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The Psychological Impact of Comparing Mind in Designs of Retail Stores, Products, and Advertising*

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Abstract

Purpose: This study investigates the psychological mechanisms of comparison within the design context of retail stores, products, and advertising. The research aims to expand the understanding of comparison psychology, encompassing social, cognitive, perceptual, and self-comparisons and their application in design practices. **Research Design, Data, and Methodology:** The study employs a comprehensive review of psychological theories related to comparison psychology. They were selected through extensive research on literature pertaining to design psychology and consumer behavior. The research integrates insights from psychology, marketing, consumer behavior, and design theory, supported by various design examples of retail stores, products, and advertising, to demonstrate the practical applications. **Results:** The findings reveal that comparison psychology significantly impacts consumer preferences and user experiences. For instance, the assimilation effect and prospect theory highlight how comparisons shape value judgments and design perceptions. Practical examples are used to illustrate the profound influence of comparative judgments in design. **Conclusion:** The study advocates for a "psychologically-informed approach" to design, promoting designs that are not only aesthetically pleasing and functionally sound but also psychologically aligned. By bridging the gap between psychological theories and practical design implementations, the research provides valuable insights for designers, marketers, and psychologists, enhancing the psychological efficacy of design.

Keywords : Retail Space Design, Retail Branding, Design Psychology, Comparison Psychology, Design Cognition

JEL Classification Code: M3, M37, Z11

1. Introduction

In today's world, we are constantly hit with a flood of information and images of perfect lives on social media, leading us to compare ourselves to others more than ever before. This ubiquitous practice harbors profound implications for human psychology. The motivation for this research stems from this observation. Furthermore, we found that the spectrum of comparison is broader than we usually think, from the social comparison theory (Festinger, 1954) to the complex cognitive and perceptual comparisons (Massaro & Anderson, 1971) and that they are inherently embedded in our psyche. Even referential comparison (Kahneman & Tversky, 1979), a concept intricately linked

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with consumer behavior, highlights how our value judgments are swayed by pre-established reference points, often manipulated by savvy marketing strategies.

Likewise, these intricate dynamics of comparison play a pivotal role in the intersection where psychology meets design, affecting the fundamental perceptions of value, aesthetics, and utility of the design (Lee et al., 2024). This paper aims to explore the connection between the psychological theories related to comparisons and their applications in the realm of design, especially in the design context of retail stores, products, and advertising. By delving into how psychological comparisons influence design decisions and user experiences, this research endeavors to bridge the gap between psychological theories and practical design implementations, thereby enhancing the psychological efficacy of design.

Grounded in a review of the literature and design case studies, this study aims to support a "psychologically-informed approach to design." To do this, we first analyze the psychological comparison theories that can be applied to design and then suggest the connection between these theories and design practice. The investigation focuses on the multifaceted ways in which comparison influences human cognition and emotion and how these effects are harnessed in the designs of retail stores, products, and advertising. That is, this research tries to analyze and synthesize insights from psychology, marketing, consumer behavior, design theory, and design case studies, addressing a gap in the literature by providing a link between the psychological constructs of our comparing mind and practical design considerations. We hope that it can offer valuable insights for designers, marketers, and psychologists alike and, as such, can strengthen this interdisciplinary field.

2. The Effects of Comparison in the Human Mind

In the realm of psychology, the phenomena of comparison are not merely incidental but foundational to understanding human cognition, behavior, and self-perception. For example, Fardouly et al. (2015) conducted an experimental investigation into the effect of Facebook usage on social comparison and self-perception. Their study demonstrated that women in the experiment who spent ten minutes browsing their Facebook feeds reported a decrease in mood compared to those who engaged with a control website. Moreover, participants in the Facebook condition also expressed greater dissatisfaction with their physical appearance.

