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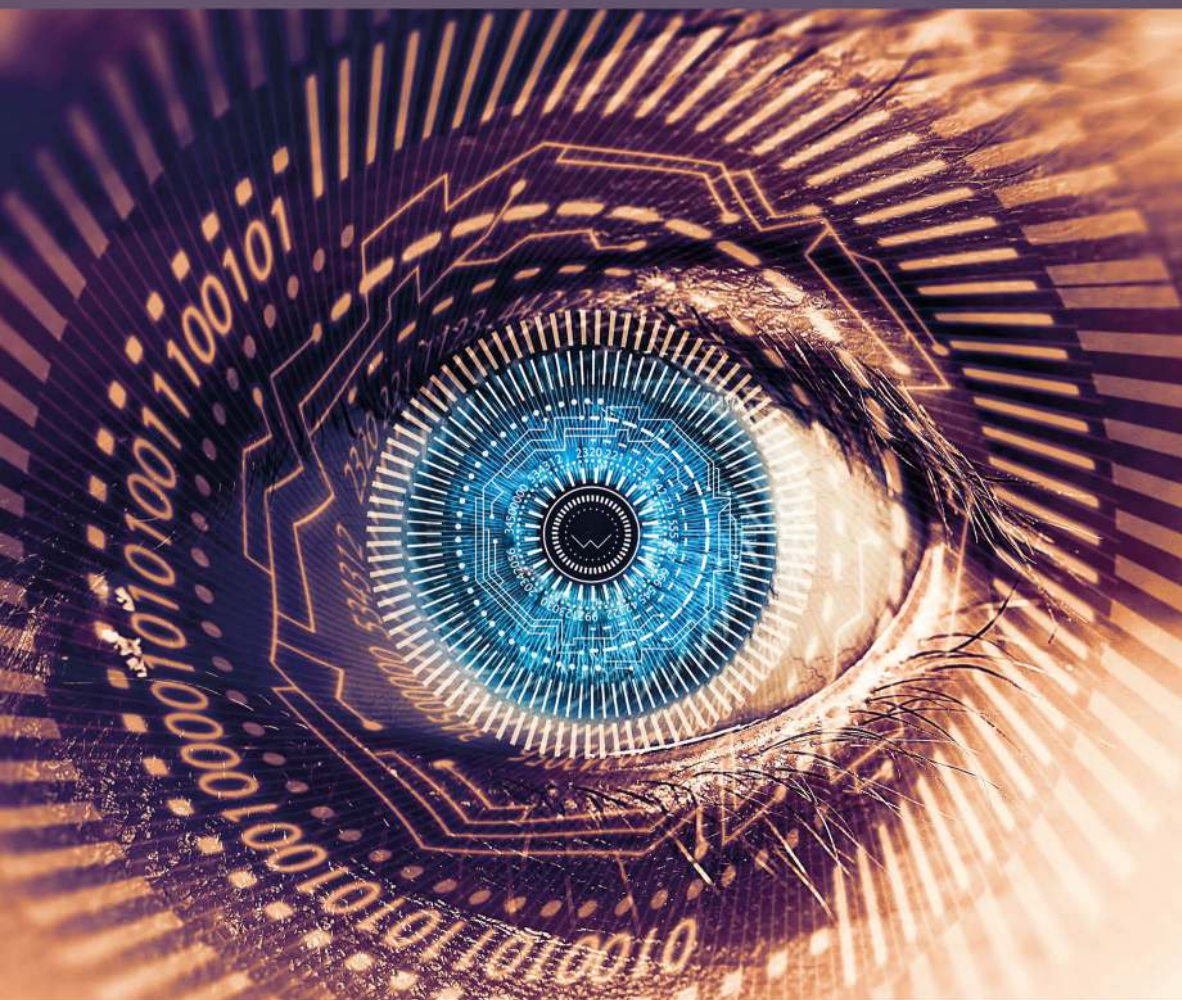
Visual Marketing

A Practical Guide to the Science of Branding and Retailing

Barbara E. Kahn and Elizabeth N. Johnson



Visual Marketing

As the world accelerates towards the digital realm post-pandemic, it has never been more important for marketers and designers to have a solid understanding of visual marketing and the key principles and concepts behind it.

Visual Marketing analyses the post-pandemic digital transformation, including AI, taking place across an increasingly competitive marketing landscape. Against this background, the book utilises proven principles in consumer psychology, marketing, and neuroscience to propose creative and useful visual strategies to increase the effectiveness of marketing efforts, illustrating this with many contemporary real-world examples. Reflecting on observations around the radical disruption in the retail industry in particular, the authors introduce the "Kahn Retailing Success Matrix," which has successfully guided marketing strategy across many industries. The book also highlights the significant influence of visual and physiological principles on how human observers see and interpret visual stimuli, and how applying these fundamental principles will provide marketers with incredible differential advantage in a customer-centric world. Readers will also gain in-depth understanding of how to use new measurement tools that rely on data analytics; choice and preference behaviour; eye tracking and other measures of attention; memory; and emotions to evaluate strategies and measure success.

This innovative and incisive new textbook is a valuable resource for both undergraduate and postgraduate students of such subjects as Consumer Behaviour, Marketing Strategy, Visual Marketing, and Retailing.

Online resources include course exercises, lecture slides, and suggested mini case studies. Please visit www.routledge.com/9781032731322

Barbara E. Kahn is Patty and Jay H. Baker Professor of Marketing at the Wharton School at the University of Pennsylvania.

Elizabeth N. Johnson is the Executive Director and Senior Fellow of the Wharton Neuroscience Initiative at the University of Pennsylvania.

"*Visual Marketing* provides a practical framework for marketing managers who are looking to transform their brand's visual presence. The book builds on essential visual principles such as how to attract attention, facilitate easy comprehension of marketing materials, and elicit emotions to drive preferences and purchase. These principles are critical for building brands, designing packaging, retailing merchandising, and social media impact. Highly recommend it!"

Ryan Riess, Vice President Brand Strategy and
Creative Development, C-SWEET / The Hershey Company

"With commercial visual stimuli being pervasive and more than half of the human brain devoted to processing them, *Visual Marketing* should be part of the mindset of every marketer, and of the marketing curriculum of every business school. The new book by Barbara Kahn and Zab Johnson effectively pulls together the foundational literatures from vision, psychology, neuroscience, and marketing, to present a comprehensive and accessible account of the principles of Visual Marketing, and how they should be used to influence consumer behavior. The book is a must read for marketing students and practitioners, and fun and interesting to read for everyone else."

Michel Wedel, Distinguished University Professor,
PepsiCo Chair in Consumer Science, Robert H. Smith
School of Business, University of Maryland

"In the world of beauty, skincare, and fragrance, understanding the principles of visual marketing is paramount. Barbara Kahn and Zab Johnson combine their expertise in psychology, marketing, and social cognition to produce a book that is both deeply researched and highly readable.

The authors' actionable insights help leaders incorporate visual storytelling into every decision, big or small—from selecting packaging materials, to building a brand from the ground up. For anyone looking to sharpen a marketing strategy, develop a brand's unique identity, or understand how consumers make decisions, this book is an invaluable read."

William P. Lauder, Executive Chairman,
The Estée Lauder Companies

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Barbara E. Kahn and
Elizabeth N. Johnson

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I dedicate this book to my husband, Bob Meyer, who has patiently and lovingly supported me throughout the book writing process, and to my daughter, Alyssa, and my son, Tim, and his wife, Sam, who have been never-ending sources of inspiration.

Barbara Kahn

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Zab Johnson

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About the Authors

Barbara E. Kahn is Patty and Jay H. Baker Professor of Marketing at the Wharton School at the University of Pennsylvania. She served as Director of the Jay H. Baker Retailing Center and as Executive Director of Marketing Science Institute (MSI). Barbara also served as the Dean and Schein Professor of Marketing at the School of Business Administration, University of Miami and as the Vice Dean of the Wharton undergraduate program.

Barbara is an internationally recognized scholar on retailing, variety-seeking, brand loyalty, product assortment and design, and consumer and patient decision-making. She has published more than 80 articles in leading academic journals. She is the author of *Global Brand Power: Leveraging Branding for Long-Term Growth* and *The Shopping Revolution (Updated and Expanded Edition): How Retailers Succeed in an Era of Endless Disruption Accelerated by Covid-19*, and coauthor of *Grocery Revolution: The New Focus on the Consumer*. She has been featured in CNN, CNBC, *Forbes*, *The Wall Street Journal*, *The New York Times*, NPR, Vox, Politico, and the Hidden Brain Podcast. She has a PhD and MBA from Columbia University.

Elizabeth N. Johnson is the Executive Director and Senior Fellow of the Wharton Neuroscience Initiative and an adjunct professor of Marketing at the Wharton School at the University of Pennsylvania. Her research focuses on vision and visual behaviour. Her work spans physiological approaches in the retina and early visual cortex to using eye tracking to investigate how human observers look and navigate through the world, how these processes unfold over time and with experience, and the role of social cognition and decision-making in these processes.

Before joining Wharton, Zab was an assistant research professor of neurobiology at Duke University's School of Medicine, where she also launched the Duke Institute of Brain Sciences. She has a PhD in neural science from New York University and an AB in psychobiology from Mount Holyoke College. She is passionate about how neuroscience can impact and improve many aspects of how we make choices, lead organizations, and live our lives. Her research and practice strive to push applications of neuroscience outside of the traditional laboratory to find new solutions for real world challenges that impact both business and society.

1 Introduction

The Importance of Understanding Visual Marketing Principles to Drive Success

Chapter Outline

This chapter provides an overview of the book and discusses how visual marketing can drive success in a customer-centric and omnichannel world by combining insights from vision science, psychology, neuroscience, design, and marketing. Visual marketing can (1) attract attention, (2) facilitate quick processing, (3) influence judgment and decision-making, (4) enhance memory, (5) elicit emotions, and (6) foster social engagement. Visual cues can affect how customers search for, process, and evaluate information, as well as how they remember and share their experiences. Packaging and branding are visual tools that can influence customers' perceptions, preferences, and choices. Packaging can use visual cues such as colour, shape, and size to convey product attributes, quality, and variety. Branding can use visual identity systems, metaphors and stories to differentiate the brand and communicate its values and personality. Social media and advertising are platforms that can use visual content to create emotional and social connections with customers. Visual content such as images, videos, and human faces can catch attention, elicit feelings, and increase sharing and engagement. Eye tracking and facial coding can measure and optimize the effectiveness of visual content.

Learning Objectives

- Understanding the benefits of visual marketing, defined as connecting marketing messages and product benefits to images (photos, graphics, infographics, videos, logo's, signs, packaging, merchandising and more), is critical to effective marketing strategy because:
  - Visual marketing can attract more attention.
  - Visual marketing is more emotional.
  - Visual marketing makes marketing messages and benefits easier to process.
  - Visual marketing can generate more social engagement.
  - Visual marketing can help consumers remember and retain more details.
  - Visual information is used to make judgments and decisions.

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- Understanding visual principles is essential for good marketing since so much of marketing strategy is conveyed visually.
  - Marketers must understand the importance of visual cues on the touchpoints during the customer journey.
  - Effective use of visual principles is essential for optimal packaging and product design.
  - Creating a strong visual identity helps deliver to superior branding, advertising, and social media campaigns.

Even as the world accelerates towards the digital realm, shoppers cling to physical and social experiences. In this omni-channel world, Visual Marketing has never been more critical. When participating in new digital immersive experiences, engaging with TikTok videos or social influencer vlogs, or shopping in the beautiful new flagship stores, global brands are building in the world's biggest tourist meccas, and the critical interface is visual. And, of course, consumers are constantly exposed to packaging and unboxing experiences and ubiquitous creative branding campaigns. For these tools to be successful, marketers and designers must have a solid understanding of the principles of visual marketing.

One must recognize its multi-disciplinary focus to understand the power of visual marketing. Visual marketing sits at the intersection of vision science, cognitive psychology and neuroscience, social psychology, communication, design, and marketing.

This book takes a novel approach in two ways. First, we show that successful marketing requires a customer-focused mindset since the marketing world is changing fundamentally due to rapid advances in technology and AI and the ever-increasing global competitive landscapes. Specifically, building on observations motivated by the radical disruption in retailing, we base our approach on the "Kahn Success Framework," which has been shown to guide marketing strategy, first in retail successfully but later generalized to many other industries.

The second novel aspect of our approach is our focus specifically on the importance of visual marketing principles to influence customer behaviour. In a customer-centric world, where customer experience is paramount, understanding how visual and physiological principles affect how human observers see and interpret visual stimuli becomes an incredible differential advantage. We also show how new tools in measurement that rely on data analytics, AI, choice and preference behaviour, eye tracking, and other measures of attention, memory, and emotion can be used to evaluate strategies and measure success.

Six Key Principles of Visual Marketing

Visual marketing has distinct characteristics that differentiate it from other types of marketing. Because of the unique attributes of visual stimuli, visual cues can be used to (1) attract **attention**, (2) allow for

quick processing or **fluency**, (3) facilitate judgment and **decision-making**, and (4) make lasting **memories**. Coupled with other marketing materials, visual stimuli can also be used to (5) elicit strong **emotions** in advertising and retail environments and (6) promote **social interaction and influence** in social media campaigns.

I. Visual Marketing Can Attract More Attention

When shoppers go into a store or when consumers look at a shelf, they only focus on a small selection of everything available. Attention is very limited, so we miss a lot. But if your product isn't seen, it will not be purchased.

Consumers' attention is not random; it is guided by two processes that are not independent. First, there is stimulus-based, or "bottom-up" attention, where external stimuli can capture our focus. For example, in a rack of all black sweatpants, the garments in red will pop out. Then there is "top-down" processing, where our knowledge, experiences, motivations, and how we navigate the world guide our processing. Here, our expectations shape what we see and perceive. One very famous example of this is when Tropicana changed its packaging to look more modern. They removed the ubiquitous orange with a straw emanating from it, which used to grace the front of the package. Consumers, looking for that familiar sight, failed to notice the Tropicana brand in its new packaging on the shelf, and sales plummeted. So, although the design might have been objectively a better aesthetic because consumers were filtering their search through their prior expectations, they couldn't find their old favourite and chose a different brand.

Sometimes, bottom-up visual cues in the environment can completely dominate our choices, particularly when we have no other experience in the category or are making a rapid choice. Still, other times, our top-down goals and motivations guide what we buy. Even in those latter circumstances, we know that marketers can use visual cues strategically to guide consumers' attention and the order in which they process marketing materials. Marketing tactics to get consumers' attention may include tools that make products more salient, such as shelf location, colour, package shape or size, and the number of facings.

In most contexts, both bottom-up and top-down attention are at work in tandem, so it is vital to understand the underpinnings of how visual information can be presented and optimized for both.

II. Visual Information Affects Our Understanding and Processing

Once consumers pay attention to marketing materials, they must make sense of what they see. Visual information can influence both the speed and accuracy of this sense-making. We know when people observe a scene, there are guidelines that they rely on to form meaningful perceptions.

Typically, people observe a global whole, or gestalt, of an object rather than focusing on all the details. In other words, the whole is greater than the sum of its parts and in most contexts, people do not perceive the small features that make up the whole; they leap to a more general overall conclusion of what the object is—and they generally do this very quickly, sometimes almost automatically.

There are six of these gestalt design guidelines that people use to make overall assessments of what they are viewing. These six are (1) figure-ground, (2) similarity, (3) proximity, (4) closure, (5) continuity, and (6) symmetry/balance.

To explain how these global guidelines work, consider the principle of similarity. This design principle suggests that people will group similar things and form conclusions about what they view from that similarity grouping. Marketers know this principle and frequently use it to help consumers form perceptions about their products. For example, a private label brand may make its packaging look very similar to a famous national brand, so consumers will likely presume that the two products are of comparable quality.

Processing fluency is a term used to describe the ease with which people can comprehend what they are viewing. If marketing materials have high fluency, the meaning is easy to understand. Research has shown that when visual stimuli have high fluency, consumers feel good, and this mild positive affect can increase favourable judgments towards the product packaging or retail assortment. When advertising or marketing materials are challenging to process, this disfluency generally has the opposite effect.

III. Visual Information Facilitates Our Judgment and Decision-making

As mentioned above, visual attributes like brightness and colour can affect the attention consumers give to stimuli and, thus, the time and order in which these stimuli are noticed and processed. We know, for example, that visually salient items are more attended to than less salient stimuli. We also know that this differential attention can affect the values that consumers assign to those items.

If people have strong preferences, they will choose the items that they prefer. However, in many marketing situations, consumers have yet to form very strong preferences; in those cases, these visual cues can affect their choices. Research studies have shown when preferences are weak or ill-formed, consumers are influenced by the visual features of the stimuli, such as its prominence or salience, and that this visual salience bias is long-lasting and can influence choice sometimes more than changes in preferences.

Further, as mentioned above, if visual cues make the marketing stimuli easier to process or are used to form favourable judgments about the products, then these inferences can affect ultimate choices.

For example, when marketers use visual cues to curb choice overload or make a retail assortment easier to process, consumers form favourable judgments about what they are viewing, resulting in more purchasing.

IV. Visual Marketing Can Help Us Remember and Retain More Details

Marketing visual materials are used not only to gain attention, help consumers understand the product or service, and influence judgment but also to influence the likelihood that the product or service is remembered. Visual stimuli are important in creating this kind of memorability because we can remember many different images in detail, even after a single view.

Careful studies have been conducted more recently to determine what kinds of visual imagery consumers are more likely to remember. This work suggests that there may be properties of visual stimuli themselves that make them more likely to be remembered. Researchers found that people, interiors, foregrounds, and human-scale objects contribute positively to memorability, while exteriors, wide-angle vistas and natural scenes are less likely to be remembered. Also, atypical images or surprises are more memorable than typical images. And factors such as brightness, colour, object size, and uncluttered backgrounds that direct attention can also influence memorability. We are now seeing the use of deep neural nets and machine learning to determine which images are most memorable and alter images to increase memorability.

V. Visual Content Can Elicit Strong Feelings in Promotion Strategies

Visual cues can also evoke different feelings and associations. These may occur organically, like a photograph of one's childhood home may trigger nostalgia or homesickness, or can occur through learned associations, like bright circus colours might elicit cheerfulness. Another critical avenue that visual materials can evoke feelings is through human facial expressions; faces provide a wealth of social information that can reveal emotional states. An advantage of communicating emotions through visual content is that it transcends language—so images can be used globally in ways that text-based marketing cannot.

If visual content can give rise to emotions, marketers recognize that these emotions make us more likely to do things because they elicit automatic behavioural responses—negative emotions typically narrow thoughts and actions, while positive emotions can be broadening. Negative emotions like anger, fear or sadness elicit distinct responses in the automatic nervous system and encourage people to think about how they can cope with the situation to mitigate the negative emotion. For example, advertising that uses visual and textual content to elicit

anger or guilt can get consumers to search for ways to control those emotions, and marketing that aligns with these coping needs can be more effective. A very successful "Truth" advertising campaign used images of Moms who were battling tobacco-related illnesses like emphysema, lung cancer, and throat cancer combined with their actual parting letters to their family to elicit guilt and despair in the observer who might identify with this situation. Ways to get help were then included so the recipient could do something to alleviate the negative emotions the ads generated.

VI. Visual Marketing Can Generate More Social Engagement

Finally, visual content can build social engagement and help develop viral campaigns. We know that visual material that catches attention and creates emotion, sometimes in the first second it is viewed, makes it more likely to be viewed and shared. Visual material that grabs attention, is perceived positively, and evokes strong arousing positive emotions is associated with increased sharing. Arousing visual negative content, such as disgust, has also been shown to increase sharing. Less arousing emotions are not shared as much.

Visual material, particularly eye-catching images or videos, is more likely to go viral. We know popular social media sites like Instagram, Pinterest and, most recently, TikTok all prioritize visual content. Since we know visual content can be used to increase fluency, these messages can be communicated quickly and effectively and generate positive affect, which increases sharing.

Social influencers also use visual cues to build up their following. A consistent visual identity that tells a story that resonates will attract followers. Some research has shown that the visual presentation of a social influencer's personality that matches their audience values can increase their credibility and increase purchase intentions. For example, if influencers show videos and photos that portray themselves as extroverted, that can generate warmth and consequently audience positive affect. This personal extroverted trait can be authentically communicated through this visual evidence even if the followers never have any personal interaction with the influencer.

These Visual Principles Translate into Marketing Strategy

Understanding these visual principles is essential for good marketing since so much of marketing strategy is conveyed visually. We will discuss how the **retailing environment** is changing radically, especially since COVID accelerated the acceptance and use of digital e-commerce. In this new world, omnichannel retailing, or seamless integration between online, mobile, and physical store commerce, is the new norm. Marketers must prioritize the customer experience and understand the influence of visual cues on the touchpoints during the

customer journey. Good visual marketing that drives engagement can be implemented through **package and product design**, **a visual brand identity**, and **social media campaigns**. Across all marketing strategic elements, a comprehensive visual system creates an identity; it is more than just design. Good marketing visual strategy tells a story and incorporates visual metaphors.

The Retail Revolution Has Transformed the Retail Environment

A recent McKinsey study shows that the retail industry has experienced as much disruption in the last 5 years as in the past 25 years. Retail today is omnichannel and customer-centric. While many predicted a physical retail store apocalypse, post-COVID behaviour has proven that the physical store is healthy but transformed. The key to success will be long-term solid consumer relationships based on positive customer experiences.

Physical stores are now not only places to buy products; they are also becoming showrooms, in-store demonstration venues, education and entertainment centres, and art museums! This new type of retail is designed to engage customers, and the focus is inherently visual. Further, consumers expect seamless integration across all channels (including online and mobile) and touchpoints; the data across platforms must be connected to ensure a seamless experience. Similarly, the visual identity must also be consistent.

We build on the Kahn Success Framework to provide strategic guidance on becoming a market leader in this new retailing universe. That framework is based on two principles: (1) the principle of customer value and (2) the principle of differential advantage. Leadership in this new world suggests being "stuck in the middle" is a recipe for disaster. Consequently, marketers must make trade-offs to exceed on one dimension while being fair value on the other.

For example, with their product strategies, marketers have learned to compete with premium products at higher prices or more basic products that can offer much lower prices. Similarly, marketers make trade-offs on customer experience in the new retail landscape. To enhance customer loyalty, marketers can choose to spend more time ("kill time") with customers to get to know them better to build lasting relationships or can choose to spend less time ("save time") with customers and make the shopping experiences so convenient and frictionless that it fosters easy and automatic renewal.

