

Psychological Tactics in Marketing: How Color, Urgency, and Anchoring Bias Influence Consumer Behavior

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ABSTRACT

Psychological tactics are deeply ingrained in everyday marketing, subtly influencing consumer decisions without their conscious awareness. This paper aims to explore specific psychological tactics used in marketing to influence consumer behavior and drive sales. Key strategies investigated include color psychology, urgency and scarcity, and anchoring bias. The content for this paper was gathered from academic sources and includes real-world case studies, ranging from the significant uses of color in fast food chains to luxury brands, as well as the BOGO (Buy one, get one free) offer, which anchors the value of two products for one. These examples demonstrate the effectiveness of marketing techniques across global populations and the universal efficacy of these tactics across diverse markets. While the techniques explored in this paper have been proven to yield clear results and drive profits for brands, the applications of these strategies must carefully consider the population to whom they are marketing to ensure appropriateness, addressing variables such as gender, culture, and age. Furthermore, the effectiveness of these techniques depends on their remaining hidden from the consumer's conscious awareness to act effectively upon the subconscious mind. To this end, the paper also investigates the potential pitfalls of these tactics. It considers how the misuse of these techniques could damage brand identity in the long term, which would outweigh short-term increases in consumer sales. By examining both the benefits and drawbacks of these psychological tactics, this paper provides valuable insight for marketers to seek a balance between healthy persuasion and ethical responsibility.

Keywords: Psychology; Marketing; Color psychology; Urgency; Scarcity; Anchoring Bias; Consumer Behavior

INTRODUCTION

Why does a “limited time offer” make you feel anxious? Why does a red tag seem more urgent? And why does \$1.99 feel so much cheaper than \$2.00—even though it’s just one cent apart? These reactions may seem natural—rational, even—but behind the scenes, they are psychological tactics carefully crafted to influence your behavior without you even realizing

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it. In an era where we are constantly bombarded with commercials, advertisements, and marketing strategies, modern marketers have learned that the most effective messages are the ones that bypass logic and appeal directly to instinct.

The objective of this article is to analyze the effectiveness of psychological marketing tactics in influencing consumer behavior, while also addressing the ethical implications associated with subconscious persuasion. The paper ultimately aims to assess how marketers can use psychological techniques responsibly, balancing persuasion with personal autonomy and consumer trust.

COLOR PSYCHOLOGY RESULTS AND DISCUSSION

The roots of color psychology trace back thousands of years to the Ancient Egyptians, who investigated the effects of different colors on people's moods and leveraged their discoveries for health and holistic benefits. The Egyptian word 'iwn,' meaning color, also translates to 'disposition,' 'character,' 'complexion,' and 'nature,' indicating their belief in a deep connection between color and personality. This understanding of color's impact was later adopted by the Romans, Greeks, and practitioners in Ancient China, among others, demonstrating a long-standing recognition of color's powerful influence on human experience (1).

The ancient Egyptians were among the first to explore color healing, a practice documented in their history. Nature played a significant role in their culture, and colors influenced many aspects of their lives, including healing practices. These practices, which associated different colors with various gods, made use of sunlight passing through colored crystals in order to heal the body; separate rooms were also constructed for each color to harness its healing power. Ancient Egypt is recognized as one of the earliest civilizations to utilize color therapy and phototherapy, or light therapy, for healing (2).

Moreover, in ancient Greece, Aristotle, one of the prominent philosophers of his time, theorized that colors were messages transmitted through rays of light by the gods. He suggested that all colors originated from black and white (light and dark) and connected them to the elements of air, fire, earth, and water. These ideas persisted for over two millennia until they were replaced by Newton's color theories (3).

The advancement of modern psychology paved the way for the specialized study of color, which has since been applied in marketing, architectural design, and other

fields. A notable figure in this area was Swiss psychiatrist Carl Jung, who famously stated that "colors are the mother tongue of the subconscious." Jung's research led him to create art therapy, as he believed that expressing emotions through images and colors could aid in healing from trauma or distress. He linked cultural perceptions to the concept that humans have a universal, physical reaction to color stimuli (4).

