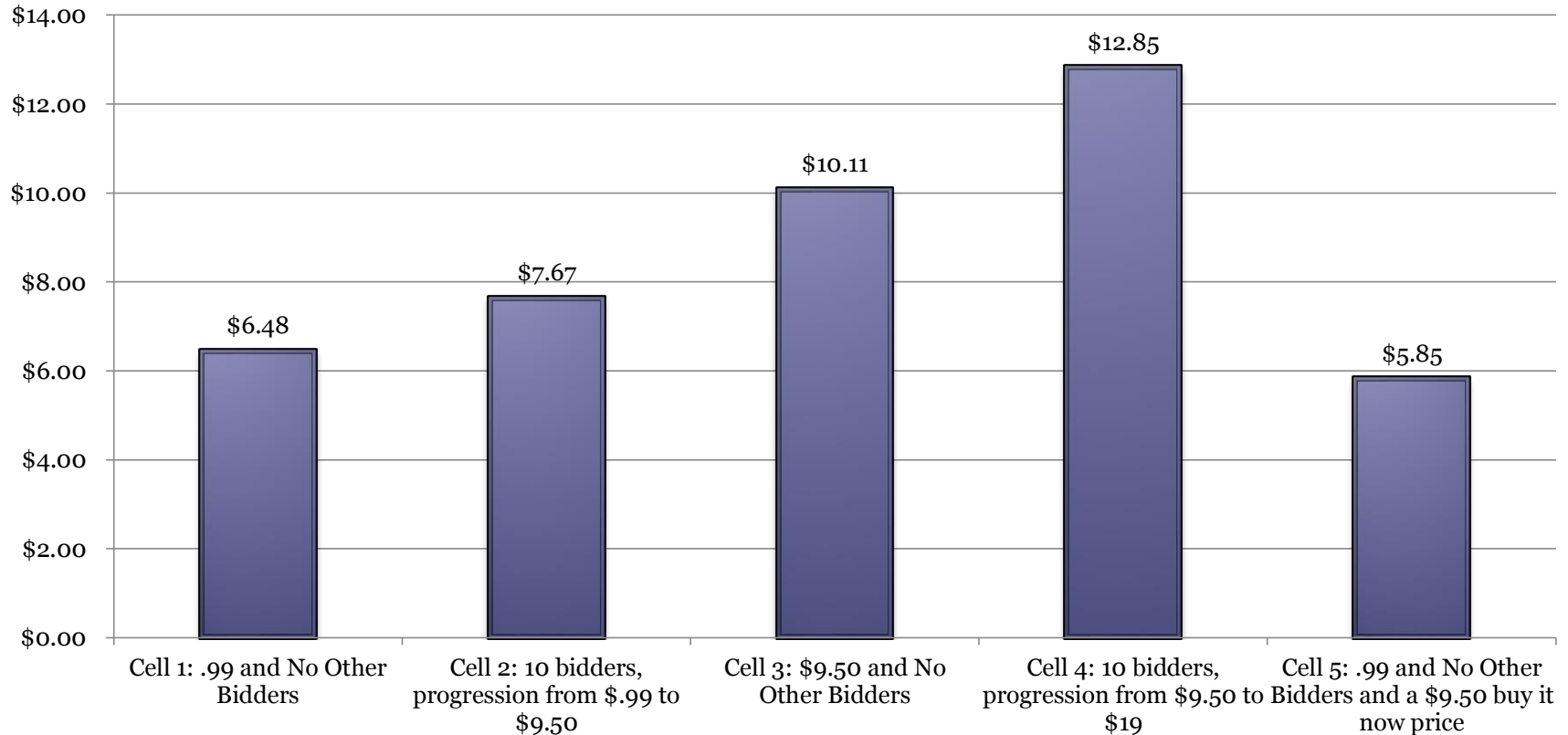
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Study 1 - Design

CELL	Cell 1	Cell 2	Cell 3	Cell 4	Cell 5
Initial Price	\$0.99	\$0.99	\$9.50	\$9.50	\$0.99
Number of Bids	0	10	0	10	0
Final Price Displayed	\$0.99	\$9.50	\$9.50	\$19.00	\$9.50*

* Cell 5 contained a “buy it now” price of \$9.50, this is the price consumers could purchase the item for without competing with other bidders

Results from Study 1



Cell 1 is significantly different from Cell 3 and 4 ($p < 0.05$)

Cell 2 is significantly different from Cell 3, 4, & 5 ($p < 0.05$)

Cell 3 is significantly different from Cell 4 ($p < 0.05$)

Results from Study 1 - Cont'd

- Upon giving their WTP, participants in Cells 1 to 4 were asked to briefly describe how they arrived at the amount they were willing to pay.