Visual cues, like how the product is assorted and merchandised, and in-store features like colour, lighting, layout, and architectural features can also affect the customer experience. Retailers are also leaning into state-of-the-art technology, like augmented reality (AR), connected fitting rooms, cashier-less checkout, and even robots to transform the interface. In the digital realm, 24/7 immersive media or gaming can also present new opportunities.

Customer Shopping Journey: The Importance of Visual Marketing at Critical Touchpoints

To implement a compelling customer experience, thinking about the purchase decision from the customer's perspective is essential. Modern marketing has moved from the linear model of a *customer decision funnel*, also called the "hierarchy of effects" model—where the philosophy is that the consumer moves directly from awareness to interest to desire to final purchase—to a customer journey model, which is more circular and nonlinear. The customer journey model includes critical touchpoints and encompasses the customer's entire experience with a brand.

Differential visual strategies in this customer journey model can affect decision-making at each touchpoint. For example, when customers search for information about a product on Google, they may be more in discovery mode than when searching for information about a product on Amazon, and the visual structures of the websites promote these differences. Searching about a brand on Google may result in links to articles, reviews, consumer reports, product information, pricing, and maps of where to buy the product. On Amazon, the emphasis on price deals and effective filters are designed to quickly narrow the search to the exact required dimensions. TikTok search and new visual search trends allow more exploratory and image- or video-based searching.

We will look at these touchpoints and consider the interaction between bottom-up visual cues that the marketer can control, such as colour and shelf location, and top-down shopping goals and expectations that the consumers themselves bring to the process. Visual cues such as where products are placed on the shelf can influence inferences about the product. For example, items at the end of an aisle in a supermarket are often considered a good deal. In contrast, in some circumstances, items placed on higher shelves are considered higher quality, and these inferences can affect ultimate decision-making.

We will also examine the visual aspects of product assortments, online and in physical retail. When is too much variety an impediment rather than an asset? What visual cues can a marketer use to help consumers perceive more enjoyable variety rather than complexity?

Campbell's condensed soup line offers incredible variety, but consumers frequently only buy the best sellers, like chicken noodle and cream of mushroom. So, Campbell's Soup built a visual labelling system so shoppers could instantly tell which soups were vegetable, chicken, or beef. This on-shelf structuring helped consumers process the incredible variety offered and avoid decision fatigue, making it more likely that consumers would increase their variety in purchasing, which also increased the number of cans they bought.

The Package Is a Visual Canvas That Influences Perceptions

Packaging research has found that changes in the package can influence consumers' perceptions more than changes in the actual product itself. Historic packaging studies conducted when supermarkets were

just being introduced in the 1930s found that package design not only influenced which packages consumers were likely to choose but also influenced their perceptions of the quality of the product inside.

Packaging design is not only based on bottom-up stimulus-response cues and aesthetics, but marketers have also trained consumers to connect certain physical attributes with specific associations. For example, there are many learned associations with colour, like blue is for boys and pink is for girls. Colours are so influential that agencies like Pantone conduct extensive research studies to promote a specific annual colour palette and feature a unique "colour of the year." Product shapes can also influence perceptions and affect preferences and serving sizes.

Sometimes, marketers want consumers to notice new packaging to create "news" and suggest innovation, and sometimes, marketers want the changes in packaging to be subtle so that consumers stay loyal to the brand while implementing a slow and continual modernisation. Similarly, sometimes, packaging is designed to assimilate within the product category; other times, it is intended to contrast and stand out. As online shopping has become more common, marketers have added showy unboxing features to enhance the product experience that can be photo-captured and shared on social media.

Modern Brands Are a Visual Identity System

Building a visual identity system for a brand is about more than just design, although clearly, good design is essential. The visual brand identity can also create a specific positioning within the category or suggest a new approach. According to Red Antler, one of the most innovative agencies in modern branding, the brand should be a driver of business growth. Their philosophy is that the earlier a start-up thinks about what the brand stands for and why people should care, the easier it will be to develop meaningful connections from the brand identity to the customer and differentiate it from the competition.

Using this philosophy, Red Antler successfully implemented a visual branding system for Allbirds that not only differentiated the product but capitalized on its use of sustainable materials; their goal was to build a movement. A total brand visual system not only affects the choice of logos, colours, and fonts but is also reflected in the materials used for the packaging, in the point-of-sale decision-making at the store level, and in the social media campaigns.

Another facet of good branding strategy, according to the ZMET approach, is the ability of brands to convey deep metaphors. Deep metaphors are powerful predictors of what customers think about and what matters to them. They are the basic frames or orientations customers form about the world around them. The ZMET technique uses visual imagery and photography to help uncover these deep metaphors that often lie beneath the surface. Understanding these deep metaphors and connecting them to the visual imagery suggests effective ways for the brand to communicate meaningfully.

Social Media and Advertising Can Tell Your Brand's Story

Social media strategies and the communication of brand stories through social influencers are critical tools that brands use to connect with their community and tell their brand story. Social media campaigns have gradually transformed from a text-based approach to primarily visual. Newer platforms like TikTok are almost 100% visual, and even historically, text-based platforms like Twitter (X) have become largely visual.

An important aspect of these social visual communication strategies capitalizes on human interaction. As mentioned above, human faces provide a wealth of social information, including people's emotional states, levels of engagement, and potential interests. Not only is the face itself interesting, but also what humans are gazing at provides a focus for the viewer. Most people have an attentional bias towards faces from infancy, which grows stronger as we age. The information we extract from faces is layered with assumptions as well. These judgments are made extremely quickly and are not correlated with the real characteristics and personalities of those we see but rather reflect bias and stereotypes. Nevertheless, these judgments can and do alter our perceptions and our decisions. Understanding the strategic use of human faces in campaigns is critical because faces can either enhance or detract from the marketing message depending on how they are incorporated.

As crucial as faces are, there are other visual components, like product imagery, visual variety, and visual dynamism, that matter in social media campaigns. In general, there is a "picture superiority effect," such that the mere presence of pictures in a text-based campaign can increase communication effectiveness.

In evaluating campaigns, you can also measure what people are looking at, for how long, in what order and how they are emotionally reacting. Eye tracking can measure people's attention, and Facial Action Coding methods can estimate emotions from the moment videos or static photos are viewed. Using these tools, marketers can design videos that grab attention instantly and build end-branding moments that help reinforce memory structures. They can fine-tune video engagement to ensure viewers focus on what's intended and ensure that the lighting and contrast make it easy to focus on the key elements. Video content that gets attention immediately can translate into more follow-through.

Why We Wrote This Book

For over five years now, we have been teaching a Visual Marketing course at The Wharton School, University of Pennsylvania, to undergraduate and graduate students. We have received a very enthusiastic reaction to our approach. One of us (BK) is a marketing professor, and the other (EJ) is a neuroscientist. Working together, we have been able to merge science with practice. This has produced our novel approach. In addition, each year we have taught, we have enticed many different practitioners to come into our classroom and share their real-world examples.

Our experience over the years has helped us refine our approach and synthesize our thinking into relatable frameworks. The chapters that follow lay out what we have learned over the years.

We start in Chapter 2 by describing the radical changes occurring in the retail environment and the need to understand better how visual marketing affects decision-making.

In Chapters 3–6, we go deeper, under the hood, to understand how we see. Chapter 3 focuses on Visual Attention, the gatekeeper to perception and knowledge; Chapter 4 explores visual communication and analysis to help create a visual vocabulary. Chapter 5 explores research that has helped us understand how visual processes influence decision-making and choice. Chapter 6 examines the power of visuals to engage and boost memory. Chapters 7–10 delve further into specific marketing tactics that build on these visual principles. Chapter 7 explores how visual content can elicit strong feelings that can be used in advertising and social media. We discuss the effectiveness of human faces in marketing materials. Chapter 8 starts with the customer journey and shows how visual cues affect decision-making at critical consumer touchpoints. In Chapter 9, we explore the effectiveness of packaging as a canvas to influence perceptions. Finally, Chapter 10 focuses on brands as a visual identity system. Chapter 11 concludes.

Let's begin our journey ….

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Retailing Disruption

2

The Changing World of Retail and Why Visual Marketing Is More Important than Ever

Chapter Outline

This chapter discusses the changing world of retail and why visual strategies are more important than ever. The Kahn Retailing Success Matrix is introduced to provide a strategic framework for building leadership strategies. It is based on two fundamental principles: customer value and competitive advantage. The matrix has four quadrants: brand, low price, experiential, and frictionless, and suggests that retailers need to excel in at least one quadrant, leverage that advantage to be best at a second quadrant, and be fair-value in the others to survive and thrive. The chapter then focuses on customer experience strategies, which can be either experiential (spend time) or frictionless (save time), and provides examples of how retailers use visual principles to create engaging and convenient shopping environments. The chapter also discusses the role of technology, such as immersive media, AI, and computer vision, in enhancing customer experiences and creating seamless integration across physical and digital channels.

Learning Objectives

- The world or retail has been radically changing around the world. Retailing is now omni channel, requiring a seamless integration across physical retailing, online e-commerce and mobile marketplaces. This change in omni-channel shopping requires a visual identity system that unites the experiences.
- Customer wants to connect with the brand via high-tech, interactive dimensions and via deeper, culturally relevant dimensions; all decisions require visual consistency.
- The importance of context: understand how key changes in retail visual environment affect shopper behavior at the various stages of the customer journey (e.g., Target layout; Buy Online Pick Up In Store (BOPUS)).
- Traditional and digital companies are converging to be everywhere customers want them (omni channel; metaverse).

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- Understanding the role of visual strategy is creating meaningful customer experiences, either through:
  - Providing incentives for the consumer to spend more time in the shopping experience thus increasing pleasure and trust and encouraging deeper relationships, or
  - Making the shopping as frictionless as possible to help the customer save time in shopping and engage in automatic repurchasing.

We know retailing is changing across the world, and with it, the very experience of shopping. The changes are occurring for many reasons. First, the pandemic accelerated the move to digital e-commerce. Some experts speculated that this acceleration was anywhere from 5–10 years. During COVID, when physical interactions were curtailed for safety reasons, marketers and consumers rapidly moved to the e-commerce world. Even several years after the pandemic, while most shoppers have returned to physical stores, there is no question that e-commerce holds a more prominent place in retailing than it had before the pandemic.

Retailing is now omnichannel, requiring a seamless integration across physical retailing, online e-commerce, and mobile marketplaces. This change to omni-channel shopping requires a visual identity system that unites the experiences. This change also suggests that the functions of the physical store are different from before when e-commerce and mobile platforms did not play such a prominent role.

Second, technological advances have provided new opportunities for immersive media that can expand the definition of customer experience and shopping journey. The increasing role of AI and machine learning suggests that these new environments can be built on deep customer insights. Third, with this seamless integration across all channels, the marketer can access customer-based data for more personalized and customized experiences.

And, of course, every new generation of consumers brings in new preferences, trends, and shopping behaviours. Generation Z and Generation Alpha have only known the world with smartphones, fundamentally changing their expectations and activities. They are omnichannel shoppers who are as likely to purchase on their phones as in the store. Social media, gaming platforms, and social influencers are part of their everyday life—and the primary currency of these platforms is visual.

Dealing with all this change and designing optimal visual interfaces requires a strategic approach. To provide this strategic perspective, we rely on the Kahn Retailing Success Matrix, developed based on observations in the disruptive retailing industry but generalized to provide a successful blueprint for many sectors.

The Kahn Retailing Success Matrix

The Kahn Retailing Success Matrix is a 2 × 2, 4-quadrant matrix categorizing successful winning marketing strategies. In today's competitive world, maintaining a leadership position requires delivering customer value better than the competition, so leaders must excel in at least one quadrant in the matrix while being "fair value" in the other three.

The success matrix is based on two fundamental principles. The first principle is the **principle of customer value**. This states that to win customers, it is necessary to provide them with something they value. In retailing, this is simple: customers want to buy something they value (the right product at the right price) from someone they trust (the retailer who provides the optimal customer experience).

The second principle is the **principle of superior competitive advantage**. This states to win, retailers must provide customer value that is better than that which shoppers can get from anyone else. There are two ways to deliver competitive advantage: to give more pleasure, offer more trust, offer higher benefits, or take away the pain and the friction.

These two principles result in the simple 2 × 2 matrix (see Figure 2.1) that is surprisingly effective at categorizing the strategies of the most successful retailers and offers a strategic paradigm for prioritization for retailers who want to maximize their resources.

This framework suggests four leadership strategies. The first column defines product strategies; here, leaders can win by having either (1) the best brand, product assortment, innovation strategy, or design advantage or (2) the lowest price. As the matrix illustrates, winners in the brand quadrant include Nike, Louis Vuitton (and most luxury brands), Warby Parker (a brand/design-based digitally native vertical brand), Selfridges or Bon Marche (multi-brand global luxury department stores), and Zara which is known for exceptional product assortment. Winners in the low-price quadrant include Walmart, Costco, Lidl, and Aldi.

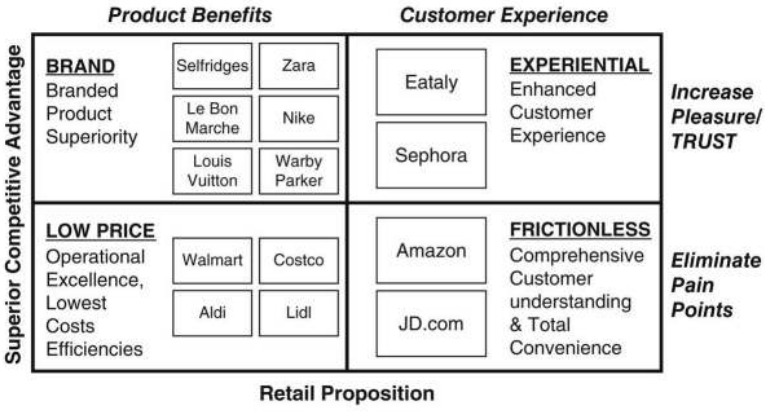

Figure 2.1 Kahn Retailing Success Matrix.

The second column highlights retailers who have gained leadership status by providing exceptional customer experience. For these retailers, their product assortment or price strategies may not necessarily be the best in their categories, but their customer experience strategies are outstanding and drive customer loyalty.

There are two ways to operationalize customer experience strategies. The first way is experiential, a strategy where customers are incented to "spend time" or ("kill time" strategies, as the Chinese label it) in the retail environment. In these environments, customers find the time spent enjoyable and valuable. Through this enhanced customer engagement, the retailers hope to build loyalty, learn customer preferences, drive customer retention, and upsell and cross-sell. Exemplar retailers in this category include the European retailers Sephora and Eataly; the Chinese marketplace platform Alibaba is an example in online shopping. Retailers sometimes create a "treasure hunt" experience for their customers' enjoyment in addition to selling products, or they may prioritize their role as a community or education centre.

Alternatively, a "save time" or **frictionless** strategy is one in which retailers collect customer data to identify customer friction points to remove the pain of the shopping experience and make the shopping journey as convenient and easy as possible. Amazon and China's JD.com became especially proficient at delivering this customer value during the 2020 pandemic. For example, many consumers became exceptionally loyal to Amazon during COVID because it was the easiest way to purchase, resulting in very high retention rates.

Strategic Implications of the Matrix

The matrix has short-term and long-term strategic implications. In the short term, to survive, retailers need to be at least "fair value" or "good enough" in each of the four quadrants. The problem is that in competitive markets, fair value is constantly being ratcheted up, and those retailers who do not keep up may be forced to close. Thus, it requires significant resources to stay competitive in all four quadrants.

However, to be the true market leader in a very competitive industry like retailing for the long term, a merchant must not only excel in one quadrant but then build on that strength to be a leader in a second quadrant. Any two quadrants can work as a winning strategy, but the different choices reflect different consumer segments, and they may not all be as profitable or easy to address. As markets are very competitive, it is difficult to maintain that leadership position because competitors are constantly nipping at one's heels, and strategies must be dynamically adapted and improved.

Bottom line, the strategic thinking behind the matrix suggests that in competitive markets, you cannot be the best at everything, so choosing one leadership quadrant, building on that to showcase a second strength, and then keeping up to be "good enough" in the other two quadrants is the recipe for success.

Importance of Customer Experience Strategies in Maturing Markets

Historically, most retailers and brands competed primarily by offering product benefits—either offering a premium or luxury brand strategy or competing on good value and low price. However, as industries got more competitive and the Internet connected consumers with other consumers worldwide, consumers began to demand more value and attention. This made customer experience strategies more critical. Retailers or brands that had already achieved a superior brand or price advantage had to add a second leadership quadrant focusing on experience.

Consequently, we saw many brands and retailers who were already market leaders delivering superior product or operational low-price strategies now opting to add a second quadrant strategy based on customer experiences. They could choose to be a leader either in an **experiential** or a "spend time" strategy or in a **frictionless** or "save time" strategy. Importantly, these customer experience strategies relied on good visual marketing for successful implementation.

In the following sections, we will discuss examples of good execution in each of these customer experience leadership strategies, which many retailers added as a second-quadrant strategy to supplement either their product or price advantages.

Visual Principles Can Optimize "Spend-Time" Strategies

A well-executed customer experience strategy can be enough to convert customers into brand loyalists. In the "spend time" or experiential quadrant, marketers try to build relationships with their customers, much like people do with each other. The more meaningful time the brand spends with its customers in engaging experiences, the higher the retention, loyalty, and increased spending. Focusing here on the visual perspective, it is helpful to see how the visual principles of **attention**, **fluency**, **decision-making**, **retention**, **emotion**, and **social engagement** can be used to encourage spending time with a brand or retailer.

Discovery Experience: The "Treasure Hunt"

One way to increase time spent with a retailer is through a "treasure hunt" experience. Treasure hunt experiences differ widely across retailers, but in general, they can be defined as "offer(ing) some combination of a wide breadth of product, a rotating selection of that product and a store layout that encourages consumers to browse multiple aisles before checkout." Retailers differ in how they use visual strategies to promote the treasure hunt engagement.

The "Target Effect": Builds on Attention, Fluency, Emotion, and Social Engagement

One US-based retailer that excels at the excitement that a treasure hunt retailing experience can bring is Target Stores, known for its

red-and-white concentric circles (looking like a target) logo. Other retailers around the world sell similar merchandise to what Target sells, such as ASDA or Tesco Metro in the UK, Ipermercati in Italy, Monoprix in France, or maybe Don Quijote in Japan, but the shopping experience in a Target store, which is incredibly visually based, stimulates unbridled and unparalleled customer joy, that may be difficult to find in these other retailing establishments.

Go on Instagram or TikTok in the US and search for #Target and #Targeteffect, and you'll see shopping finds and descriptions suggesting that "you can walk the aisles in Target forever and always find something you want." Even though people may walk out of Target purchasing something they had not planned to get, they rarely feel taken advantage of or upset. It is because the store is fun and creates positive emotions.[1]

1 This video illustrates the joy. https://www.businessinsider.com/target-effect-how-retailer-gets-you-spend-more-money-2018-10.

The store is a joyful feast for the eyes. The aisles are wide, the signage is clear, and the store is colourful, well-lit, and organized. Those other stores selling similar merchandise can seem disorganized in comparison.

The layout is specifically designed to promote browsing and discovering unanticipated finds. From a visual perspective, the store design promotes fluency, or easy processing, because it is simple to make sense of what you see. The categories naturally flow from one section to another, allowing for effortless browsing; category adjacencies are based on data that suggests that items in these categories are often purchased together.

The store design also directs shoppers' attention in positive ways. The store employees are dressed in red shirts, making them easy to find. The placement of items in the store also attracts attention; frequently, there is a Starbucks at the front, and seasonal or impulse items are placed in salient locations.

Strategic partnerships with like-minded, well-designed brands like Ulta Beauty and Apple create positive synergy and aesthetic appeal. Target uses design features to promote the local community and sustainability efforts. Target also encourages shoppers to share their purchases on TikTok or Instagram, creating a continual social dialogue through visual imagery and video postings.

Their omnichannel and store strategy also provides a social community; Target is investing in its "stores as hubs," an approach that encourages shoppers, even if they shop online, to visit its stores. This strategy builds on and expands their prior "order pick-up in-store." Physically, Target is building smaller footprint stores in urban centres and near campuses, encouraging younger shoppers to visit the stores.

Costco Warehouses Use Visual Nudges, Disfluency, and Scarcity to Promote Purchasing

Costco also provides a treasure hunt experience for its loyal customers, but the visual strategy is strikingly different. Unlike Target, Costco has no signage in the store, and adding to this lack of in-store directional aids,

items are frequently moved around. While there is somewhat of a standard product-category layout (more on this below), the specific items stocked in any given category are not constant from visit to visit. Costco turns their inventory 12.4 times per year compared to Walmart, which turns it eight times yearly. Items may be kept in the store for as short as one week, and up to 20–25% of Costco's stock is offered for a limited time. Veteran shoppers learn quickly that if they see something they like at Costco, they better buy it immediately because there is a good chance it won't be there the next time they come. That knowledge of transience creates the "treasure hunt" environment, along with the idea that you never know what you might find in a Costco from visit to visit.

Costco uses the warehouse model—suppliers bring their goods to the warehouse in pallets, which is how they are stacked on the shelves. Thus, there is no shelving or unpacking, and the items are immediately for sale, significantly reducing labour costs. Customers, whether they are small businesses or end-users, must buy in large sizes or bulk; there is no choice. These factors reduce Costco's costs, and along with their famously small markup, on average 11%, they can guarantee that they offer the lowest price per unit on anything they sell in the store. Their warehouse setting also visually communicates this lowest-price strategy. Costco makes the bulk of its profits from its membership fees. Customers must think these membership dues are worth it because retention rates are over 90%.

Another thing that differentiates Costco's shopping environment is that although it has many product categories (breadth), it has very few items within each category (depth). This formula means that Costco's warehouses carry something like 3000 units, compared to standard Walmart stores, which might have 50,000, or standard grocery stores, which might have between 15,000 and 60,000. Large Supercentres like Sam's Club or Carrefour might have 100,000–250,000 units.

So, whereas the overall location of items and lack of signage might signal disfluency (and hence a sense of discovery) at the store level, the choice has been made very easy within each product category. There is no choice overload—there are only a few items, or maybe even only one—to choose from within each category. Further, Costco only deals with a limited number of brands and can sell at huge volumes. This gives them significant negotiating power with their suppliers and ensures they get the best quality items at the best prices. Whether shoppers choose the national or Kirkland store brands, they know they are getting the best quality. So, the limited choice, among only high-quality, low-priced goods, creates happiness and minimizes frustration.

