

THE PSYCHOLOGY OF

# CONVERSION



A Checklist of Tactics to  
Boost Conversions and Sales

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Nick Kolenda

# The Psychology of Ecommerce: A Checklist of Tactics to Boost Conversions and Sales.

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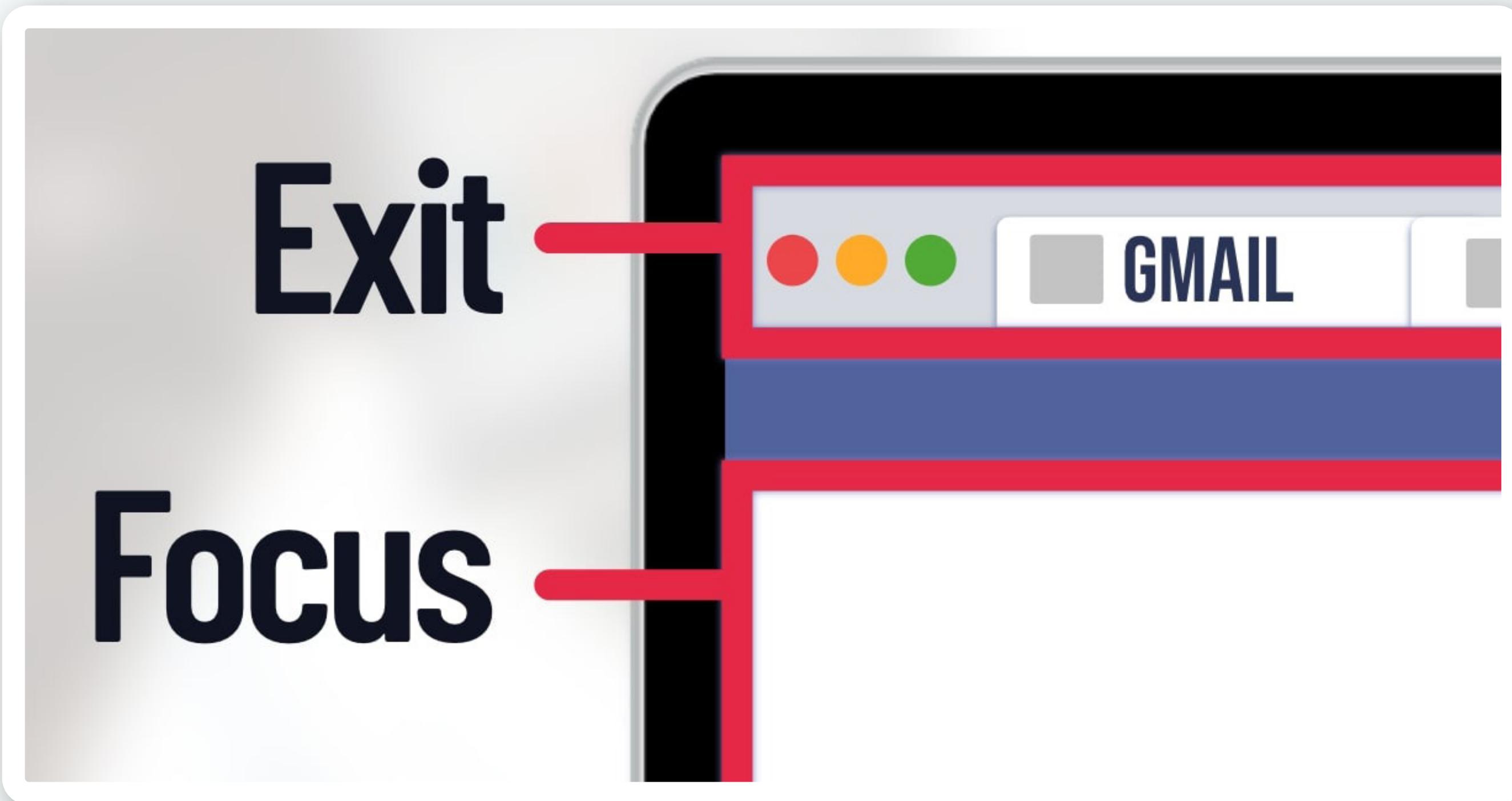
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# Before the Purchase

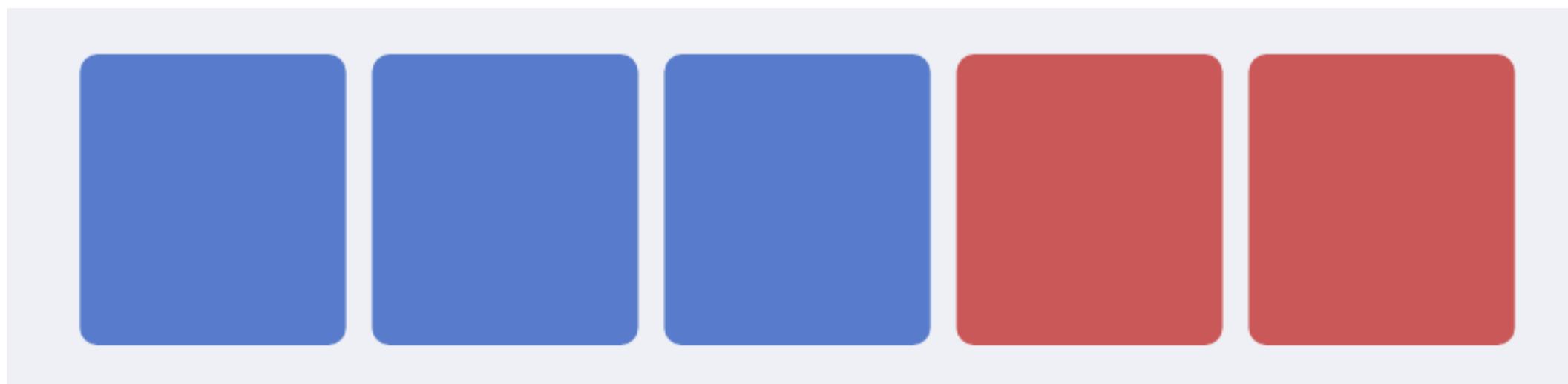


## Darken the Top Border of the Interface

A dark border separates the exit tabs in the browser from the main interface.

White interfaces are good for actions (e.g., purchases).

But there's a problem. Look at these rectangles:



Thanks to the *gestalt principles of similarity*, your brain sees two groups of squares.: blue and red.

The same effect occurs with tabs in your browser. Look at your tabs right now. What color are they? They're usually white or grey.

But if your website has a white background, then visitors will group your website with those tabs. And that's bad.

If visitors click one of those tabs, they will leave your website. You need to push those tabs outside of their attention.

Perhaps designers could darken the top border of the interface. It blocks their attention from moving up, keeping them fixated on the website. Visitors will be less likely to click a tab (and leave your website).





**Caveat:** It depends on the browser. Dark tabs would need the opposite color (e.g., white border at the top).





## Use Visuals in the Early Stages of Choice

Customers prefer visual options in early stages of choice.

On your homepage, depict products with thumbnail graphics.

...it would be beneficial to have the upfront information about the store and its products presented in a visual manner [on the homepage]...Then, at the point of actual consideration for purchase, on the product offerings pages a more text-based interface should cause consumers to slow down, review each option more carefully (Townsend & Kahn, 2014, p. 19)

Townsend, C., & Kahn, B. E. (2014). The "visual preference heuristic": The influence of visual versus verbal depiction on assortment processing, perceived variety, and choice overload. *Journal of Consumer Research*, 40(5), 993-1015.





## Arrange Products Horizontally for Browsing

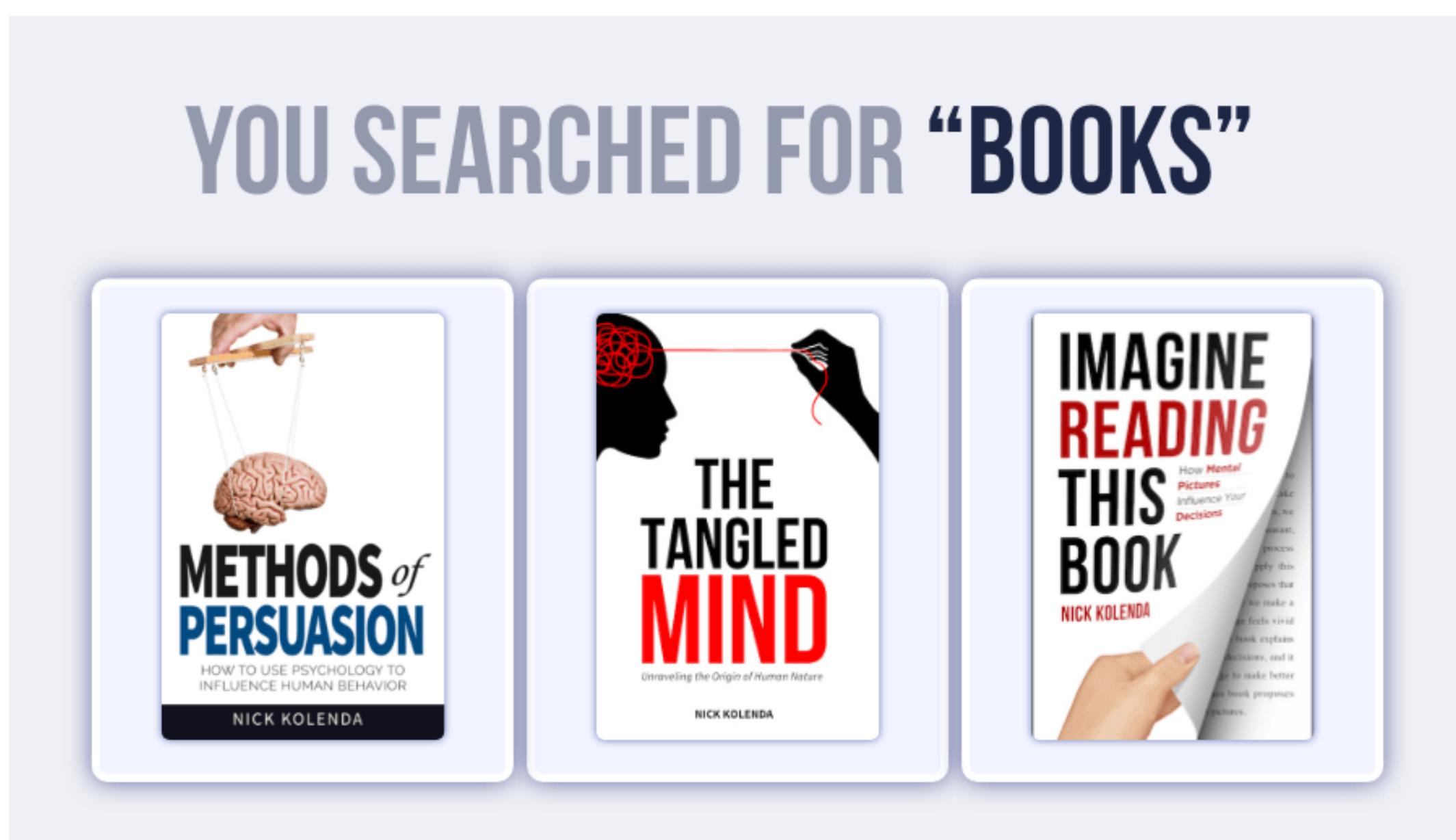
Customers browse horizontally, but they search for specific products vertically.