Our brains are wired to like or dislike specific colors. This is due to the combination of evolutionary bias and personal experiences with color, whether that is positive or negative. For example, from an evolutionary perspective, humans tend to associate the color red with danger or urgency, as it is reminiscent of blood and fire, triggering alertness (1).

Modern science has since provided a deeper understanding of the mechanism behind this influence. As the retina receives light waves, they are transformed into electric impulses and transmitted to the area of the brain called the hypothalamus. Responsible for regulating our hormones and endocrine system, the hypothalamus can be activated by color signals, which cause us to feel joy, sadness, anger, and even hunger (1).

Indeed, the relevance of color in human experience, which can be explained by both cultural and scientific aspects, has proved to be impactful in shaping our thoughts and feelings. With this fact, many industries make use of color psychology in their marketing strategies, either to boost sales, induce certain behaviors, or create brand awareness. For example, luxury brands often use black and gold to convey sophistication and exclusivity. It creates a strong impression of quality and prestige, appealing to consumers' desires for premium and high-end products. Meanwhile, blue is commonly used by banks and tech companies to instill a sense of reliability and security, as the color is known for its calming and trustworthy qualities.

Amongst today's industries, the food industry is perhaps one of the sectors that depend on color psychology most dominantly. The use of color psychology is evident in McDonald's branding, where the red and yellow palette is prominently featured. According to Karen Haller, an expert in behavioral color and design psychology, the color red "triggers stimulation, appetite, hunger", and attracts attention, while yellow "triggers the feeling of happiness and friendliness". When combined, these colors promote a sense of speed and efficiency, encouraging customers to quickly enter, eat, and leave, thus creating an efficient dining experience (5).

Moreover, research reveals that color accounts for up

to 90% of initial impressions and boosts brand awareness and recognition by 80% (6). According to WebFX, ads in color are viewed up to 42% more than the same ads in black and white, and almost 85% of people say that color is the main reason that they buy a certain product (7).

McDonald's started introducing a new logo in Europe in 2009. An unusual green version of the well-known Red and Yellow logo, which is shared by so many other fast-food brands, was reportedly created to inform consumers that the establishment was making efforts to be environmentally friendly. Additionally, McDonald's meal costs in Europe are far higher than in most other nations, which raises the possibility that they are doing a slightly different kind of marketing for their products. This unique approach lends credence to the idea that they are attempting to close a pricing difference by catering to customers who want more relaxed eating experiences. The brand's transition resulted in huge success, and European sales increased by 15% during the first six months after the introduction of green signage (8).

According to Mohebbi, M. (2014), green, which is often associated with healthiness, also helps McDonald's minimize its negative reputation and typical image of a fast food brand. Instead, the new logo appeals to the brand's potential customers who are becoming more health-conscious. In this respect, the brand differentiates itself from other fast-food brands, which nearly always use red and yellow (8).

Because different groups of people have varying reactions to different colors, many brands strategically select colors to resonate with their target audience and enhance their brand identity. For example, Men's Wearhouse is a formal clothing retailer for men that emphasises wedding, business, and special occasions, targeting men between the ages of 25 and 55. Implementing deep blue as the primary color, Men's Wearhouse clearly upholds its image of confidence and sophisticated refinement in its branding. As blue color is commonly found in men's formalwear and suit designs, the brand also makes its blue stand out by using achromatic tones like gray, white, and black, while also utilizing a deep blue color in the majority of its product shoots. When a product isn't blue in a picture, they typically add a blue filter to a picture or incorporate a blue building into the backdrop or accessories (9).

On the other hand, Kate Spade NY, which targets women between the ages of 20-40, relies heavily on pink color. To create a brand as powerful, stylish, and fun, all while displaying traditional elements of feminine traits, Kate Spade NY employs feminine motifs like lace and

the color pink. Even though these traits are currently associated with femininity in a rather negative light, the brand deliberately combats such an unfavorable connotation and instead empowers women to utilize these items to feel strong and confident. This has turned out to have a good social impact and appears to be an incredibly successful marketing tactic.