While the exact items within a category, or even the existence of any specific category of goods, might change from visit to visit, there is a standard consistency to the visual layout of a Costco warehouse. At the entrance to the store, the shopper sees very high-priced categories such as consumer electronics or diamond jewellery. Occasionally, even

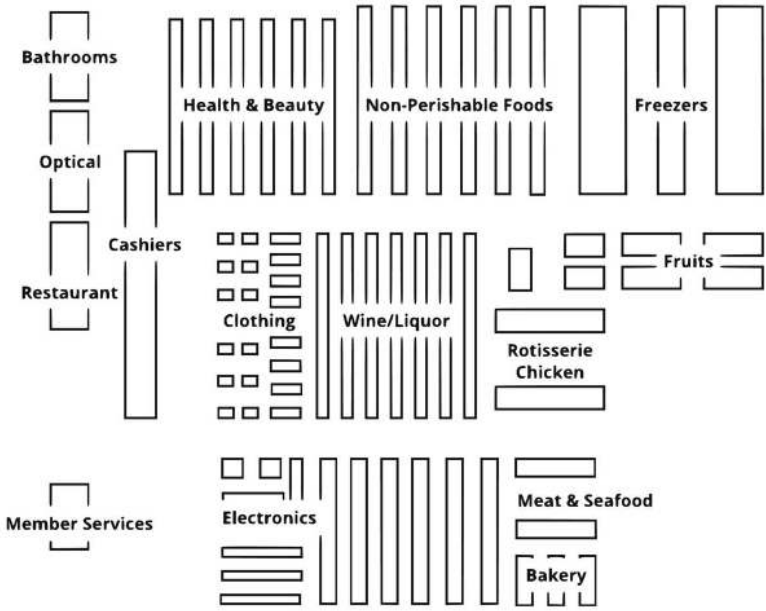

Figure 2.2 Layout of a typical Costco store where high-priced electronics and jewellery greet the shopper initially and favourites like their rotisserie chickens are typically in the back. Graphic by Wanying (Emily) Zhang, used with permission.

luxury items are available. While they are typically excellent deals, the sticker price is high. These high prices visually set expectations higher at a high level, so the prices of the other items in the store appear much lower even though they are being purchased in bulk.

The famous Costco Rotisserie chicken is in the back of the store, which veteran Costco shoppers know is an incredibly good deal. The famous chickens at the back of the store require shoppers to go through most of the store to get to them, thus aiding in the treasure hunt experience. At the end of the journey, after the cash registers, is the snack bar, where Costco has charged a minimal price for a hot dog and drink for years and years, ending the shopping trip with the fun of a carnival-like experience.

TJ (or TK) Maxx Promote Treasure Hunt Surprises and Beautiful Memories for Fashionistas

The third kind of treasure hunt is best exemplified by TJ (or in Europe TK) Maxx, Burlington, and Ross stores in apparel or Homegoods (US) or Homesense (Canada and Europe) for home products.

Like the other two examples, shoppers who visit these stores never know what they will find or go home with. Here, though, the treasure hunt is different; the store is pleasant but not luxurious, consistent with the exceptionally low prices shown on the price tags. Walls do not separate the product categories, so the selling space can easily shift to adapt

to the merchandise on hand and to reflect fashion trends. The clothing racks are jam-packed, forcing shoppers to rifle through them, looking for specific sizes or styles.

Importantly, nothing is guaranteed; you never know what you might find; it could be a special luxury brand or the newest, hottest trend of the season. It may or may not be in your size or in the colours you want. The uncertainty and the surprise factor are all part of the excitement. Shoppers with a good eye will be rewarded with exceptional bargains, which they can brag about to their friends. Their special finds became fun stories to tell and celebratory memories.

This model works because these retailers buy in bulk, often directly from manufacturers, so they can command exceptionally low prices. Sometimes, they buy when the manufacturer over-produced or at the end of the season when actual demand did not meet forecasts. However, a large percentage of the stock is purchased at the beginning of the season. While some of these items are made specifically for this channel or are irregular, many are close to what will be available simultaneously in department stores. The key difference is that the items will be readily available and easy to find in department stores, and all sizes should be in stock, which is not guaranteed in these "treasure hunt" stores. Manufacturers are keen to keep this distinction intact. The "treasure hunt" retailers are **not** allowed to promote the brands they may or may not have and online search is difficult if not impossible.

As long as the heightened uncertainty exists and the possibility, however low probability it might be, that an exceptional bargain is there to be found by diligent search, everyone wins. The manufacturers get to include this channel in their mix, lowering the per-unit cost of their merchandise. It guarantees sales for the manufacturers because when these retailers buy the inventory, they own it. This model allows these retailers to distribute cost-efficiently, even if it is over time or over seasons. The retailers make good margins, even at these low prices, because of their low-cost bulk-buying advantage. And, of course, the shoppers benefit with extremely low prices.

The key to success for these retailers is exceptional inventory and logistics management as well as truckload transportation systems which allow for efficient automated distribution. Although the retailers buy in bulk, guaranteeing their exceptionally low cost, only a few of each item or size go to each store, preserving the "thrill of the hunt" at each store. The inventory in each store is kept low purposefully. To make this model work, there needs to be a continuous flow of merchandise into the stores, delivered quickly and efficiently. These retailers have highly automated storage and distribution systems; they can track, allocate, and deliver approximately 11,000 items per week to the stores. This requires "Web- and EDI-enabled application including robust planning and execution capabilities such as purchase order management, centralised transportation planning and load consolidation, carrier selection, what-if scenario modelling, load tendering, freight payment, exception management, performance monitoring and analysis capabilities."

Retail Theatre: "Spend Time" Strategies in the Physical Store

Several years post-pandemic, retailers learned that although digital commerce was here to stay, "…stores are still important," so said Mark Metrick, CEO of Saks Fifth Avenue, at the NRF New York City convention in 2021, "For luxury especially, it's the theatre: People want to see the show." He continued, "I was surprised by the love our customers have for fashion. In the midst of the pandemic, we were selling things that there was no foreseeable end use for."

The Global Flagship Department Stores Sparkle in Aesthetic Glory

Many multi-brand department stores and mall stores started closing their doors, even before the pandemic, as part of the "retail apocalypse." They were being attacked on both sides and were literally "stuck in the middle." On one hand, they felt the competition from omnichannel "everything stores" like Amazon or Walmart, which could offer more convenience and lower prices. Conversely, desirable premium or luxury brands were now going directly to their end-users through their own retail channels and were locking in these customers through personalized, customized relationships.

One of the bright spots was the reinvestment in the Global Flagship stores. Typically on high-traffic tourist streets, these luxurious jewels, like London's Selfridges or Harrod's, Paris's Le Bon Marche or Galleries Lafayette, or NYC's Saks or Bergdorf Goodman, are being refurbished and using "retail theatre" to draw shoppers in. When done right, these stores can engage their audiences in spectacular immersive spaces and offer the chance to make lasting impressions. These stores literally become the "stage."

Generally, the flagship luxury stores cater to two segments: (1) the ultra-wealthy who value a "multi-brand approach" and very personalized one-to-one long-term relationships and (2) the tourist travellers who may buy special items to commemorate a trip or to take advantage of tax-free luxury. Sometimes, the experiential programming featured at these flagship stores also entices local shoppers looking for ways to spend their time enjoyably. These flagship stores can create environments that provide entertainment and education or create special cultural moments.

In all cases, part of the allure of the flagship is to draw the shopper to the store; here, visual strategies are critical. The store layout, colours, materials, and lighting matter are used to direct attention and guide shoppers through their journey. Elaborate window displays are used to support special brands or to promote artistic or designer talent. The windows can also feature "photograph worthy" installations, creating opportunities for sharing on social media and inspiring "word of mouth" promotion.

In many of the world's travel destination cities, these global flagship stores rival other landmarks for the most heavily trafficked tourist business. For example, in Paris, Le Bon Marche, which claims credit as

the very first department store, reimagined in 1852 by French entrepreneur Aristide Boucicaut and his wife, Marguerite, and designed by architect Louis-Charles Boileau and engineer Gustave Eiffel became known as a public palace, a "cathedral of consumption." The store itself is designed with noteworthy architectural features like its famous escalators and impressive ceilings (one of which is reminiscent of the Eiffel Tower).

In addition to the sheer beauty of the physical store, Le Bon Marche plans a strategy to entice visitors to the store with their merchandising. For example, they feature specialized brand curations that follow three rules: (1) profitability, (2) exclusive experiences created specifically for Le Bon Marche, and (3) consistency with the store narrative and design aesthetic DNA. The store also features 150 art pieces and exclusive "pop-up" installations. Some product displays reflect its historic legacy; for example, the large book section reflects the store's location on the Left Bank of the Seine, known for its intellectual discourse.

Similarly, Saks Fifth Avenue's flagship store also uses retail theatre to attract tourists. Taking advantage of its location opposite Rockefeller Centre with its famous Christmas tree that attracts an estimated 125 million people each year, the store annually features iconic holiday window displays and light shows. For the holiday season, 2023–2024, Saks partnered with Dior to create an extraordinary sculptural façade called the "Carousel of Dreams." The façade transformed into a light show in the evening powered by 300,000 LED lights that played every ten minutes during the holiday season.

Figure 2.3 Holiday decorations for the flagship Saks Department Store in New York City. Photo by Wanying (Emily) Zhang, used with permission.

For the 2022 holiday season, the opening ceremony featured Elton John. Similarly, Macy's Herald Square store on 34th Street in NYC has its world-famous Thanksgiving Day Parade to boost holiday sales at the start of the holiday season. The first Macy's Thanksgiving Parade, originally called the "Christmas Parade," was hosted on November 27, 1924. In 2023, the parade featured 25 balloons, 31 floats, and 18 celebrities.

Other flagship department stores feature beautiful food emporiums to draw in shoppers. Japan's Isetan has an impressive food market in the basement and a roof garden. London's Selfridges brings an exclusive bar experience to "The Lounge" on the fourth floor of the flagship stress. Harrods in London, the biggest department store in Europe, has recently revamped its Food Halls to feature Michelin-starred restaurants, offering a wide range of cuisines.

The Direct-to-Consumer Brands Retail Strategies

Mono-brand, or direct-to-consumer brands, also embrace physical stores to create visually compelling branded experiences. For digitally-native vertical brands (DNVBs) like Warby Parker, Glossier, and Bonobos, the physical retail space is a more efficient way to acquire new customers and build strong relationships with existing customers. Most digitally-native brands started online exclusively, but online advertising is no longer the growth accelerant it once was because of extensive competition. In addition, the pandemic, which hurt foot traffic to retail stores, allowed for the possibility of leasing retail space for cheaper rents and much shorter leases, sometimes as short as a few months or weeks. This also created an opportunity for "pop-up" strategies. Retail space can also help margins by reducing shipping and returns costs and can be a more efficient way to acquire new customers by building awareness for the brand.

These stores are sometimes only showrooms, allowing the actual purchase to be still made online. However, the physical store can use architectural features and unique furniture to promote its brand identity and enable the shoppers to try on or experiment with the branded products. For example, the Glossier Flagship in NYC has design features that inspire "selfies" and pay homage to the New York City subway system. The Warby Parker stores feature its library and school themes.

Similarly, luxury and premium brands have moved away from only selling their brands through wholesalers to opening their own stores. These stores allow them to own their end-user data more directly and to control their brand and customer experiences. Most high-end European luxury brands like Louis Vuitton, Gucci, Prada, Christian Dior, and Burberry and the high premium global brands like Nike, Addidas, and Lululemon have their own retail stores. Tapping into social media and omnichannel strategies, these stores are customized to their geographical locations and to cater to their specific shoppers' profiles.

These stores optimize their product assortments and use their physical space, architecture, design, and sensory inputs to represent the

brand narratives and historic legacy visually. The physical stores allow brands to create dreams and highlight their authentic DNA and core values. The physical stores allow for the use of digital tools, including AR, which can combine with online data to create very personalized in-store experiences. Like the flagship department stores, these flagship brand retailers can create one-of-a-kind in-store experiences to lure shoppers. They also can rely on impeccable customer service to maintain their prestigious and exclusive allure.

These brands also experiment with immersive technology and gaming platforms to build one-to-one relationships with end users. For example, Nike acquired RTFKT in 2020 to experiment with creating digital goods and partnered with the global gaming platform Roblox to create its own virtual space called Nikeland. Nikeland allows users to participate through their personalized avatar in social events, gaming challenges, and co-creations. The digital assets can also be linked with physical collections as well. Obsess is a SaaS company that builds virtual stores and experiences for luxury brands and creates immersive technology that increases customer engagement and encourages shoppers to explore the brands' websites more deeply.

Using Technology to Help Shoppers Save Time

In the "save time" or frictionless quadrant, brands or retailers seek ways to eliminate the friction or pain points that annoy or frustrate shoppers. By making shopping as convenient as possible, shoppers can purchase automatically, almost mindlessly in some cases, and repeat purchase becomes the default.

The key here is seamless integration of the shopping experience across all touchpoints, both in the store and online/mobile. This requires collecting and capturing customer data so that shopping needs can be anticipated and pain points can be eliminated. Some of the most common pain points consumers want to avoid include payment, returns, stock-outs, and wait times.

In-store technology can be used effectively, including digital signage, interactive kiosks, sensors for smart shelving systems, and mobile payment processes. There is also software that manages waiting room lines to make the in-store shopping process more efficient.

Zara has systems in their stores that register their merchandise every hour and monitor how many are sold so that they can replenish merchandise on their sales floors until they sell out. This allows them to keep fewer items on the racks on the showroom floor to reduce crowding and information overload while still keeping up with shoppers' demands for products. If shoppers cannot find their sizes immediately, they can go to their app and request the item from the back room, and it can be made available quickly. Zara also has in-store technology to facilitate automated returns, pick-ups, and recycling.

At the Consumer Electronics Show (CES) in Las Vegas in 2024, a new vision of retail was highlighted. When shoppers are looking to make their shopping trip as efficient as possible, they want to find the right products quickly, not wait in queues for payment or try-ons, and they wish to secure fast payment systems. AI-powered computer vision cameras are one way to allow shoppers to shop and pay quickly. The use of biometrics can help eliminate security challenges, including retail shrink.

From a visual perspective, these in-store technology aids will need to fit into the store aesthetic without taking away from the store experience. In addition, the easier the technology is to use, the clearer the processes are, the more beneficial. To do this the retailer should simplify the buying process as much as possible, as well as personalize it. Customer data should be leveraged seamlessly so shoppers do not have to enter the information repeatedly. Further previous purchase histories can be used to provide directions within the store to simplify decision-making.

Conclusion

Accelerated by the global pandemic, retailing is now an omnichannel experience requiring a seamless integration across physical retailing, online e-commerce, and mobile marketplaces. This change to omnichannel shopping requires a visual identity system that unites the experiences across the different platforms. This change also suggests that the functions that physical stores serve are different from before when e-commerce and mobile platforms did not play such a prominent role.

The Kahn Success Matrix provides a strategic framework for how retailers can achieve leadership in this competitive world. The strategy behind the matrix suggests that brands or retailers must excel at one leadership strategy and then build on that to be the best in two quadrants. This "leadership" perspective suggests that being "stuck in the middle" is a quick route to becoming part of the retail apocalypse.

Historically, brands and retailers have prioritized product and pricing leadership strategies, and in that mature competitive space, it is challenging to eke out a new leadership angle. Thus, we see more retailers and brands turning to customer experience strategies to differentiate. Here, they choose either a "spend time" or experiential strategy or a "save time" or frictionless strategy.

Leaders in the experiential quadrant have used many different creative approaches. One popular idea is the "treasure hunt" strategy, which can take many different formats but all rely on strong visual cues to enhance the experience. Other retailers in this quadrant have focused on building "retail theatre," especially in their flagship stores. These tourist meccas become a way to drive customer acquisition, build the brand, and foster strong loyalty and retention among key customer groups. These retail flagships are literally "consumption palaces" and use extraordinary

visual tools and art to entice global shoppers to their doors. We also see creative uses of immersive technology, including gaming platforms, to create new experiences, especially attracting younger shoppers.

Conversely, leaders in the "frictionless" quadrants use visual tools to make the shopping experience as simple and convenient as possible. Here, the goal is to save time for the consumer and make shopping as close to automatic as possible. This requires visual strategies that help accentuate the streamlined functions and efficiency that the stores feature. Technology plays a bigger and bigger role, and we see tasks that used to be filled by employees now relying on technology, such as self-payment or in-store inventory control systems. AR and VR can also be used to create efficient shopping environments.

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part I

Going Deeper, Underneath the Hood: How We See

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3 Visual Attention Is the Gatekeeper to Perception and Knowledge

Chapter Outline

This chapter defines attention as the selective processing of information while ignoring other stimuli, and both bottom-up and top-down factors can drive it. Bottom-up processing involves the influence of salient features, such as colour, brightness, motion, or emotion, on attention. In contrast, top-down processing involves the influence of prior expectations, knowledge, and goals on attention. Marketers use salience maps and meaning maps to predict where consumers will direct their attention and how attention can be affected by emotional stimuli, moving stimuli, and mismatched expectations. Examples of how attention can influence consumer choice include the Tropicana packaging redesign failure, the Skoda Fabia advertisement, and the Apple text bubble colour. One of the methods that marketers use to measure consumers' attention to marketing stimuli is eye-tracking, which can capture eye movements and fixations in real time. Eye-tracking can reveal the order and paths that consumers use to view a stimulus or a scene, and the duration and intensity of their attention to specific regions. Eye-tracking can also provide insights into how visual salience, semantic content, expectations, emotions, and movement affect attention and choice. Eye-tracking is used in various marketing contexts, such as retail navigation, product viewing and choice, and packaging and design layouts.

Learning Objectives

- Define attention as the selective processing of information while ignoring other stimuli, and both bottom-up and top-down factors can drive it.
- Appreciate what guides visual attention.
- Appreciate the limitations that selective attention imposes.
- Learn how attention can emphasize different kinds of marketing strategies.

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- Understand how marketers can measure consumer attention through eye-tracking which can capture eye movements and fixations in real time.
- Examples of eye-tracking use in marketing contexts such as retail navigation, product viewing and choice, and packaging and design layouts.

To understand how vision relates to marketing strategies, we begin with a basic definition of "what is vision?" Unlike a camera, human vision is not the passive recording of light entering the eye. When we "see," our retinas connect to our brains to understand what we are viewing and to help us discriminate it from other objects in the landscape. Thus, vision aims to identify objects (what) and locate them in space (where). Vision is the interplay between our attention and our sensory perception.

Definition of Attention

Psychologist William James defined attention as "the taking possession by the mind, in clear and vivid form, of one out of what seem several simultaneously possible objects or trains of thought. Focalization, concentration, of consciousness are of its essence. It implies withdrawal from some things to deal effectively with others." This definition points out that we can only focus our processing resources on the most relevant aspect of our environment and that we purposefully ignore or suppress other elements. In terms of overt visual attention, this is often the centre of gaze, placing what we are visually attending to into the foveal representation of the retina—the place on the retina where we see with the highest spatial resolution.

Sometimes, attention is driven by what is most salient or what catches our eye, such as seeing a brightly coloured object on a neutral background or seeing an object suddenly move. We call this stimulus-driven attention, which can be involuntary or automatic, such as when we hear a loud sound and look towards it reflexively.

Other times, our attention is deliberate and requires voluntary searching; it is motivated internally and guided by specific goals. Neither involuntary nor voluntary attention can uniquely explain our perceptions all the time; they are likely both occurring and interacting with each other. They are not opposing operations; both are critical but operate differently and simultaneously.

Whether involuntary or voluntary, attention is the cognitive operation that allows us to select relevant information and filter out irrelevant information. The goal of visual attention is to provide rapid information about the location, extent, and detail to aid in recognizing what is most "interesting." Attention is limited; we can only focus on one thing at a time (so we miss a lot). Attention is, therefore, the gatekeeper, or the first step, to our forming perceptions and accumulating knowledge.

When we form perceptions by attention that is driven by reacting viscerally to external stimuli, we call that "bottom-up" processing. When we form perceptions by attention driven by internal thoughts and goals, we call that "top-down" processing.

Bottom-Up Processing

In bottom-up processing, we start with observable inputs. In the case of vision, this is light received into the eye, and then the brain makes sense of it. We process low-level features like colour, brightness, and edges, which then form the beginnings of our perceptions. Based on these perceptions, the brain makes decisions that guide behaviour. This is known as data-driven processing, which begins with the stimulus itself. The processing is carried out in stages, from the retina to the visual cortex, with each successive stage in the visual pathway carrying out an ever more complex analysis of the input. This is called "Direct or Ecological Theory," as described by James Gibson. Gibson theorized that the mind directly perceives environmental stimuli without additional cognitive construction or processing. He argued that perception does not require past knowledge or inference.

Top-Down Processing

Contrary to Gibson's theory, "Constructivist theory," also called top-down processing, is the idea that information in our environment is frequently ambiguous. We require cognitive information from our past experiences or stored knowledge to interpret it. This theory, described by Richard Gregory, suggests that our perceptions are constructed through the lens of our cognitions and experiences in learning and memory, and these previous cognitions help in pattern recognition. Our expectations and knowledge about context shape our perception and behaviour, not just the visual sensory data alone.

For example, reading difficult handwriting is easier when the sample contains complete sentences than reading single, isolated words. This is because the meaning of the surrounding words provides a context to aid understanding.

Interestingly, this theory cannot explain why, when we learn the correct interpretation of an illusion, we can still sometimes see the illusion even though we know the truth. This suggests there are some hard-wired stimuli that our brain processes automatically. There is substantial evidence that bottom-up and top-down processing work together to guide attention and perception. These two types of processing are not mutually exclusive. For example, a bright red bird can automatically capture our attention (bottom-up salience), but we also look for birds in tree foliage, where we have learned they are commonly found (top-down influence).

Importance of Prior Expectations: Tropicana Example

To see how these processes work together, consider the 2009 marketing disaster when Pepsico attempted a complete packaging and advertising

redesign for their North American Market for Tropicana Orange Juice. The original packaging featured, among other things, an image of an orange with a straw protruding from it. After hiring a graphic design firm and spending over $50 million, Tropicana developed a clean, streamlined new package; they changed the logo, the typography, the slogan, the image, and even the pouring spout lid.

However, orange juice is a low-involvement category frequently purchased routinely with little thought. About 25% of shoppers buy the same product every week. Given this regularity, purchases are generally not made by reacting to what is salient, what "pops" on the shelf, but instead, they are based on what people remember, prefer, recognize, and perceive as being their product of choice.

When the new design hit the shelves, consumers had trouble finding the product on the shelf; too many design elements had changed at once, and they couldn't find their familiar product. In this case, their prior expectations defined what they were looking for, and they did not identify with the new product.

They also had an emotional attachment to the old packaging and logo—and as we will show in Chapter 9, packaging sometimes influences product quality perceptions even more than changes in the actual product! So, rather than being an asset, the new design features cast doubt on whether it was even the same product inside. Within just a few months, Tropicana returned to its original packaging design.

