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# The Psychology Behind Design

A Marketing Perspective

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# Preface

Embarking on the journey to write this book has been both a challenging and rewarding experience. Our ambition was to demystify the complex interplay between consumer psychology and design, making it accessible, engaging, and, most importantly, applicable to our daily lives. We also intended for this book to be accessible not only to professionals in marketing and design but also to anyone intrigued by the psychological implications of design in their everyday lives. Therefore, this book is not just a collection of theoretical insights. It is a deep dive into the mind tricks, turning everyday design into a peek into our psyche.

The chapters unfold a narrative that journeys through the equilibrium of design and psychology, the subtle nudges that influence our decisions, the social dynamics at play in our perceptions, and the visual dominance that shapes our environment. Beyond these, the book also delves into the psychological constructs of the self, cognitive biases, the allure of minimalism, and the hedonics of design, among other topics.

This book is a manifestation of our belief that understanding the psychology behind design can enrich our daily experiences, offering insights into how and why certain designs resonate with us. That is, we're here not just to convey knowledge; we're inviting readers on a treasure hunt to spot those psychological gems hidden right before their eyes. We mixed in some laughs and real-life design stories to make sure this ride is as fun as it is enlightening. Therefore, this book is intended to be not just read but experienced—an opportunity to see the world anew through the lens of consumer behavior and design psychology. We hope every page-turn lights up a little spark of discovery on the psychological wonders behind our daily encounters with design, from the mundane to the extraordinary.

In writing this book, we also aimed to share our passion for the subject, hoping to show you the powerhouse that design can be, not just as a tool for aesthetics or function but as a fundamental component of our psychological landscape. May this journey freshen up how you look at design and consumer psychology.

In bringing this book into the world, special appreciation is due to our publisher. This collaboration has not only enriched the book but also made the process a gratifying experience. A big thanks for making our dream a reality.

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# Chapter 1

## The Symphony of Equilibrium



“You must be kidding! You call that art? Come off it!”.

At some modern art exhibition, confronted by artwork made of junk materials, we’ve all grumbled something like this, haven’t we? Maybe we didn’t voice it, but the thought bubble was definitely bobbing around our heads. After all, it’s an art exhibition. No need to turn a searchlight on our cultural naivete. But still... There was an undeniable itch, a sense that this artist was twisting our arms, forcing us to swallow this unsavory dish.

There was even an artist who, literally and seriously, was kidding about art. In an act of defiance to traditional art, Marcel Duchamp granted artistic dignity to a genuine urinal, a readymade product, not a painstakingly crafted artwork (Fig. 1.1). He autographed it, named it “Fountain,” and dusted off his hands. And the audience? Well, their response was probably along the lines of, “You must be kidding! You call that art? Come off it!”.

If I attempted something like this, people would say that I started with a sort of rubbish and wrapped it up as complete rubbish.<sup>1</sup> When Duchamp does it, it’s “Art” with a capital A. Why? Can a great artist get away with anything?

However, beneath the surface of his seemingly shambolic urinal, Duchamp was slipping a groundbreaking concept into the art scene. His point was that it’s the artist’s ideas, not physical artwork, which should be admired, that art is brainwork, not handwork. He kindled a new direction in art. That’s the difference between my humble attempt and Duchamp’s game-changer. As Derek Matravers said, “The difference between Duchamp’s urinal and a common-or-garden urinal is that Duchamp linked his urinal to the art world, and that’s what makes it a work of art.”<sup>2</sup> And yet, that’s also what makes it an unreachable work of art. In some sense, it’s a league of their own.

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<sup>1</sup> On October 23, 2022, extracted and revised from <https://upjoke.com/sculpture-jokes>.

<sup>2</sup> Edmonds and Warburton (2010).