The main colors used by Kate Spade NY are pink, with accents of dark green and light purple. The pink and green color combination is visually appealing because pink is complementary to green (as well as situated immediately opposite green on the color wheel) and is a shade of red which has been demonstrated to be a hue that women prefer. Kate Spade NY adds pink backgrounds and filters to photos that would not normally have any pink in them, because despite the tiny color difference, their target market willfully becomes more interested in the items, and therefore, such alterations increase sales (9).

Another example that makes use of the color to induce certain behaviors is the call-to-action button study from Hubspot. The marketing firm experimented with two different landing page designs, including red and green buttons, and observed conversions using a sample of 2,000 landing page visitors to see whether the two button colors performed differently. The result showed the red CTA button performed 21% better than the green (10).

However, the perception of color is influenced by many factors, leading to differing reactions and preferences among individuals. For example, men and women often perceive colors differently. According to the gender schema theory, gender stereotypes are instilled in children from birth by parents and society worldwide. In *Pretty in Pink*, The early development of gender-stereotyped color preferences, researchers Vanessa LoBue and Judy S. DeLoache explain that because parents surround girls with pink objects and boys with blue objects, infants may grow to prefer these colors based on familiarity, and tend to select toys and colors that are typically associated with the gender they identify with (11). LoBue and DeLoache examined 192 children, ranging from 7 months to 5 years to test their theories. The results show that Babies did not favor either color. However, at the age of 2-3 years old, girls tend to prefer pink, whilst boys tend to dislike pink, due to their better understanding of gender differences, and look for colors (11).

Beyond gender differences, cultural preferences and aversions to colors can vary significantly, and the perception of colors can differ greatly across cultures. In many countries, like the United States, purple is often linked to royalty and wealth, symbolizing luxury and

power. However, in Italy, purple is considered an unlucky color associated with mourning and death. Similarly, while yellow in Western countries generally represents warmth, cheerfulness, and positivity, in France, it signifies jealousy and betrayal (11).

An example of how color can be misused is when the color purple was used by Euro Disney in marketing materials, souvenirs, and signs, and it was later discovered that the European perception of purple differed from that of the American perception: the color represented death and the cross in Catholic Europe. Because of this, Disney altered its European campaign, drastically cutting back on the use of purple in printed materials and park signage due to the negative associations (12).

Color psychology is a powerful tool capable of influencing consumer behavior and driving sales. By understanding how different colors affect emotions and perceptions, brands can strategically use color to enhance their marketing efforts. However, it is crucial to understand that color psychology is only one aspect of a comprehensive marketing strategy, so it should be used thoughtfully and in conjunction with other marketing principles.

Comprehensively, marketers may consider the colors that align with and reflect the brand's values and personality, while also taking into account the target audience, including their color preferences and cultural associations. Factors such as age, gender, and cultural background can all significantly affect how colors are perceived and interpreted. Therefore, it's essential for marketers to understand the cultural associations and meanings that each color might convey when selecting colors for certain marketing campaigns, and particularly when the aim is to reach new audiences in different countries. This consideration is crucial as colors can evoke different emotions and perceptions depending on the cultural context, and a misstep in color choice could lead to miscommunication or even negative reactions from the target audience.

URGENCY AND SCARCITY RESULTS AND DISCUSSION

Urgency and scarcity are employed as psychological tools that marketers use to impact how the target customers make their purchasing decisions. While urgency refers to the limited time frame available to claim an offer or benefit, scarcity makes use of the notion that there is limited quantity and availability of a product or resource. By creating a sense of Fear of Missing Out or loss aversion,

these tactics are able to accelerate the decision-making process, driving people to make quick decisions to avoid the consequent regret if they do not hastily do so.

A study conducted by HubSpot found that incorporating scarcity-based tactics can boost conversion rates by up to 15%. This significant increase in conversions highlights the effectiveness of these psychological triggers in driving consumer behavior (13).