This example shows how important expectations are in guiding what we pay attention to in a marketing context. Given that we generally devote only a few seconds to processing marketing stimuli on a shelf or in an ad, we will likely focus our processing resources on the most relevant aspects of our environment. This means that marketers must understand what determines where consumers direct their attention. They need to prioritize the facets of the marketing environment that are more likely to get shoppers' attention.

The Tools that Marketers Use to Direct Consumers' Attention

Since attention is the select processing of discrete aspects of information while ignoring other perceivable information, marketers need to determine what consumers will pay attention to and what they will tend to ignore. Further, if consumers pay attention to something, perhaps involuntarily, how will this influence their decision-making?

Overt attention is when the eye gaze is explicitly directed to a visual stimulus or location of interest. Covert attention is the attention directed at a region outside of the centre of gaze. As mentioned above, sometimes attention is driven by what is most salient in the environment, e.g., colour or movement, and sometimes it requires searching based on goals and motivations. However, we have a limited attention capacity and can only attend to one thing at a time; we can only switch or shift our attentional focus from one thing to another.

Our perception of a scene is developed by a combination of attention, eye movements, and memory. So, what we direct our attention to is a function of the cognitive operations that mediate the selection of relevant information while filtering out irrelevant information. The information consumers take out of a scene shows their interest, what they are filtering out and what they are attending to.

In a retail or advertising setting, marketers try to direct consumers' attention to a particular region of space. This attention can arise endogenously or voluntarily. For example, shoppers may go to the store to buy a specific ketchup brand and actively search for their familiar brand. Marketers can influence this by creating compelling advertising that builds brand loyalty. Or consumers' attention to marketing stimuli can arise exogenously and involuntarily from environmental stimuli that marketers insert into the environment. In this case, marketers hope shoppers will decide what brands to buy when they are in the store.

Feature-Based Salience

When marketers try to gain shoppers' attention exogenously, they use various mechanisms to direct attention to a particular feature. Bottom-up attentional processing like this is driven by salience. Essentially, marketers are trying to create enough activity around marketing materials that consumers take note of; it is as if marketers are shining a spotlight at a specific location and directing shoppers' eyes to this spot. The goal is to get shoppers to notice this eye-catching activity spontaneously and automatically. Responding to this kind of saliency is hard-wired; it is the same across gender, age, and culture.

When executed correctly, this feature-based salient attention—where the "spotlight shines"—is directed toward marketing content that aligns with the marketers' goals. For example, on a retail shelf, a marketer may display a "big red arrow" to signify a price discount. Retailers may also use packaging in a colour block to attract attention to a specific brand. The goal is to make these marketing materials salient and to have shoppers naturally observe these first and maybe exclusively.

Salient content in a marketing environment can also backfire. Suppose the most salient item within the visual space is a distraction rather than what the marketer wants the customer to see first. Moving away from that stimulus and finding other cues in the marketing environment will require extra voluntary effort. For example, in a retail store, if a display is eye-catching but unrelated to a product being sold, it may be challenging to shift the shoppers' attention from that eye-catching display to look at (and thus consider) other items for sale. So, the most salient feature, or the feature being spotlighted, can be an opportunity for the marketer if it aligns with selling goals or a distraction if it doesn't.

In many marketing situations, consumers only spend a short amount of time assessing stimuli, so they focus on the salient features that can provide a robust sense of the whole. When marketing materials are familiar, mere glancing at salient features should help consumers quickly

fill in the blanks. Sometimes, errors occur because the assumptions made based on past experiences don't align with the image. More time for viewing in more detail might help, but consumers might not be willing to do that, and it might not even change the initial conclusions.

When these quick views based on salient features are not likely to be diagnostic, it may make sense to direct attention to the aspect of the image that is likely to yield the most meaning. It is helpful to understand how salience interacts with meaning-based cues to optimize visual marketing strategies. We discuss what we know about both in the following two sections.

Salience Maps

Now, software allows marketers to create "salience maps" of images or packaging that can indicate which areas of the stimulus are likely to be attended to first and then secondarily. The software essentially creates maps of where the "spotlight" is shining brightly and where it is shining not so brightly or not at all. To build such salience maps, the image or scene is divided into its component parts, its colours, bright areas, edges, the presence of a face, etc., to create maps of the different features in the scene.

These maps are then used to estimate what areas of the scene people are most likely to pay attention to first and can also indicate the intensity of that predicted attention. Sophisticated software can take an advertisement, a package, or a shelf display, and tell you the probability or likelihood of where a viewer will look. This "Visual Attention Software" tool can then be used strategically to see how attention patterns change as marketers move things around and how these changes affect relative saliency and, therefore, the likelihood that the consumer will see something quickly, first, or at all.

Retailers and advertisers frequently use eye tracking and visual attention modelling software with virtual planograms to quickly assess attention to different placements, facings, store layouts and contexts. These are all hard-wired findings, guided by salience, and can be assessed using software without testing on real people. These software packages are possible because of vision scientists' work to leverage computational models of human vision to understand how the brain encodes information in the visual system and what visual information gets priority.

Under contexts of rapid decision-making, visual saliency has been found, in some circumstances, to influence choices more than preferences. This is because visually salient items are looked at for more extended periods than less salient stimuli, impacting the values assigned to those features. Visual salience can influence choice when brand preferences are about equal or ambiguous. Salient features can't make you like and choose things you hate or choose a different option from what you love just by making the other options more salient, but if preferences are about equal, salience can affect choice. Marketers

cannot make a consumer like or choose a product they hate just by making it more salient or choose a different option from what they love just by making the preferred product less salient.

Meaning Maps

Since we know that directed attention is based not only on the salience mapping of visual features but also on our previous experience and interests, there is a role for cognitive guidance where attention is directed to semantically informative scene regions.

We are highly sensitive to the distribution of meaning in visual scenes from the minute we view something. Because of this knowledge, we are more likely to pay more attention, and to pay attention earlier, to regions of a scene that we think will give us more information about what we are viewing. So, not only salience but the semantic content and the spatial distribution of that content based on our experiences, generally and with specific scenes, guide our looking patterns.

Experiments were conducted to understand the relationship between attention deployment related to semantic content (or the meaningfulness of content based on past experiences) and attention deployed associated with the salience of various image components. In other words, which of the two types of attention is more likely to predict viewers' gaze patterns?

To determine this relationship, salience maps of real-world images were created using software as described above. To assess the semantic content, naïve, crowd-sourced humans were asked to rate the meaningfulness of a large number of patches of a large number of real-world scene photographs. Then, the experimenters measured how attention was directed to these images as they related to both meaning and salience. The meaning maps and salience maps were both highly predictive of where people attend (as measured by eye tracking on a different subset of observers), but only the meaning maps could account for attentional variance when the correlation between meaning and salience was statistically controlled. So, meaning maps offer an advantage for predicting where consumers will deploy their attention, at least as measured through gaze patterns, and for stimuli for which they have some experience.

The "Lion in the Grass" Metaphor

The advantage of using meaning maps to predict attention reinforces the idea that there is an interplay between top-down and bottom-up processing. Attention to stimuli using top-down information improves the processing of specific data by increasing sensitivity to what is being looked for. But it also makes it less likely to attend to what is not being looked for.

One famous metaphor for this idea follows a discussion of the "lion in the grass." If we went for a hike through a North American or European field, we would probably not focus much of our attention on

the grass because we would not expect to see anything unusual. But if we were at a zoo at the lion enclosures, we would be quicker to spot a lion lounging in that grass.

When we expect things, we can focus our attention on where we are supposed to look. That makes viewing resources more efficient, but it comes at a cost. If we don't expect to find a lion, we will not be so good at finding a lion lounging in the grass. This is called "inattentional blindness." This has been shown in laboratory experiments on expert radiologists performing a lung nodule detection task on computed tomography (CT) scans. Unbeknownst to the radiologists, a gorilla, 48 times bigger than the average lung nodule, was inserted into the last scan, and most of the experts missed this, despite eye tracking data showing that most of the observers that missed spotting the gorilla looked at its location. Because radiologists do not expect gorillas to show up in lung CT scans, they often miss them despite their salience.

Our previous experiences direct us to attend to certain features of an image. When scenes are ambiguous, sometimes these past experiences are helpful, and sometimes they can skew the conclusions. When past experiences are valid, they can help us detect things quickly. However, when past experiences are irrelevant or invalid, they can cause us to take more time to direct attention to certain stimuli. Our experiences hiking in the United States may be less helpful when we hike through Botswana.

Effect of Emotion

In addition to bottom-up salience and top-down experience, emotions are also relevant in predicting how we direct our attention. Emotionally relevant primary stimuli (food, sex, threats) are prioritized for attention. These things are hard-wired to drive more attentional resources. Marketers know this and have used these cues forever to get attention. We know that "sex sells," and if "it bleeds, it leads."

Emotional stimuli consume more attentional resources than non-emotional stimuli. Emotional experiences are also remembered more vividly and accurately, showing greater resilience over time.

Human emotions comprise complex interactions of subjective feelings and physiological and behavioural responses that are especially triggered by external stimuli that are subjectively perceived as "personally significant." We can monitor changes in emotional states, either subjectively through scales or in-depth interviews designed to assess feelings and experiences, or we can measure changes in behaviours by measuring facial expressions (Facial Action Coding, FAC). Facial action coding systems classify facial movements and features into action units to assess mood, emotion, and behavioural responses. This method uses a video camera to observe facial movements, and then software codes combinations of muscle movements into facial actions. Most taxonomies of emotions include a core of six: anger, sadness, happiness, fear, disgust, and surprise. We will discuss how marketers can use these emotional states in more detail in Chapter 7.

We should note that FACs are increasingly under fire because emotions can be incorrectly or inconsistently classified if the system is not used correctly. There is also some evidence of biased labelling based on racial, cultural and age-related factors. This requires more care and taking the proper precautions when considering the data. Biases can be reduced by understanding that accurate FACs and emotion labelling are largely contingent on seeing movement. If the movement were stressed more, static facial features would be less likely to be misinterpreted.

We can also use other biometric approaches by measuring physiological responses, including brain activity, heart rate, respiration rate, and skin temperature and conductance. These can provide information about engagement and arousal but, with the exception of brain activity, not much about valence.

Moving Stimuli and Mismatched Expectations

In addition to emotion, moving stimuli are better attention drivers than static stimuli. People will pay more attention if you take something static and make it move. For example, static ads on buses can be effective for recall because the movement (in this case, of the bus rather than the ad) makes the ad more salient, so people pay more attention.

We assume the world doesn't change much, and our representations are reliable. For example, we assume the world doesn't change when we blink. That assumption generalizes and makes it so that we may not notice changes that we are not expecting to happen. In addition, we represent the world in far less detail than we might think. Therefore, if we do not expect changes to happen, we do not notice them because our representations of what we think we see are unreliable. This is called "change blindness." Change blindness is failing to notice a change that was not there before—even a substantial change.

A cute demonstration of change blindness was used in an advertisement for the Skoda Fabia car. (A video of this ad is included in the reference list.) In this ad, attention is focused on the car parked in the middle of the street. In the meantime, the whole street scene behind the car slowly changes, including a van changing to a taxi and a pair of bicycles appearing, as does a lady holding a pig. The entire street scene changes colours. The point of the ad is that the design of the new Skoda Fabia car is so eye-catching you miss everything else!

Change blindness often happens with website, product, and packaging design changes. To minimize the risk of change blindness in marketing and UX design contexts, changes should be kept close to where viewers are most likely to attend (as predicted by salience and meaning maps). Changes should be visually prominent in some way (by adding movement, colour, or other features that will draw attention to the change). Of course, change blindness is not always bad; sometimes, making subtle, unnoticed changes can be the goal. This is discussed in more detail in Chapter 9 when we review strategies for packaging changes.

As described before, inattentional blindness is the failure to notice something that can be right in front of your eyes because you don't expect it or your attention is elsewhere. An example of this was run at a service desk where people were signing up to obtain a magazine subscription. Unsuspecting participants would come up to the desk to sign up; the clerk behind the desk would say, "Let me get you a pen," and would duck down behind the desk for a few seconds to get the pen. While the clerk was stooping behind the desk, he would be unobservable. Then, a different clerk (also male, but dressed differently and a completely different person) would pop back up and hand the participant a pen. More often than not, the participants would NOT notice the change in the clerk because they were not paying attention to him but were attending to the sign-up sheet and the pen. Importantly, they also did not anticipate a change in clerks. Even independent observers who watched videos of the activity would fail to notice the change in clerk because, similarly, the viewers' attention was directed to the pen and the signup sheet.

There is also a video where participants are asked to observe players dressed in white or black shirts pass a basketball to each other. Viewers are told to count how many times the players wearing white pass the basketball to each other. It requires significant focus to pay attention and to count the balls being tossed because the actions move fast, and it is hard to count. There are 16 passes. But because people are so focused on watching the ball being passed and do not assume anything unusual is about to happen, about half of them miss that a person in a gorilla suit is walking into the scene, pounding his chest, and then walking out.

This is now a very famous video often used in introductory psychology classes, so when this is demonstrated in classes or lectures, many people know about it, and they are now on guard to watch for the gorilla when the video starts. If they knew about the video, they probably DO see the gorilla because now they expect to see it. However, suppose they are with a savvy lecturer. In that case, they may be observing a second-generation video, where not only the gorilla is walking through, but other unanticipated changes are also built-in. Veteran viewers now see the gorilla, but they miss the change in colour of the background curtain and the exit of one of the players on the black team who chooses to leave the game. Almost nobody sees that. So, people who are aware of the gorilla "trick" now see the gorilla, but they miss other unanticipated events. Thus proving the ubiquity and robustness of "inattentional blindness."

Can Non-Attended Stimuli Influence Us?

Subliminal stimuli are those we do not detect; they are below the threshold of sensation or consciousness. In 1957, James Vicary, a market researcher, claimed to have exposed thousands of unwitting moviegoers with messages such as "drink Coca-Cola" that flashed before their eyes. Although the words were on the screen for too short a time to

be detected, Vicary claimed that it increased Coke sales at the refreshment stand. Vicary's approach was widely publicized and caused consternation about coercion without conscious consent. However, a few years later, Vicary revealed the whole thing was a false gimmick as a last-ditch effort to save his failing market research company. However, myths persist about subliminal messages despite there being no credible evidence of subliminal advertising influencing behaviour.

However, stimuli that are viewed but not consciously processed can alter behaviour. Specifically, here we are referencing stimuli that you are not paying attention to, but you do see; they are not subliminal. You are just not allocating conscious processing resources to it. These kinds of stimuli can affect perceptions and subsequent behaviour.

One example is how Apple uses different coloured message bubbles to distinguish between iMessage (blue) and standard SMS/MMS (green). When Apple users text other Apple users (iMessage), the bubbles appear in a calming blue. However, when texting non-Apple users (Android) via SMS/MMS, the bubbles turn an unsettling green. Interestingly, the white text on the green background has a lower colour contrast than the blue, making it slightly more challenging to read. Before 2013, users didn't consciously consider bubble colour much; it was a subtle indicator. Blue meant your text mate was an Apple user, while green indicated otherwise. Even if users didn't consciously think about it, they may have associated blue with their brand" in-group" and green with the brand "out-group." With group messaging starting in 2013, this became even more striking; having just one non-Apple user in the group turned all bubbles green, sometimes leading to what has been called "green bubble shaming." Apple has not admitted to testing how their text bubble colour choices might influence user attitudes and the message content, but whether intentional or not, Apple's colour choice was undoubtedly a purposeful marketing and design decision.

Shortened Attention Spans for Marketing Information

Our attention is task-dependent and is impacted by what is around and available in the environment. When we are exploring an environment, whether it is on a nature trail or in a store, the amount of attentional time we dedicate to any stimulus is a balance of what information we will obtain from that specific source and the amount of time it will take to get to the next source to explore. If there is a dense environment with many things vying for our attention, we will spend less time on any one item than in an environment with only one source vying for our attention.

This model helps explain the purported "shortened attention span." When people are searching for information on their phone or computer, they can access information and sources as fast as they can think them up. Therefore, it is straightforward to scroll past irrelevant content and move on to the next source. The expectation is that we can find

something very quickly without much effort. Consequently, people's patience for information that isn't deemed valuable or interesting is immediately left behind.

This is particularly true for marketing information. Consumers are now bombarded with thousands of marketing messages a day—from their phones, YouTube and social media content, television screens, and outdoor signage, etc.—and they become used to scanning this information very quickly and immediately determining if there is value. If there is no value instantaneously, given the many stimuli vying for the spotlight, consumers' attention moves on to the next source. It is not a shortened attention span per se; it's just a calculated assessment of the relative value of the information being currently viewed compared to an anticipation of the next piece of information. Further, there is little anticipated cost in making a mistake, particularly when viewing advertisements, at least from the consumer's point of view.

Studies have examined how much time a consumer will spend on marketing and advertisements before scrolling. Recent data on mobile device use suggest that we spend less than three seconds on marketing and advertisements before scrolling on—and likely much less than that. On the other hand, if the material were compelling, viewers could binge-watch. For example, when "Stranger Things, Season 4" was released on Netflix, Nielsen estimates suggested that 7.2 billion minutes were watched in the first week!

How Can We Measure Consumers' Attention to Marketing Stimuli?

Understanding how to measure attention helps us understand how we see. In most basic terms, light is first received and converted into the brain's signalling currency at the back of the eye, in the first part of the brain, the retina. A pit in the retina called the fovea is right in the middle of the macula (a yellowish spot or area that an ophthalmologist can see with the ophthalmoscope). In the fovea, the density of light receptors (photoreceptors) is at its highest packing density, and it is here that people can see with the highest spatial acuity and detail. The fovea accounts for the central 1–2 degrees of visual angle, with the macula accounting for the central 5 degrees. That is, the spatial extent of the fovea is equivalent to about the width of your thumb at arm's length. Although this part of your retina is only about 1% of it, it accounts for almost 50% of what the first part of your visual brain (primary visual cortex) is devoted to. This is why we prioritize the centre of gaze (placing what we look at on the fovea). When viewing, the fovea is best for high spatial detail and colour; the periphery is best for low light and sensing motion levels.

We direct our centre of gaze on what is more relevant, and at this point, we see the finest detail. The retina has a topographic map of space: neighbouring regions of an image are represented by neighbouring areas on the retina. The visual angle is influenced by two

things: the size of the object (the larger the object, the larger its visual angle will be) and the distance of the object from the eye (closer objects cast larger images on the retina, so the closer the object, the larger the visual angle). This matters to marketers because optimum viewing size depends on the viewer's expected position relative to what is being viewed and the presented size. In interpreting eye-tracking results, one must be aware of these factors, i.e., visual angle.

Eye-tracking Eye Movements

A French ophthalmologist named Louis Emile Javal first noticed that eyes make quick movements (saccades) mixed with short pauses (fixations) in 1879, and the first eye tracker was built in 1908. In the 1950s and 1960s, a Russian physiologist, Alfred Yarbus, came up with a more comprehensive method for tracking eye movement patterns and, in a series of experiments, found that eye movements and fixations depend on the task goals and an observer's interest when someone viewed a scene or an object.

Saccadic eye movements put different areas of an image, object, or scene into the fovea in the retina, and fixations are where an observer's eyes are relatively stationary (though the eyes are never entirely still) for a variable period of at least 100 milliseconds, presumably to take in the visual information. Saccades can be voluntary (goal-driven and self-directed) and involuntary/reflexive (like looking towards something that moved quickly in the corner of your eye or towards an area with a loud sound).

Eye movements and fixations show that vision is not a passive process of taking in light but an active process where what is in view shifts several times each second to attend, process, and examine specific features in the environment in further detail. Typically, people move their eyes about five times per second, and eye-tracking methods can capture eye movements and fixations in real-time.

Although saccades are not the only types of eye movements we make, generally, when we use eye-tracking methods to determine consumers' viewing habits of a static or dynamic scene, we track saccades and fixations. Saccades can show us the order and paths consumers use to view a stimulus or scene. Sensitivity to visual input is actively suppressed during saccadic eye movements, so only fixations tell us where exactly a viewer was looking at any time.

The time that a viewer fixates on a specific spot can provide a proxy of attention, giving us a sense of the cognitive and perceptual processing devoted to that region. Importantly, just because someone looks at a specific place does not mean they perceive it, as we discussed with the experiment on radiologists and the hidden gorilla on the scans. Other methods must also be employed to know what someone perceives, processes, and considers.

In more dynamic situations, where we are moving or the object is moving, other eye movements are triggered to keep the fovea aligned with the point of interest. The total time a viewer looks at a scene

can also be tracked. Still, that time can be impacted by many factors, including visual salience, motivations, goals, and even where an observer starts looking off the task.

Within the first fixation of a scene, people can extract the gist, which likely informs subsequent eye movements. People don't fixate on all regions of a scene with equal probability. Viewers select meaningful, relevant, distinct and salient elements—often leaving much of the scene absent of fixations, depending on the overall looking time, goal, and task.

Tracking eye movements can provide insight into the fast and detailed dynamics of visual attention and choice deliberation that may not be available through verbal reports. It can be done in real-time without interfering with ongoing processing, and these techniques are less prone to bias that might be encountered with verbal protocols. Eye tracking efficiently pinpoints how specific visual information characteristics, such as location, features, context, etc., impact behaviour.

Eye tracking is used routinely to provide insight into retail navigation, product viewing and choice and product presentation contexts. It is also used to understand how consumers view packaging and design layouts. Heatmap representations are widely used to better represent eye-tracking data from multiple viewers. This type of data visualization typically aggregates fixations from a set of viewers. It applies a coloured overlay on what was viewed, where the colours and the opacity vary with the density of the number and duration of fixations. These generally use a colour map that goes from "hot colours" (red/orange for more) to "cool colours" (green/blue for less). While heatmaps can give a general sense of where consumers are looking the most or the least, there is no information about the order of looking or individual fixations. See Figure 3.1 for examples of a heat map and a scanpath.

A scanpath is a data visualization of an ordered set of fixation points, which are depicted by circles, connected by saccades, and depicted by lines. The fixation points are numbered in the order they are viewed,

Figure 3.1 Examples of a heatmap and a scanpath from eye-tracking experiments. Packaging image provided by The Hershey Company, used by permission.

and the size of the fixation circle is proportional to the duration of time that the viewer fixated at that spot. Scanpaths are challenging to visualize when aggregated since there is so much heterogeneity in the individual viewing patterns. These visualizations can provide insights into viewing patterns, but more robust analyses are necessary to understand looking behaviours comprehensively.