	Mean WTP	Percentage of Respondents per Cell			
		Issues of quality were a primary concern	Issues of quality were a secondary concern	Alternative sources for the product were raised	Mention of reference points
Cell 1: \$99, no bidders (cell size: 36)	\$6.48	33%	19%	36%	
Cell 2: \$99 to \$9.50, 10 bidders (cell size: 41)	\$7.67	20%	10%	34%	37%
Cell 3: \$9.50, no bidders (cell size: 36)	\$10.11	8%	14%	50%	
Cell 4: \$9.50 to \$19.00, 10 bidders (cell size: 21)	\$12.85	19%	28%	86%	

Results from Study 1 - Cont'd

- Quality was also assessed quantitatively, participants were asked to rate their perceived probability of the DVD being counterfeit
- Participants in Cell 1 perceived the \$0.99 version of the DVD to have an average perceived probability of 60.77%, this was statistically more than any of the other cells ($F(3, 127) = 2.67595, p < 0.05$), the remaining cells were not significantly different from each other and ranged from 30% to 36%

Findings from Study 1

- In line with the argument presented earlier, when the price co-creation moves from a low price to a higher price the presence of a low initial price anchored the willingness to pay for a product downwards

Study 2 - Procedure

- Similar to Study 1, a graphics designer was brought in to capture the webpage images of Priceline.com and change the reference price
- Participants were asked to bid on a one night stay in a four star hotel in Montreal, Canada
- The dependent variable was consumer willingness to pay for the item

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Name Your Own Price® Hotels in Montreal, QC Fri., Jun 25 - Sun., Jun 27

list view
our most popular hotels

map view
area map of hotels

best deal
Name Your Own Price® - SAVE!

NOTE: Weekend Dates

Save up to Half Off on a Montreal hotel in three easy steps.
 Negotiating the ultimate hotel deal has never been easier. You choose the price, area and star level. We'll find a quality name brand or independent hotel for you in just seconds.

BIG DEAL GUARANTEE
Get the best price guaranteed.

Step 1: Choose where you want to stay
 Choose more than one area in Montreal, QC to improve your chances.

- 1 **Brossard** – detail map
- 2 **Dorval Airport Area (YUL)** – detail map
- 3 **Laval** – detail map
- 4 **Longueuil** – detail map
- 5 **Montreal** – detail map Best deal
- 6 **Pointe Claire** – detail map

Step 2: Choose the star level for your hotel
 Some star levels may not be available in all areas.

- 4-Star Deluxe** ★★★★★ Best deal
- 3½-Star Upscale-Plus** ★★★★★½
- 3-Star Upscale** ★★★
- 2½-Star Moderate-Plus** ★★½
- 2-Star Moderate** ★★
- 1-Star Economy** ★

Step 3: Name Your Own Price® (per room night)
 Total charges, including taxes and service fees, are shown on the next page. You're protected by our Best Price Guarantee.

Name Your Own Price®
Per Room, Per Night (USD)

\$

Median **retail price** for a 4 star hotel in the area selected is **\$190**.

Reservation Name (Age 21 or older)
 Please enter the name of the person who will be checking into the hotel. They must present a valid photo ID and credit card.

Room 1

First: MI: Last:

prev
next

BEST PRICE GUARANTEED

Name Your Own Price® Area Map

See more great deals in nearby areas:
 • **Mont Tremblant, QC**
 • **Ottawa, ON - Hull, QC**

Priceline hotel participants are major national brands or quality independent hotels. We screen participating hotels carefully and update our information constantly to ensure you always receive quality accommodations. We will find you a room in a hotel willing to agree to your price in the shaded area.