This comparing behavior is not confined to social interactions but extends to cognitive and perceptual judgments, as illustrated by the Ebbinghaus illusion (Massaro & Anderson, 1971). Observe the two squares located at the center of Figure 1. Despite sharing identical dimensions, the square on the left appears perceptibly smaller, akin to experiencing a sense of diminution in the presence of its larger surrounding counterparts. Such comparisons, emblematic of a deeply ingrained human propensity to evaluate oneself relative to others, underscore the influence of comparative judgment, extending its reach to the domain of visual perception.

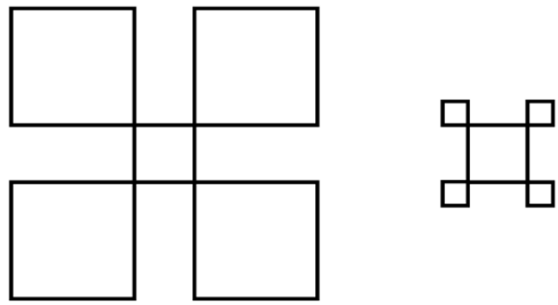

Figure 1: Ebbinghaus Illusion [Image Made by the Author]

Moreover, the exploitation of comparison psychology in marketing strategies exemplifies the practical applications and consequences of this psychological tendency. For instance, the yearly spectacle of Victoria's Secret's "Fantasy Bra" served as a strategic marketing maneuver. This product, distinguished by its exorbitant price tag, was emblematic of an approach designed to recalibrate consumer perception, rendering other premium offerings of the brand comparatively more accessible. The juxtaposition of this pinnacle of luxury against the broader product range effectively minimized the perceived cost of Victoria's Secret's other high-end items (Lee et al., 2024).

Therefore, we suggest that the concept of "comparison" is not confined to social comparison but can be broadened to the areas of cognitive and perceptual comparison. Furthermore, the human tendency to compare plays a crucial role, offering several positive functions that enhance understanding, learning, and decision-making, thereby facilitating learning and memory. Comparison helps in organizing new information in the mind by linking it with existing knowledge. This associative process enhances memory retention and recall (Willoughby et al., 1994). The comparison also enhances understanding. By comparing different pieces of information to a prototype or an exemplar, individuals can effectively understand concepts, identify relationships, and carry out categorization (Dopkins & Gleason, 1997; Reed, 1972). In addition, perceptual comparisons improve the ability to notice differences and similarities among stimuli, which is essential for recognizing patterns, objects, and faces. This discrimination capability is fundamental for survival, enabling individuals to distinguish

between harmful and safe environments (Schusterman et al., 2000). Most of all, comparison improves decision-making. That is, comparing alternatives is at the heart of decision-making. By evaluating the pros and cons of different options, individuals can make more informed choices that align with their goals and preferences.

Therefore, the comparison mechanisms in human psychology ensure that our cognitive activities remain efficient, leading to a coherent and unified perception of the environment. This paper aims to dissect the types and outcomes of comparison psychology, offering insights into its role in design.

3. Psychological Comparisons Related to Design

3.1. Types of Comparison

In relation to design, this study analyzes the psychology of comparison into three categories – social comparison, cognitive & perceptual comparison, and self-comparison.

3.1.1. Social Comparison

"Social comparison" refers to the process by which individuals evaluate their own opinions, abilities, and attributes by comparing themselves with others (Gerber, 2018). This theory, first systematically introduced by Leon Festinger (1954), posits that people are inherently driven to gain self-evaluations through comparisons with their peers. He delineated two primary types of social comparison: upward and downward. Upward social comparison occurs when individuals compare themselves to others who are better off or more competent, which can motivate self-improvement but may also lead to feelings of inadequacy. Conversely, downward social comparison involves comparing oneself to those less proficient or fortunate, often increasing self-esteem and subjective well-being.

Therefore, social comparison is a fundamental aspect of human psychology that assists in self-evaluation and identity formation. As society continues to evolve, the dynamics of social comparison will increasingly intersect with technological advancements, possibly intensifying their psychological impact.

