Why I Chose the Product I Didn't Want? The Undesired Impact of Recommendation Badge



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Motivation

- Amazon's Choice has become controversial and drawn public concerns since 2019
- More than 10 social medias published articles questioning this:
 - "Amazon's Choice" Does Not Necessarily Mean A Product Is Good (BuzzFeed, Jun 2019)
 - "Amazon's Choice" Isn't the Endorsement It Appears (WSJ, Dec 2019)
 - What Does "Amazon's Choice" Actually Mean? (Reader's Digest, Apr 2021)
 - Amazon Puts Its Own "Brands" First (The Markup, Oct 2021)
 - Amazon copied products and rigged search results to promote its own brands, documents show (Reuters, Oct 2021)

Recommendation Badge -- Nudge

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Nudge: a choice architecture (Thaler and Sunstein 2009)

Alters individual's behavior in a predictable way

Preserves all the available options

Keep the same economic incentives



Nudge people to use stairs (anchoring and reminding)

The Decoy Effect:

Introduction of a third option into the choice set that helps to "nudge" customers toward selecting a particular product by making one option look better than the others.

Large: \$7.99

Medium: \$6.99

Small: \$3.99



- "Best Seller" on Amazon.com
- "Amazon Choice" on Amazon.com
- "Our Picks For You" on Dsw.com
- "Best Delivery" on Yelp.com
- "Top pick" on Bestbuy.com
- "Only @Best Buy" on Bestbuy.com

• ...







Birkenstock Arizona Slide Sandal - Women's \$109.96

★★★★★ (1072)







QUICK ADD

Off-White
Low Vulcanized Canvas Sneaker...
\$149.99
Comp. value \$330.00

Comp. value \$330.00

★★★★★ (30)





Time Off Platform Sneaker \$69.99 Comp. value \$100.00 ★★★★ (402)



Birkenstock Arizona Essentials Slide Sandal \$49.96 – \$54.96 Comp. value \$55.00

★★★★★ (723)



Portable-Charger-Power-Bank - 40000mAh Power Bank PD 30W and QC 4.0 Quick Charging Built-in LED Display 2 USB...

★★★★☆ ~ 1,815

\$4999

✓prime Overnight
FREE delivery Overnight 4 AM - 8 AM



UYAYOHU Portable-Charger-Power-Bank - 15000mAh 2 Pack Power Bank Dual USB Output 5V3.1A Fast Charging Portable...

**** × 819

\$25⁹⁹

Save 20% with coupon

√prime

FREE delivery Thu, May 25



Only @ Best Buy

Energizer - Ultimate Lithium 20,000mAh 20W Qi Wireless Portable Charger/Power Bank QC 3.0 & PD 3.0 for Apple, Android, USB Devices - Black

Model: QE20007PQ SKU: 6498854

☆☆☆☆☆ (389)

Get it today

Pickup: Available today at Jersey City
Act Fast - Only 2 left at your store!
See all pickup locations

FREE Shipping: Get it by tomorrow See all shipping options for 07097

Compare Save

\$69.99

😾 Add to Cart

Open-Box: from \$47.99

Ambiguous vs. Specific Recommendation Badge

Ambiguous badge is generated by AI/ML algorithms. (i.e., Amazon's Choice)

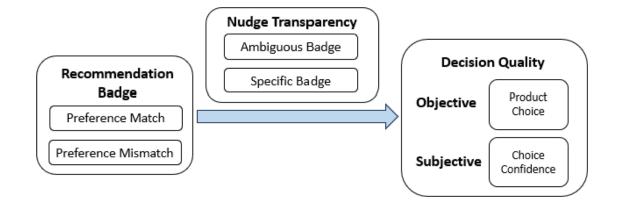
- inner workings are NOT fully <u>transparent</u> and <u>explainable</u>; <u>consumers don't know the</u> <u>features driving the placement</u> <u>of the badge</u>.
- can be adjusted in real-time
- placement is unpredictable