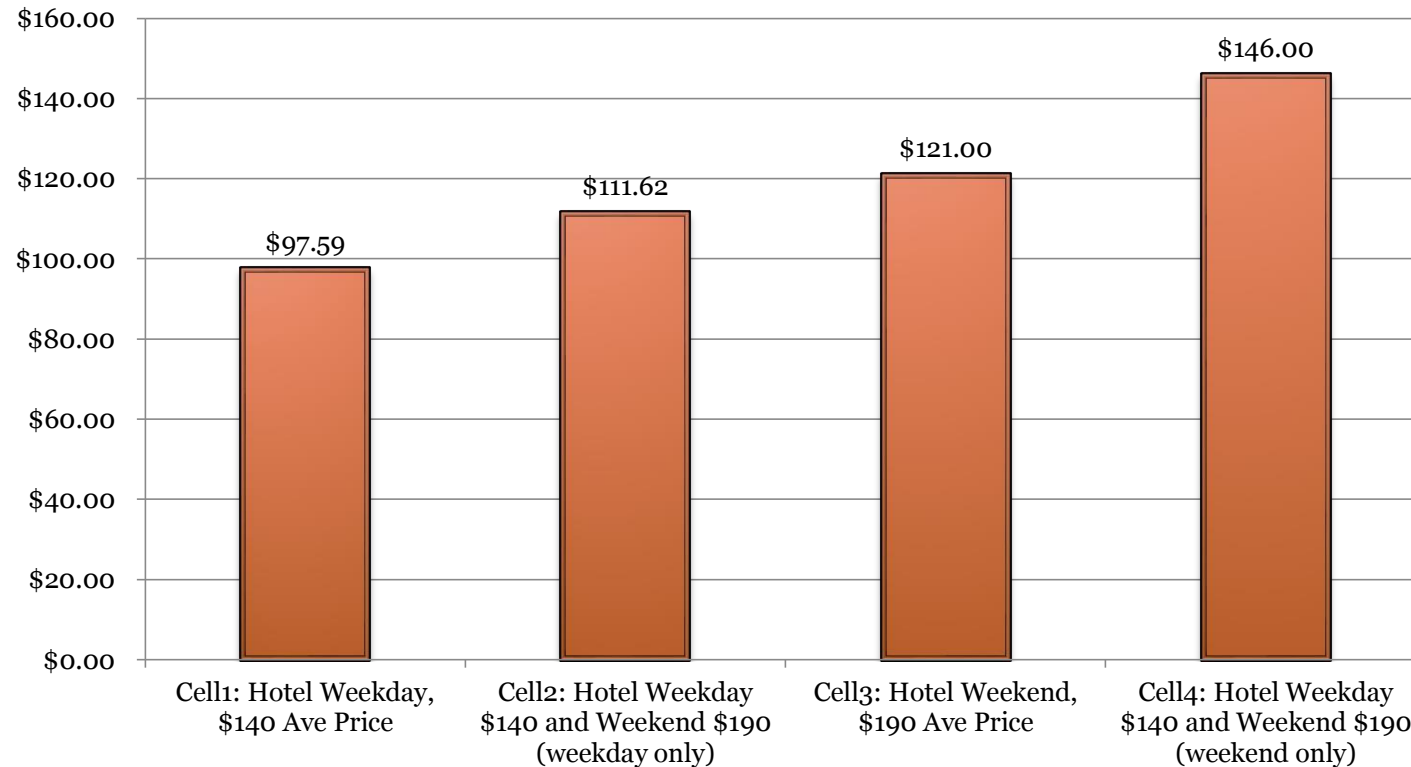
NOTE: The Median retail price for a 4 star hotel in Montreal on the weekend is \$190

*Priceline's Name Your Own Price® reservation service is different from other leading online fixed-price travel sites. With Priceline's Name Your Own Price® reservation service, the exact hotel is shown only after purchase. Percent savings claim above applies to Name Your Own Price® hotel purchases only and are as compared to the lowest published prices shown on other leading online sites for the same hotels and the same dates. There is no guarantee that hotels or prices will be available. Actual prices and availability are always subject to change. All prices and dates may not be available at time of travel booking and savings are not guaranteed.