Customers browse horizontally.

Human eyes are aligned in a horizontal line, which makes it easier to scan horizontal assortments. In turn, this speedy evaluation enhances the perceived variety of these options (Deng, Kahn, Unnava, & Lee, 2016).

However, horizontal assortments backfire when customers are seeking a specific option. These customers don't want variety – they want to see the desired option as quickly as possible. Here, vertical lists are more effective because they position the desired option at the top of the list (in the exact location of their gaze).

On Amazon, a general search—*books*—results in a horizontal assortment. Amazon recognizes that this customer is browsing, so they want to increase the perceived variety of options.



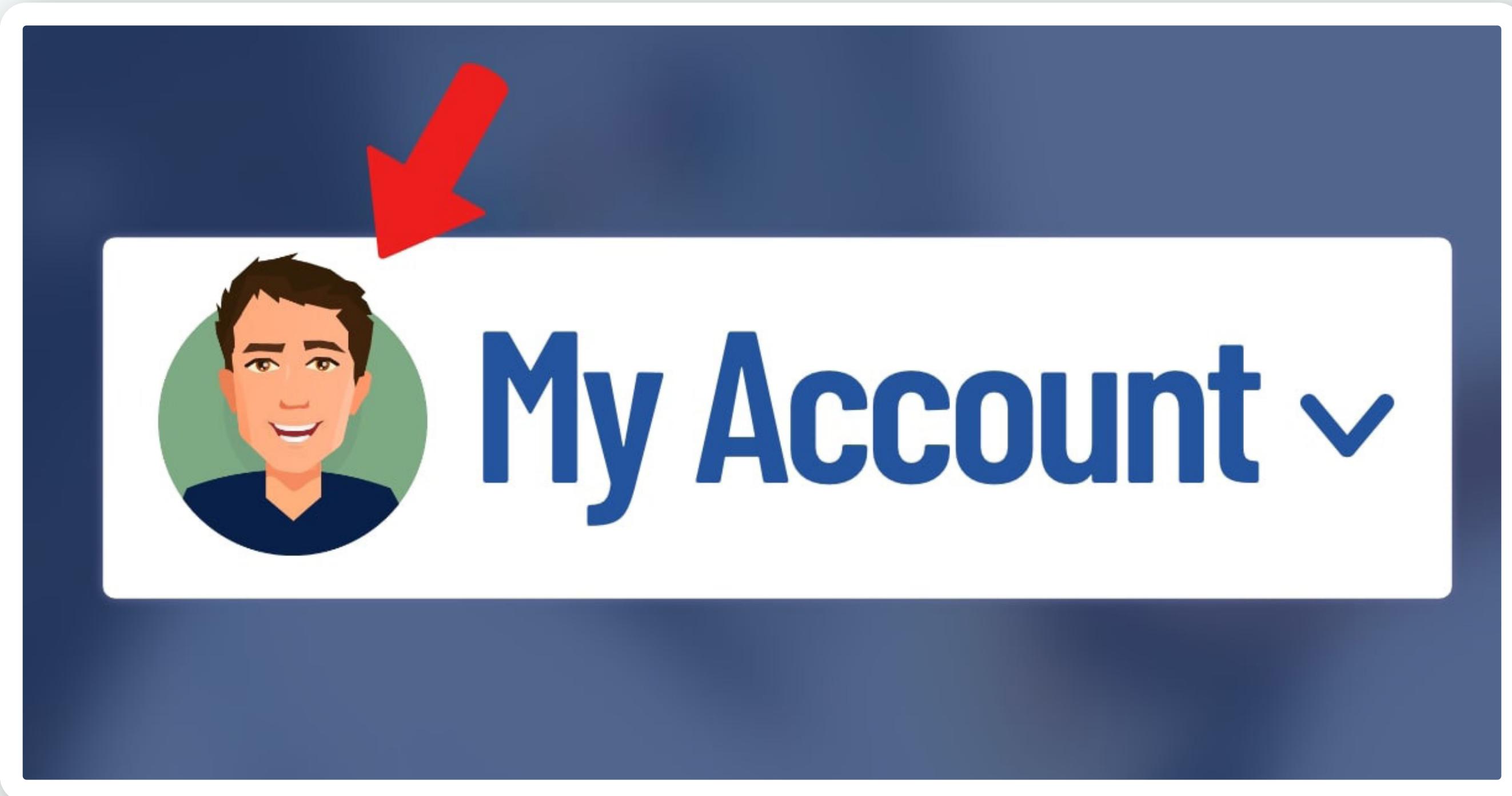
However, when I search for a *specific* book—Methods of Persuasion— they switch to a vertical list, which funnels my attention toward that option.

YOU SEARCHED FOR  
“METHODS OF PERSUASION”

The screenshot shows a search results page with a light gray background. At the top, the text "YOU SEARCHED FOR" is followed by "METHODS OF PERSUASION" in a larger, bold font. Below this, there are two book entries in separate boxes. The first box contains the book cover for "METHODS OF PERSUASION" by Nick Kolenda, featuring a brain and scales icon. The second box contains the book cover for "THE TANGLED MIND" by Nick Kolenda, featuring a stylized head icon. Both boxes include the book title and author's name.

Deng, X., Kahn, B. E., Unnava, H. R., & Lee, H. (2016). A “wide” variety:  
Effects of horizontal versus vertical display on assortment  
processing, perceived variety, and choice. *Journal of Marketing  
Research*, 53(5), 682-698.





## Insert the User's Photo into the Interface

Bridge the intangible gap between the real  
and digital world.

Humans abide by *implicit egotism*: They prefer stimuli related to them.

Therefore, ask users to upload a profile photo when they create an account. Keep this photo in the navigation menu so that it appears on every page.

Every product will inherit positive emotions from this photo.





## Restrict the Availability of Status Products

Scarcity intensifies the competition for status.

Scarcity has two types:

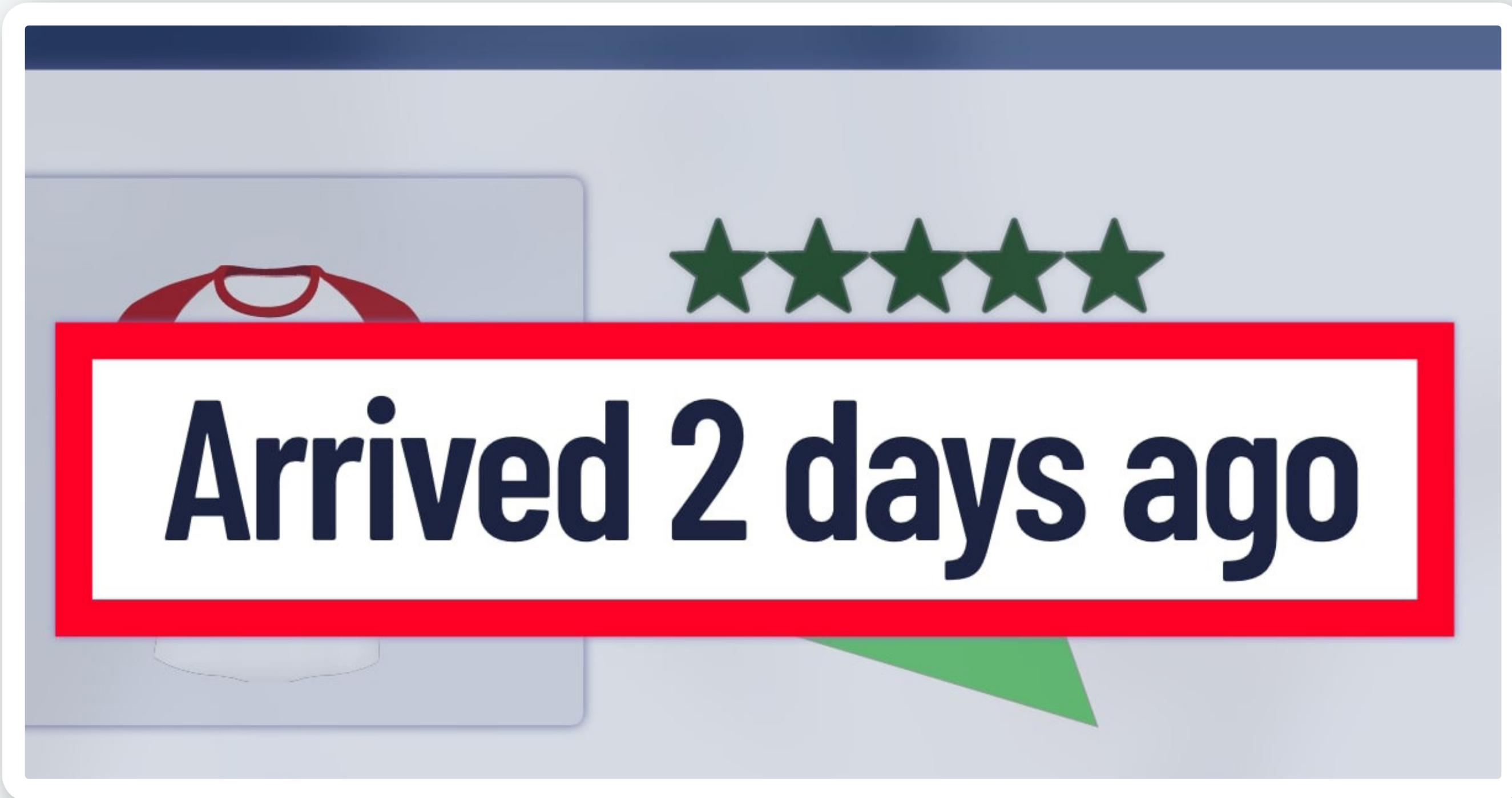
- » **Quantity.** Only 2 left in stock.
- » **Duration.** Expires tomorrow.