3.1.2. Cognitive & Perceptual Comparison

"Cognitive and perceptual comparison" is a psychological process in which individuals assess differences and similarities between sensory stimuli, objects, concepts, and experiences (Paivio, 1975). Below are the functions of cognitive comparison.

Firstly, it supports evaluating and identifying sensory stimuli. By comparing sensory inputs, individuals can make sense of complex environments, recognize patterns, and navigate the world more effectively. Secondly, cognitive comparison is crucial in learning and understanding, as it helps individuals figure out new concepts by relating them to previously known information. This not only aids in comprehension but also enhances memory retention. Thirdly, it enhances decision-making and problem-solving. Here, cognitive comparison involves evaluating the pros and cons of different options, scenarios, or potential solutions to determine the most effective one. According to a study, faced with an alternative between two choices, people often compare only the differences and disregard the components that the alternatives share. In this way, less cognitive energy is spent on decision-making (Kahneman & Tversky, 1979). Furthermore, people compare an option not only with another option but also with the reference point they have at the moment: it is called the referential comparison (Kahneman & Tversky, 1979).

In summary, cognitive and perceptual comparison is a versatile process that plays a critical role in how we analyze information, acquire knowledge, make decisions, and solve problems. Its influence underscores its utility in enhancing effective thinking and adaptive behaviors across varied contexts.

3.1.3. Self-Comparison

"Self-comparison" extends not only to assessing oneself in relation to others but also against personal standards and ideals. In this respect, this comparison can be a part of both "social comparison" and "cognitive comparison." Thus, we categorized it as a separate type of comparison. Because social comparison has already been analyzed, in this paper, self-comparison means individuals assessing themselves against internal benchmarks (personal standards and ideals). This process is integral to self-regulation, self-evaluation, and identity formation.

Self-comparison includes an introspective examination where personal aspirations and the actual self-concept are continuously compared and evaluated. Through this process, individuals identify discrepancies and are motivated to engage in behaviors that help reconcile these gaps. Self-actualizing lives can be achieved when there is congruence between how individuals see themselves and how they wish to be seen (Mahoney & Hartnett, 1973). Aligning closely with one's ideal self can lead to greater feelings of self-actualization, characterized by the absence of hostility and the acceptance of oneself, others, and the world as they are. On the other hand, a lack of congruence could lead to non-self-actualizing behavior (Mahoney & Hartnett, 1973; Maslow, 1962). This emotional feedback loop is critical in maintaining or altering behavior to better meet personal standards.

3.2. Outcomes of Comparison

In this study, we suggest that the comparisons can result in three psychological phenomena: assimilation, contrast, and compromise. "Assimilation" refers to cognitive phenomena wherein individuals' perceptions of a concept, object, person, or even self-image led to a convergence in perceived similarities with the target that they compare. "Contrast" happens in situations where individuals evaluate a characteristic that stands in sharp relief against a contrasting backdrop, leading to an exaggerated sense of difference (Sherif et al., 1958). For example, after reviewing a series of mediocre job applicants, a merely competent candidate might appear exceptionally qualified. "Compromise" is a phenomenon where individuals are more likely to choose an option that represents a middle ground among available alternatives (Simonson & Tversky, 1992). Psychologically, it is underpinned by the aversion to extremes that many people exhibit, preferring not to venture too far toward any end of a spectrum.

3.3. Matrix for Comparison Psychology Related to Design

With the analysis results suggested above, we propose the following matrix for psychological comparisons related to design practices (Table 1). In the next chapter, we will analyze the theories of comparison psychology related to design practices, and they will be allocated in this matrix.

Table 1: Matrix for Comparison Psychology Related to Design

	Social Comparison	Cognitive & Perceptual Comparison	Self-Comparison
Assimilation			
Contrast			
Compromise			

4. Theories of Comparison Psychology Related to Design Practices

In this section, we suggest theories of comparison psychology related to design practices. They were selected through extensive research on literature pertaining to design psychology and consumer behavior. The process for analyzing the theories was as follows.