**Fig. 1.1** Fountain, Marcel Duchamp, 1917 (Dima Moroz/Shutterstock)



However, something doesn't add up in our attitude, either. For instance, take Einstein's famed formula for special relativity, " $E = mc^2$ ," which represents the equivalence of mass and energy. An equation as elegant as it is enigmatic. I'm pretty sure most of us wouldn't know what it means, even though it is a cornerstone of modern physics. Asked if I understand it, my honest reply would be, "Relatively..."<sup>3</sup> However, do you feel angry or alienated? We don't need to be embarrassed by our ignorance about concepts that we didn't study.

Then, why do we bristle or feel frustrated when faced with baffling artwork that is above our heads? Are we subconsciously demanding that all artworks be as graspable as a leisurely Sunday comic strip, despite our lack of academic engagement? Perhaps we subconsciously believe art should always be relatable, given its status as the playground for our innate expressive energy. If art goes too fast, leaving us far behind, our subconscious will kick up a fuss, "Nope! It can't and shouldn't."

Similar sentiments intervene in the realm of design. A CEO once quipped about board meetings: only experts weigh in on technical issues, but when it comes to advertising or product design, suddenly, every member voices a statement out loud. Sure, design is also a specialized field, but we can't help but meddle since it's tightly woven into the tapestry of our everyday lives. It's the familiar backyard that we want to adorn ourselves. On that score, design and politics share a common thread—every Tom, Dick, and Harry has a say.

Please don't take it the wrong way, though. We, the "ordinary" folks, also look ahead to a better future and are looking for visionaries willing to venture off the beaten path, forging new trails. Extraordinary artists capable of changing the status quo? They're cherished! Sure, we celebrate them, so long as they don't upheave our non-extraordinary daily life, so long as we are not muddle-headed with their coups every day.

<sup>3</sup> On October 23, 2022, extracted and revised from <https://upjoke.com/einstein-jokes>.

**Fig. 1.2** Tilted Arc, Richard Serra, 1981 (Norman Owen Tomalin/Alamy Stock Photo)



“Tilted Arc” by Richard Serra, a lengthy steel slab installed in the Federal Plaza of New York (Fig. 1.2), was an example of this issue. It provoked a most notorious controversy regarding public sculpture, a fierce battle between the outraged public and the defenders of artistic liberty. It was a real clash of two polemic opinions.<sup>4</sup>

According to the public’s gripes, this artwork sliced up the plaza space into two and blocked the view. It was made of steel, which became rusty with time. Worse still, it was an obstacle that made plaza crossing very difficult: it turned a simple shortcut into an inconvenient detour around its bulky perimeter.

On the other hand, from the point of artistic defenders, what Serra did was an upheaval to the artistic world of the period—incorporating the site, time, and change into plastic art. As Serra himself put it, “The viewer becomes aware of himself and of his movement through the plaza. Step by step, the perception not only of the sculpture but of the entire environment changes.” To achieve this artistic goal means it should be in their way.

A stroke of artistic genius? Yes! However... What about the social role of the plaza that the public has already been enjoying there? In my view, the real kicker was the obstacle course it created for passersby. After all, it shook up the public both psychologically and physically. While I tip my hat to Serra’s revolutionary idea, imposing it on the public by throwing a wrench in their daily lives would be a different ball game.

The upshot of it all? Serra’s Tilted Arc was removed. The plaza and the public breathed a sigh of relief, and Serra went on with his experiment elsewhere. After all is said and done, Serra’s artistic concept, once an upheaval, has become a widely accepted art form now. It’s not unusual to encounter public sculptures today that play with site, time, or change. So, at the end of the day, it seems both parties won.

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<sup>4</sup> Dosch (2018).

As seen in this case, there is always a balancing act between two opposite powers in one way or another. It reminds me of a witty rivalry of tooth-and-tongue: when teeth threaten the tongue, “If I just press a little, you’ll get cut,” the tongue can reply, “If I misuse a single word, all 32 of you will come out.”<sup>5</sup> And just like that, the mouth regains its peace and balance.