Quantity scarcity works best for “conspicuous” products (e.g., clothing) because buyers need to compete with each other. These products become status symbols (Jang, Ko, Morris, & Chang, 2015).

Duration scarcity can work in any scenario. Perhaps you could reserve a product for 2 hours when somebody adds it to their cart.

Jang, W. E., Ko, Y. J., Morris, J. D., & Chang, Y. (2015). Scarcity message effects on consumption behavior: Limited edition product considerations. *Psychology & Marketing*, 32(10), 989-1001.





## Reframe Products to Be Chronologically Newer

People like new stuff merely because it's new.

There's a recent finding called the *mere newness preference* (Jie & Li, 2022).

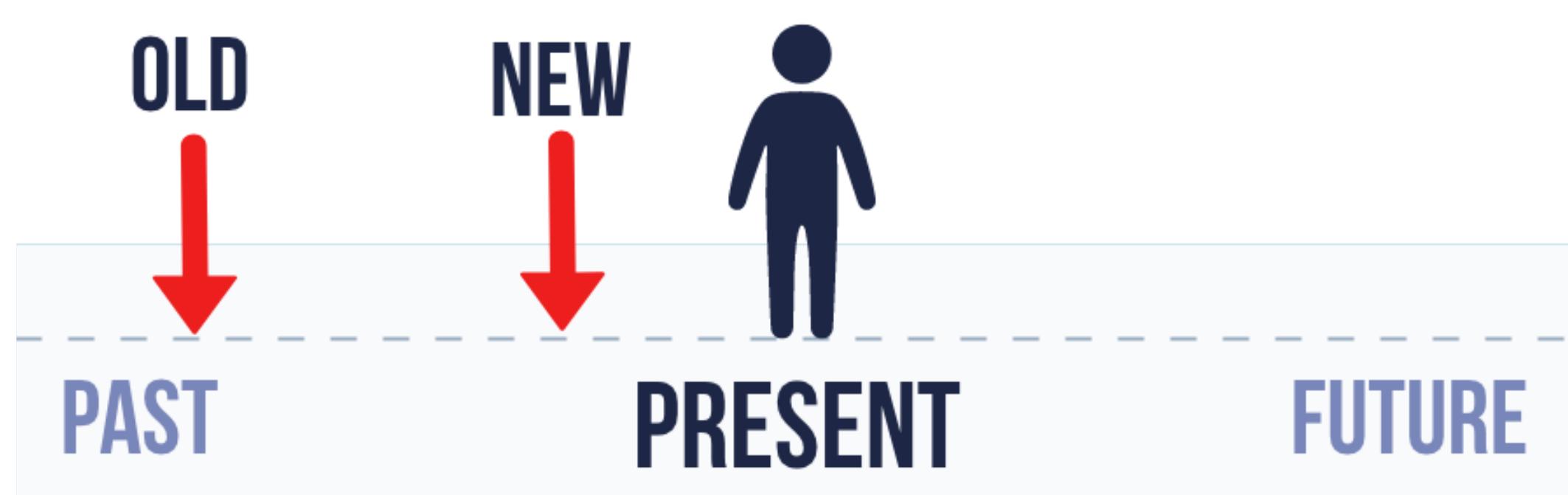
How does it work?

Well, I just called it a “recent” finding. Based on this mere newness, you think the study is more important. Even though it could be garbage.

Researchers argue that it stems from evolution:

“Over millennia of evolution, humans have developed a taste for fresh foods due to their greater nutrition content and disgust toward decaying foods due to their possibility for illness.” (Jie & Li, 2022, p. 2)

I suspect that it's also proximity: Since you live in the present, new products feel subconsciously closer to you:



A study from 20 years ago might seem boring, while a



new study – even if it were the same finding – would seem relevant and impactful because it's closer to you.

## Practical Techniques:

- » **Choose the Most Recent Framing.** Whether it's the production date, release date, purchase date, etc.
- » **Indicate When Products Are New.** Customers want fresh cars at a dealership over identical cars that have been sitting on the lot, even if nobody has driven them.
- » **Mention New Arrivals.** Products seem more appealing if customers know they arrived in a recent shipment.
- » **Offer Limited Editions.** These products are inherently new.
- » **Highlight Product Updates.** This knowledge numbs the pain from rising prices
- » **Reframe Scarcity.** Mentioning scarcity (e.g., “only 2 left”) could backfire if these products are viewed as the oldest units in a batch. Try the opposite (“newly arrived 2 days ago”). Instead of motivating customers to buy leftover options that nobody wanted, motivate them to buy fresh options that won't stay fresh much longer.

It works outside of ecommerce too:

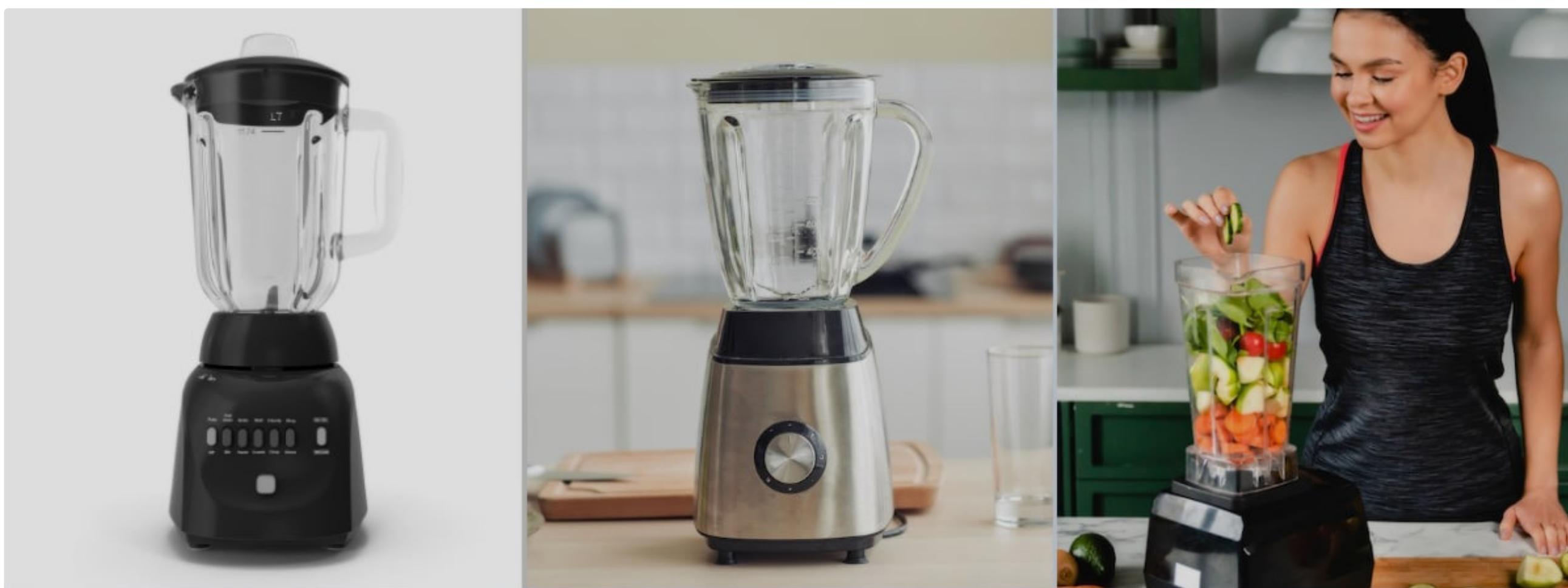




Jie, Y., & Li, Y. (2022). Chronological cues and consumers' preference for mere newness. *Journal of Retailing*, 98(3), 527-541.



# Product Imagery



Plain



Context

## Show Contextual Images to Female Customers

Women prefer realistic settings. Men prefer solid plain backgrounds.

## Men and women process information differently:

...females' processing often entails substantial, detailed elaboration of message content...males' processing is more likely to be driven by overall message themes (Meyers-Levy, & Maheswaran, 1991, p. 68)

Women prefer context, while men prefer the gist.

Researchers tested this idea in product imagery. They asked participants to evaluate a pair of jeans in one of two styles: (a) plain white background, or (b) a model wearing the jeans in an urban setting. Women preferred the jeans from a contextual setting, whereas men were unaffected (González, Meyer, & Toldos, 2021).

Other studies suggested that men have a slight preference for solid backgrounds, but the effect is stronger for females. Women were more likely to buy (and pay higher prices for) various products from contextual images.

And the effect was additive: Showing more context triggered more sales.

González, E. M., Meyer, J. H., & Toldos, M. P. (2021). What women want? How contextual product displays influence women's online shopping behavior. *Journal of Business Research*, 123, 625-641.



Meyers-Levy, J., & Maheswaran, D. (1991). Exploring differences in males' and females' processing strategies. *Journal of consumer research*, 18(1), 63-70.





# Reduce the Color Saturation of Luxury Brands

If you want something to seem luxurious, use grayscale colors.

We desire luxury products when standing further away because it feels like we can't acquire them (Chu, Chang, & Lee, 2021).

Other research shows that your mental imagery is less colorful when you imagine a distant event (Lee, Fujita, Deng, & Unnava, 2017).

Compare those two findings:

- » People prefer luxury brands with greater distance.
- » Greater distance feels less colorful.

Therefore, shouldn't people should prefer luxury products with less color? Wouldn't these products feel more distant?