First, books about design psychology were collected. Books with a rating of 4.5 or higher out of 5.0 on Amazon.com were selected. As a result, five books were selected (Lidwell et al., 2010; Weinschenk, 2011; Wendel, 2020; Whalen, 2019; Yablonski, 2020). In addition to these books, this study also analyzed psychological theories from consumer behavior texts (Hoyer et al., 2018; Kardes et al., 2015; Mothersbaugh et al., 2020; Solomon, 2019). Moreover, though the theories were initially selected from these books, the literature search of academic journal articles regarding these theories was also conducted to supplement the initial analysis of the theories from the books.

Table 2: 14 Theories of Comparison Psychology Related to Design Practices

	Social Comparison	Cognitive & Perceptual Comparison	Self-Comparison
Assimilation	1. Assimilation Effect 2. Conformity Theory & Group Persuasion 3. Social Nudge	1. Context Effect 2. Schema & Mental Model 3. Anchoring Effect	1. Self-image congruence theory
Contrast	4. Contrast Effect	4. Prospect Theory & Referential Comparison 5. Von Restorff Effect	*
Compromise	*	6. Compromise Effect 7. Center Stage Effect 8. MAYA	2. Licensing Effect

This paper analyzed a total of 14 design-related comparison psychology theories. Even though there were more theories related to comparison psychology, in the final stage, we only selected the ones that we could find relatable design cases. Table 2 shows the results.

4.1. Social Comparison Theories & Design Cases

4.1.1. Assimilation Effect

Firstly, we analyzed the theories related to social comparison. The term "assimilation effect" denotes a cognitive phenomenon in which individuals' perceptions of an entity – be it a concept, object, person, or self-image – foster convergence between the entity under consideration and another entity to which it is compared. The assimilation effect can be influenced by factors such as context, prior experiences, and cognitive schemas, shaping individuals' interpretations and decision-making processes (Sherif et al., 1958).

When it is applied to design practice, we can consider the strategy of "comparative ads." Like humans, brands also engender social comparisons. Sometimes, they try to emphasize the superior differences but, at times, foster the

assimilation effect. The assimilation effect in comparative advertising refers to a strategy where a lesser-known or smaller brand compares itself to a market leader in order to elevate its perceived value by association. This effect leverages the established reputation of the dominant brand to enhance the comparative brand's standing in the minds of consumers. Illustrative of this is Burger King's "Big King" ad campaign. Burger King has made various versions of ad designs that directly compare its burgers to McDonald's, particularly the Big Mac. The Big King burger was advertised as having a similar stack and ingredients but being bigger and better tasting than the Big Mac, aiming to pull Burger King up to the iconic status of McDonald's flagship product.

4.1.2. Conformity Theory & Group Persuasion

Conformity, conceptualized as a form of group persuasion, constitutes another social comparison theory linked to the assimilation phenomenon. This theory illustrates the human inclination to harmonize with the social environment. Consider the common experience of feeling compelled to align with the prevailing group norm, often exemplified by the desire to be accepted by a peer group perceived as superior.

The "Asch Conformity Experiment" (Asch, 1963) serves as a seminal exploration of this urge to conform. In this experiment, Asch engaged a cohort of eight individuals in a straightforward task: selecting the line out of three options (A, B, or C) that matched a target line. Ostensibly simple, the experimental design included a critical manipulation; of the eight participants, only one was genuine, and the others were confederates who unanimously selected an incorrect line. Positioned last in the response sequence, the actual participant faced increased conformity pressure. The control group, devoid of confederates, served as a baseline.

The findings were striking: 75% of participants in the manipulated condition conformed at least once, whereas only 25% consistently resisted peer influence. Conversely, errors were virtually nonexistent in the control group, where less than 1% failed the task. These results highlight the profound impact of social pressure on conformity behaviors, often leading individuals to forsake their own judgment to avoid social alienation.