Related to this balancing act, let me bring up another case, a tantalizing tidbit. Parisians hated the Eiffel Tower when it first showed up for the 1889 Paris Expo. They complained that this ugly metallic structure was a total blemish amid their city’s chic charm and that the sheer size of the monument would dwarf all other historical monuments in the city. Over time, however, the people of Paris became familiar with this once-alien structure, and it found a new lease on life as a hosting place of communication devices. Eventually, it outlasted the controversy and has become an iconic landmark of Paris today.<sup>6</sup> Even though it had initially irked the Parisians’ aesthetic sensibilities, at least it didn’t bother them physically or trip them up in their daily routine. That’s what made Parisians bear this eyesore until familiarity could feed preference. That’s what Serra’s Tilted Arc lacked.

So, let’s not forget that we inhabit a universe that is carefully held in equilibrium between centrifugal and centripetal forces. Tweak that balance even a tad, and we’re headed for cosmic chaos. Given this fact, it’s only natural that most of us yearn for a harmonious balance between opposing forces. Still and all, some people are radically unconventional, but rest assured, there must be a similar number of people who are utterly conventional. The balance, after all, earns both of its wings again. Thus, when you’re about to unleash a groundbreaking idea, bear in mind that there’ll be a counterforce punching the clock to guard the balance. The finest strategy to avoid a knee-jerk reaction from the opposing pole is to coax them along the journey, not to bully them into submission by twisting their arms. Keep in mind that the best trick is allowing time for your innovation to simmer down from a coup to a comforting norm.

### **Owl of Minerva Behind the Scene**

In this book, each chapter has three sections. First up, we dive into a narrative prologue (an episode section), like the one you’ve just read. Picture it as a window into the chapter’s central theme, drawing you in with relatable stories and slices of everyday experiences. Next, we venture into the heart of the matter in a main section (sections which follow “[Owl of Minerva Behind the Scene](#)”). Here, we explore psychological theories, all intricately linked to the central theme. We also bring them to life with concrete design examples that illustrate these concepts in action. Our final section is the supplementary section (a section titled “[More Design Insights Added to the Scene](#)”). It’s where we delve into additional design cases that didn’t quite fit in the main section but are very intriguing. This section is optional and can be omitted if no further elucidation is required.

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<sup>5</sup> On June 17, 2023, extracted and revised from <http://www.funny-jokes-quotes.com/daily-life-situations.html>.

<sup>6</sup> Thompson (2000).

Now, shall we talk about the psychological underpinnings of our first episode? The Owl of Minerva, the symbol of wisdom, will spread its wings<sup>7</sup> to tell the psychological and visual stories ducked behind this scene of “universal equilibrium.”

### Equilibrium Everywhere

First, let’s zero in on our main theme—the *universal law of equilibrium*. As I hinted at the opening episode, the unerring equilibrium between centrifugal and centripetal forces holds the reins over the operation of the cosmos. Human lives are also under the energy of this grand principle, and whether we realize it or not, it’s a part of our daily experiences.

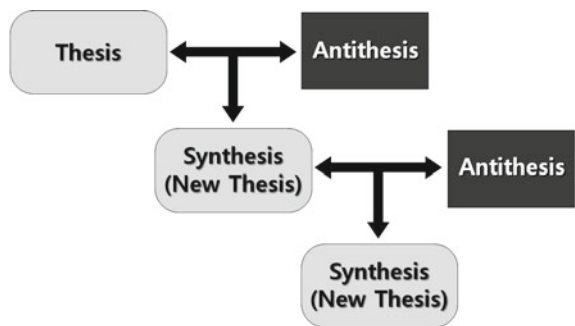
Admittedly, I might have asserted this law’s societal footprints without scientific proof. However, Hegel, the distinguished philosopher, stepped up with social proof—the *thesis-antithesis-synthesis theory of Hegelian dialectics* (Fig. 1.3). I found this theory illuminating in its explanation of social changes and in its comprehension of social equilibrium.

Want more relatable evidence from life experiences? Let’s borrow some old wisdom: “With the good comes the bad,” or “Every cloud has a silver lining.” How about tongue-in-cheek laws that echo daily life’s ironical equilibrium?