Eye-tracking Applications in Marketing

Eye-tracking has been used in grocery stores to determine how consumers view items on a shelf. Eye-tracking results show viewers frequently scan grocery shelves without differentiating among the different products. Shoppers may not fixate on specific brands since so many other products look similar. If consumers are willing to investigate carefully, they will see the more complex cues like the package's shape, the label's orientation, and subtle differences in colours that differentiate the brands. Frequently, shoppers look for their familiar brands and glaze over the rest. If brands within the category are not visually differentiated, reaction time to find the designated brand will be slower, and more errors may occur.

Eye-tracking results also suggest that if a brand pops out of the display with significantly differentiated brand elements, that salience will be eye-catching, and shoppers can spot it more quickly. Colour-blocking on a shelf for many items with the same brand name and learned associations like Reece's orange dominance in the candy category can increase consumers' accuracy in choice and help brand identification.

In our marketing or service environments, search is guided by semantics (the structure and meaning of scenes), general knowledge, and episodic memory of our past life experiences. For example, if we visit a restaurant, we know forks don't float, so we expect them to be on the table. But after our second visit to that same restaurant, we may know that the forks are not on the table but on the side wall and that you must fetch your cutlery (episodic memory).

Anything in marketing materials that violates our semantic guidance or episodic memory significantly impedes search. Visual complexity also affects visual search and fixations. For images that are more creative or unexpected, brand elements tend to receive more fixations than images deemed more typical. In general, ads rated as more familiar, even if higher in visual complexity, are fixated on less by viewers than less familiar ads. More exposure to an ad leads to more feature skipping. Expectations also influence eye movements.

Conclusion

Attention is considered the gatekeeper to perception and knowledge. The processing of stimuli that we attend to is both top-down and bottom-up. In bottom-up processing, we start with observable inputs, like colour, brightness, and edges, and use those to form our perceptions.

Top-down processing suggests that our perceptions are constructed through the lens of our cognitions and experiences in learning and memory, and these previous cognitions help in pattern recognition and prediction. Our expectations shape our perception and behaviour, not just the visual sensory data alone. Neither bottom-up nor top-down processes can uniquely explain our perceptions all the time; they are likely both occurring and interacting with each other. They are not opposing operations; both are critical but operate differently and simultaneously.

Marketers are interested in where consumers will naturally direct their attention and how they can be guided to attend to stimuli that marketers want them to see. We know that the salience of objects, like colour, motion, or emotion, can predict where consumers will likely look. So, marketers frequently create salient cues to direct consumers' attention. On the other hand, consumers also direct their attention voluntarily as a function of their motivations or goals.

Consumers also sometimes miss things in their environment because they don't expect it or aren't attending to it; this is known as "inattentional blindness" and "change blindness" because they assume that the world doesn't change much from moment to moment. People may not notice changes if they don't expect them to happen. Attention also comes at a cost; we cannot process much outside our specific and direct focus.

When it comes to marketing stimuli, consumers' attention is in short demand. Consumers are bombarded with thousands of messages and information sources every day. They know that if they search for information on their phone or computer, they can access information and sources as fast as they can think them up. They become used to scanning for information quickly and determining if there is value. If there is no value immediately, given the many stimuli vying for the spotlight, consumers' attention moves on to the next source. Recent data on mobile device use suggests that consumers are willing to spend just a second or two on marketing and advertisements before scrolling unless the material seems relevant to them immediately.

This puts tremendous pressure on marketers to measure what consumers pay attention to and ignore. Eye tracking and other measurement tools have become invaluable for marketers to assess where consumers look, what they observe in different stimuli, and how long they dwell on these objects. Emotional and arousal reactions can also be measured to provide more information.

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Creating a Visual Vocabulary

4

Visual Communication and Visual Analysis

Chapter Outline

This chapter examines the concept of perceptual organisation, which is how the human mind groups and separates visual elements into meaningful units or objects. Gestalt Theory proposes that the mind forms a global whole that is greater than the sum of its parts, and people make the perceptual leap to the whole rather than focusing on the components. Six major design principles comprise Gestalt Theory: figure-ground, similarity, proximity, closure, continuity and common fate, and symmetry and balance. Low-level visual features are the primitive components of images like colour, lines, and edges, and they require no top-down processing to appreciate. High-level features are more conceptual and help us interpret or classify the scene. Visual elements can be linked into codes that convey high-level associations and meanings. Visual rhetorical figures combine visual images creatively to create meaning or persuade, but the combination is not literally accurate. Research shows that a moderate amount of complexity in visual rhetorical figures yields the highest success in persuasion.

Learning Objectives

- Understand the vocabulary and principles of visual theories and how these impact visual communication and marketing.
- Differentiate key low-level visual cues (color, edges, shape, form, etc.) and how these can be used in visual messaging.
- Understand how visual information coveys complex meaning through the semiotics of signs, codes, and rhetorical/metaphorical figures and how this is applied in marketing.
- Improve our active visual analysis skills to better communicate what we see.

When we look at the world around us, we cannot take in all the sensory information we see. There is too much detail to grasp, so we instantaneously combine visual elements into perceptual units to make sense of

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them quickly and efficiently. This process is called **perceptual organisation**, and it involves two distinct functions.

The first is **perceptual grouping**, which is the process of putting together visual elements into units or objects. When we look at a city skyline, we see the buildings, trees, and clouds. And we make sense of the units we see without noting every single detail of the unit. We also know that windows are part of each building, and leaves and branches comprise the trees. We determine the major elements of the scene and the primary gist.

The second process is **perceptual segregation**, where we separate one area or object from another. Sometimes, this is fluent and easy; other times, it can be more difficult. It depends on the viewing context, visual features, expectations, knowledge, and how much time is spent viewing the scene.

In early 1912, German psychologists Max Wertheimer, Kurt Koffka, and Wolfgang Kohler noticed that guiding principles, "laws," or heuristics, helped us acquire and maintain meaningful impressions of objects we viewed in the world around us. This became known as Gestalt Theory.

Gestalt Theory: The Whole Is Greater Than Its Parts

Gestalt Theory suggests that we do not perceive or analyse every tiny component of objects that we see around us. Instead, we use our minds, not merely our eyes, to find order in the world. The mind forms a global whole that is greater than the sum of its parts; people make the perceptual leap to the "whole" rather than focusing on the components. For example, if we see a bicycle on the street, we don't first take note of the wheels, the handlebars, the pedals, the seat, and the frame; instead, we take in the whole impression of the bicycle. We see whole forms rather than collections of unconnected elements.

Six major design principles comprise Gestalt Theory and help us form whole impressions rather than focus on the components within (1) Figure-Ground, (2) Similarity, (3) Proximity, (4) Closure, (5) Continuity and Common Fate, and (6) Symmetry and Balance. While we discuss these principles independently, several can operate simultaneously.

Principle of Figure-Ground

According to this principle, we have an innate tendency to differentiate objects from their surrounding area. We divide our world into the figure or foreground, where the object or person that is the focus of the visual field is usually placed, and the ground or background.

This principle, for example, is an important underpinning for effectively designing user experience on the Web. Web designers need to consider which elements of the experience are the primary ones,

e.g., the figure, and should be in the foreground, and which are the secondary or background elements. For most websites, headlines and call-to-action buttons are designed to stand out and act as the "figure." They are usually bolder or in attention-getting colours, while the background can provide context but not distraction.

Google's home page is an excellent example of the Principle of Figure-Ground, where the search box or "figure" stands out against the plain white background. This makes the interface simple and intuitive. The National Geographic TV channel makes creative use of the figure-ground principle. In the foreground are their iconic yellow box and white sans-serif font spelling its name, "National Geographic Channel." But here, the background is also an important communication device featuring lovely photographs of natural world scenes like forests or mountains.

Poor use of the figure-ground principle happens when it is unclear what the figure is and what the ground is. This happens when the graphic is bistable or when depth cues are absent. This was most famously captured by Edgar Rubin's vase, where you can see two silhouette faces facing each other or a vase, depending upon how you perceive it. When you see faces, they suddenly pop out, and the vase "disappears," becoming the background. When you see the vase, the faces become the background, and the vase is in the foreground. Importantly, with bistable images like Rubin's vase illusion, it is not possible to perceive the faces and the vase at the same time because to resolve the ambiguity, it is necessary to assume one portion of the image is the background, and one is the figure.

While Rubin's vase is designed as a puzzle or teaser, sometimes graphic design unintentionally makes a parallel mistake. If the background is too detailed or complex, it may compete with the featured object, making it difficult to process and focus as intended. It may also be difficult to separate between the figure and the ground if they are too similar. This is the purpose of camouflage, but it can be distracting in advertising when that is not the goal. The photographer, Wilma Hurskainen, plays with these ideas in her photographs, where her figures are placed purposely to be similar to their background. (See Figure 4.1)

Principles of Similarity, Proximity, and Closure

The principle of similarity states that people tend to group similar elements together based on attributes such as colour, shape, size, or orientation. The principle of proximity states that elements located close to each other will be grouped together. The Closure principle suggests that people expect objects to be self-contained and bounded, so even if the object they are viewing is incomplete or a part is missing, the brain fills in the missing information.

Examples of how marketers use the principles of similarity and proximity are discussed in Chapter 2. Instore settings, for example, retailers will design their store or private brands to look similar to national

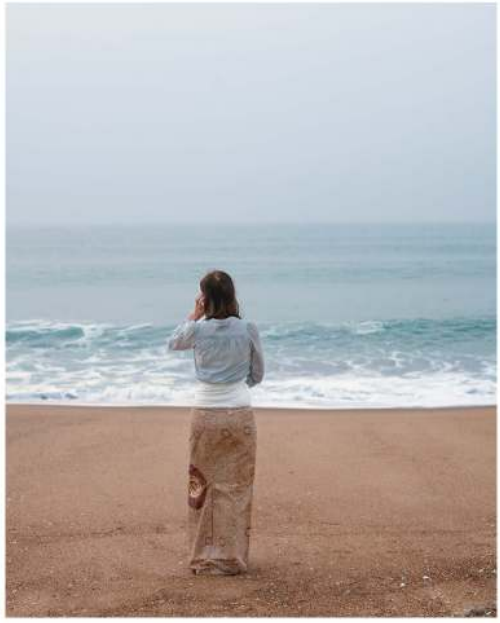

Figure 4.1 A photograph by Wilma Hurskainen, where her figures are placed so they are similar to the background. Photograph used with permission from the artist.

brands so shoppers will think they are in the same quality groups. Retailers may also put salad dressing close to salad greens, not only for convenience but also because shoppers may perceive they belong together. In gift shops, retailers will place cooking books with bowls and gourmet ingredients, using the proximity principle to encourage shoppers to buy the whole set of items. We also learn rules about proximity; for example, we expect text bubbles to be placed near the head of cartoon figures, not near their feet.

Some famous logos have used the principle of proximity to build brand identity. For example, Microsoft's logo features four different coloured squares, which are perceived as a unified whole, even though one can certainly see the distinct squares. The four squares represent the colours of their products: Office (red), Xbox (green), Windows (blue) and Bing (yellow), and the white lines between the squares represent a plus sign which unites them. Apple's classic logo features an apple with a stem floating above it. Because of the principle of proximity, the stem is perceived to be part of the apple, even though in real life, stems are attached. The Unilever U-shaped logo, launched in 2005 to represent the theme of "vitality," is comprised of 25 individual symbols that are in close proximity to each other within the U. They express different parts of the organizational mission and business values.

Marketers have relied on the principle of closure to make their brands more memorable since consumers tend to spend more time on ads or logos where some part is missing because they want to fill in the

Figure 4.2 The Ontario Soccer logo has graphic elements using the Gestalt closure principle. To perceive the logo as a soccer ball, the viewer mentally fills in the logo's missing contours. Logo used with permission.

blanks. For example, the Ontario Soccer logo has graphic elements in the shape of a ball, but an outer boundary line connecting the separate elements and explicitly making the logo a soccer ball is missing. Here, observers will naturally draw the line in their heads. The Apple logo described above, not only has the stem floating above it, drawing on the proximity principle, but it also has a bite taken out of it, and observers are likely to fill in that gap, using the Gestalt principle of closure, and image the whole apple.

Gestalt Principles of Continuity and Common Fate

The Gestalt principles of continuity and common fate are more complicated. Elements of objects tend to be grouped into a whole if they are aligned until they are significantly interrupted. People think of objects as a single element when they move at the same speed and direction. For example, when we see a flock of birds flying, we think of them as a single group. We perceive them to have a common fate.

The continuity principle relates to the idea that once our eyes start to follow something, we believe it will continue to travel in that direction until it encounters another object that blocks it. This is the idea

that when we see a line with an arrow at the end of it, we want to follow that line and see what the arrow is pointing to. This allows us to see things as moving or flowing, even without motion. Our minds prefer paths that are smooth and continuous rather than disjointed. We assume continuity even if it is not there. For example, when we watch movies, we believe there is continuing action between the scenes, even if the locations change.

We see examples of this principle in the design of online platforms. Instagram uses this principle in the way stories at the top of the feed are lined up horizontally, and we intuitively know to scroll from left to right. Similarly, when we look at the main feed, we intuitively scroll vertically and assume there will be no disruption. Google Maps also relies on this principle; we follow the directions by assuming a continuous path. When browsing Netflix, movies and TV shows are grouped into rows based on genre or theme. As you scroll horizontally, each row moves together, reinforcing the perception that the titles within a row are related.

If you look carefully at the signature logo of Coca-Cola, you will see the law of continuity; the long tail of the initial "C" in "Coca" follows through to the line in "Cola," which links through to the "l" and the "a," giving the logo flow and movement. Similarly, Subway's logo has an arrow at the beginning and end of the word, providing movement through continuity to the brand.

Principles of Symmetry and Balance

The Law of Symmetry and Balance states that people perceive symmetric objects and forms as more visually pleasing, balanced, and organised than asymmetric ones. Our brains seek order and harmony in the visual scenes that we encounter. The human form is an example of this order; we have two eyes, ears, hands, and legs. Nature has many examples of this symmetry, such as leaves, animals, spiderwebs, and flowers.

There are many kinds of symmetry. Reflection symmetry is when both sides around a vertical axis have the same arrangement. Radial symmetry is when objects rotate around a centre point. Translation symmetry is when objects repeat over an interval.

Many logos use symmetry. For example, McDonald's famous golden arches represent an example of reflection symmetry, as does Chanel's famous C's. Audi's rings represent translational symmetry, and Target's bullseye logo represents radial symmetry. As we show in Chapter 10 on branding visual identity, sometimes brands violate the symmetry principle to make their brands seem edgy or creative. The fragrance cK was described as one example.

Formal Visual Analysis/Design Elements

In verbal language, one word follows the next in a rule-based order known as syntax and grammar, but pictures are presentational. Whether an image is still or moving, all the elements of the image are presented

at once, and viewers look at them in any order. Low-level visual features are processed early in the visual system and require little if any, top-down cognitive processing. These features, like angles, lines, edges, colours, form, textures or contours, are unique to a single image and have little meaning on their own. High-level features are more conceptual and help us interpret or classify the scene.

Low-Level Visual Features

Low-level visual features are the most primitive components of images, such as the colours and lines that come together to form a scene. For example, colour can aid in the differentiation of objects and enhance visual interest. It can set the mood and expectations. Sometimes, minimal colour makes the image more differentiated, and the value of the colour, the use of light and dark, will make a difference on the local level and as a whole and can set the focal energy. How marketers use colour will be discussed in more detail in Chapter 9.

Lines and edges provide outlines of distinct objects and visual patterns, and as mentioned above in the principle of continuity, can provide a sense of motion or movement, encourage eyes to move around the image in a particular path, and convey a sense of depth. Movement, whether in dynamic videos or the sense of movement in static images, catches our eyes; we are more interested in moving things, partly because of the biologically evolved survival instinct that evaluates whether we need to "escape" or run away.

High-Level Visual Features

Visual elements can be linked into codes that convey higher-level associations and meanings. Consider a stop sign, which is a relatively simple visual sign. The first stop sign was installed in 1915 and had black letters spelling STOP on a yellow octagon. It was redesigned to its current iteration in 1954 to include a specific size of 30 inches with a mandatory ¾-inch white border, with the word "STOP" in sans serif white letters that are 10 inches tall on a red background. Behind the stop sign are statutes and laws that regulate the sign; they not only specify its colour, location, shape, size, and placement height, but they also indicate the meaning of the sign, which is not just to stop, but also where to stop, for how long, and what should occur if other cars or pedestrians are present. These ideas are all packaged together in one convenient visual message.

Some signs look like the things they represent, but other signs look nothing like what they represent. The stop sign is in the middle; the word "STOP" indicates what it is, but more is communicated to drivers and pedestrians that is not explicitly noted. Signs are everywhere. At an American baseball game, the flag displayed and watched during the singing of the national anthem is a sign of national unity, allegiance, and pride; the right hand placed over the approximate location of the heart during the anthem is a sign that indicates respect. The players' uniforms are a sign that they belong to a certain team. The referees'

black and white uniforms are a sign that they are not players, but an official that ensures that game rules are followed and arbitrates on game plays. High-five hand slaps are a sign of success and comradery. Signs are simply anything that stands for something else. It can be an action, an object, or an image.

Semiotics: The Study of Signs

Semiotics is an entire discipline focused on the study or science of signs. It is the study of meaningful communication. Ferdinand de Saussure developed a general theory of signs, and Charles Sanders Peirce developed theories about the effect of signs on society. De Saussure saw signs as the basic unit of meaning, and he defined two parts of a sign: a signifier and the signified. The signifier is the form of a sign—the word, the sound, or the picture. The signified is the concept or object that is represented.

Peirce formulated three types of signs: iconic, indexical, and symbolic. All three types require learning, but the speed of comprehension varies, and the three categories need not be mutually exclusive. Iconic, from the Greek "eikenai," means "to be like" or "to seem," and are the easiest to interpret because they most closely resemble the thing they are intended to represent. The shell logo for the British multinational oil and gas company Shell PLC is an iconic sign, as is the Apple logo.

Indexical signs have a logical, common-sense connection to the thing they represent rather than a direct resemblance. For example, the depiction of smoke from a smokestack in a cityscape is taken as a sign of industry and pollution, and a footprint in the sand is a sign of a person and their shoes. The gender signs on toilets are indexical signs for who should use the space. It generally takes a little longer to interpret indexical signs than it does for iconic signs. We learn indexical signs through everyday life experiences, so they can be culturally bound. Care must be taken to ensure that the correlation between the signifier and the signified is understood by whoever sees the sign.

Symbols are the most abstract. Symbols have no logical or representational connection between them and what they represent. Symbols, more than the other types of signs, must be taught, and social and cultural considerations influence them a great deal. Nike's swoosh was inspired by The Greek Goddess's wings as a visual association with Victory, but it now bears little resemblance to a classic depiction of a wing. Starbucks' two-tailed mermaid has no connection with coffee or restaurants. Conventions and standards help link symbols with what they represent, and companies use marketing to teach their consumers of the meaning of their symbols if they use them in marketing.

Codes: Chain of Associations

Elements of visual information can be linked to create chains of associations or meanings, and these chains form codes. Arthur Asa Berger suggested four types of codes: metonymic, analogical, displaced and condensed.

A metonymic code is a collection of signs that cause the viewer to make assumptions about what is seen. The Marlboro man is a classic example of advertising that makes a connection between the product and manliness. Luxury perfume ads use imagery as a metonymic code to have us believe that the perfume will make us appealing and help us attract someone who wants to be close to us.

Analogical codes cause viewers to make mental comparisons. An advertisement for Heinz ketchup stacks up slices of tomato in the shape of a ketchup bottle to remind the viewer that ketchup comes from tomatoes. Analogical images are also often metaphorical or rhetorical visual images. These will be discussed further below.

Displaced codes transfer meaning from one set of signs to another. An ad for Orbit gum features a string of white light bulbs in an arrangement that looks like a set of teeth to transfer the idea that a bright white smile would result from chewing Orbit gum.

Condensed codes are the most complicated because several signs are combined to form a new, composite message. Nike's 2016 advertisement that features a black and white close up of the face of the American football player, Colin Kaepernick, with the words, "Believe in something. Even if it means sacrificing everything. Just do it," over the middle of the image is one example; Kaepernick is a famous athlete who might use and endorse Nike products, but he had also become a symbol of the "Black Lives Matter" movement protesting police brutality by kneeling during the national anthem, i.e., doing something he believes in.

As this example shows, a condensed code has relevant meaning within a culture. For those outside that culture, condensed codes can be confusing, random and without purpose. The creators of signs cannot always control the way individuals combine signs and form their own meaningful messages. Complex signs can and are often misunderstood, ignored, or misinterpreted.

Visual Rhetorical Messages and Advertising

A rhetorical figure is an artful deviation from expectations that is not expected to be taken literally. There has been more frequent use of rhetorical visual figures and less text in marketing and advertising as the trend continues for viewers to be more visually oriented. But verbal and visual expression can also be combined, like in the Colin Kaepernick Nike advertisement example. Visual rhetorical figures combine visual images creatively to create meaning or persuade, but the combination is not literally accurate.

For example, Elite paper napkins use a visual rhetorical image to communicate how its product differs from others. The print advertisement features a white lily, with some of the petals depicted as a paper napkin folded into a triangle. This visual metaphor makes an analogical comparison, stating that one aspect is figuratively like the other, even though the two are plainly different. These visual elements don't make sense at a literal level, but they suggest that Elite paper napkins are soft, white, natural, pure, delicate, and perhaps also fragrant, just like the lily.

Figure 4.3 The Elite paper napkin print advertisement depicts petals through a napkin folded into a triangle. Advertisement used by permission from Softys.

Incongruity in visual metaphors may not always lead to positive outcomes for the advertiser. On the one hand, incongruity can attract attention and prompt exploratory behaviour. Conflicting thoughts and uncertainty regarding the source and target elements of the visual metaphor can arouse a person's curiosity and stimulate reconciliation of the inconsistencies, and it may lead to deeper processing. The resolution of the visual puzzle can be rewarding and pleasurable. However, it can also fail if the viewer doesn't "get it" or the visual association is for something unintended.

The Role of Complexity in Visual Rhetorical Messages

Phillips and McQuarrie proposed a typology that classifies visual rhetoric as a function of the degree of complexity in how the images are combined and the amount of richness and ambiguity in the suggested meaning. They consider three levels of complexity in the structure of the visuals. The least complex way to combine the images is juxtaposition, side-by-side images. More complex is when the images are fused or combined into one, and the most complex is replacement, where one image replaces the other in context.

For the meaning dimension, the framework again considers three richness levels in meaning operation. The simplest is connection, where the rhetorical message connects "A" with "B." Richer is when the meaning operation compares the two elements. The comparison can either assume similarity, "A" is like "B," or assume opposition "A" is

not like "B." Opposition is a richer, more difficult-to-process operation than similarity. This 3 × 3 framework produces nine combinations.