Indeed. In one study, a Tiffany watch seemed more luxurious in black-and-white (Wang, Wang, Mu, & Sun, 2022).

Chu, X. Y., Chang, C. T., & Lee, A. Y. (2021). Values created from far and near: Influence of spatial distance on brand evaluation. *Journal of Marketing*, 85(6), 162-175.

Lee, H., Fujita, K., Deng, X., & Unnava, H. R. (2017). The role of temporal distance on the color of future-directed imagery: A construal-level perspective. *Journal of Consumer Research*, 43(5), 707-725.

Wang, Y., Wang, T., Mu, W., & Sun, Y. (2022). What is the glamor of black-and-white? The effect of color design on evaluations of luxury brand ads. *Journal of Consumer Behaviour*, 21(5), 973-986.





# Help Users Imagine Touching the Product

These simulations increase desire.

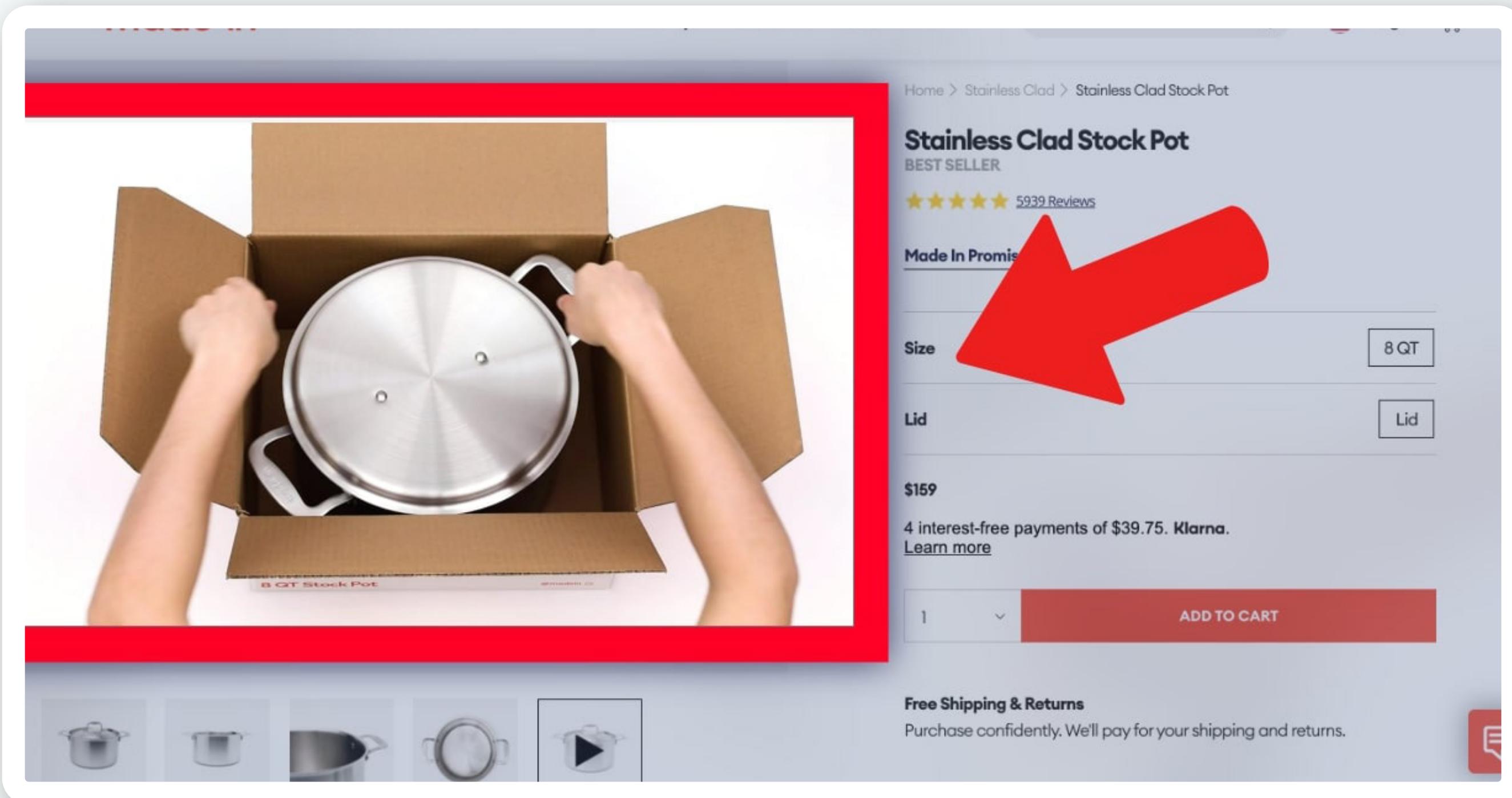
People prefer mugs when handles are facing their dominant hand because they can imagine grabbing the handle (Elder & Krishna, 2012).

Therefore, adjust your products to ease mental simulations:



Elder, R. S., & Krishna, A. (2012). The “visual depiction effect” in advertising: Facilitating embodied mental simulation through product orientation. *Journal of Consumer Research*, 38(6), 988-1003.

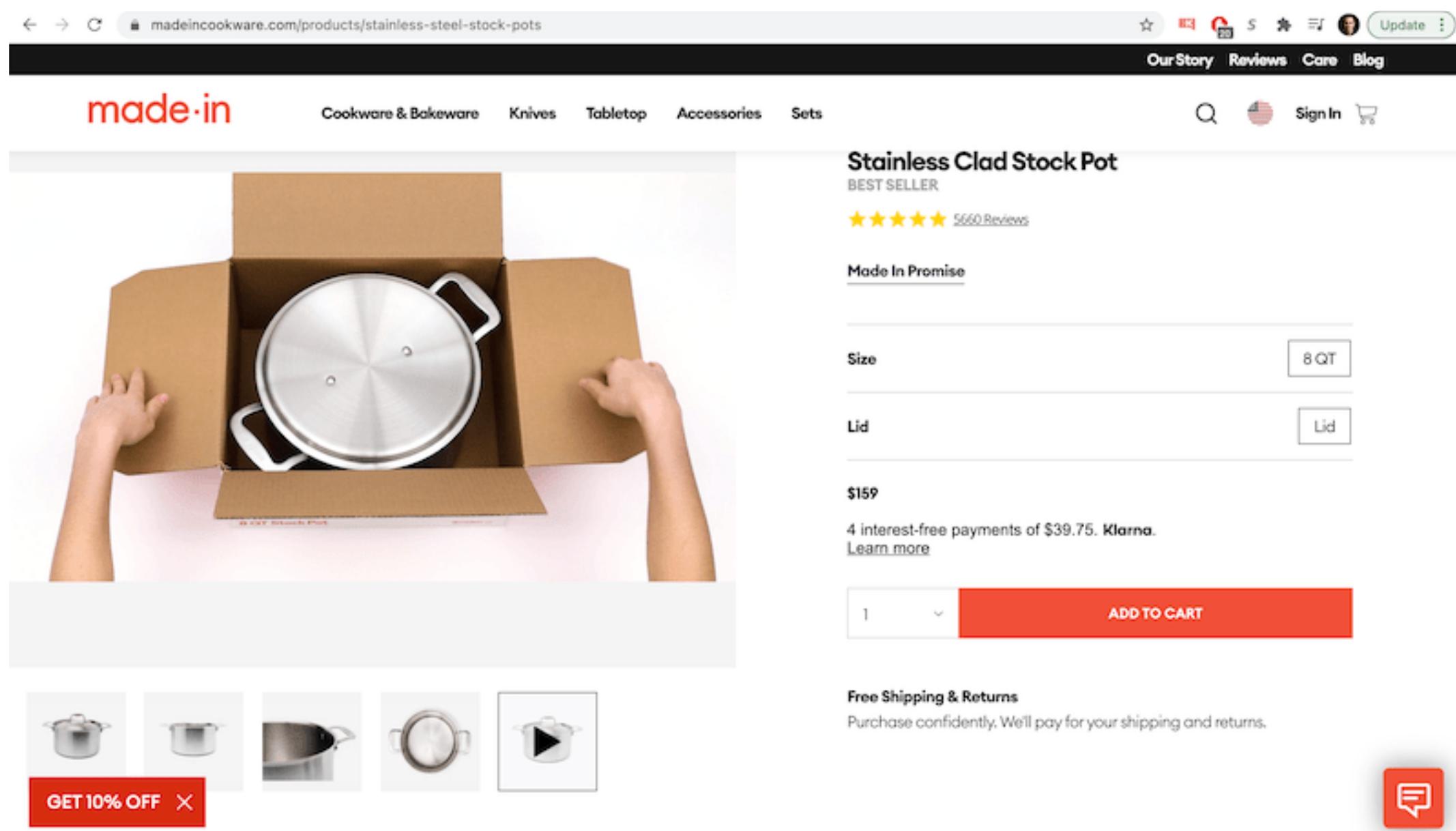




# Show Customers Unboxing the Product

Show an image or video of somebody unboxing your product.

On this product page, a video shows somebody opening a package with a stock pot:



Customers evaluate purchases by imagining themselves buying the product. If this imagery feels good, they'll buy it (see my book [Imagine Reading This Book](#)).

Well, unboxing can ease those simulations.

Customers imagine themselves opening the box. Suddenly they can imagine buying the product, and they misinterpret this vividness: *Hmm, do I want to buy this pot? I can picture myself buying it. Therefore, I must want to buy it.*

Plus, unboxing feels good, doesn't it? It feels like a present. Therefore, unboxing will activate (1) a mental picture of buying and (2) positive emotions.





## Show an Isolated Product Before Contextual Imagery

Isolated images perform better in early buying stages, while contextual images perform better in later buying stages.

Researchers tested ecommerce images of clothing: *isolated*, *headless*, and *human* (Bagatini, Rech, Pacheco, & Nicolao, 2023).



In one of their studies, they asked participants to choose their preferred shirt. Participants chose isolated shirts *without* humans.

In another study, they asked participants to rate their buying intention. Participants were more likely to buy shirts *with* humans

Why the difference? And how can you apply it?

My guess: Customers buy in two stages:

1. **Do I want to evaluate this product?** If yes, they visit the product page.
2. **Do I want to buy this product?** If yes, they add to cart.