Law of variation: Switching traffic lanes? Prepare to watch your old lane zip past you (works every time). Ultimately, all lanes achieve equilibrium in speed.<sup>8</sup>

Law of arena: At any event, the arrival time of the people is always proportional to the distance of their seat from the aisle, and the number of times you should stand up is inversely proportional to the distance of your seat from the aisle. (Is the aisle seat really better?).<sup>9</sup>

**Fig. 1.3** Hegelian dialectic (created by Jeongmin Lee, 2023, Author’s Collection)



<sup>7</sup> Warburton (2011).

<sup>8</sup> On October 23, 2022, extracted and revised from <https://funnyfunnyjokes.org/2011/09/06/universal-laws/>.

<sup>9</sup> See Footnote 8.

Law of silence: People who don't say much consist of two groups—those who are very quiet and those who excessively talk a lot.<sup>10</sup>

## MAYA: Where Innovation Meets Familiarity

This unseen energy of equilibrium also comes into play in the world of design. A design principle called MAYA, short for Most-Advanced-Yet-Acceptable, urges designers to find a balance between the warm blanket of familiarity and the spicy kick of novelty for their creations to resonate in the market. It's because innovation for the future matters much for customers, as does familiarity with the present.<sup>11</sup>

Most customers don't want to be bored with the same-o-same-o design, nor do they appreciate designs that are too far out there, like those in Fig. 1.4. Striking a balance between novelty and familiarity, that elusive sweet spot, isn't an easy task. But check out the Yamaha electric violin in Fig. 1.5. It seems to find this sweet spot: the traditional violin's soundbox disappeared, but its shadow still lingers. That sketchy shadow of a soundbox provides a cozy den where we can breathe easy in the whirlwind of innovation.



**Fig. 1.4** Left—Chest of Drawers, Droog, 1981/Right—The Boudoir, Jean Paul Gaultier, from the Sidewalk to the Catwalk Exhibit, 2011 (Left: David Grossman/Alamy Stock Photo) (Right: Devon Meunier/Meunier/Shutterstock)

<sup>10</sup> On June 17, 2023, extracted and revised from HUMORTHATWORKS.COM.

<sup>11</sup> Blum (2004).



**Fig. 1.5** Yamaha electric violin (Lebedinski Vladislav/Shutterstock)



Let’s take a gander at another MAYA design example. The bookshelf in Fig. 1.6 is not your grandma’s bookshelf, that’s for sure. Instead of the usual vertical-horizontal lines, this one’s lines are all in the diagonal direction, which gives it a new twist. But here’s where it nails the MAYA principle: despite its boldness, it still has that unmistakable vibe of a bookshelf. It’s a bit of a show-off, but it’s also incredibly down-to-earth when it comes to doing its job—holding books.

Why do designers have to consider MAYA carefully? No-brainer! It’s because the ultimate goal of any design is to sell. It means the puppeteer orchestrating the designer’s performance is none other than customers’ preferences. But, let’s face it, being educated in the field of creative work, designers are more inclined to be innovative than conventional. Even so, to wear the badge of “genuine professional,” designers must rein in their avant-garde instincts and tune in to the customers’ likes and dislikes. They should keep in mind that their profession means wearing the shackles of customers’ preferences.

Let’s wade deeper into the water of the MAYA principle, this time focusing on the psychological underpinnings. The magic of the MAYA principle lies in the partnership of the “mere-exposure effect” and the “isolation effect”—another equilibrium between opposite poles. The *mere-exposure effect* means familiarity breeds affection. The more you encounter something, the better it gets.<sup>12</sup> That was what happened to

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<sup>12</sup> Zajonc (2001).

**Fig. 1.6** MAYA example:  
Innovative bookshelf design  
(Somil Bhandari/  
Shutterstock)



Parisiens as regards the Eiffel Tower. It is understandable in terms of evolutionary psychology: familiarity means that it is something that doesn't threaten our survival.