To illustrate these combinations, we turn to public service campaigns that have notably used visual metaphors to communicate their messages powerfully and to gain attention. In particular, we will describe advertisements that the World Wildlife Fund (WWF), OceanCare, Greenpeace, Marevivo, and Whale and Dolphin Conservation Society (WDCS) have used to communicate their messages about environmental damage and wildlife protection.

The most straightforward types of advertising campaigns have used visual imagery to **connect** two images to communicate a powerful environmental message. In the simplest case, the two connected images are merely juxtaposed. One example features a penguin in a desert beside a cityscape with smokestacks spewing pollution. This ad points out the consequences of climate change, which metaphorically places the penguin in a man-made world where its natural resources, that is, sea and water, are scarce; the penguin would not survive. A more complex ad connecting images uses fusion. In one such ad, a dolphin has a protective gas mask on as it swims through the sea; the headline is, "They can't afford to wait for evolution." Finally, the most complex version of an ad that connects images uses replacement. In this example, a giant plastic bottle sits on the beach in the shape of a beached whale, and people gather around, pouring water on it to keep it alive; the headline reads, "Each year plastic pollution kills more than 100,000 marine creatures."

A richer set of advertisements goes beyond just a connection to imply a similarity between the two images. Again, the simplest version uses juxtaposition. In this ad, a small fish is chased by a larger fish ready to eat it, and that larger fish, in turn, is chased by a plastic bag with an opening like a mouth. This imagery calls to mind a depiction of a food chain, and the plastic bag is similar to a big predator. A fusion version shows a soda can that is half a regular can of 7-Up and half a grenade. Finally, in the replacement version, the ad shows two forests in the shape of human lungs and one which has the trees missing (visually, this is presented as forest removal due to humans because you can see logging equipment and vehicles). This imagery implies that the forest functions like lungs for the world and they are being damaged by deforestation.

The richest set of ads used opposition to compare the images. This requires more processing to resolve the ambiguity illustrated. In the juxtaposition ad, an underwater scene features two images that look like two seahorses at first, but more careful inspection shows that one is an old toothbrush. The seahorse is labelled Putzig (German for "cute"), and the toothbrush is labelled Schmutzig (German for "dirty"); while seemingly similar in some ways visually, they are NOT like each other. In the fusion version, a fish has the head of the panda on it as it swims through the ocean, and the headline reads, "Would you care more if I was a panda?" Finally, in the replacement version, a beautiful

underwater scene features what at first looks like a school of fish, but bottles and trash have replaced the schooled fish. Waste is not like animals, and the absence of any real living animals in this ad makes you think about how the oceans are more and more polluted with fewer living things in them.

The natural question, then, is which of these executions is the most effective at persuasion? Although not definitive, some research points to an inverted U-shape as the proper response function. This means some, but not too much complexity is best. In this framework, fusion is the tipping point. The replacement campaigns can often be too complex, and viewers can get confused or not grasp the message's meaning. On the other hand, provocative imagery will be more likely to be noticed than less creative or unexpected advertising, so some measure of visual rhetoric imagery can be beneficial to get attention.

Conclusion

The purpose of this chapter is to introduce the vocabulary and principles of visual theory and show how these impact visual communication and marketing. Gestalt Theory proposes that the human mind perceives objects as a whole rather than a collection of individual parts. Six major design principles comprise the theory: (1) Figure-Ground, (2) Similarity, (3) Proximity, (4) Closure, (5) Continuity and Common Fate, and (6) Symmetry and Balance.

Low- and high-level features are two distinct components of images that help us interpret or classify the scene. Low-level features are the most primitive components of images, such as colours, angles, lines, edges, form, textures, or contours. They are unique to a single image and have little meaning on their own. They are processed early in the visual system and require little if any, top-down cognitive processing. High-level features are more conceptual and help us interpret or classify the scene. The visual elements can be linked into codes that convey high-level associations and meanings.

Semiotics is the study of signs and meaningful communication. By understanding how signs work, marketers can use visual elements to create codes that can be used to connect products with desirable attributes, make mental comparisons, transfer meaning from one set of signs to another or combine several signs to form a new composite message. Rhetorical visual imagery combines visual images creatively to construct meaning or persuade, but the combination is not literally accurate. Conflicting thoughts and uncertainty regarding the sources and target elements of the visual metaphor can arouse curiosity and stimulate reconciliation of the inconsistencies and may lead to deeper processing. The resolution of the visual puzzle can be rewarding and pleasurable, but it can also fail if the viewer doesn't "get it" or if the visual association is for something unintended.

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Decision-Making and Modelling Visual Choice

5

Chapter Outline

This chapter explores how visual cues affect consumer decision-making and preference formation. Hick's Law states that the response time of a decision task increases logarithmically with the number of options in the choice set. The implication of this "law" is that if there are many options in the choice set, it will take more time to choose the optimal one. Sometimes, consumers do not want to spend the time to make the optimal choice, so they may delay or not make a choice at all. This also suggests there is a trade-off between speed and accuracy. Eye-tracking studies demonstrate how consumers' gaze patterns influence their preferences and choices. The more individuals look at a stimulus, the more they like it, and the more they like it, the more they look at it. There is a central gaze cascade effect, which shows the increased choice probability for the item in the centre of a horizontal array. The chapter also discusses how visual salience, or the relative brightness of an item, can bias choice behaviour, especially when preferences are weak or decisions are made quickly. Finally, research is presented that shows how celebrity endorsements in advertisements can drive visual attention and shape consumer decisions.

Learning Objectives

- Appreciate that one critical piece in decision making is whether to spend more time to accumulate more evidence.
- Understand how Hick's Law impacts modeling of choice behaviour with multiple options and the speed/accuracy trade off.
- Learn that gaze has an impact on preference formation, as well as choice behaviour (at least in simple choice contexts).
- Understand the attentional drift diffusion model, and how it can extend to simple choice and purchasing decisions.
- Appreciate that applying modeling, behavioural experiments, and eye tracking can tell us about how observers make visually-guided choices.

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When consumers have strong preferences, they are likely to choose their preferred items quickly, but when brand preferences are about equal, other factors like visual salience and time spent in decision-making are likely to influence choice.

In Chapter 8, we will discuss visual tools marketers can use to influence consumers at various touchpoints in the customer journey, e.g., the trigger, consideration, evaluation, and choice stages. In this chapter, we explore more basic choice behaviour that is influenced by visual cues. Specifically, we look at research studies that strip away the marketing prompts and control for consumer preferences by making objects unknown or equally preferred to explore how final choices are affected by visual salience, time spent, and the need for accuracy. We also look at how consumers' gaze—where they look—affects their preference formation and choice behaviour.

The Amount of Time Spent on Choice

One critical piece in decision-making is whether to spend more time to accumulate more evidence. We know anecdotally that we often freeze when we are presented with too many options. When there are too many options, we may be less likely to decide on anything at all and more likely to report dissatisfaction with our ultimate choice. The problem of "too much choice" can be true for routine purchases like toothpaste or for significant decisions like job and house purchases.

In 1952, William Hick published a landmark paper studying how much time people took to choose an item from a set of options as a function of how many items there were in the set. He found that as the number of options in the choice set increased, people took more time to select the correct option, and the relationship between response time and number of options was robust and stable and could be characterised by a logarithmic formula. This relationship is known as the Hick-Hyman law and specifically stated, **Response Time = a + b $\log_2$ (n + 1)** where n is the number of options in the choice set with equal probability of being chosen.

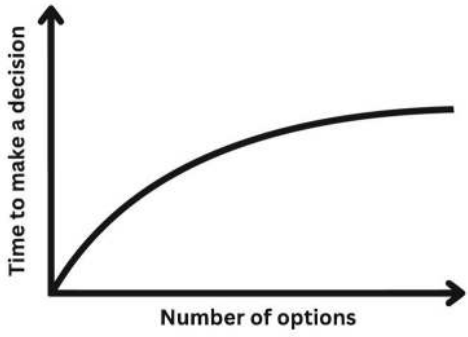

Figure 5.1 Schematic of Hick's Law. Increasing the number of choices increases decision time logarithmically.

Complexity of the Choice Set: Choice Overload

The implication of this "law" is that if there are many options in the choice set, it will take more time to choose the optimal one. However, taking too much time in decision tasks may seem frustrating for some product categories. Hence, people may not allow sufficient time to choose the optimal choice so that errors could occur.

Thus, a goal of marketers would be to lessen the choice complexity, and one way to reduce the complexity is to limit the number of options in the choice set. There are also other ways for marketers to limit the complexity of large choice sets. These issues will be discussed further in Chapter 8 in the assortment variety section.

Eye-tracking studies show, as expected, that participants take longer to make their choices if they are faced with larger set sizes. The studies also find that as set size increases, people increase the time spent looking at brands they prefer and do so early in the choice period. They are also more likely to ignore items that do not match their preferred brand. This behaviour is, of course, only true if the brand name is an important decision criterion. It is reasonable to assume if another criterion were the important discriminating factor, such as price, similar patterns would emerge in scanning but with regard to that factor.

Tradeoff Between Speed and Accuracy in Decision-Making

Another implication of Hick's Law is that the more time spent, the more accurate the choice. If people cannot devote their time or are distracted or unwilling to spend time, they will make less optimal choices. Thus, accuracy in choices is tied to time spent because the time spent reflects a continuous accumulation of information or evidence. Therefore, there is a trade-off between speed and accuracy in decision-making.

One way to think about this tradeoff is to simplify the problem to a choice between two objects. This simple choice can be thought of as having several metaphorical buckets. When people decide between the two items, they collect evidence to fill the competing buckets. When one of the buckets fills, this represents a threshold of evidence accumulation, an action (like making a choice) is initiated. The model that best describes this process is called an accumulation to bound, or drift-diffusion model.

The threshold level that initiates this choice action is generally set to balance the benefit of accumulating more information with the cost of taking more time to reach a decision. The steeper the slope to the threshold, the faster the decision, but the higher the probability that the choice is inaccurate (when there are accuracy metrics).

A variant of the drift-diffusion model is the attentional drift-diffusion model (aDDM). A critical feature of the aDDM is that the evidence

accumulation process depends on where the decision-maker looks; the average decision-making accumulates more evidence for an item when it is being looked at than when it is not.

The aDDM model has been used to predict purchasing decisions. Using eye tracking to observe gaze patterns, researchers can measure the participant's accumulation of information. In an experiment, participants were asked to make purchase decisions between two products at a given price. By observing their gaze patterns, the experimenters could predict which of the two items the participant would ultimately choose. When the two items were shown at the beginning, the eye tracking showed the viewing was about equal between the two, but then the gaze started focusing more on one of the two items until a threshold of information was reached. The prediction, then, is that that item would be chosen. The model provided a reasonably accurate description of the relationship between choice, reaction time, and visual fixations.

Gaze Cascade Effect

It is not surprising that consumers look at objects they will ultimately choose. As described above, experiments showed that in simple choice tasks of two or three unfamiliar options, people start out looking at the objects evenly, but over time, they begin to look at one more which will be the one that is eventually chosen.

It is also true that where we look biases our preferences and, thus, ultimately, our decisions as a function of those constructed preferences. An experiment was run where people were asked to pick the most attractive face out of two options, where the attractiveness of faces was rated as basically the same in prior experiments conducted with other participants. Using eye tracking, the experimenters measured where the participants were gazing during the deliberation process. Although the probability of looking at either face at the beginning was about the same, as participants got closer to the one they were going to choose, the eye tracking indicated a gradual shift in viewing towards that one. The experiment also worked when participants were asked to evaluate unfamiliar abstract shapes for attractiveness. This is called a "gaze cascade effect." Individuals display an "avalanche of fixations on the to-be-chosen object" in the final seconds of gaze duration that can predict the ultimate choice seconds before a selection is made.

These experimental results suggest that gaze plays an active role in preference formation because a gaze bias leads to more exposure to one of the stimuli, and that more exposure translates into increased preference. Preference, in turn, increases gaze time. This positive feedback occurs quickly. This has been described as a dual process with a feedback loop: the more individuals look at a stimulus, the more they like it, and the more they like it, the more they look at it.

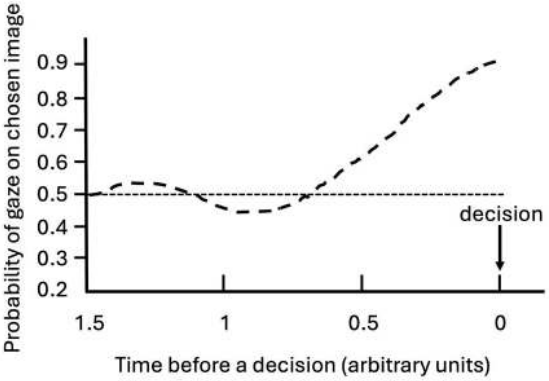

Figure 5.2 Schematic of the gaze cascade effect. The likelihood of a viewer's gaze on a visual option steadily increases until a decision is made.

Central Gaze Cascade Effect on Product Choice

In many marketing contexts, consumers choose from horizontally presented arrays of products. One documented effect when choosing from a horizontal array is that the option located in the centre is more likely to be chosen. For example, one study showed that the middle option was preferred 71% of the time. Researchers concluded that the ability of a brand to capture attention can be the source of the competitive advantage. Eye-tracking experiments showed that the relationship between visual attention and choice was not because of an initial tendency to look at the centre but rather was related to accelerated fixations in the final seconds of the gaze duration. In other words, the brand in the centre benefitted from a central gaze cascade effect.

The centre gets more attention. When a scene appears, the tendency is to look at the centre of it; this is called the centre fixation bias. This is true for two reasons. First, the centre is where individuals expect to find informative elements; this is also called the "photographer bias." Second, there is an innate preference for eye movements that put the pupils in the central position, looking straight ahead. As a result of this bias, individuals are more likely to look at items in the centre both at the beginning and at the end of a visual search process. But the data show that it is not the initial fixations that explain choice, but rather the fixations in the final seconds. The increased fixation tendency on the central option in the final moments of the gaze duration is an additive outcome of the central gaze cascade effect (central location) and the gaze cascade effect (choice). Horizontal centrality leads to higher brand choice because the items in the centre of the display get more attention, although they may not be evaluated more favourably.

Impact of Salience on Choice

When people are making fast decisions or when they approach complex displays of options, as might be seen on supermarket shelves or mass

merchandisers, the salience of an option can impact choice behaviour. In some of those instances, visual saliency influences choice more than preference! This is because visually salient items are attended to and fixated for longer than less salient stimuli, which impacts the values assigned to that option.

In one study, participants were asked to choose whether they would select to eat the central right or left food when both foods had been rated for preference earlier. Consumers choose their preferred items quickly, but when the brand preferences were about equal, visual salience (which was manipulated in the experiment by changing the relative local brightness of the stimuli) influenced their ultimate choice.

The way the brain processes low-level visual and value information leads to biases in decision-making. More salient items are fixated on or looked at longer, and the value assigned to stimuli at the time of choice depends on the amount of attention they received during the decision-making process. This is called a "visual saliency bias." This bias can be sizable when people make decisions quickly and when they mindlessly shopping or "under cognitive load." And when preferences are not fixed.

Gaze Cues and Social Status Influence Choices

Social status matters. We are willing to pay to look at people we think are high-status and beautiful, and hence celebrity endorsements in advertising are common. In Western culture, about 25–30% of advertisements employ celebrity endorsements, and the percentage reaches up to 40% in Japan and Korea.

Consumers are exposed to an enormous amount of information every day, but we do not process it all. One of an advertising campaign's main goals is to ensure that the advertised product is among the privileged information processed by the consumers. Numerous studies have revealed that celebrity captures people's attention.

An experiment was run to investigate the effect of celebrity endorsements and how their gaze directions influenced cognitive processing and decision-making. Specifically, the study examined how celebrities versus attractive but unknown endorsers affected consumers' choices and whether the endorser's gaze direction, looking at the product or at the viewer, moderated looking behaviour. Reaction times and choices were recorded in addition to gaze patterns, which were measured using eye tracking throughout the experiment.

For a non-celebrity, participants spent more time looking at the product rather than looking at their face when their gaze was directed to the product; but the opposite was true if the endorser's gaze was directed to the viewer. However, for celebrity endorsers, there was no gaze-cueing effect. Celebrities hold the gaze of viewers, but their gaze cues don't direct viewers to spend any additional time on the product—at least not when the products are familiar.

In short, gaze-cueing is stronger in non-celebrities. When attractive non-celebrities look at a product, viewers often follow their gaze toward it and linger on it. When a celebrity is featured in an ad, viewers tend to linger on the face of the famous person regardless of whether the star is gazing at the product or back at the viewer.

Even though celebrities don't make viewers spend more time looking at products, celebrity gaze-cueing did impact subsequent product choice. People are more likely to choose products that are endorsed by a celebrity rather than a non-celebrity, and they make that choice faster. Viewers had less pupil dilation when choosing a product advertised with a celebrity, indicating that they were spending less time deliberating on their choice and were more confident about their decision.

Conclusion

Hick's Law was influential in the study of visual choice because it demonstrated that the amount of time over which information accumulates is impacted by the number of items in the choice set. Another implication of Hick's Law is that the more time spent, the more accurate the choice. If people cannot devote their time or are distracted or unwilling to spend time, they will make less optimal choices. Therefore, there is a trade-off between speed and accuracy in decision-making.

Where we look biases our preferences and, thus, our decisions as a function of those constructed preferences. Eye-tracking studies suggest that gazing plays an active role in preference formation because a gaze bias leads to more exposure to one of the stimuli and that more exposure translates into increased preference. The more individuals look at a stimulus, the more they like it, and the more they like it, the more they look at it. This has been described as a dual process with a feedback loop.

Finally, eye tracking reveals simple choice processes. Fixations influence choice and provide information about choice biases.

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6 The Power of Visuals to Engage and Boost Memory

Chapter Outline

Visual memory refers to the brain's ability to encode, store, and retrieve visual information. Research in cognitive psychology has shown that while humans have an impressive capacity to remember visual details, this capacity is not unlimited. Most visual memory models describe three stages: sensory, short-term (or working), and long-term. Each stage has its own characteristics, influencing what we ultimately remember and what we forget. Visual memorability focuses on understanding why certain images or visual stimuli are more likely than others to be recalled. Intrinsic properties of the visual stimulus make some images "stickier" or more memorable than others.

Learning Objectives

- Discuss how memory is different from memorability.
- Learn to tell apart recall from recognition, and the implications on marketing research strategies.
- Understand how associative learning is connected to memory, and used as a visual marketing strategy.
- Learn how human experiments combined with machine learning are starting to predict image memorability.

Just because we see something, it does not mean we will remember it. Perhaps you have seen the old psychology experiment where fifteen versions of a common coin are shown to students. Each one is a little different from the other in terms of where various elements depicted are arranged on the coin, like where the text is, precisely what the text says, which way the figure on the coin is facing, etc. Students are asked which version is correct. Most students cannot tell.

Why can't we identify the correct coin even though we have seen it hundreds, probably thousands of times? The reason is that the brain minimises overload by not encoding (or remembering) all of the visual

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details. Just because something passes before our eyes, we may not pay attention to it, we may not process that we have seen it, and we may not sufficiently encode it in order to easily remember it.

In this chapter, we will explore the difference between memory and memorability. Visual memory involves the process of perceiving, encoding, storing, and retrieving images, words, or activities that have been observed. In contrast, visual memorability refers to the inherent qualities of a stimulus that affect how likely it is to be remembered.

From a marketing perspective, designing memorable campaigns and messages is essential. Consequently, researchers have studied which types of visual details are memorable and which are not. In one experiment, participants were shown 10,000 different pictures, each for 5 seconds. A day-and-a-half later, they only remembered seeing 66% of them on average. One factor that explained whether an image was memorable or not was whether it was a priori categorized as usual or vivid (or unusual). As an example, an aeroplane would be categorized as a usual image, whereas an aeroplane crash as vivid. Recognition when looking just at vivid images rose to 82%. However, both usual and vivid images were recognized much more than written words. A picture is indeed worth a thousand words!

Visual Memory

Visual memory is the process by which the brain encodes, stores, and later retrieves visual information. Most models of memory postulate that the processing of information or visual materials begins in sensory memory; then, if it is attended to, it moves to short-term memory and eventually, with proper encoding, it moves to long-term memory. Sensory memory is where information is temporarily stored for a very brief time (e.g., milliseconds). It is stored just long enough for information taken in by sensory receptions to be processed by the nervous system.

When people view an image, within a few milliseconds of perceiving it, their sensory memory of the image is almost "photographic." Their sensors take in most of the image details, but if they are passively receiving sensory information, they will not have direct access to it. Only if they pay attention to what they see or selectively concentrate on it will the information be passed from sensory memory into short-term memory.

These attentional mechanisms are drawn to what is most relevant, meaningful, or salient. A few hundred milliseconds after viewing an image, what will be accessible to people will be only what their attentional mechanisms have highlighted. Details will be sparser even just a few seconds later. If they were asked about it the next day, they might only report the general gist or might not remember it at all. But if people are motivated to encode the information, for whatever reason, it will be transferred to short-term memory.

Short-term Memory

Short-term memory, also called "working" or "active" memory, is where we hold information in our minds for a short period of time. Short-term memory is limited to specific chunks of information. It is often argued that the number of chunks of information an average person can hold in short-term memory is seven, plus or minus two. This is known as Miller's law, based on a seminal paper he published in psychology in 1956. If we process or encode the material in short-term memory, it can be passed into long-term memory, which is thought to be limitless. Visual attention and visual memory are closely related; attention helps determine what we put into short-term memory.

Long-term Memory

Long-term memory is the lasting retention and availability of information over time, from a few minutes to a lifetime. Some memories in long-term memory are stronger than others and easier to recall. Further, our long-term memories influence what we pay attention to. There are two main types of long-term memory: implicit and explicit memory.

Implicit Memory

Implicit, or non-declarative, memory is remembering how to perform tasks without conscious awareness, such as tying your shoes. It requires rehearsal and repetition, but eventually, you can tie your shoes without thinking about the process. Improvements in behavioural responses (accuracy and/or reaction time, for example) can occur automatically when identical or similar stimuli are repeatedly presented. In marketing, this kind of implicit or procedural memory is relevant when consumers are repeatedly exposed to logos or other visual brand assets. Whether or not consumers explicitly attend to these marketing messages, the visual assets will become increasingly familiar, likely making people more responsive to the brand.

Explicit Memory

Explicit, or declarative, memory is the conscious, intentional recollection of information. ***Semantic explicit memory*** is remembering ideas, facts, and concepts. It is dependent on your learning experience and your environment and culture. This is the memory we have for words, symbols, meanings of visual information, knowledge about the relationship between objects, and rules (as discussed regarding semiotics in Chapter 4).