These mindsets are different.

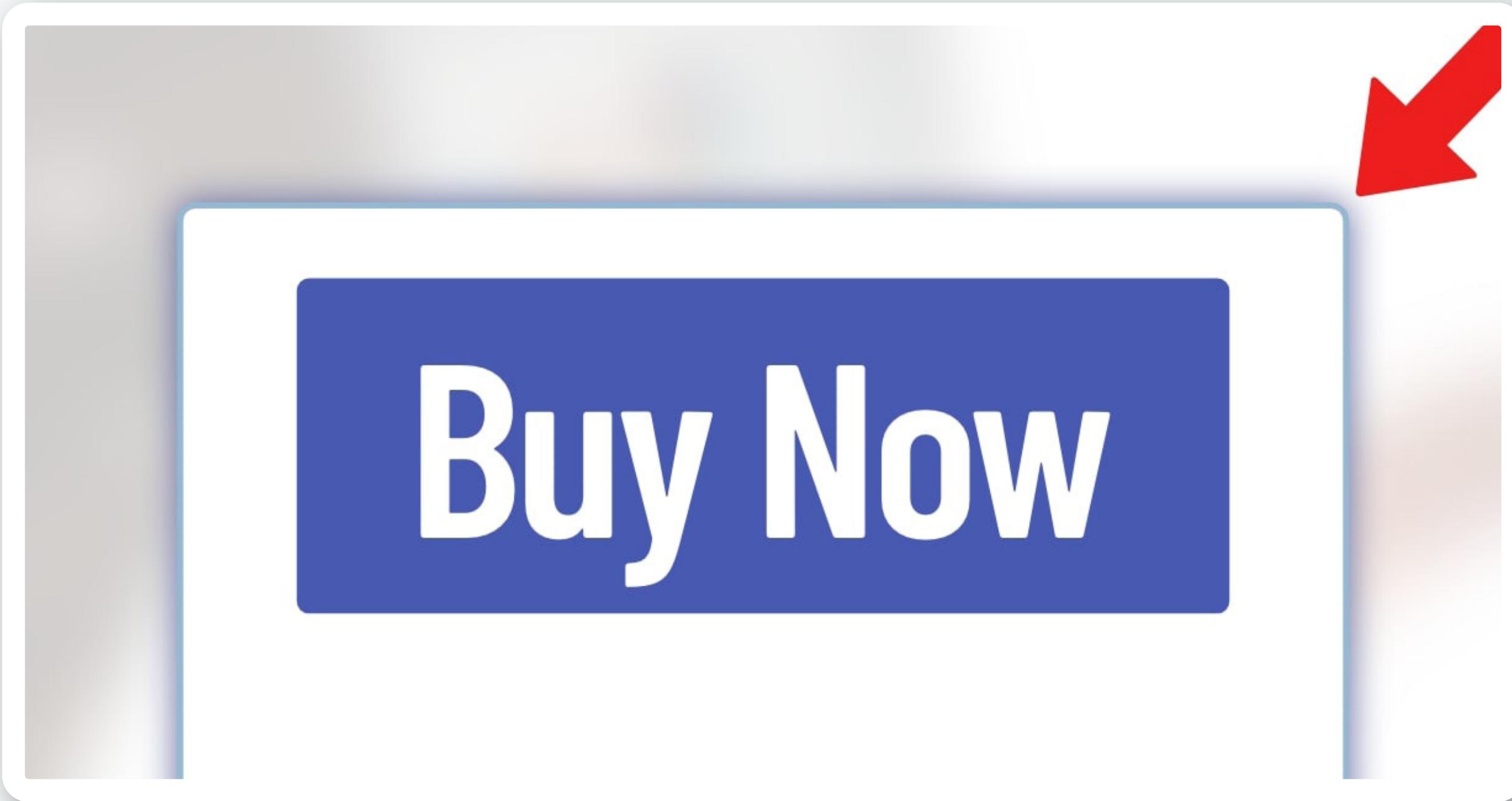
In the first stage, customers prefer products that are easy to evaluate. Here, isolated photos should perform better because they exclude peripheral information. By showing the product – and *only* the product – you ease comparisons with adjacent products. Customers are more likely to visit these product pages because they predict an easier evaluation.

Once customers visit a product page, they enter the second stage. Here, contextual photos (e.g., humans using the product) perform better because customers can imagine buying and using these products. Researchers confirmed that contextual photos of shirts helped participants imagine wearing them. See my book [Imagine Reading This Book](#) for more applications of this idea.

Bagatini, F. Z., Rech, E., Pacheco, N. A., & Nicolao, L. (2023). Can you imagine yourself wearing this product? Embodied mental simulation and attractiveness in e-commerce product pictures. *Journal of Research in Interactive Marketing*, 17(3), 470-490.



# Buttons



## Bring Buttons to the Foreground

Buttons feel more clickable when they appear physically closer.

Customers evaluate purchase decisions by imagining the *why* and *how* – in other words, these two scenarios:

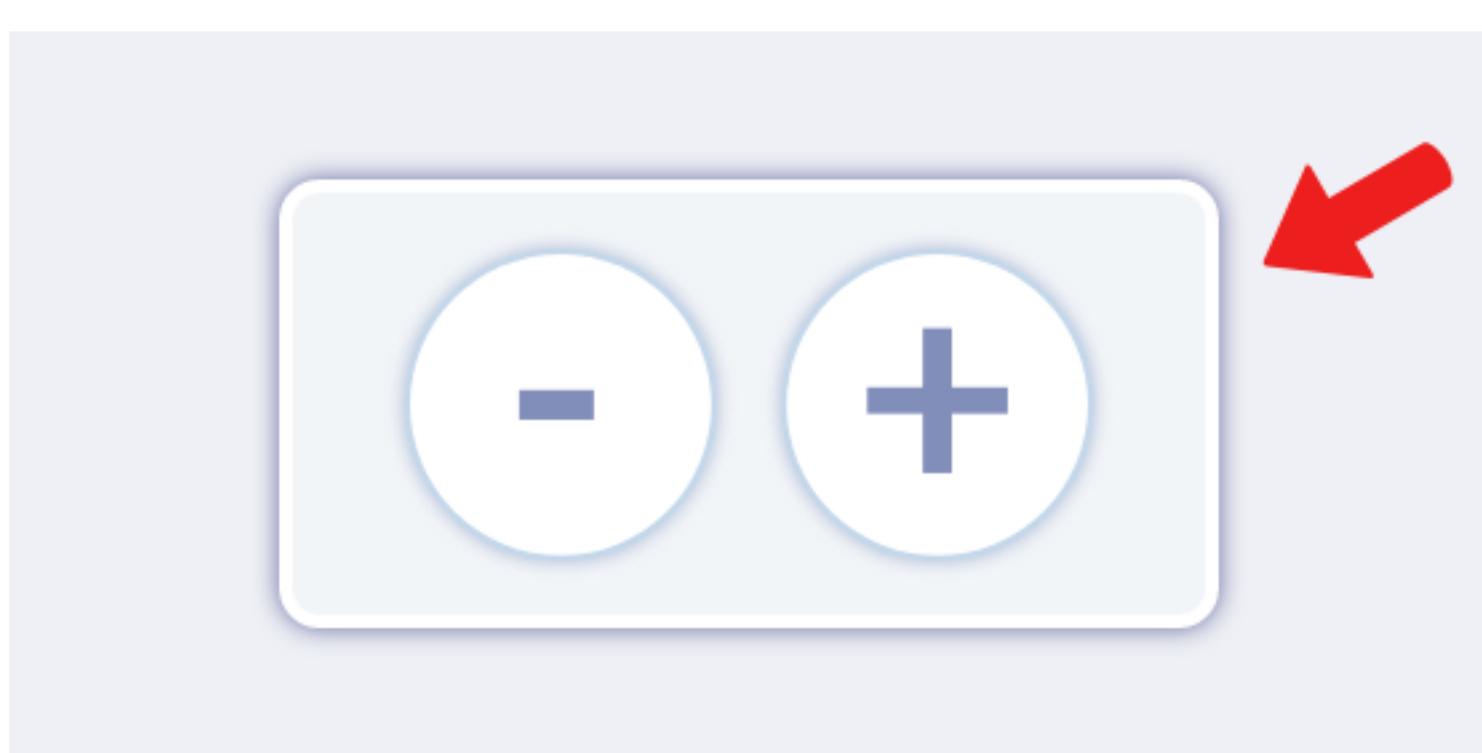
- » **Outcome:** Consuming the product
- » **Process:** Completing the transaction