Yet, we humans also tend to remember the outlandish over the ordinary. That is, we remember the supernormal stimulus much better than the normal, familiar stimulus. So, even if the avant-garde designs in Fig. 1.4 made you raise an eyebrow, they've probably etched themselves onto your memory. Similarly, encountering many stimuli simultaneously, we tend to pay more attention to the stimulus clearly distinguished from the other stimuli. For example, in "EVF4WRB," you will likely spot the "4" first, and later, you will say, "4 was definitely there, but I am not sure about other letters." This cognitive phenomenon is known as the *isolation effect*.<sup>13</sup> Evolutionary psychology can explain it, too: human cognition wants to check whether this novel, unfamiliar stimulus can be a possible menace to our survival. It's like our cognitive system has its own security guard.

Steve Jobs' wardrobe choice for presentations is a brilliant example of this effect. Amid the convention of suits for formal presentations, his jeans and black turtleneck stood out, making them as memorable as his presentations. I'm pretty sure that he "carefully" chose this "casual-looking" attire.

As we can see, both the comfort of familiarity (the mere-exposure effect) and the refreshing power of novelty (the isolation effect) make us feel alive. Thus, it's natural for humans to be drawn to things that stoke both feelings, and that's why the MAYA principle works for customers' preferences. Two opposite poles usually attract each other, even in the human psyche. The funny thing is opposites sometimes share some

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<sup>13</sup> Hunt (1995).

commonalities, too. Consider the adventurous explorers and the committed couch potatoes. These two extremes are both looking for the remote.<sup>14</sup>

## Psychological Equilibrium: More Principles

There are more psychological principles that aim to seek a balance between two extremes. I will usher into a few of them. First, there is the *Yerkes-Dodson law*. It points out that human performance gets a shot in the arm with physiological or mental arousal, but only to a certain degree. When levels of arousal become higher than a critical point, performance decreases.<sup>15</sup> It underscores that humans want some arousal while they want some rest to lower it. We are always on the journey of hunting for that elusive sweet spot of equilibrium.

Big retail brands apply this law when designing their megastores. That is, they strategically position resting spots along the customers' shopping odyssey. Their bet? These pit stops would boost the customers' shopping performances, making them linger a little longer, explore a little further, and, consequently, lighten their wallets a bit more.

Next up is the *choice overload effect*. It says that both too few options and too many options can steer customer satisfaction down the drain.<sup>16</sup> Consumers are stuck between a rock and a hard place—making the best decision and having the freedom of many options. The problem is that the latter could trigger cognitive overload and lead to regrettable decisions. Think about the number of toothpaste brands we should weigh in the supermarket. This overload is precisely why Costco, a successful warehouse retailer, decided to provide fewer options instead of more. A happy byproduct? Costco could deliver better discount pricing as well.<sup>17</sup>

Another example of applying the choice overload effect is IKEA's showroom design strategy, which can ease the cognitive load of selecting items. Amidst the ocean of products in its mega-sized stores, IKEA offers a lot of carefully curated showroom designs. They can coax customers into bulk-buying a whole room setup rather than agonizing over individual pieces. To egg customers on this approach, the total price of the showroom design is displayed, along with prices for individual items. A smart strategy to minimize choice paralysis, isn't it?

Let's delve into the third compelling lead related to the psychological equilibrium, this time in our perception—the *optical illusion of a bent straight line*. Take a look at the left image of Fig. 1.7, where the top line of the square appears to dip slightly in the middle. Grab a ruler and check. It's a straight line! This optical illusion is born from the powerful upward current in the background lines. Rob the image of its backdrop, and all you have is a well-behaved square (Fig. 1.7 right). A complex