The principles of conformity are readily utilized in commercial and design contexts, where marketers and designers harness group influence to enhance product appeal. Apple's iPod silhouette ad campaign is a good example. This iconic campaign featured black silhouettes of people dancing while wearing the white iPod headphones. These ads communicated a message of belonging to a cool, music-loving community. The widespread visibility and the sense of being part of a stylish, tech-savvy group encouraged consumers to conform and purchase iPods.

4.1.3. Social Nudge

Another social comparison theory related to assimilation is the "social nudging strategy." Nudge theory (Thaler & Sunstein, 2008, 2021) posits that carefully crafted environmental cues can subtly influence individuals towards making decisions that are both personally beneficial and socially virtuous, such as a healthier lifestyle, savings for retirement, or organ donation. The theory underscores the potential of subtle prompts without coercive measures. The social nudging is one of the nudge strategies. It can be very effective because humans are inherently social beings. Whether intentionally or not, individuals are influenced by the recognition and feedback from others with considerable eagerness.

With the proliferation of social media, social desire has burgeoned into a significant phenomenon. Businesses capitalize on this trend by encouraging consumers to engage actively with their brands through social media. This is evident in how flagship stores of renowned brands are meticulously designed to include visually appealing photo spots, restricting photography to smartphones to maximize social media compatibility. Gucci Garden in Florence is a good example. Located in a historic palazzo, this store includes a museum, boutique, garden, and artistic installations, offering a unique blend of historical and modern aesthetics perfect for photography.

4.1.4. Contrast Effect

Let's move into the contrast phenomenon in social comparison. The "contrast effect" means that the perception of two or more items can be significantly altered as a result of their juxtaposition (Sherif et al., 1958). This effect emerges when distinctly different items are compared, leading to a heightened awareness of their respective characteristics.

Earlier, comparative ads are explained in the context of the assimilation strategy. However, comparative ads can emphasize the differences in the context of the contrast strategy, too. For instance, in its advertising, Audi took direct shots at established luxury brands like Mercedes-Benz and BMW by framing them as "old luxury." With the slogan "Goodbye Old Luxury, Hello New Luxury," Audi positioned its cars as embodying a new, more modern form of luxury, contrasting the traditional and possibly outdated perceptions associated with its competitors.

4.2. Cognitive & Perceptual Comparison Theories & Design Cases

4.2.1. Context Effect

Next, we analyzed the theories related to cognitive and perceptual comparison. The "context effect" is a theory that

emphasizes the assimilation phenomenon in our cognition. It posits that human judgments are profoundly influenced by the environment in which an object or experience is situated. For instance, consider Figure 2 – a sequence of characters in the upper row and a sequence of numbers in the lower row. However, the character "B" in the upper row and the "13" in the lower row are identical shapes. Still, they are interpreted differently depending on their surrounding context.

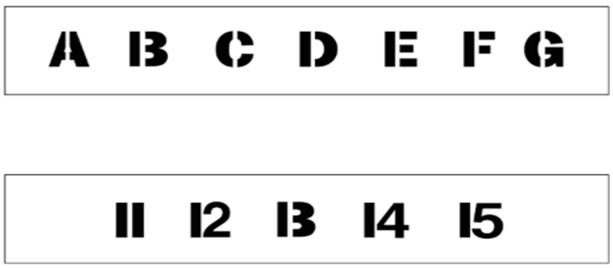

Figure 2: Context Effect [Image Made by the Author]

Research indicates that even subtle environmental context, such as the degree of comfort on a store floor, can influence consumer judgments regarding the quality of products offered within that space (Meyers-Levy et al., 2009). This suggests that the ambient "coziness" of a store creates a contextual backdrop that enhances the perceived value of its merchandise. Therefore, prestigious brands exploit this phenomenon extensively, investing in creating not just first-class products but also store designs with high aesthetics. The Seoul House of Dior is a good example (Figure 3). Designed by Christian de Portzamparc, this flagship store integrates luxury with artistic expression. The building's facade design features fluid, white, sculptural forms that captivate the eye, reinforcing the high-art ambiance. Inside, the inclusion of a gallery space and real artworks by famous artists further enriches this context, promoting the products as not merely fashionable items but as wearable art.