Episodic, or autobiographical, explicit memory is remembering specific events, experiences, and/or personal episodes from the past, such as the ability to remember details about your 16th birthday party. For these types of memories, people might be able to recall where and when they saw something, what it looked like, and the visual context in which it occurred.

Episodic memory plays a crucial role in how consumers engage with marketing materials. For example, when viewing an emotional advertisement, consumers may remember not only the ad's content but also when they saw it and how it made them feel. Later, this memory of the ad may be triggered by related or similar experiences online, in a store, or at home. In this way, memory and learned associations (discussed below) can be mutually reinforcing, leading to stronger connections, recall, and influence. These can be strong drivers in purchasing behaviour if the experiences are positive and memorable.

Long-term memories can be both semantic and episodic. Consumers can remember that Apple makes computers, phones, and tablets and recognize the Apple logo—all semantic memories, but also what it felt like to unbox their first iPhone and when and where they were at the time—episodic memories. Marketing strategies often aim to activate both semantic and episodic memories simultaneously.

Visual Recall vs. Visual Recognition

Visual recall and visual recognition are both aspects of visual memory, but they involve different cognitive processes and serve different purposes. Visual recall refers to retrieving and reproducing a visual memory without any external cues. It requires a person to reconstruct an image, scene, or object from memory. When market research teams ask people to draw or verbally describe a brand logo, this is a recall task. This probes whether people can remember and retrieve details such as shapes, colours, positions, and other visual characteristics.

Visual recognition is identifying a previously encountered visual stimulus when it is presented again. When market research teams present different variations of logos and ask people which is the one currently in use by the brand, this is a visual recognition task. Unlike recall, recognition involves matching a current visual experience with stored visual memories to determine whether someone has seen it before. Recall demands more cognitive effort than recognition because it involves retrieving details from memory without cues. As such, recall is often less accurate and reliable than recognition. Because of this, it is quite possible for the same person to accurately recognize something, such as a logo, package, or an advertisement, but not accurately recall it.

The Four "R"s' in Memory Encoding

Although there is not a single unifying theory about what can impact memory encoding (as we will discuss below regarding memorability), concepts like metacognition have influenced the general ideas of how to reinforce an experience to make it more memorable. The key elements can be summarized and more easily remembered as the four R's: Repeating, Refreshing, Reviving, and Relating.

Repeating

Repeating is most advantageous for keeping visual imagery in working memory, but that does not necessarily mean it will move into long-term memory. As mentioned above, repetition can be a driver of implicit long-term memory. This suggests that there is a recognition benefit, or a feeling of familiarity if things are seen multiple times. Repetition also drives the mere exposure effect, which we discussed in Chapter 5.

Refreshing

Refreshing is an attentional process that puts mental effort into thinking of or imagining something reflectively and is usually done without an external visual stimulus; otherwise, it is merely repetition. A study that was done shows the difference. In this study, participants read (aloud) a word presented on a screen. In the repeated condition, some words were repeated, and participants would say them aloud again. In the refreshed condition, some words were followed by a dot, indicating the participant should think of the word that had just been visually presented and then say it aloud. After this task, participants had an unexpected recognition test, where some of the previously presented words were mixed with words that had not been presented before. In this test, refreshed words were more frequently recognized than singly or repeatedly presented words.

Retargeting marketing campaigns, where consumers who have recently visited a website or an ad on social media or have otherwise engaged with a brand are shown follow-up ads featuring similar visuals, serve to "refresh" the visual memory of the initial encounter without repeating the experience.

Reviving

Reviving can be thought of as reactivating a visual stimulus through retrieving, often after it has not been thought about for a long time. This is related to refreshing, but where refreshing happens with short-term memory by re-experiencing a stimulus or keeping it in mind, reviving implies a reactivation from long-term memory. This kind of activation is done when a current thought, cue, context, or intentional effort brings to mind the memory of a previous similar situation or stimulus. Watching someone wash their hair, use their phone, or eat a bowl of cereal in an advertisement can revive similar memories of ourselves doing those same things.

Relating

Relating is the process of connecting visual information with other visual information, contexts, actions, emotions, knowledge, and existing memories. Relating is required for associative learning, which we describe next.

Advertisements that use displaced codes, as discussed in Chapter 4, often are efforts to help with both memory reviving and relating. For example, an ad that features a vibrantly yellow-tailed mermaid that is

both unusual and salient (and perhaps memorable, as we will discuss later) can be highly effective at steering consumers to find Yellow Tail wine the next time they are in a wine store. In this case, seeing the name on the wine label (which actually features a yellow kangaroo, not a yellow-tailed mermaid) may revive the memory of the advertisement, and the memories and associations of those strong visuals may give the brand a sense of recognition and familiarity.

Visual Associative Learning

Consistent and well-timed pairings of visual stimuli with outcomes, responses, information, or other stimuli can lead to enduring associations. This is associative learning. These pairings can be perceptual, spatial (where is it), temporal (when is it), semantic, and emotional. All can give rise to form episodic long-term memory, as discussed above. Critically, visual associative learning occurs when a visual cue consistently predicts another or is paired with a particular experience. For example, if someone repeatedly sees a brand logo while having a positive experience (like enjoying the product), they will start to automatically associate the brand with positive feelings or expectations.

In classical conditioning, which is a type of associative learning, an association between two stimuli can lead to a learned response. In Pavlov's famous dog experiment, the dogs learned to associate a previously neutral or unconditioned stimulus (the ringing of a bell) with a significant event (getting food). Before the dogs had learned to associate the bell ringing with being presented with food, the bell did not trigger the dogs to salivate. The dogs only salivated in response to being presented with the food. Salivating is the unconditioned response. Pavlov then began to ring the bell just before presenting the food to the dogs. After several pairings of the bell with the food, the dogs started to associate the sound of the bell with the imminent arrival of the food. Eventually, the dogs would salivate in response to the bell alone, even when no food arrived. This was now a new, conditioned, learned response. The bell, which had been neutral, now became a conditioned stimulus.

Classical conditioning is only one kind of associative learning. There is also associative learning through reinforcement, punishment, and social modelling. Importantly, for a strong association to form, the associations must be consistent, frequent, reliable, and presented closely in time. If a second stimulus or outcome occurs too long after a visual cue, the association may be weak or may not form at all. In Pavlov's dog example, the neutral stimulus (the bell) is followed immediately by the food (the unconditioned stimulus). If, instead, the bell rang, but food did not arrive until after a long delay, the association that the bell was connected to food would not form. The strength and effectiveness will also depend on the context, the outcome, and the emotions.

In marketing, consistent and well-timed visual cues can build strong brand associations. For example, showing a logo or product right at the

moment something positive is experienced during an advertisement, such as laugh-out-loud moments, helps consumers form a strong association with the product/brand and the positive experience.

In Coca-Cola's "Share a Coke" multi-national marketing campaign, Coca-Cola replaced its traditional logo on one side of its bottles and cans with popular names, nicknames, and titles (such as "Bestie" and "Dad"), messages, and popular song lyrics from each country in its release and subsequent re-releases. When people saw their names or the names of friends and family, as well as messages that felt personally relevant, they would mentally associate these with the product. This meant that through associative learning, consumers would link their own names, positive emotions, and feelings of connection with the product, and connect the idea that the products are about sharing with others either physically or through social media. This led to huge increases in product purchasing, increased product relevance for younger consumers, and widespread word-of-mouth marketing.

Understanding memory and learning processes is undoubtedly useful, but as a marketer, knowing what imagery or visual contents, in particular, are more likely to grab attention and then be remembered is critical to an effective strategy. This is memorability, which we discuss next.

Visual Memorability

Visual memorability is the intrinsic qualities of a visual image or visual stimulus that make it more or less likely to be remembered. It is a measure of how likely a visual element is to stick in someone's mind after a brief or prolonged exposure, regardless of the viewer's memory capacity. Memorability is related to visual memory because more memorable stimuli are more readily encoded into memory. There is growing evidence that this is due to the fluency or processing efficiency of memorable scenes and images.

Development of the Biohazard Symbol

In the mid-1960s, two scientists, one from Dow Chemical and one from the United States National Institutes of Health, teamed up to do one of the first massive human experiments on visual memorability. They were trying to create a new signifier that would be used internationally to indicate the actual or potential presence of a biological hazard, or biohazard, defined as infectious agents presenting a risk or potential risk to human health. The sign would be used on equipment, containers, rooms, materials, experimental animals, or combinations of these. Because this would be an important new and international visual signifier, they wanted the design to be *memorable but meaningless*. They wanted it to be highly recognizable, but they wanted to do the work to educate people (through associative learning) about what it meant, not be something that people already associated with another possible meaning.

To do so, they knew that the design would need to be:

1. Striking in form in order to draw immediate attention;
2. Unique and unambiguous, in order not to be confused with symbols used for other purposes;
3. Quickly recognizable and easily recalled;
4. Symmetrical, in order to appear identical from all angles of approach; and
5. Acceptable to groups of different ethnic backgrounds.

In terms of semiotics, they were developing a symbolic sign (as discussed in Chapter 4). To test the designs, a group of engineers and designers at Dow Chemical worked collaboratively to identify six final possibilities (out of an initial set of 40). These 6 symbols, along with 18 other symbols that weren't necessarily symmetrical but were simple and familiar (such as the Red Cross and Shell Oil symbols), were tested on 300 people in 25 different cities.

Participants were asked what each symbol meant or was used for or if they didn't know, to guess. This allowed the research team to get a "meaningfulness score," which was the percentage of respondents who suggested a meaning association with the symbol. The same participants had a memorability test one week after the initial survey. They were shown 60 symbols, including the 24 seen previously, and were asked to identify the symbols they had seen before.

Memorability was scored as the percentage of participants who recognized the symbols shown previously. The chosen symbol scored lowest on meaningfulness and highest on memorability; see Figure 6.1. This symbol has since become the international standard for potential or actual biohazards. Colouring for the sign was subsequently tested, and fluorescent orange-red was chosen. The colour increases its visual salience.

Figure 6.1 The Biohazard symbol developed by the design team at Dow Chemical.

This case study suggests that not only can consumers learn associations with abstract signs, but there might also be qualities that are intrinsic to the stimulus that could influence the likelihood of it being remembered. The latter is the concept of visual memorability.

What Are the Limits of Image Memorability?

Visual long-term memory has an enormous capacity. We can remember detailed representations of objects, not just the gist of those objects. However, we do not remember everything.

One ambitious study that provided some evidence of our memory ability exposed research participants to 2,500 objects, each of which was on the screen for 3 seconds. Several hours after viewing all the images, participants were then presented with the same objects, each paired with a new item, and were asked to indicate which of the paired items they had seen before. The pairs were designed where one item was an object they had seen before, and the other was:

1. a novel item that was categorically distinct from the previously viewed objects;
2. an exemplar item where the previously viewed item was paired with a physically similar item from the same basic category (i.e., a different species of starfish or sea star); and
3. a state condition, where a previously viewed item was paired with an image of the same object but in a different state or pose (such as a cabinet with a door open rather than closed).

The study found that participants could accurately recognize a vast number of objects, regardless of whether the pairing was novel, exemplar, or in a different state (recognition was 92.5%, 87.6%, and 87.2%, respectively). However, it took participants longer to decide, measured as response time, in the exemplar and the state conditions, which reflects less certainty or confidence in their answers.

It is important to point out several caveats in the applicability of this research. Although this was a test of long-term memory since participants were tested hours after they had originally seen the images, it is not a test of how long this kind of recognition lasts, nor does it tell us about recollection since it probed recognition, not recall. It also may not tell us about visual recognition memory for collections of objects and complex scenes, as these were not tested.

While we can remember a lot of what we see with perhaps great detail, we do not remember everything, and we remember certain things more and for longer and forget a great deal of what we have seen.

Predicting Image Memorability

The research has shown that some items have higher memorability than others. Understanding exactly what about the images makes them more likely to be remembered or forgotten would obviously be useful for marketers looking to create memorable messaging.

Philip Isola, Aude Oliva, and their colleagues at the Massachusetts Institute of Technology designed experimental tasks to bring some insight into this question. They designed a recognition memory task using over 10,000 photographs (taken from open-source photo libraries), although not all observers saw all the images. They asked participants to monitor a sequence of images and to respond by pressing a computer key whenever a stimulus was repeated.

Each image was presented for 1 second, followed by a blank screen with a fixation cross (a plus sign) in the middle for 1.4 seconds (to lose the sensory memory of the presented image), and then the next image was shown. Out of the thousands of images they used, some would repeat at some points, and many others would never repeat, though participants did not know in advance that some images would not repeat. There were two kinds of repeats: a ***vigilance repeat***, one that was shown soon after it was originally viewed to make sure participants were paying attention, and a ***memory repeat***, where the image would not repeat until many more intervening images had been displayed.

The images were divided up so that about 80 observers saw each image, although some saw it as a vigilance repeat and some as a memory repeat. The researchers computed an image memorability score by recording the fraction of people who remembered seeing an image before, regardless of where it was in the serial stream of images. If the score was close to zero, people didn't remember it; if it was closer to one, people remembered it. There were many different iterations of these studies, including testing the number of intervening images between the repeat and the duration of time before the repeat.

To understand what made an image memorable, Isola and colleagues identified 127 different possible attributes, including low-level visual features such as hue, saturation, and value and more complex concepts, like whether the image contained a person or other labelled objects (e.g., "mountain"), to see how they related to their memorability scores.

Generally, they found that people, interiors, foregrounds, and human-scale objects contributed positively to memorability, while exteriors, wide-angle vistas, backgrounds and natural scenes contributed negatively to memorability. They also found that subjective judgments about how memorable people thought an image would be were not good predictors of actual measured memorability, and "interestingness" did not predict whether an image was memorable.

All in all, the 127 attributes combined could predict about 75% of the variance in memorability. This has allowed this team and others to devise machine learning (ML) approaches to develop convolutional neural networks (CNNs) and other deep neural networks (DNNs) to predict image, face, and object memorability from images that were never used in behavioural memory experiments (see Figure 6.2). This kind of work is also being extended into human and machine-predictions of the memorability of dynamic visual stimuli, such as movie clips, and other kinds of communications, like infographics.

Figure 6.2 Examples of images that are less or more memorable. Image memorability assessed by ResMem (as described in Needell & Bainbridge, 2022). Photographs by Wanying (Emily) Zhang and Elizabeth Johnson, used with permission.

Salience as a Predictor of Memorability

One might think that salient images, or at least salient objects within an image, might be more memorable since salience predicts a viewer's attention (at least absent other top-down factors). Isola and colleagues, as well as other studies, now suggest that while salience might be a good predictor of memorability in simple contexts, for example, images with just one or a few objects, salience is a poor predictor in more complex scenes. The amassing evidence is that visual image and object memorability are more complex.

One study used an experimental design technique called rapid serial visual presentation (RSVP), where a series of six pictures never viewed before are displayed at extremely high speeds, followed by a test image. The observer must decide whether or not the test image was presented in the series. In half of the trials, one of the pictures was a highly memorable picture (previously found in Isola et al.'s study). In half, it was a highly forgettable picture (also from the previous study).

Recognition for pictures from the memorable set was higher than for those from the more forgettable set, and this difference increased as the presentation time for each image slowed down. This suggests that having more time to process some images will not make them more memorable but also that some images are already more memorable after being seen for very little time. A picture that is hard to understand quickly is difficult to remember later, and images that are more memorable are also more fluent (easily processed), supporting rapid and efficient retrieval from memory. These insights are valuable to marketing, where designing visually fluent and memorable content can significantly enhance the effectiveness of visual communication.

Most of the experimental studies use recognition-based experimental paradigms, where participants indicate whether they have seen something before. However, some recent evidence suggests that what is easily recognized might not be the same as what can be freely recalled, such as reconstructing an image without any cues. This suggests that different images and different image parameters might be intrinsically more recognizable versus more recallable.

Given the critical role "sticky" messaging plays in brand and product awareness and brand and product success, it is no surprise that for-profit companies are now developing quick, user-friendly software packages that compute the predicted memorability of advertisements, packaging, and other marketing materials. Some current versions even modify the original to enhance memorability. Given developments in Artificial Intelligence, ML approaches, and generative image engines, we will likely see an explosion in both our understanding of visual memorability and our ability to predict and then make and change images accordingly.

Conclusion

While visual memory allows us to recall and recognize an impressive number of images we have seen, not all images are remembered equally. This chapter explored the nuances of visual memory and visual memorability, highlighting the distinction between the two. Visual memory refers to the process by which we perceive, encode, store, and later retrieve visual information. Visual memorability is about the inherent qualities of an image that make it more likely to be remembered, independent of an individual's memory capacity.

Through associative learning, we can form connections between visual stimuli and other information, such as emotions, contexts, experiences, and other visuals. To form these connections, these must be consistently paired and presented in quick succession. When certain visual elements are paired with positive experiences and/or strong emotional responses, they become more deeply ingrained in memory.

Some images possess qualities that make them more memorable. These qualities are not necessarily linked to how interesting or aesthetically pleasing the image is, but rather to how efficiently the brain processes and encodes the visual information. Memorable images tend to be those that are processed fluently and can be retrieved rapidly and effectively from memory. Memorable visuals in marketing are those that not only stand out, but are also most effectively linked to positive associations, reinforcing brand messages, and influencing consumer behaviour over time.

In an increasingly visual world, where consumers encounter countless images daily, the ability to stand out and be remembered is more important than ever. Understanding the science behind visual memory and memorability not only provides insights into how our brains work, but also offers practical applications for crafting marketing campaigns that are truly "sticky"—messages that stay with people long after they have seen them.

The development of machine learning models and artificial intelligence tools that can predict image memorability is allowing marketers and designers to optimize their visual content in new ways. As these technologies continue to evolve, we can expect even greater precision in creating visuals that resonate with audiences and leave a lasting impression.

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part II

Translating Visual Principles into Marketing Strategy

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7

Visual Content Can Elicit Strong Feelings and Social Influence for Advertising and Social Media Campaigns

Chapter Outline

This chapter discusses how visual content can elicit strong feelings and social influence in marketing contexts. Visual material can evoke emotions such as happiness, sadness, fear, disgust, or hope, which can influence consumers' memory, attention, decision-making, and sharing behaviour. Facial expressions can communicate and influence affective responses, and marketers can use automated facial action coding systems to measure emotional reactions. Plutchik's wheel of emotions is introduced as a graphical framework for categorizing emotions based on their physiological purposes, arousal levels, and action tendencies. The primary dimension in categorizing emotions is whether they are positive or negative. Negative emotions are aversive, and people look for coping mechanisms to mitigate them. Marketing campaigns can be effective if they provoke negative emotional reactions and tie specific marketing strategies to effective coping strategies. Positive emotions, such as hope, pride, and love, can also be used in marketing campaigns to motivate pro-social behaviours, social connection, and goal pursuit. Emotional content can also increase the likelihood of viral sharing, depending on the valence and arousal of the emotions.

Learning Objectives

- Exploring basic emotion theory about six basic emotions that are cross-cultural.
- Understanding advantages and disadvantages of different ways of measuring emotion that move beyond early Facial Action Coding Systems (FACS).
- Classifying emotions using Plutchik's wheel and implications of various emotional states for use in marketing campaigns.
- Differences between Negative emotions and Positive emotions in Marketing appeals
- The power of emotion inducing social sharing.

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Visual content can evoke strong emotions and emotion-laden associations. A static photograph or an absorbing video can tell a story that communicates sadness, joy, fear, disgust, or hope. When combined with text and compelling scripts, visual material can evoke complicated feelings and thoughts. However, visual material can also transcend language, whereby some vivid emotional images or scenes can be understood universally without words. Visual emotional imagery can be communicated instantly, sometimes automatically. We all know that "a picture is worth a thousand words."

By putting together a series of images, marketers can convey stories or tell a narrative that will involve consumers and evoke emotional responses. This approach has been particularly successful in social media campaigns, where engagement needs to be quick but compelling. Emotional content will enforce memorability and enduring connections that encourage brand loyalty and advocacy. Research has shown that visual material that evokes strong **arousing** emotions is associated with increased sharing. Visual material that is eye-catching is also more likely to go viral. When these images are consistent with the values of social influencers and their target audiences, these campaigns can increase credibility and purchase intentions.

Marketers can also teach consumers to respond to specific visual cues through learned associations. Over time and repeated linkage, certain colours have been associated with specific emotional reactions. Because these associations are "taught," they may differ across cultures and individuals, making it essential for marketers to understand their target audiences when using colours for marketing materials. One fairly universal example is with the colour red. Red is often associated with excitement and passion (love) and is also used to get attention.

On the other hand, low-arousal colours like blue or green are frequently perceived as calming or peaceful. As we will talk about in Chapter 9, marketers can also create emotional reactions to specific colours through consistent and effective marketing campaigns. For example, McDonald's uses red and yellow to stimulate appetite and generate joy and spontaneous happiness.

Visual content eliciting emotions is also likely to result in automatic behavioural responses. Negative emotions typically narrow thoughts and actions, while positive emotions can be broadening. Negative emotions like fear, anger, and sadness encourage people to spontaneously generate coping strategies to try and mitigate the negative feelings. When marketing strategies provide a mechanism to enact these coping strategies, they can be especially effective. For example, campaigns that generate fear and suggest a reasonable way to alleviate that fear are perceived as useful and supportive. Campaigns that generate positive emotions may encourage creativity and open-mindedness. Research has shown that marketing tactics that foster positive affect may result in more variety-seeking and acceptance of innovation.

Facial Expressions Can Communicate Affective Responses

Faces provide a wealth of social information that allows people to recognize and identify others and to gain insights into their emotional state. Humans demonstrate an attentional bias towards faces from infancy, which grows stronger as we age. Early research studies investigating how reliable faces were in communicating emotions showed that even across cultures, people could dependably identify basic affective responses from facial movements when looking at still photographs.

Face recognition is a skill that most people rarely think about, but it is fundamental to successful social interaction. Faces are reinforced as important social visual stimuli from birth. Eye-tracking studies show that even for very complex images or photographs, people look at faces. Faces can be distracting, so one needs to evaluate whether it is helpful to include them in specific marketing and advertising campaigns.

Basic Emotion Theory

Seminal research by Ekman and Friesen, replicated later by others, demonstrated that there was largely universal agreement in recognizing six basic affective responses: anger, fear, happiness, sadness, disgust, and surprise. Based on these studies, Eckman proposed the "Basic Emotion Theory," which suggests that facial movements and expressions could convey these basic six emotions (and later added pride, shame, embarrassment, and excitement) and that these affective responses could be brief, were cross-cultural, signalled an emotional state, and co-varied with physiological responses.