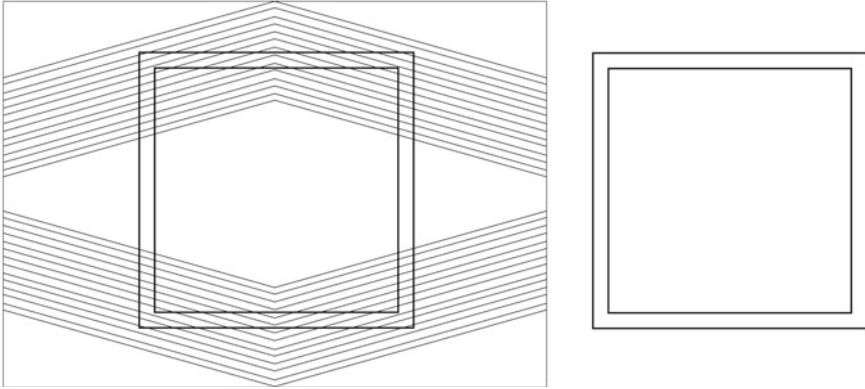
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<sup>14</sup> On June 18, 2023, extracted and revised from <https://upjoke.com/explorer-jokes>.

<sup>15</sup> Hanoch and Vitouch (2004).

<sup>16</sup> Iyengar and Lepper (2000).

<sup>17</sup> Mothersbaugh et al. (2020).



**Fig. 1.7** Optical illusion of the straight line (created by Jeongmin Lee, 2023, Author’s Collection)

explanation should be involved, but, in layman’s terms, our perception doesn’t like leaning too heavily in one direction. Therefore, to maintain balance, it makes a downward adjustment. The same thing happens with the lower line of the square. So, here’s a little wisdom for the creatives: sometimes, designers should not draw a straight line really straight if it is intended to be seen straight!

As we can see, the principles we’ve discussed above highlight the need for a “Goldilocks zone” in consumer experiences. Striking this balance is key to creating preferable products and services. Understanding this equilibrium is crucial, not just in design and marketing, but as a universal approach to resonating with our inherent human preferences.

## **Nudge: Balanced Persuasion**

Now, allow me to usher you into *nudge*, another area where equilibrium does its thing. It is a gentle way to steer people in the direction you propose. Nudge will be investigated more deeply in the next chapter, so here, the focus is on its relationship with equilibrium.

According to Richard Thaler (Nobel laureate) and Cass Sunstein, it’s possible to shape an environment that respects people’s freedom of choice while encouraging them toward better decisions.<sup>18</sup> They called it *libertarian paternalism*. That sounds like an odd mix, a coupling of two polar opposite ideologies. Some critics argue that it’s an incompatible pairing, and there can be ethical problems. However, I believe it can be both feasible and beneficial, provided it’s done under proper ethical codes. After all, the unions of conflicting psychological phenomena worked behind several principles we’ve already explored. So, why not with nudging?

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<sup>18</sup> Thaler and Sunstein (2008).

The virtue of nudging lies in maintaining people’s sense of self-control and free will. That’s the “libertarian” part. At the same time, it presents a desirable option with a more accessible or more attractive wrapping, so it takes effort to reject this option. That’s the “paternalistic” part.

There are various methods for applying nudges, with the *Default Strategy* being one notable example. It is the option that is automatically opted for if you don’t change to the other option, and people usually settle upon the option that doesn’t badger them anymore. This leads to the default option being chosen more often, but it doesn’t rob anyone of their right to select another option.

Behind this default strategy, you’ll find a curious character at work, a cognitive bias known as the *availability heuristic*. It leads you to rely on what’s readily available rather than laboriously rummage for more accurate information when making decisions. Who would want to dive into a vast library when there’s a catchy headline at hand?

IKEA skillfully incorporates default strategy into the store design—its famous one-way layout. Once you step into an IKEA store, you’re on a fixed path with a one-way direction. It is designed to make you bump into everything IKEA offers, from a wide variety of showrooms to a million and one products. Sure, there are a few shortcuts, which means IKEA isn’t stripping you of your choice to pass up unwanted sections. However, these shortcuts are not easy to find. It’s certainly there, but it’s questionably not there. This design strategy works so well that most customers think they voluntarily follow this stamina-consuming one-way journey.

In a nutshell, by gently guiding choices while preserving autonomy, nudges embody a balanced approach, merging respectful guidance with individual decision-making. This approach illustrates how an understanding of psychological equilibrium can transform the way we influence behaviors—less about overt persuasion and more about facilitating smarter choices in a seemingly effortless manner.