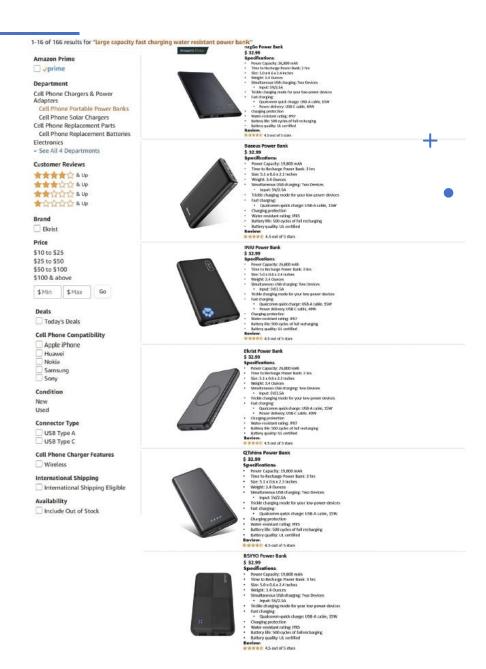
Specific badge is generated with specified and traceable attributes. (i.e., Best Seller)

- Inner workings are fully explainable; <u>consumers can</u> <u>fully understand the</u> <u>generation process and trace</u> the information source.
- even though it can be adjusted in real-time, the placement is predictable.

Research Model and Method

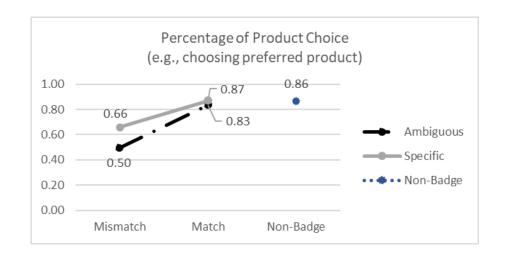
- 2 x 2 Between-subject randomized experiment with survey instrument (506 participants)
- Fixed-effect logit & OLS model





Transparency -> Product Choice: Interaction Effect

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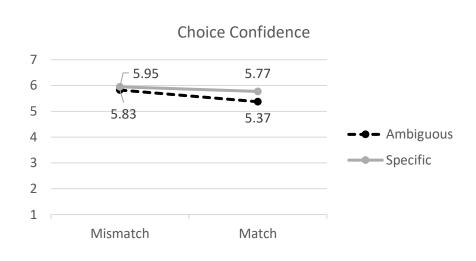


	Model 1	Model 2	Model 3	
Variables	Coefficient	Coefficient	Coefficient	
PerMismatch	0.326 (0.293)	0.803 (0.453) *	0.730 (0.444)	
PerTran	-0.044 (0.145)	0.326 (0.129) **	129) ** 0.305 (0.170) *	
PerMismatch x		-0.097 (0.043) ** -0.083 (0.045) *		
PerTran				
Controls				
WebExp		-0.183 (0.100) *		
Age		-0.021 (0.016)		
Gender		-0.258 (0.316)		
Brand		-0.126 (0.105)		
Observations	425	425	425	
Badge type FE	Yes	Yes	Yes	
Mis/Match FE	Yes	Yes	Yes	
Number of clusters	4	4	4	

Note: Standard errors are in parentheses (clustered on the interaction term of badge type and preference mis/match).

^{*}p < 0.1; **p < 0.05

Transparency -> Choice Confidence: Direct Impact



	Model 1	Model 2	Model 3	Model 4
Variables	Coefficient	Coefficient	Coefficient	Coefficient
PerMismatch	-0.036	-0.036	0.075	0.048
	(0.041)	(0.041)	(0.134)	(0.136)
PerTran	0.168 ***	0.179 ***	0.257 **	0.246 **
	(0.040)	(0.040)	(0.108)	(0.108)
PerMismatch x			-0.023	-0.017
PerTran			(0.025)	(0.026)
Controls				
WebExp		0.001		0.009
•		(0.074)		(0.088)
Age		-0.008		-0.007
		(0.015)		(0.015)
Gender		-0.206 **		-0.202 **
		(0.102)		(0.102)
Brand		-0.061		-0.059
Familiarity		(0.042)		(0.043)
Observations	425	425	425	425
Badge type FE	Yes	Yes	Yes	Yes
Mis/Match FE	Yes	Yes	Yes	Yes
BadgeType x Mis/Match FE	Yes	Yes	Yes	Yes

Note: Robust standard errors are in parentheses.

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^{*}p < 0.1; **p < 0.05; ***p<0.01.