Study 2 - Design

CELL	Cell 1	Cell 2	Cell 3	Cell 4
Weekday Reference Price	\$140	\$140	Not Given	\$140
Weekend Reference Price	Not Given	\$190	\$190	\$190
Participant asked to provide WTP	Weekday Only	Weekday Only	Weekend Only	Weekend Only

Results from Study 2



Cell 1 is significantly different from Cell 2 ($F(1, 90) = 7.46, p < 0.05$)

Cell 2 is significantly different from Cell 3 ($F(1, 89) = 13.51, p < 0.01$)

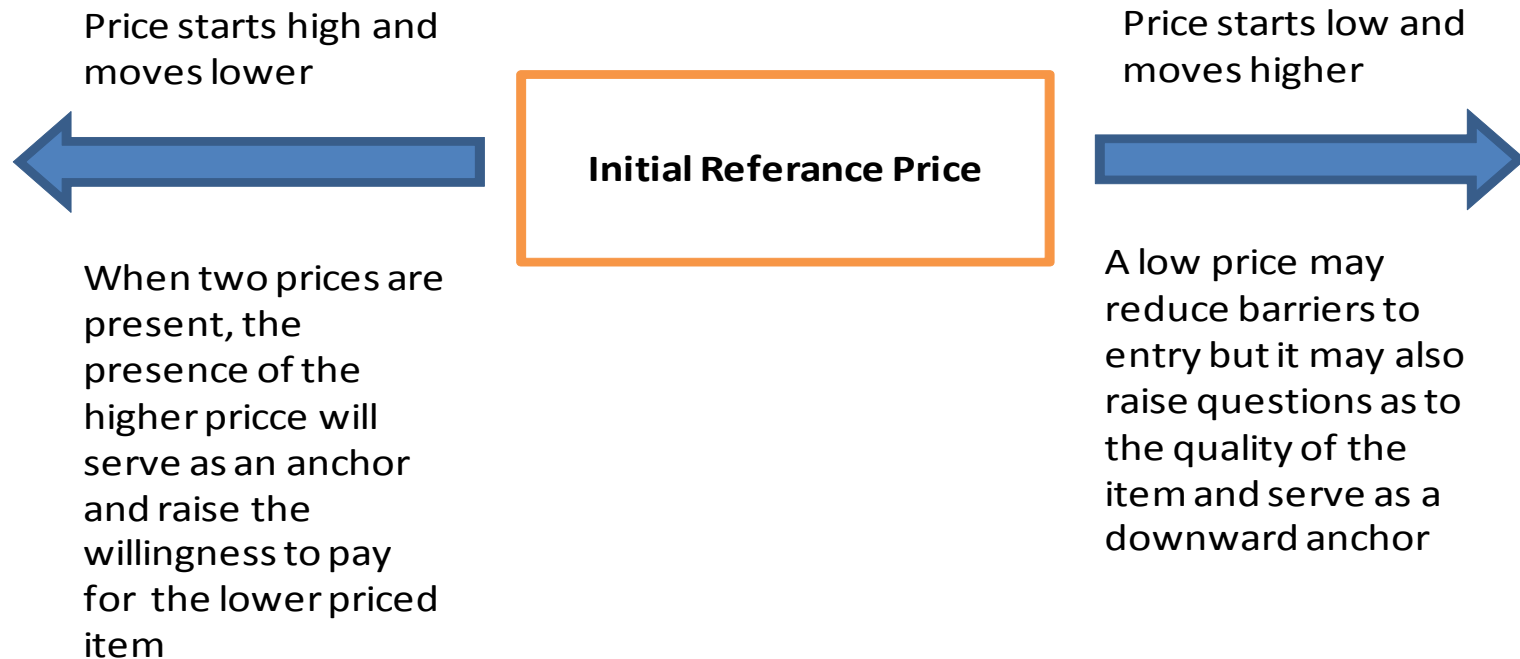
Results from Study 2 - Cont'd

- Quality perceptions were measured with a single item measure where participants were asked to state their perceived concern with the quality of the hotel on a five point likert scale (very concerned to not at all concerned)
- No significant differences were found between cells, the mean ratings ranged from 4.12 to 4.18

Findings from Study 2

- When two prices were present, a low and a high price the presence of the high price anchored the willingness to pay upwards
- Participants that were exposed to both a high price and a low price then asked to bid on the low priced item would state a higher amount than if they only viewed the low price

Implications and Summary



Future Research

- Replicating the English style auction using a different product category where quality may not be as big a concern
- Manipulating the level of quality with the reverse style auction, in our study we used only four star hotels, future studies may explore the effects with a two star hotel

Conclusion

- How much would you pay for a night at the Hilton Austin if:



Thank you!
Questions? Comments?

Kashef A. Majid
The George Washington University
School of Business
kashef@gwmail.gwu.edu