Urgency and scarcity work by triggering fear of missing out (FOMO), the notion that is closely related to loss aversion. In other words, people value what they have more than what they don't have and hate losing something more than gaining something. When people feel a sense of urgency, they are prone to make impulsive purchases. This is a result of their concern that if they don't act right away, they will miss out.

In this respect, scarcity works by highlighting the limited stocks and therefore increases the perceived value of the merchandise. Scarcity allows customers to stay connected and engaged with brands by looking for updates, keeping an eye on promotions, and special offers. This increase in customer engagement leads to customer loyalty, creating a better connection with the brand. People tend to perceive a product as having greater value when it is rare or high in demand because of their presumption that something must be good if a lot of people want it (14).

One of the most popular tactics that implement scarcity to boost sales is the use of countdown timers to indicate the remaining time or number of items in stock before an offer expires, and incorporating terms such as "now", "today", "limited time", "last chance", and "before it's gone" to compel the target customers to make their decision promptly (15). For example, Apple typically employs scarcity as a marketing strategy, especially when launching its new products. By declaring that the items would only be available in limited quantities or for a short time, the company generates excitement around its products and increases their perceived value among customers. For example, when Apple first released the iPhone X, it was limited, which made users feel compelled to act immediately (16).

One of the largest shopping days of the year is Black Friday, and a key part of its popularity is scarcity marketing. In order to draw customers, retailers instill a sense of urgency by providing exclusive discounts and hard-to-resist bargains on products with limited supply or availability. Customers are pressured to act immediately in order to take advantage of these limited-time deals. This, in turn, increases traffic to their businesses and sales by establishing a quick supply and demand side while at

the same time attracting new clients who receive updates on promotions and could become loyal purchasers. (16) According to queueit.com, “Black Friday online sales grew 8% year-over-year (YoY) to \$70.9 billion globally in 2023” (17).

Moreover, in 2019, Ferrero, the company that makes Nutella hazelnut spread, launched a new product line in Italy — Nutella Biscuits. Ferrero’s scarcity marketing campaign was centered around the concept of “limited edition” packaging. The company decided to produce only three million packages of Nutella Biscuits, which were sold in a special edition packaging that featured gold lettering and a unique design. The limited-edition packaging was created to appeal to Nutella fans and collectors and to create a sense of exclusivity around the product. The limited-edition Nutella Biscuits sold out within a few weeks of their launch, with customers lining up outside stores to purchase the product. The company is believed to have sold over 25 million packs of the limited-edition merchandise by the end of 2020, and its total sales of Nutella Biscuits have almost exceeded 47 million (18).

Even whilst scarcity marketing can be quite successful, there are a few typical flaws that companies should stay away from. A common mistake is exaggerating the concept of scarcity by misrepresenting a product as being scarce or in great demand when it isn’t. This could damage the company’s reputation and result in poor reviews.

Beyond practical consequences, this also raises ethical concerns regarding customer autonomy, informed choices, and trust. As noted by Andy Black, these strategies often manipulate consumers into making impulsive purchases by artificially exaggerating product scarcity or urgency. Tactics such as falsely claiming that a product is “almost sold out” or displaying misleading countdown timers pressure consumers into rushed decisions without full information. This can result in regret, unnecessary spending, and a long-term decline in satisfaction. Vulnerable consumers with limited financial resources are particularly at risk, since they may be more susceptible to urgency-driven marketing pressure. Such manipulation undermines the integrity of marketing practices and erodes consumer trust (19).

Another concern is that the companies should clearly state the reason for such scarcity of the product as well as the length of time the product will be available; without these convincing or substantial explanations, the potential customers may disregard any sense of urgency and consequently lose their interest in the product.

Moreover, when these sales are overused, they can lose their impact entirely. This overexposure can

diminish the sense of urgency that scarcity marketing relies on, ultimately reducing its impact. Limiting the availability of a product can lead to fluctuating demand. If the supply is too limited, it might result in missed sales opportunities. Conversely, if the limit is too high, it might not create the intended sense of urgency. To mitigate these risks, brands should set a reasonable limit on product availability, neither too high nor too low. A balanced approach allows brands to create a sense of urgency and exclusivity without overwhelming or alienating potential customers. By carefully managing the scarcity of their products, brands can effectively stimulate demand while maintaining customer trust and satisfaction.