Figure 3: Seoul House of Dior, Christian de Portzamparc, 2017, Seoul
[Left: Berk Ozdemir / Shutterstock] [Right: Photographed by the Author, 2017]

4.2.2. Schema & Mental Model

The "schema" is another cognitive theory that emphasizes the assimilation phenomenon. It is a mental structure formed through repeated experiences in the past (Lipshitz & Shaul, 2014). For instance, the schema for a car is generally understood as a motorized, four-wheeled vehicle tailored for road usage, incorporating elements such as seats, an engine, wheels, and a steering mechanism. "Mental models" – internal representations of how processes operate or objects function – are also shaped by prior experiences. While related to schemas, mental models are more about the knowledge involved in interactions with systems. For example, the mental model of a car would detail the operational knowledge required for driving.

Schema and mental models allow individuals to assimilate and interpret new information efficiently. That is, it facilitates navigation through life's complexities by making the recognition of new information smoother when it aligns with pre-established schemas or mental models; conversely, misalignments require more cognitive effort.

Design professionals frequently employ schemas or mental models to intuitively guide user interactions with designs. An illustrative case is "A Light with a Dish" by N. Fukasawa, which features a desk lamp with a base resembling a dish. This design leverages existing schemas about dishes to intuitively suggest this product's additional utility for storing small items like phones, watches, and keys.

4.2.3. Anchoring Effect

Let us explore the third dimension of the assimilation phenomenon within human cognition, specifically the profound influence of the first impression – the "anchoring effect" (Tversky & Kahneman, 1974). Humans have a predisposition to assign disproportionate weight to the initial piece of information encountered. Consider the mind as a vessel navigating a vast ocean of information; the first piece of information serves as an anchor. Consequently, just as its anchor's chain constrains a ship's mobility, our comprehension of subsequent information is similarly restricted, often causing our thought processes to circulate persistently around this initial anchoring point.

For design examples, consider why one might judge a book by its cover or find a store's facade and display window particularly alluring. These reactions are attributable to the anchoring bias initiated at the entry point of a design. This initial moment captures a customer's attention and sets the tone for the following experiences. For instance, famous brands' flagship stores usually present a fabulous facade design. It not only captivates visitors' eyes but also primes them for a premium experience that will follow, effectively serving as the initial guide for the consumer's subsequent perceptions and interactions. Prada Tokyo in Aoyama is a good example (Figure 4). This store is striking at first sight

because of its geometric glass facade made of diamond-shaped glass panes. It not only stands out for its aesthetic but also functions to bring a unique play of light inside the store, enhancing the shopping experience while showcasing Prada's innovative spirit in design.

Figure 4: Prada Tokyo in Aoyama, Herzog & de Meuron, 2001, Tokyo [August_0802 / Shutterstock]

4.2.4. Prospect Theory & Referential Comparison

Next, let us explore the contrast phenomenon in cognitive and perceptual comparison through "referential comparison," rooted in the influential "prospect theory" (Kahneman & Tversky, 1979). This theory suggests that valuation depends not only on intrinsic values but also on comparative assessment against a reference point. This means perceptions of value shift as these reference points change.

This psychological manipulation can be applied to store layout designs. High-end retailers often strategically display their most expensive items at the forefront of the store, making subsequent items seem more affordable by comparison. Designers leverage this principle to craft memorable consumer experiences in experiential spaces, too. There, designers orchestrate a progression from emotionally low contexts as a baseline to heightened emotional peaks, as observed in designs where customers traverse through a subdued, dimly lit area before arriving at the main, dazzling attraction. This strategic use of emotional and perceptual contrast effectively enriches the overall consumer experience. For example, the journey to the observation deck of the Burj Khalifa in Dubai involves moving through intentionally understated spaces. This experience culminates in the arrival at the observation deck, where expansive, brightly lit views of Dubai await, offering a dramatic contrast that enhances the feeling of being at the top of the world's tallest building.