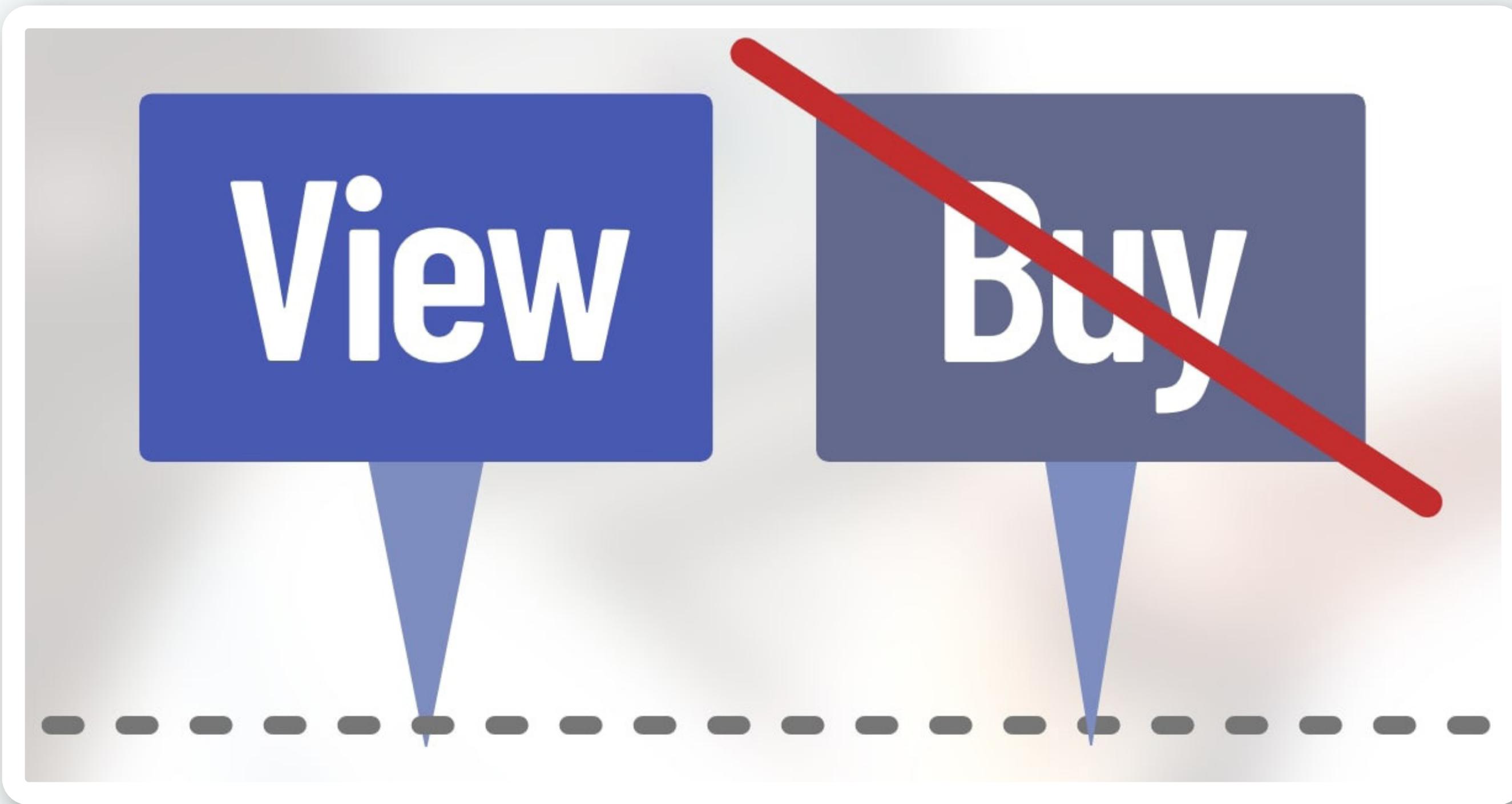
Strengthening those two simulations will influence people to buy.

Buttons *seem* irrelevant to a purchase, but they comprise the second simulation. Customers are more likely to buy your products if they can imagine clicking the purchase button.

Some interfaces, like Apple, position the purchase button at the bottom of the screen. This location is closer to the user's fingers, so they can imagine pressing this button more easily.

You can also bring buttons to the foreground by inserting something behind them (e.g., shadow, background).





## **Insert the Concrete Next Step Into Buttons**

Choose concrete words that depict a vivid image of the next immediate action.

You might be tempted to choose the button text: “Buy on Amazon.”

However, “buying” isn’t the next step. People still need to read the description and evaluate the purchase.

Your button should indicate the next step: “View on Amazon.”

This framing feels less effortful, and it symbolizes the next logical step. Visitors can easily simulate this behavior.

**Caveat:** A “larger investment” button (e.g., Buy on Amazon) will usually reduce the click-through rate, but these buttons can increase conversions in later stages. For users who click a “buy” button, they generate a mental image of the purchase. This purchase becomes more realistic and desirable, which motivates them to complete the purchase.





## Avoid Cutesy Text and Exclamations in Buttons

Choose button text that people would normally say (and how they would say it).

When you read, you speak each word inside your mind. It's called *inner speech* (Alderson-Day & Fernyhough, 2015).

Certain buttons can be problematic because any text that is cutesy (e.g., Count Me In) or exclamatory (e.g., Buy Now!) will produce inner speech that is disfluent. Something will feel wrong. And, if something feels wrong, customers will attribute this feeling to the action.

Alderson-Day, B., & Fernyhough, C. (2015). Inner speech: development, cognitive functions, phenomenology, and neurobiology. *Psychological bulletin*, 141(5), 931.





## Display Ugly Rejection Options

You could uglify rejection options with weird fonts, unbalanced positioning, or wide letter-spacing.

Purchase buttons should look pretty. Customers will attribute these positive traits to the purchase.

Why not do the reciprocal? Show ugly rejection options so that customers attribute those negative traits: *Hmm, something about this rejection option feels wrong. I must want to choose the “buy” option.*



**buy NOW**

**Instant Access**



## Show a Positive Statement Near Buttons

When users look at a button, they imagine taking this action. Nearby positive statements trigger a more pleasant simulation of the action.

Add positive statements near your main buttons. Statements like: Instant Access, 100% Secure, 30-Day Guarantee.

Your buttons trigger the purchase simulation— that is, people look at your buttons and imagine the purchase so that they can gauge their desire. Any nearby statement — positive or negative — will infiltrate this mental image.



Just **click** below



**Mention the Word "Click"  
or "Tap" Near Buttons**

While reading verbs, you simulate the depicted motor actions.

In one study, people turned a knob counter-clockwise once they understood a sentence. They were faster with sentences like:

- » Katie opened the water bottle.

People turned the knob faster because this rotation matched the motor action in the sentence (Zwaan & Taylor, 2006).

On your product pages, perhaps you could mention the word “click” nearby (or “tap” on mobile devices). These verbs activate the muscles that perform these motor actions. While these muscles are activated, buttons should seem more clickable.

Zwaan, R. A., & Taylor, L. J. (2006). Seeing, acting, understanding: Motor resonance in language comprehension. *Journal of Experimental Psychology: General*, 135(1), 1.



# Customer Reviews



## Show Imperfect Reviews

Imperfect ratings are more persuasive.

Perfect ratings are overrated – literally.

Customers are more persuaded by reviews with moderately high ratings (4 to 4.5 stars; Maslowska, Malthouse, & Bernritter, 2017). And they prefer reviews with benefits *and* drawbacks (Doh & Hwang, 2009).

...providing consumers with positive information followed by a minor piece of negative information appears to enhance their overall evaluations of a target (Ein-Gar, Shiv, & Tormala, 2012, p. 855.)

Imperfect reviews also boost the credibility of reviewers (Jensen, Averbeck, Zhang, & Wright, 2013).

Doh, S. J., & Hwang, J. S. (2009). How consumers evaluate eWOM (electronic word-of-mouth) messages. *Cyberpsychology & behavior*, 12(2), 193-197.

Ein-Gar, D., Shiv, B., & Tormala, Z. L. (2012). When blemishing leads to blossoming: The positive effect of negative information. *Journal of Consumer Research*, 38(5), 846-859.

Jensen, M. L., Averbeck, J. M., Zhang, Z., & Wright, K. B. (2013). Credibility of anonymous online product reviews: A language expectancy perspective. *Journal of Management Information Systems*, 30(1), 293-324.

Maslowska, E., Malthouse, E. C., & Bernritter, S. F. (2017). Too good to be true: the role of online reviews' features in probability to buy. *International Journal of Advertising*, 36(1), 142-163.





## Insert Persuasive Content into Reviews

Reviews are more persuasive when they show the reviewer's name, verification status, and product imagery.

What should you include in customer reviews? Here are some tips:

- » **Detect and Fix Typos.** Reviews are less persuasive with spelling or grammar errors (Schindler & Bickart, 2012).
- » **Monitor Expletives.** Censor your f\*\*\*ing reviews. C'mon now. You'll look more professional. Plus, angry reviews are less helpful (Lee & Koo, 2012).
- » **Reward Users Who Add Media.** Customers prefer reviews with images (Cheng & Ho, 2015) or video (Xu, Chen, Wu, & Santhanam, 2012).
- » **Display Real Names.** Real names (e.g., Joe S.) are more persuasive than usernames (e.g., jschmo; Liu & Park, 2015).
- » **Show Proof of Consumption.** Show reviews from “verified” purchasers (Bjering, Havro, & Moen, 2015). Or incentivize customers to upload selfies (Yang, Chen, & Tan, 2014).
- » **Review Multiple Dimensions.** Ask users to rate the price, quality, aesthetics, and any other relevant dimensions (Hong, Chen, & Hitt, 2012).

Bjering, E., Havro, L. J., & Moen, Ø. (2015). An empirical investigation of self-selection bias and factors influencing review helpfulness. *International Journal of Business and Management*, 10(7), 16.

Cheng, Y. H., & Ho, H. Y. (2015). Social influence's impact on reader perceptions of online reviews. *Journal of Business Research*, 68(4), 883-887.



- Hong, Y., Chen, P. Y., & Hitt, L. M. (2012). Measuring product type with dynamics of online product review variance. In Implications for Research and Practice, Proceedings of the 33rd International Conference on Information Systems (ICIS), Orlando, FL.
- Lee, K. T., & Koo, D. M. (2012). Effects of attribute and valence of e-WOM on message adoption: Moderating roles of subjective knowledge and regulatory focus. *Computers in Human Behavior*, 28(5), 1974-1984.
- Liu, Z., & Park, S. (2015). What makes a useful online review? Implication for travel product websites. *Tourism management*, 47, 140-151.
- Schindler, R. M., & Bickart, B. (2012). Perceived helpfulness of online consumer reviews: The role of message content and style. *Journal of Consumer Behaviour*, 11(3), 234-243.
- Xu, P., Chen, L., Wu, L., & Santhanam, R. (2012). Visual Presentation Modes in Online Product Reviews and Their Effects on Consumer Responses.
- Yang, L., Chen, J., & Tan, B. C. (2014). Peer in the Picture: an Explorative Study of Online Pictorial Reviews.



**It was bad.**

**Response from Owner**

We're sorry to hear about  
your experience.

## **Respond to Negative Reviews**

Only 4 percent of businesses respond to negative reviews, yet these responses boost sales.

Responding to negative reviews can help in various ways.