Moreover, brands should be genuine about applying urgency and scarcity tactics in their sales and avoid overusing them. If customers are constantly bombarded with messages about limited-time offers or low stock, they may become desensitized and start to question the validity of these claims.

The psychology of urgency and scarcity is a powerful tool in marketing, driving sales by tapping into human emotions like fear of missing out (FOMO). By creating a sense of immediacy or highlighting limited availability, brands can significantly influence consumer behavior, encouraging quicker purchasing decisions and enhancing the perceived value of their products.

ANCHORING BIAS RESULTS AND DISCUSSION

Anchoring bias is a cognitive bias in which people rely too heavily on the first piece of information they receive (the “anchor”). This initial information sets a reference point which influences judgements and decisions, and often leads to a biased outcome. This works because we can’t make decisions without context, and it is quite difficult to know if our estimate is right or wrong without a reference point. Anchoring bias operates through cognitive heuristics, a mental shortcut that simplifies the decision-making process. In other words, heuristics bypass complex tasks that normally require detailed analysis or assessment of probabilities and instead reduce them to “simpler judgmental operations.” Although such processes appear to be much less time-consuming, they can result in systematic errors and biases (20).

In 1950, Herbert Simon, a Nobel-prize-winning economist and cognitive psychologist, first introduced the idea of heuristics in psychology, suggesting that although people make rational decisions, their judgment is constrained by cognitive limitations. To make

completely rational decisions would require evaluating all possible alternatives' costs and benefits, although the time available often restricts individuals from making a choice, and the information they possess (21).

According to Amos Tversky and Daniel Kahneman, the representativeness heuristic, the availability heuristic, and the adjustment and anchoring heuristic are the three main heuristics or biases that people employ while making judgments and decisions. Most of the time, we are unaware of the substantial influence that each of these heuristics has on our daily decision-making. In an experiment, Tversky and Kahneman invited participants to estimate a number, such as "The percentage of African countries in the United Nations," to demonstrate the anchoring bias. A random number was selected by spinning a wheel of fortune, and participants were asked to decide whether this number was lower or higher than the amount they would later estimate. Results show that the group given an initial number of 10 made a lower estimate, with the median of ($x = 25$), compared to the group given an initial number of 65, which had a higher median estimate ($x = 45$). It was evident that both groups' initial values had an impact on their estimations. As they weighed the starting value unevenly, it led to a bias in the initial value in their final assessments (22).

A common example of anchoring bias is evident in marketing strategies. Marketers may, for example, display an initial price that is high in order to make following prices appear more affordable. As a result, consumers may conclude that the final price is more appealing or that discounts are more meaningful. Such a distortion of reality can lead to a biased decision that benefits certain sales boosts. A popular technique used is the "Buy one, get one free" offer, which anchors the value of two products together. This strategy makes shoppers feel as though they are getting one item for 100% off rather than two for 50%. According to Uniqodo, "66% of shoppers say that they prefer BOGO to other discount promotions and 93% have taken advantage of BOGO offers at least once." (23). Holidays are a great chance to boost sales using the BOGO technique. For example, holidays like Christmas, Valentine's, and even back-to-school are prime opportunities, as people are already willing to pay and looking for deals, so using the BOGO would only encourage them to spend.

Another major way anchoring bias is used is the 99 trick and the power of the first number. Research consistently shows that the first digit of a price serves as an anchor for how we perceive its cost, which makes us 50-100% more likely to purchase a t-shirt priced at €39.99 rather

than one at €40. In a 2021 study conducted by researchers from Ohio State University, it was discovered that when people had to choose between a small coffee for \$0.95 and a large coffee for \$1.20, only 29% opted for the larger size. However, when the prices of both coffees were raised by 5 cents, with the small cup now priced at \$1 and the large one at \$1.25, 56% of people chose the larger option. This is because the first digit remained the same, which made the price difference appear smaller, resulting in a 51% increase in sales of the more expensive option (24).