## More Design Insights Added to the Scene

Before we end our discussion about the universal equilibrium, let’s delve into two more masterpieces that are undoubtedly noteworthy.

Earlier, we explored the public uproar over Serra’s Tilted Arc. Another famous public sculpture that stirred up a hornet’s nest was Picasso’s “Untitled” in Chicago, more affectionately known as the “Chicago Picasso” (Fig. 1.8). A throng of curious onlookers, full of anticipation, filled the Daley Plaza for the unveiling ceremony. After all, it was Picasso. However, in no time, they were bewildered by this funny-looking cubist sculpture that dared to have no resounding theme either. Before this work, motifs of public sculptures in Chicago were mainly historical figures. Not to mention furious criticism, it mustered a hot debate over what on earth it portrayed. Picasso remained silent.<sup>19</sup>

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<sup>19</sup> Lopez (2017).

**Fig. 1.8** Untitled (Chicago Picasso), Pablo Picasso, 1967, Daley Plaza, Chicago, USA (photographed by Jeongmin Lee, 2016, Author’s Collection)



Speculations ranged from a baboon, an aardvark, Picasso’s pet Afghan Hound, the Anubis (Fig. 1.9), to one of his models. Not surprising, given the human knack for fabricating misinterpretations at their pleasure —like misreading “Copyright” as an instruction to “Copy right” or assuming “money laundering” as “cleaning the purse.”<sup>20</sup> Some people cast ridicule, saying that it belonged to a zoo. Anything can be possible if you don’t know what you are talking about. This was the case for the critics of the time. To Chicagoans, accustomed to noble depictions in public sculptures, this alien creation with a long, seemingly goofy face was far from the majestic symbol they believed befitting their city’s grand plaza.

It was not removed, though, probably by virtue of the name “Picasso.” And then again, with time, its strangeness faded into familiarity, which in turn kindled preference. Today, this once-ridiculed object has become Chicago’s favorite artwork—a local landmark and a beloved playground teeming with joyous climbers and sliders (Fig. 1.10).

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<sup>20</sup> “Copyright” as “Copy right”: On October 23, 2022, extracted and revised from <https://upjoke.com/familiar-jokes>.

“Money laundering” as “Cleaning the purse”: On October 23, 2022, extracted and revised from Reader’s Digest Canada, <https://www.readersdigest.ca/culture/70-funniest-jokes-readers-digest/> (Shinae Hartley).





**Fig. 1.9** Left—Baboon/Right—The Anubis (detail of the wall in the tomb of Horemheb), the Valley of the Kings, Egypt (Left: Edwin Butter/Shutterstock) (Right: Jakub Kyncl/Shutterstock)

**Fig. 1.10** Children playing on the Chicago Picasso (Conchi Martinez/Shutterstock)



Lastly, let’s touch on a renowned example that corrected the illusions of the “bent straight line.” Previously, I pointed out that sometimes, designers should not draw a straight line really straight if it is intended to be seen straight. The Parthenon in Athens is perhaps the most famous architectural exemplar of the *optical corrections of straight lines*.<sup>21</sup>

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<sup>21</sup> Bondarko et al. (2021).

Every architectural line of this magnificent temple looks straight. However, in reality, it has few straight lines. The horizontal lines of the stylobate and entablature (Fig. 1.11, left) are subtly arched upwards, and the temple’s base is also slightly domed (Fig. 1.11, right). It corrects the optical illusion that the long horizontal line looks a bit sagged in the middle. So, to make the horizontal lines appear straight, the architect employed an upward curvature, which is almost imperceptible to the casual observer. Figure 1.12 explains it better. The design would appear like (A) if created with truly straight lines. Therefore, it was crafted like (B) to appear like (C).