- » Hotel bookings increased by 60% (Ye, Gu, Chen, & Law, 2008)
- » Ratings increased 20% (McIlroy, Shang, Ali, & Hassan, 2015)
- » Review volume increased by 17% (Xie et al., 2016)

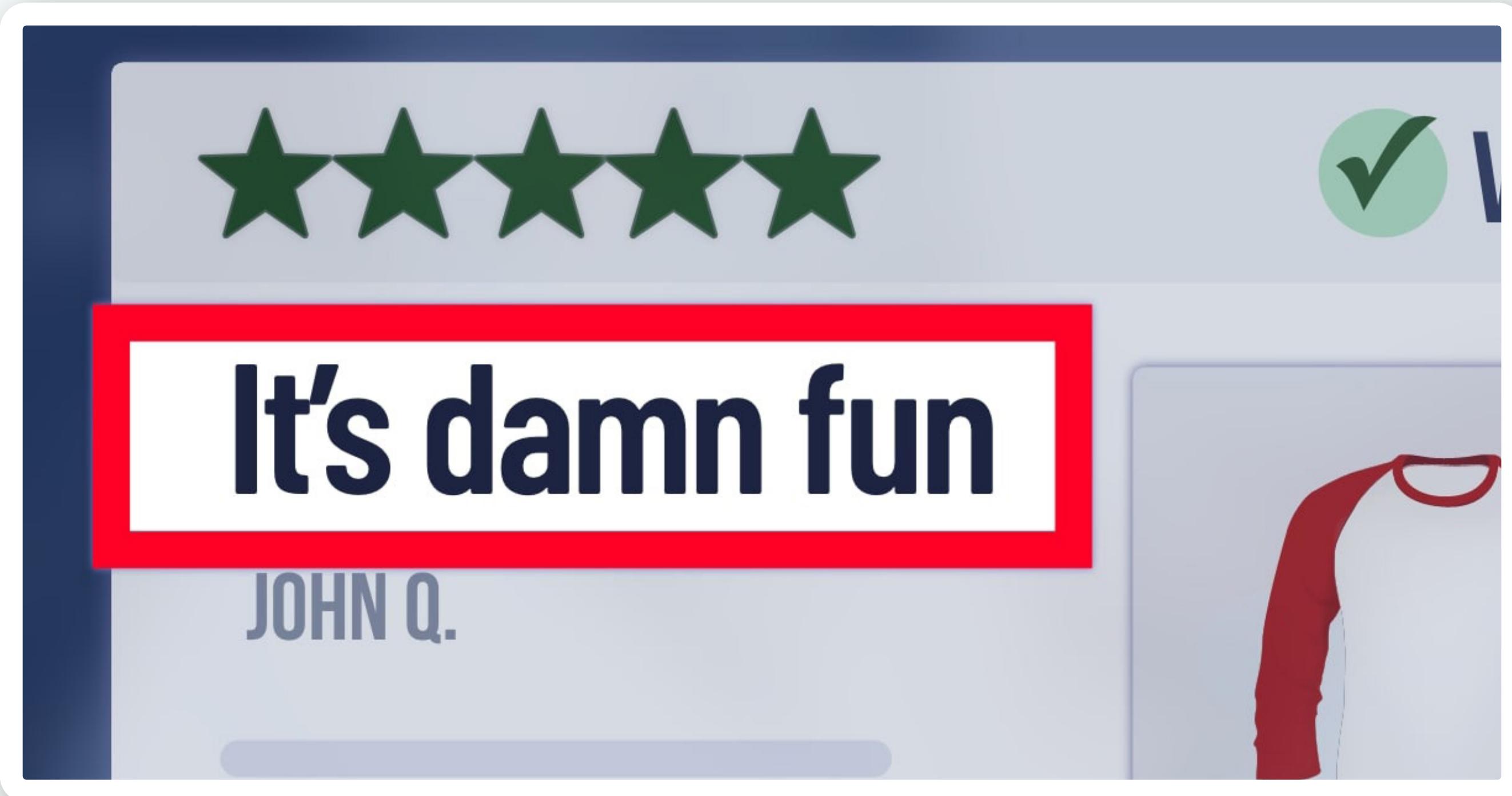
Yet less than 4 percent of businesses respond to negative reviews (Xie et al., 2016). That gives you an opportunity to stand out.

McIlroy, S., Shang, W., Ali, N., & Hassan, A. E. (2015). Is it worth responding to reviews? studying the top free apps in google play. *IEEE Software*, 34(3), 64-71.

Xie, K. L., Zhang, Z., Zhang, Z., Singh, A., & Lee, S. K. (2016). Effects of managerial response on consumer eWOM and hotel performance: Evidence from TripAdvisor. *International Journal of Contemporary Hospitality Management*.

Ye, Q., Gu, B., Chen, W., & Law, R. (2008). Measuring the value of managerial responses to online reviews-A natural experiment of two online travel agencies.





## Reviews With Sways Are More Persuasive

Profanity communicates stronger feelings about products.

Based on 300,000 customer reviews, profanity is damn persuasive: Reviews with profanity received more helpful votes (Lafreniere, Moore, & Fisher, 2022).

Why?

- » **Stronger Meaning.** *Damn* communicates more intensity than *very*.
- » **Reviewer is Passionate.** Taboo words are socially risky, so the reviewer seems more passionate about their feelings by taking this risk.

Practical ideas:

## 1. Allow Profanity

Some websites (e.g., Amazon, TripAdvisor) don't allow profanity, but research shows that it could be helpful.

## 2. Tell Users If You Censor Reviews

Otherwise, they might believe that a censored statement (e.g., d\*mn) was written by the reviewer, which weakens the emotion.

## 3. Censor With Multiple Asterisks



If you need to censor, use multiple asterisks (e.g., holy s\*\*\*)  
to grab more attention than a single asterisk (e.g., holy sh\*t).

Lafreniere, K. C., Moore, S. G., & Fisher, R. J. (2022). The power of profanity: The meaning and impact of swear words in word of mouth. *Journal of Marketing Research*, 59(5), 908-925.



# Checkout

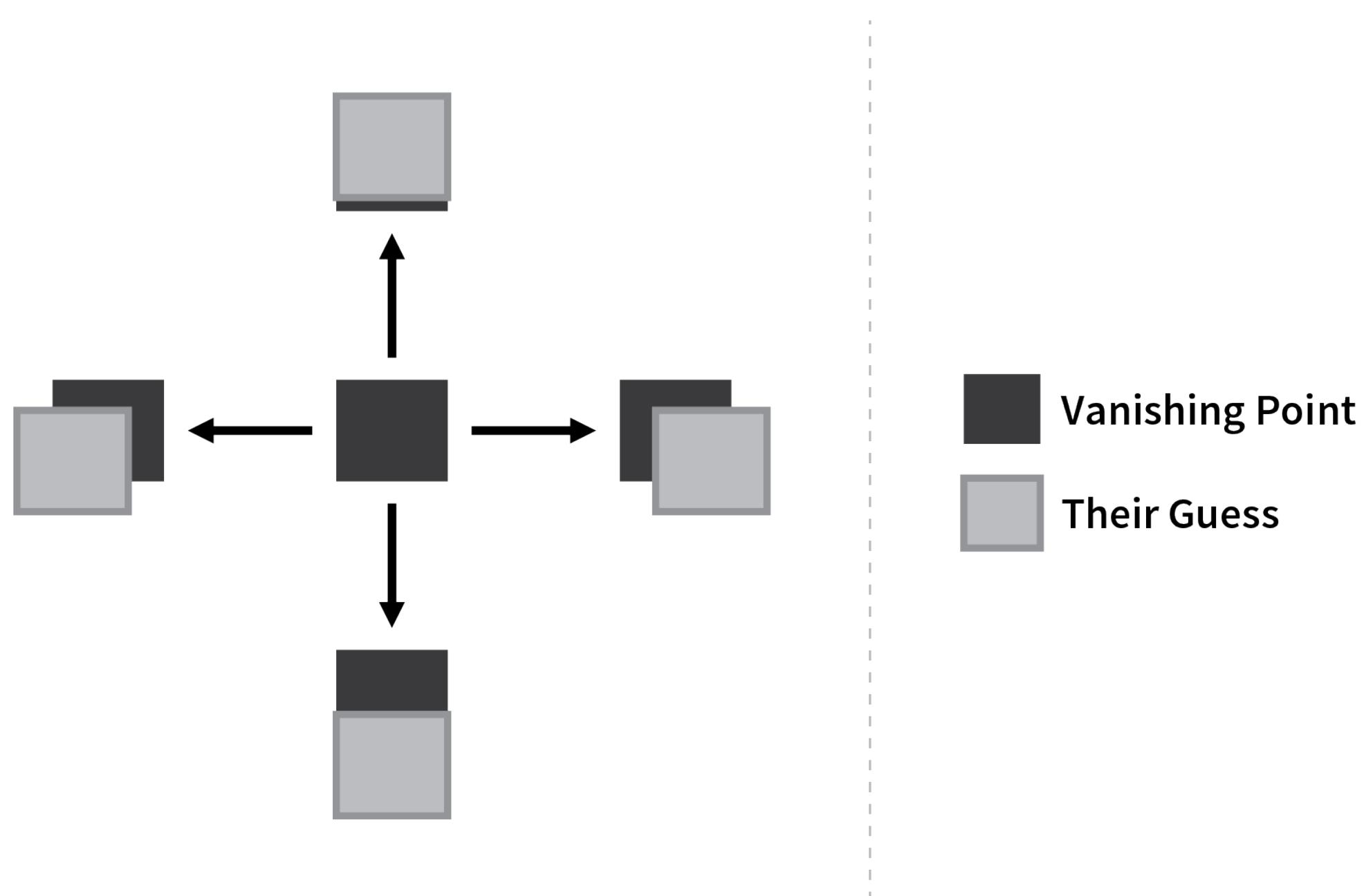


## Ease the Symbolic Motion of Progress

Downward motion seems stronger because of gravity. A downward progress bar feels more capable of reaching the end.

Ideally, use downward motion to symbolize progress.

In one study, a moving square vanished. Everyone believed that this box vanished farther ahead because of the momentum. And this misjudgment was stronger with downward motion (Hubbard, 2005).