Moreover, anchoring bias also works by changing the context to make the price seem lower. For example, Nespresso introduced the innovative concept of selling coffee in pods, with each pod representing a single cup of coffee. This strategy effectively shifted the anchor from the cost of a bag of coffee to the cost of a cup of coffee (24). This is because people are familiar with the cost of coffee bags. This established price acts as an anchor, so when we see a coffee bag priced at €45, we instinctively compare it to the typical price we know, making it appear overly expensive. However, when consumers think about a cup of coffee, they compare the price of a Nespresso pod to the cost of a cup at Starbucks. Consequently, 50 cents for a Nespresso pod appears to be a great deal compared to €3.50 for an Americano at Starbucks (24). KFC launched a marketing campaign with the headline "A deal so good you can only buy four." This message was prominently displayed across various media channels, including TV, billboards, and other formats, reaching a wide audience. Even if a person is intended to purchase fewer than 4, the anchor can subconsciously influence them to purchase a number closer to 4 and therefore end up buying more than they usually would. By setting a purchase limit, KFC effectively utilized anchoring bias to influence consumer behavior. As a result, KFC sold 56% more French fries (24).

However, anchoring bias can lead to customers making decisions that they later regret, and if the anchor price sets false information, consumers may feel dissatisfied if the goods fail to meet their expectations, and as a result, feel negatively towards a brand if they notice that anchoring techniques are being used to purposely manipulate them. This can damage their trust in the company.

Moreover, overemphasizing price anchoring may cause you to overlook other crucial facets of your offering, such as innovation, customer service, and product quality (25). Anchoring bias plays a crucial role in driving sales by subtly influencing consumer behavior and decision-making.

Through anchoring, marketers can set reference points

Table 1. Summary of Psychological Tactics and Ethical Considerations

Marketing Tactic	Psychological Mechanism	Example Application	Ethical Consideration
Color Psychology	Emotional & psychological response	McDonald's red/ yellow; Kate Spade	Cultural sensitivity; avoiding stereotyping
Urgency & Scarcity	Fear of missing out (FOMO)	Black Friday sales; limited availability of iPhone X	Avoid overuse or deception; maintain transparency
Anchoring Bias	Reference point manipulation	BOGO deals, 99-cent pricing	Ensure reference prices are honest; avoid consumer regret

that shape perceptions of value, leading consumers to make purchases they might not have otherwise considered. By presenting initial information, such as a price, quantity, or perceived deal, marketers create a context that consumers rely on when making decisions. This cognitive shortcut, while effective, can lead to increased sales as consumers are nudged toward decisions that favor the marketer's objectives.

CONCLUSION

In conclusion, this paper demonstrates that three key marketing strategies, color psychology, urgency and scarcity and anchoring bias, have been employed by major brands around the world in order to subtly influence consumer behavior (Table 1). Each marketing technique works in different ways. Color plays a crucial role in shaping perceptions and emotional responses. Urgency and scarcity create a sense of immediacy, driving consumers to act quickly to avoid missing out. Anchoring bias gently guides consumers' decisions by framing their expectations and choices around initial reference points.

These psychological tactics, while effective in boosting sales and shaping consumer choice, also carry significant ethical responsibilities since they rely on psychological understanding to influence people's thought processes regarding consumer decisions. Therefore, they should be applied thoughtfully and ethically to avoid potential pitfalls. To support more ethical marketing practices, future research should investigate how psychological tactics affect consumers across different cultures, age groups, genders, and socioeconomic backgrounds. Understanding these diverse responses can help marketers avoid overly generalized approaches that may unintentionally exploit vulnerable groups. By integrating insights from behavioral ethics and inclusive design, ethical marketers would be able to craft marketing blueprints that not only resonate deeply with consumers but also avoid exploitation.

DECLARATION OF CONFLICT OF INTEREST

The authors declare that there are no conflicts of interest regarding the publication of this article.

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