4.2.5. Von Restorff Effect

Human cognition demonstrates a marked preference for remembering extraordinary stimuli over mundane ones. This contrast phenomenon, referred to as the "Von Restorff effect," posits that supernormal stimuli are more memorable than normal, familiar stimuli (Hunt, 1995). As such, avant-garde designs, which may initially seem startling, are likely to be more vividly retained in memory. Moreover, when presented with multiple stimuli simultaneously, the human mind tends to focus on elements that are distinctly different from their surroundings. For instance, in the string "GPA8KQF," the numeral "8" typically captures attention first, leading to more confident recall of its presence compared to the surrounding letters.

The impact of the Von Restorff effect is exemplified in Volkswagen's Beetle. Its design was markedly different from the boxy, angular car designs prevalent in its time. Its rounded edges, friendly shape, and distinctive bug-like appearance made it highly memorable, standing out from the competition and capturing the hearts of multiple generations. Similarly, Steve Jobs' choice of attire for public presentations– jeans and a black turtleneck, as opposed to the conventional suit–also highlights this cognitive phenomenon. Jobs' distinctive style not only differentiated him from other speakers but also made his appearance as memorable as his presentations themselves.

4.2.6. Compromise Effect

Next, let us suggest the cognitive and perceptual theories that present the compromise phenomenon. Upon entering a store and being presented with a multitude of options, individuals frequently opt for the intermediate choice, particularly when unsure of the optimal value proposition. This behavioral pattern is known as the "compromise effect," which provides a perceived safety net and a balanced decision-making framework (Simonson & Tversky, 1992). Consider the typical strategies employed by online streaming platforms or software subscription services. These often include a basic plan, a premium plan, and a strategically positioned standard plan. Unsurprisingly, the standard plan tends to attract most consumers due to its appealing equilibrium between affordability and feature availability.

Businesses often design product lines specifically to exploit this bias. For example, many furniture companies, like IKEA or Herman Miller, offer modular sofa systems that come in various configurations, from basic setups to expansive suites. Designers often create a standard configuration that serves as a balanced middle option, providing adequate seating and features without overwhelming space requirements or cost. This standard set typically appeals to the average consumer seeking a practical yet comfortable living room solution.

4.2.7. Center-Stage Effect

The "center-stage effect" represents a spatial variant of the compromise effect, elucidating how the physical

positioning of options can significantly influence consumer preferences and choices (Valenzuela & Raghubir, 2009). This phenomenon posits that humans are innately inclined to select items situated centrally within a lineup.

For example, in art galleries, major works or central themes of exhibitions are often placed in the middle of the main viewing rooms. This placement ensures that these works are the focal points and receive adequate attention from visitors, leveraging the center-stage effect to enhance the impact of the featured artwork. Also, in car showrooms, the newest or most luxurious models are often displayed in the center of the showroom floor. This prominent placement taps into the center-stage effect, making these cars the focal point for potential buyers.

4.2.8. MAYA (Most-Advanced-Yet-Acceptable)

Another compromise phenomenon in cognitive comparison is the "MAYA principle." The MAYA principle, an acronym for "Most-Advanced-Yet-Acceptable," represents a psychological strategy urging designers to harmonize the comfort of familiarity with the allure of novelty to ensure market resonance (Blum, 2004). This principle posits that while consumers seek innovation, they also crave the reassurance of the familiar. Thus, most customers are disenchanted with monotonous designs and similarly disapprove of excessively avant-garde creations. Achieving a balance between these extremes is a must-do challenge for designers to make their designs successful in the market.

Consider, for example, the design of the Yamaha electric violin in Figure 5. While it eliminates the conventional soundbox, it retains a vestigial outline, thus providing a subtle nod to the familiar within a framework of innovation.