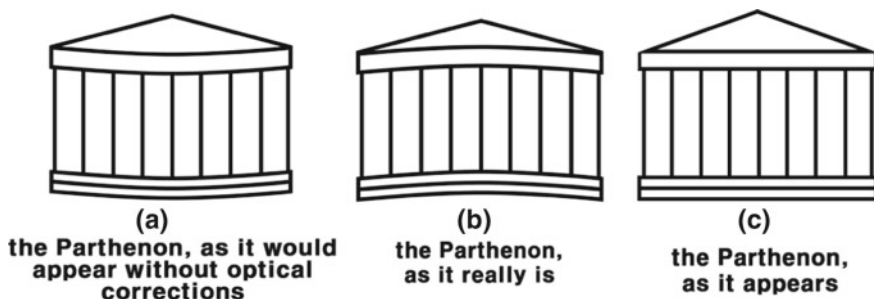
A similar optical illusion plays out with vertical lines. The long vertical lines of the columns with frieze and pediment seem to bow inward slightly. To counter this, the Parthenon’s architect made the columns slightly convex in the middle.

Apart from these crafty manipulations of straight lines, the Parthenon abounds with other optical adjustments. It’s awe-inspiring that the architect of this temple, way back in the fifth BC, was well aware of these perceptual illusions and ingeniously adjusted them in this magnificent edifice—a task that would have been herculean in its complexity. A level of perfection is just sublime excellency, worthy of the gods!

Alright, let’s wrap up our exploration into the symphony of equilibrium in art, design, and human psychology. Think of it as a gentle seesaw, where we’ve been



**Fig. 1.11** Parthenon, Ictinus and Callicrates, 5th BC, Athens, Greece (Dmitry Vinogradov/Lucky-photographer/Shutterstock) (text added by Jeongmin Lee)



**Fig. 1.12** Optical corrections of straight lines in the Parthenon (created by Jeongmin Lee, 2023, Author’s Collection)



balancing the weights of opposing forces. Just like in the universe, where centrifugal and centripetal forces maintain perfect balance, our lives are similarly governed by this rhythm of equilibrium. As seen in the case of the MAYA principle and other psychological underpinnings featuring balance, humans have an inherent desire for a middle ground between extremes.

Therefore, in human life, the best solutions often lie in the careful negotiation between opposing forces. Whether we are creators, consumers, or simply observers, respecting this balance can lead to more fulfilling experiences, and with these mindful works about balance, we might be able to sidestep exhausting, sometimes unnecessary tugs-of-war. That is, our creations can include a low-key way not to provoke the strong resistance of the opposite party. Or else they will think you are pushing them too hard and will push you back.

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# Chapter 2

## Whispers of Change: Nudge for the Better



“Do we even have such a thing as free will?”

“We don’t? Seriously?”

Believe it or not, like it or not, a storm in a teacup is brewing around this question. There is a controversy as to whether humans possess free will or not.

Some might argue that *free will* is an inherent right of a human being, a domain untouched by any higher powers or pre-determined fate.<sup>1</sup> Although it gave our creator a lot of divine headaches, here we are—still a creation armed with our own will. Our creator guaranteed that our minds and souls are our own. Don’t we enjoy the fact that, in our discretion, we can tickle Him pink and raise a stink, too? It’s akin to how we view the actions and decisions of our children. Human volition can be a source of tremendous power and potential, creating a fire in the belly for self-actualization.

On the flip side, there’s a whole other camp called *determinism*.<sup>2</sup> It says that there is no such thing as human free will and that the exercise of it is an illusion. A pretty sobering view, isn’t it? In this view, our precious “free will” is a puppet at the mercy of factors beyond our control: everything we do has already been determined by the environment or biology. Even though there is a soft determinism, which allows for some degree of human agency, in the eyes of hard determinists, human free will is just a luscious framing, nothing more than an appealing garnish on the plate of life. Environmental factors, in particular, can make us feel helpless because it is not in the power of an individual to manage them. For instance, we know that the parenting environment we grew up in affects our lives over the long haul.

Apart from this macro influence, the environment also throws its weight behind small thoughts and decisions in our daily lives. Consumer behaviorists know it well, but we don’t. For example, according to an experiment done in a wine store, German wines sold better when German music was played, and French wine sold better

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<sup>1</sup> Fischer et al. (2007).

<sup>2</sup> McKenna and Coates (2021).