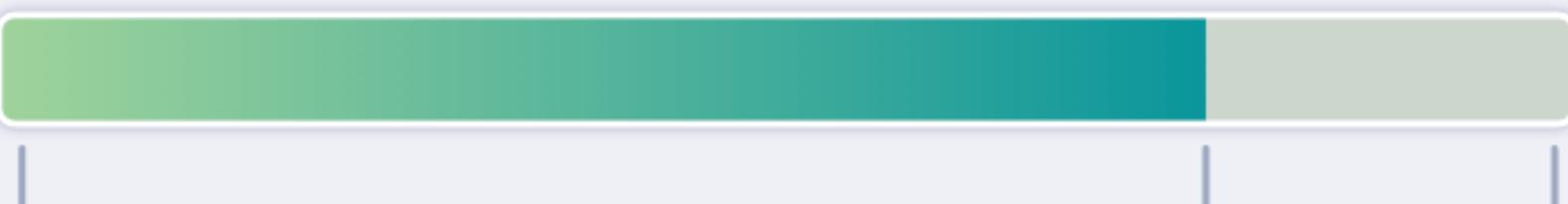


Downward motion seems stronger because of gravity.

You should depict steps with downward motion because users can imagine this bar moving to the later steps (e.g., delivery) more easily. They will imagine receiving their package faster.

Or, if you need to display horizontal progress, you can ease the motion in other ways. Perhaps add a linear gradient that changes color from left to right. Or position the bar close to the final step so that users can imagine reaching the finish line more easily.





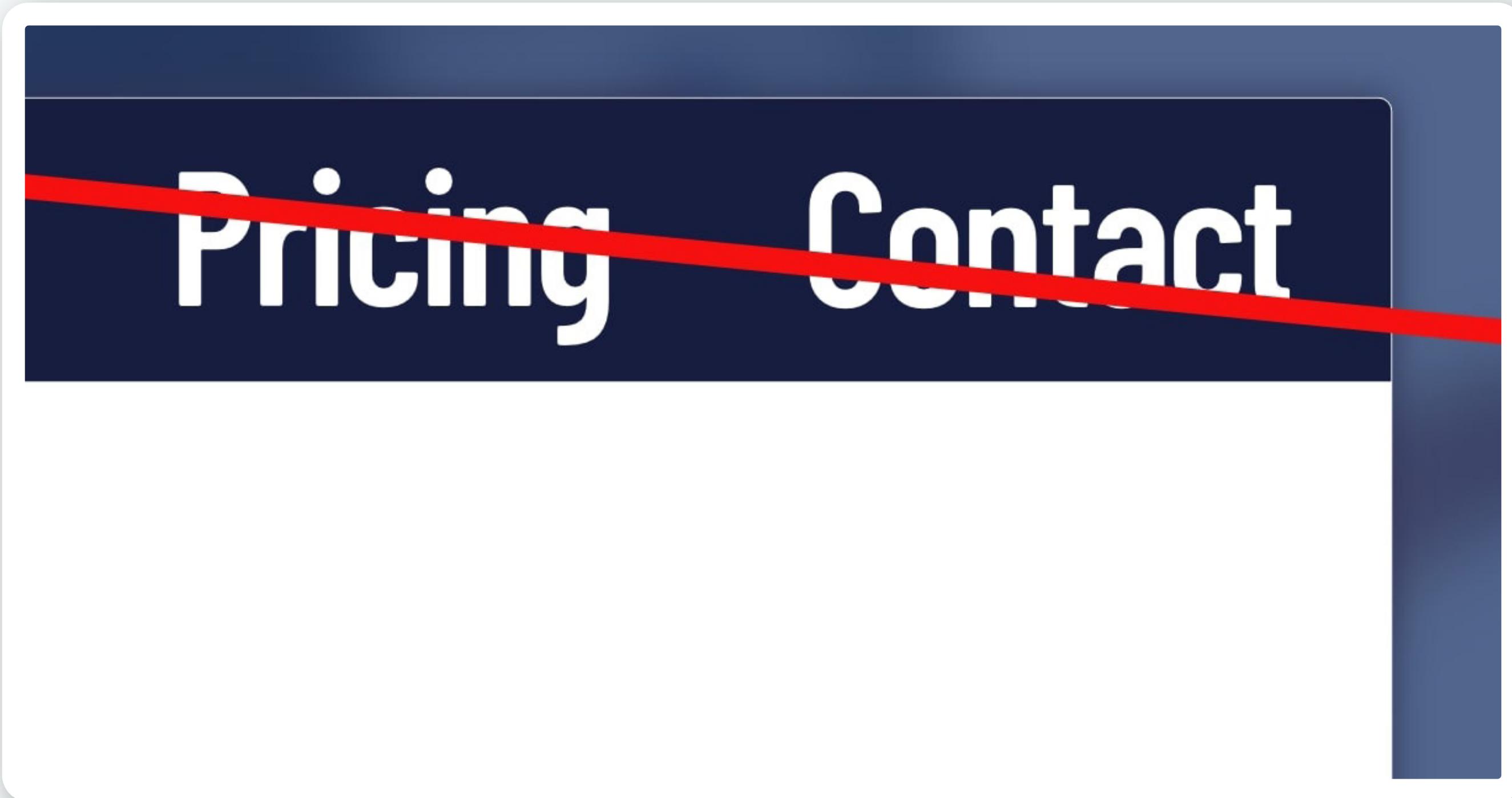
ORDERED

SHIPPED DELIVERED

See my book [The Tangled Mind](#) for other examples.

Hubbard, T. L. (2005). Representational momentum and related displacements in spatial memory: A review of the findings. *Psychonomic bulletin & review*, 12, 822-851.





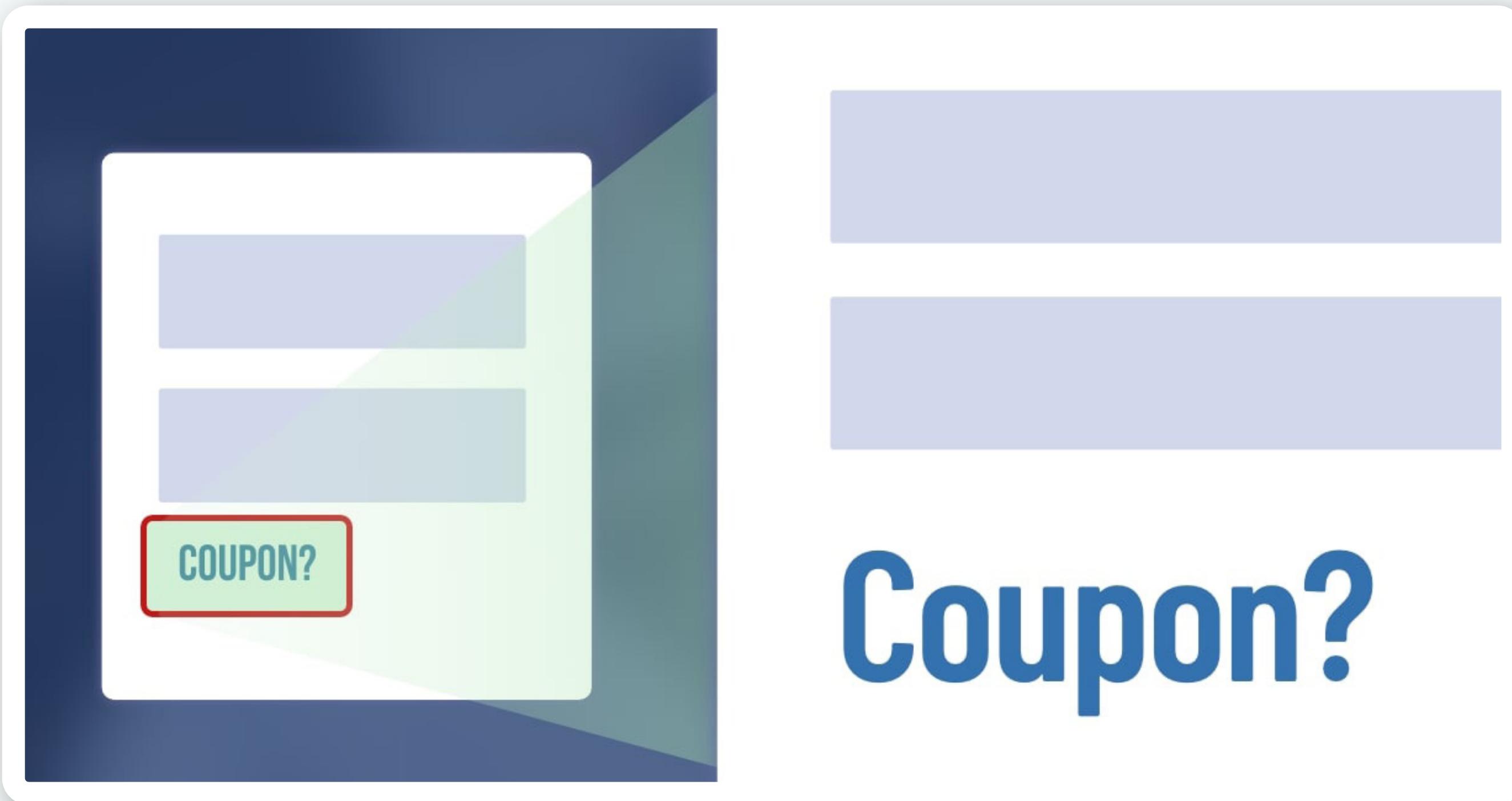
## Hide Exit Links in the Checkout

Links in your navigation menu will dilute the purchase.

When you want people to complete a task, deemphasize exit paths.

Otherwise customers will imagine visiting those links. Even if customers don't click on them, those simulations dilute their focus from the current task. They'll be more likely to give up.





Coupon?

## Deemphasize Your Coupon Field

Seeing this field is painful for customers who don't possess a coupon.

Customers want a fair price. Oftentimes, they compare their price to the prices that other people paid:

...perceptions of fairness are induced when a person compares an outcome (e.g., input and output ratio) with a comparative other's outcome (Xia, Monroe, & Cox, 2004, p. 1)

Customers are less likely to buy if other customers paid less money. And that sparks a dilemma with coupon fields.

If customers see a discount field—and if they don't have one—they infer that other customers are paying a lower price. That's painful.

You don't need to remove this field entirely. Just reduce the saliency of it. Instead of displaying an empty field, show a text link: "Have a discount code?"

This format is less painful than staring at an empty discount field.

Xia, L., Monroe, K. B., & Cox, J. L. (2004). The price is unfair! A conceptual framework of price fairness perceptions. *Journal of Marketing*, 68(4), 1-15.





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