Figure 5: Yamaha Electric Violin [Lebedinski Vladislav / Shutterstock]

4.3. Self-Comparison Theories & Design Cases

4.3.1. Self-image Congruence Theory

Lastly, we analyzed the theories related to self-comparison. Self-comparison in consumer behavior is intricately linked to self-image congruency theory (Sirgy, 1982). This theory posits that consumers assess products based on how well the brand's image aligns with their own self-perceptions. When there is a match, outcomes such as heightened satisfaction, increased purchase or repurchase intentions, positive word-of-mouth, and robust brand loyalty are likely to ensue.

To elucidate this with a tangible design example, consider the distinction between Armani and Versace. Armani's apparel is renowned for its neutral color palette, including shades like beige and gray, and features simple, timeless, and sophisticated silhouettes. This brand appeals predominantly to high-caliber professionals and celebrities who prefer to underscore their intellect and professional prowess rather than mere aesthetics. Conversely, Versace is noted for its vibrant psychedelic prints, sensual cuts, and bold color contrasts, epitomizing a style of sophisticated yet intense luxury. Versace resonates with those who aspire to display sensuality, luxury, passion, and opulence, effectively catering to consumers who seek to challenge societal norms through expressive fashion.

4.3.2. Licensing Effect

The interesting theory regarding self-comparison is the "licensing effect," which is a kind of compromise between positive self-esteem and human desire for self-indulgence. This effect posits that engaging in virtuous actions can paradoxically license subsequent indulgent behavior. As delineated by Khan and Dhar (2006), this occurs because committing a morally commendable act is perceived to replenish one's self-esteem, thereby granting implicit permission to engage in less virtuous activities without significant remorse. Essentially, individuals feel they have "earned" the right to deviate from their usual ethical standards. Practical examples of the licensing effect are observable in various contexts: employees who receive accolades for their diligence may perceive themselves as justified to lessen their effort subsequently; similarly, individuals who volunteer for a good cause might later prioritize their desires over altruistic deeds, rationalizing this shift as deserved reward for their prior generosity.

Marketers and designers have adeptly leveraged this cognitive bias. For example, in IKEA's store display designs, the sustainability of its products, such as furniture made from recycled materials or sustainably sourced wood, is frequently highlighted. Customers who choose these products might feel that they have contributed to environmental conservation, which could license them to make additional, perhaps less sustainable, purchases because they feel they have already done their part.

5. Conclusion

This research has tried to elucidate the important role of comparison psychology in design, highlighting the complex interplay between human cognition, behavior, and design practices. By utilizing a framework that integrates social, cognitive, and self-comparison, the study has tried to uncover the psychological underpinnings that influence our interactions with designed products and environments. These comparative processes are shown to shape user experience, enhancing the psychological efficacy of the design. These insights could be important for designers and marketers who aim to leverage these innate human tendencies to cultivate brand loyalty and guide purchasing decisions.

The investigation into social comparison theories demonstrates their substantial impact on consumer perceptions and behaviors. In the realm of cognitive and perceptual comparisons, theories such as the anchoring effect and the context effect have demonstrated how initial impressions and the surrounding environment can sway consumer judgments. Moreover, self-comparison emphasizes the necessity of aligning product design with the consumer's self-view and ideals.

However, the study is not without limitations, which open directions for future research. Predominantly, the theories and cases discussed are rooted in Western contexts, which might not universally apply across different cultural settings. Future research could, therefore, explore the applicability of these theories in diverse cultural contexts to determine if similar design psychological principles provoke comparable responses globally. Another overlooked aspect is the potential psychological costs associated with continuous comparisons, such as anxiety and decision fatigue, suggesting further exploration into these adverse psychological effects and strategies for their mitigation.

Looking ahead, the intersection of psychology and design is poised to become increasingly significant within the intricate consumer landscape. This study hopes to advocate for a psychologically-informed approach to design, essential for creating experiences that are aesthetically pleasing, functionally sound, and deeply aligned with user psychology. Therefore, this research strived to bridge existing gaps by linking comparative psychological theories with practical design considerations. This integration might be helpful in shaping consumer preferences and driving psychologically enriched innovations that are accessible and fulfilling.

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