Ekman later put together the Facial Action Coding System (FACS), which identified the specific facial movements associated with each affective response. For example, happiness could be identified by "cheek raising" and "lip corner pulling," and fear could be identified by "inner brow-raising," "outer brow-raising," "brow lowering," "upper lid raising," "lip stretching," and "jaw-dropping." In subsequent studies by other researchers, roughly 20 affective responses were identified and coded.

More recent research has moved past the study of static portrayals of basic emotions to the idea that emotional expressions are multimodal and can be inferred by dynamic patterns of behaviour, including not only facial action but also vocalization (laughs, groans, etc.), body movement, gaze, gesture, head movements, touch, autonomic responses, and even scent. Most of these emotional indications, except scent, touch, voice, and autonomic response, are visual. Thus, with computer vision algorithms, we can detect and automatically code facial actions in still images and video sequences to determine and measure the emotions being displayed.

Facial expressions of emotion are indications of the affective responses people are feeling and are beneficial to marketers in two ways. First, with certain caveats (discussed next), the coding of face movements can be helpful for marketing research to measure emotional responses

to marketing materials. Second, facial expressions, in combination with other marketing tools, such as compelling narratives, slogans, illustrations, video, graphics, photographs or other aspects of the marketing context or message, can be used to communicate emotions or to generate emotional reactions.

Important Caveats in Using FACs

The availability of the FACS coding process is a handy framework, but there are important caveats to consider when implementing it. First, the set of facial movements associated with each basic affective response may vary; there is more than one way a person may indicate each emotion.

Second, people may experience these affective responses and not show them, or they can be contorting their face into these expressions and not be feeling the emotion (e.g., a "fake smile"). Thus, it is essential when coding emotions to keep the context in mind, as that might affect the interpretation of the facial actions.

Finally, there may be heterogeneity among people as to what these basic emotions convey. For example, not everyone feels happiness similarly or makes facial movements to express this in all contexts.

Using Facial Expressions to Measure Emotions

Keeping these caveats in mind and given the ubiquity of cameras and the sophistication of computer vision algorithms, it is getting easier to code facial movements. The availability of large data sets of images and videos and the availability of computer algorithms that can automatically code facial actions make studies of consumer behaviour and neuroscience easier than ever before.

Measuring Affective Responses in the Laboratory

Three types of marketing research contexts can use FACS (or more advanced coding systems) to code affective responses to marketing campaigns. First, emotional reactions to visual imagery or video can be measured in the lab, where participants sit in front of computers and are exposed to marketing materials while being recorded by a video camera. These are ideal conditions with non-changing illumination and a frontal view of the participant's face with no blockage. That said, many viewers do not make facial actions when viewing screen-based stimuli, especially when the affective content in these stimuli is moderate.

Second, video reactions of people can also be recorded in the lab under less-than-ideal conditions. While it is generally easier to code facial expressions when participants are exposed to a static image under ideal lighting conditions and recording circumstances, researchers can use algorithms to code facial expressions when participants are watching a video, when lighting is inconsistent or when participants are

not directly facing the camera. Under these circumstances, it is vital to understand the limitations and adjust. It is also important to weed out facial movements unrelated to the variables of interest, such as a sneeze.

Measuring Affective Responses in the Field

The third type of marketing research that can use FACs is in the field or "in the wild." This is more challenging for coding because the lighting will be inconsistent, participants will not always be facing the camera, and it might be more difficult to ascertain consistent patterns of attention in connection with emotional reactions.

With adequate prudence in generalizing conclusions, automatic facial action coding can be helpful for marketers to understand and measure affective responses to marketing and social media campaigns in actual purchase environments.

Encouragingly, new computational methods are also being developed that automatically detect emotion categories and valence without having to gather experimental or field data. These have also been found to help understand dynamic models of decision processing.

Use of Emotions in Marketing Campaigns

Marketers have also used emotions and faces in marketing materials such as advertising, social media, or retail environments to generate emotional arousal that transfers to the brand or can influence preferences and choices. For example, in pro-social appeals, victims' faces have been used to motivate empathy and altruism. Research has found that people are sadder when they see a sad-faced victim, and their own sadness mediates the effect of emotional expression on sympathy. These contagion effects are automatic; people "catch" the emotions displayed on the victim's face, but they are diminished by deliberative thought. Research has also found that anxiety triggers a preference for safe options, while sadness triggers a preference for rewarding purchases.

A Useful Graphic Organization of Emotions

A convenient graphical framework for categorizing emotions was created by Robert Plutchik. He suggested using a colour-coded wheel to classify emotions based on their physiological purposes. The core of the wheel is formed by the six basic emotions described above for FACS coding systems, with the addition of two more: trust and anticipation. These eight emotions are organized into pairs, which are opposites of each other, one representing negative emotions and the other positive. These pairs are joy/sadness, acceptance/disgust, fear/anger and surprise/anticipation. Combinations of basic emotions produce new ones; for example, love is a combination of joy and trust, and awe is a combination of fear and surprise.

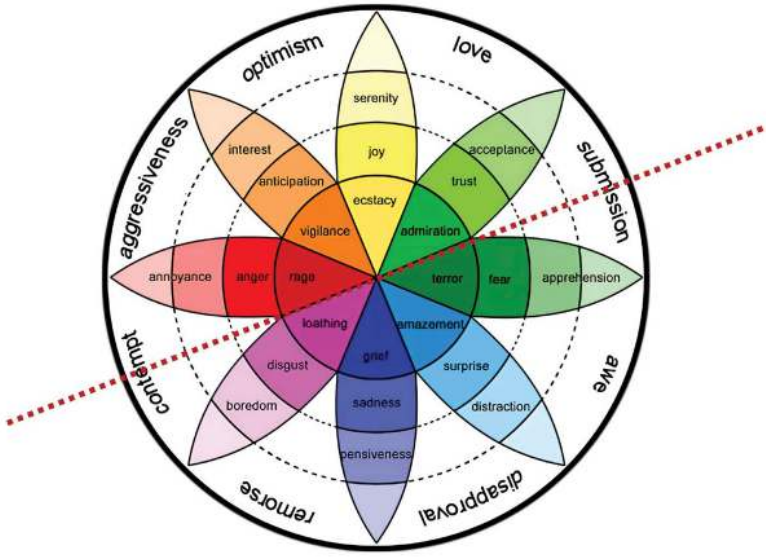

Figure 7.1 Plutchik's Wheel of Emotions modified from Plutchik (1980). Used by permission.

There is also a third dimension of intensity or arousal around these eight emotions, where closer to the centre of the grid is more intense, and further out is less intense. So, for example, fear that is less intense is labelled apprehension, and fear that is more arousing is classified as terror. Finally, the wheel is divided into two semi-circles, with one semi-circle (at the upper half of the wheel) representing emotions that generate approach behaviours, mostly the positive emotions of anticipation, joy and trust but also anger, and the other semi-circle (at the lower half of the wheel) representing the avoidance emotions: fear, surprise, sadness, and disgust (see Figure 7.1).

Perception of Emotions Generates Reactions

People who see emotional content or perceive emotional expression in others not only recognize these emotions but also respond with their emotion-led behaviours, ranging from mimicry to inferences or patterns of cognition to "action tendencies." For example, research has shown that when someone sees another person smiling, that triggers the observer to mimic the behaviour and seek more information about the person smiling by engaging in eye contact, all of which can make them experience positive feelings themselves.

Emotions also encourage the formation of inferences or beliefs about emotional context. One approach suggests that when encountering emotions, people start drawing cognitive appraisals or assessments about that emotional state on specific dimensions. These appraisals facilitate goal-directed judgments and decisions that direct responsive behaviours. Typically, the first appraisal dimension people use to characterize emotions is whether they are positive or negative. Other

appraisal dimensions used to assess emotions include certainty, control, and others vs. self-responsibility. Facial expressions of distress or pain can evoke sympathetic reactions.

Viewing others' emotional expressions also triggers inferences about one's social relationships. For example, people tend to trust others more if they offer an authentic smile as opposed to a fake smile. Similarly, people believe in more trustworthy intentions from individuals expressing embarrassment instead of other emotions. Individuals expressing pride are inferred to have more knowledge or expertise. One study also found that viewing pictures of smiling people led to more microlending. Borrowers who appeared happy in their photographs (from smiling) received a bump in funding over those perceived as sad.

The assessed appraisals of the emotions trigger evolutionary adaptive responses. Positive feelings generate approach behaviours and broadening behaviours, while negative feelings trigger narrowing thoughts and actions. Since negative emotions are aversive, people typically look to mitigate or cope with these negative feelings, resulting in variation in the related action tendencies. For example, anger triggers aggression and subsequently "approach" behaviours like "fighting," whereas fear and disgust trigger "avoidance" behaviours like flight or denial.

Use of Negative Emotions in Marketing Appeals

Once an emotional state has been appraised as negative, people typically try to do something to alleviate that aversive state. The first instinct is to try to regulate that emotion through coping strategies that attempt to change the situation or dampen the feelings. Problem-focused coping strategies are those in which people try to manage or alter the person-environment relationship that is the source of stress. Typically, this involves "making a plan of action and following it" or "getting someone to change her mind."

Emotion-focused coping is a method in which people do not try to change the situation but try to change their emotional reactions to it. Sometimes, an effective emotion-coping strategy is denial or avoidance. Other emotion-coping strategies involve trying to change the emotional response by seeing the bright side, i.e., "looking for the silver lining," or mitigating the pain by "accepting sympathy."

An effective marketing campaign would align the anticipated behavioural response to the induced negative emotion with the marketing strategy. Low certainty and negative emotions such as anxiety, fear, sadness, and disgust (see the lower half of the Plutchik wheel) typically result in avoidance or "flight" coping strategies. People in these emotional states feel unsure and incapable and look to disengage. Thus, "fear appeals" used in advertising, such as "drugs or smoking will kill you," can be ineffective because they may cause people to avoid the negative feelings by not thinking about it all. However, if the marketing appeal can be tied with a recommendation of how to avoid the threat, particularly if it is not too difficult to do (e.g., use a condom or get a vaccine), they can be effective.

On the other hand, high certainty negative emotions, like regret, guilt or anger, cause people to engage and arm themselves. Evoking these negative emotions and giving them something concrete they can act on can be a very effective marketing strategy. One famous example of this was created by the **truth®** campaign, a public relations campaign aimed at reducing smoking in the United States. It was funded primarily by money obtained from the tobacco industry.

The "Truth Initiative" had many documented successes with their campaigns that were based on behavioural research. One historic award-winning campaign was targeted towards mothers who had tobacco-related illnesses like emphysema, lung cancer, and throat cancer. The ad campaign featured photographs of mothers looking very downcast, and juxtaposed with their photographs were actual parting letters they had written to their families that expressed their guilt about how their diseases were hurting their families and other loved ones.

The appeal was designed to evoke guilt and regret, which motivated problem-focused coping. Then, readers would be given an easy first step to rectifying the situation before it was too late. The ad provided a toll-free number that could be accessed immediately to begin the process of reversing their smoking habits. The campaign increased awareness of the toll tobacco could take on families and provided an implementable way for people to seek help.

The **truth®** campaign has turned away from guilt and focused on shedding light on industry manipulation, which is evoking anger towards that manipulation rather than to guilt or shame the audience. One example of an advertisement using this approach is shown in Figure 7.2. Anger, like guilt and regret, can motivate problem-focused coping.

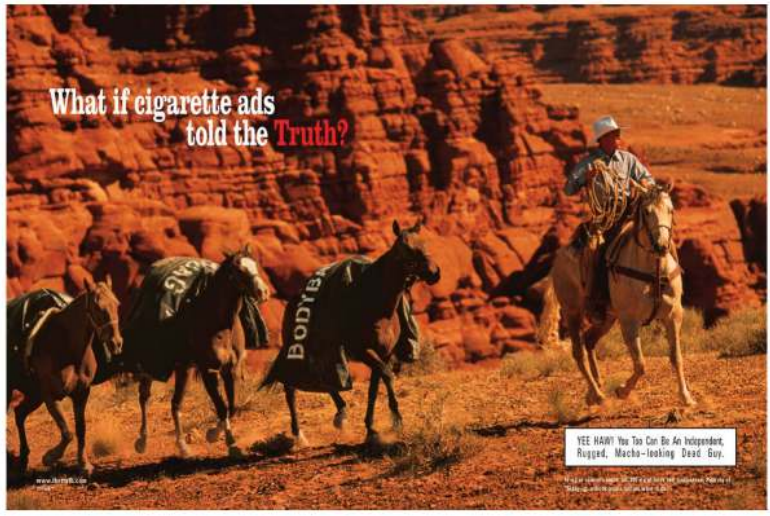

Figure 7.2 **truth®** campaign ad, Truth Initiative. Used by permission.

Truth Initiative has been very successful with the **truth®** campaign. It is the longest running, proven, and effective national tobacco prevention campaign designed for youth and young adults. Data shows that their work has contributed to bringing down teen cigarette use from nearly 23% in 2000 to 2% today. They are hoping to achieve the same results for the youth e-cigarette crisis.

Emotion in marketing appeals has also been used successfully by charities and other non-profits to elicit sympathy, which has been shown to increase people's altruistic behaviours. Research has found that facial expressions can elicit vicarious emotion in observers, which has been labelled "emotional contagion."

"Catching" another's feelings by responding to their facial expression happens automatically. Building on this, studies have shown that photographs that illustrate a sad victim's face can automatically cause observers to empathize with the victims' suffering, which makes them feel sympathetic and increases the propensity for charitable giving. Furthermore, this phenomenon exists only when a victim's expression causes the source of sadness, and not an unrelated source causes it. This phenomenon is also strengthened when people think with their hearts and do not scrutinize other information. Providing other information which encourages more deliberation can reduce levels of sympathy.

Use of Positive Emotions in Marketing Appeals

Positive emotions work differently from negative emotions. Rather than narrowing focus, positive emotions open us up, expand awareness, and increase peripheral vision. When we experience positive moods, we are stimulated to take action and see more possibilities.

Eye-tracking studies have shown that compared to neutral or negative emotions, people in positive emotional states are more likely to look at all aspects of an array on a computer screen instead of focusing on one area. Frederickson proposed a "broad and build theory," which suggests that positive emotions lead to broadened thought-action repertoires and that leads to building enduring personal resources, which can increase life satisfaction and make people more resilient.

Consistent with the "broaden hypothesis," Alice Isen found that the induction of positive affect creates patterns of thought that are more flexible and inclusive, allows for more creativity, and causes people to be more receptive to new information and novel stimuli. She also found that positive affect enables people to handle greater information complexity, makes people more optimistic about the likely outcomes of an anticipated experience, and allows them to seek more risk. Other studies also found that positive affect increases approach behaviour, making them more willing to explore new possibilities and advance unusual associations. Studies in marketing contexts showed that positive affect could also increase variety-seeking behaviour.

Specific Positive Emotions

While all positive emotions lead to broadening attention, thoughts and actions, specific positive emotions can broaden in distinct ways, which have important implications for subsequent behaviour. For example, hope suggests that a concrete positive goal is expected and motivates certain avenues of goal pursuit. In contrast, pride reflects attitudes about one's status in a group and accentuates the distance between oneself and others.

Hope is an emotion that has been featured in many marketing campaigns. Hope is associated with a goal that is uncertain but possible. To some extent, all marketing campaigns promise hope in the implicit premise that engaging in marketing activities should lead to a beneficial outcome. However, campaigns specifically designed to strengthen the emotional aspect tied to hope typically highlight the possibility of goals that were previously assessed as impossible.

This feeling of hope is accomplished either by promoting new features in the product or service to overcome previous obstacles ("new, state-of-the-art") or by suggesting new specific advantages to the customers, e.g., through customized solutions "designed just for you," or by giving people more perceived control, "Just do it."

Other ways to elicit hope is through enhancing yearning, e.g., by elevating a concrete goal to a higher order goal, "be all that you can be." Some common visual symbols of hope include olive branches or the "light at the end of the tunnel."

Pride is a universal emotion that is linked to self-concept and status. In marketing, research has shown that consumers may purchase luxury brands for a sense of emotional well-being through pride. In general, anticipated feelings of pride may motivate consumers to choose products that enhance their social standing or identity. One of the most famous visual examples of pride in marketing campaigns is the "Gay Pride" campaign, where the use of rainbow colours visually symbolizes pride in the diverse LGBTQ+ community and encourages a sense of social support.

Special Case of Love

Unlike hope and pride, which are positive emotions that relate to self-goals or self-status, love is a positive emotion that relates to others. Love is part of both platonic friendships and romantic or sexual relationships. Within consumer marketing contexts, e.g., Hallmark and Procter & Gamble advertising campaigns, love is often characterized by the presence of commitment and feelings of warmth and affection, but not necessarily with passion.

Evoking feelings of love can enhance consumers' propensity to feel caring and show concern towards others who they may not be related to, i.e., "distant others." Hence, this emotion can be usefully employed to encourage pro-social behaviours or, in general, positive actions towards others or strangers.

Love emotions are often visually suggested in marketing campaigns through affectionate behaviour between people or between animals

(remember the famous Budweiser ad called "Puppy Love," which shows the love between the Clydesdale horse and the puppy. It is also suggested through images of hearts and generally the colour red (e.g., Valentine's Day).

Research has shown that many positive emotions (e.g., hope, love, compassion) affect generosity towards close others through the broadening of attention, as discussed above. But love uniquely affects behaviours towards distant others and strangers and fosters social connection. Therefore, love appeals and imagery are often found in charity or non-profit messaging. It is also very effective in advertising that motivates gift-giving behaviour.

Love imagery in marketing campaigns during the early days of COVID was particularly interesting and salient. For example, Loewe's announced a $170 million campaign committed to COVID relief to fan the flames of social connection, empathy, and love for others.

The advertising agency Doner in Detroit had a campaign in March 2020 with the theme, "We don't stop in the name of fear, we stop in the name of love," emphasizing what everyone had to do together to get through the pandemic. P&G similarly focused on love in 2021 with a campaign that suggested, "We're born with eight emotions. But the most powerful is love. … Let's bring more of it into the world … to commit to acts of good." These campaigns used words and visual images to evoke feelings of love and motivate people to cooperate, even strangers or "distant others," in conquering the consequences of COVID.

Use of Emotions to Encourage Sharing

Some, but not all, emotions increase sharing. The relationship between what gets shared and emotion is more complex than just valence alone, although valence (positive vs. negative) does explain some of it.

To explore this relationship empirically, researchers used a webcam to measure people's emotional reactions, through facial expressions, to hundreds of video advertisements. Participants were then asked their willingness to share on a scale from 1 to 5. Using algorithms to code facial actions automatically, the researchers could determine which emotional expressions were most linked to sharing. Using algorithms to detect facial expressions provided an unobtrusive way of measuring these emotional reactions.

The results suggested that positive emotions (specifically things that made people smile) were associated with increased sharing. A 30% increase in smiling was associated with a 10% increase in willingness to share. Some negative emotions seemed to decrease sharing. Sadness and confusion were associated with decreases in willingness to share. However, other facial expressions linked to negative emotions, like disgust, were also linked to increased sharing.

These results were consistent with another study that showed that it was not valence per se that affected sharing but arousal. High arousal

emotions, e.g., excitement, surprise, humour, anger, and anxiety, were associated with increased sharing, whereas low arousal emotions, e.g., sadness and contentment, were associated with decreased sharing rates.

While this research features results in sharing intentions, the authors note that there is no direct evidence about how those results would translate into sales. We know that word-of-mouth does increase sales, so it seems reasonable to assume that increased sharing would also lead to increased sales, but more testing would be helpful.

Conclusions

One of the advantages of visual marketing is that it can evoke strong emotions and emotion-laden associations. Visual imagery alone can create emotional responses, but linked with powerful narratives; visual marketing conveys emotional stories, strong brand connections and powerful memories.

Emotional content generates emotional responses in viewers. Consumers recognize the conveyed emotions and respond to them with their own emotion-led behaviours. Emotions also encourage inferences or cognitive appraisals, and these appraisals facilitate goal-directed judgments and decision-making. The first appraisal consumers make about emotional material tends to be valence; is the emotion positive or negative?

Negative emotions, like fear, anger, sadness, or disgust, encourage people to generate coping strategies to mitigate the negative feelings. Marketing suggested actions that are tied to those coping strategies can be effective. Positive emotions tend to generate open-mindedness and broadening. Positive emotional appeals can lead to pro-social behaviours towards others and more creative responses. Positive emotions have also led to more variety-seeking behaviour and openness to new products and innovation.

We also know that people are drawn to faces, which can provide a wealth of social information that allows insight into emotional states. Many empirical studies across cultures have shown that people can identify basic affective responses from facial movements when looking at still photographs. These responses might be brief but can signal emotional states that co-vary with physiological responses.

That faces may communicate affective responses is helpful to marketers in two ways. First, the Facial Action Coding System (FACS) and other observed reactions, such as vocalization, body movement, gaze, gestures, touch, and autonomic responses, can be used as a marketing research technique to measure emotional responses to marketing materials unobtrusively. Second, faces expressing affective responses, combined with other marketing tools, such as compelling narratives, slogans, illustrations, or graphics, can generate emotional reactions, which can be effective in marketing campaigns.

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Customer Shopping Journey

8

The Importance of Visual Marketing at Critical Touchpoints

Chapter Outline

Visual marketing can influence consumers' decision-making along their shopping journey, from the trigger stage to the moment of purchase. Visual cues can affect consumers' motivation for the shopping trip, their search and evaluation of alternatives, and their final choice. Marketers can use visual tools such as colour, shape, size, lighting, signage, filtering, and organizational structure to enhance the perceived variety, reduce complexity, and increase the salience of their products or services. Visual marketing can significantly impact the shopping experience and the likelihood of purchase by creating positive emotions, increasing fluency, and providing guidance.

Learning Objectives

- Classification of shopping trips as a function of goals.
- Customer journey is a series of touchpoints and visual marketing principles help guide a brand's success at each of these touchpoints.
- Principles of visual assortment: is too much variety too much of a good thing?
- Using Visual principles to reduce choice overload.
- Increasing perceived variety by visual tools.

We know that the decision "to buy" is not a discrete buy-no-buy process but rather a journey consisting of various stages. There are four stages that marketers typically consider along this journey:

1. The "*trigger*," or the decision to go shopping or make a purchase to satisfy a want or a need,
2. the "*initial consideration stage*," the creation of the set of products or services that are considered early in the process,
3. the "*active evaluation stage*," where consumers search for information, compare alternatives, and form preferences,
4. "*moment of purchase*," where consumers pay for the product or service.

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In today's omnichannel world, the marketer can interact with the shopper at each touchpoint and continuously design and optimise the decision journey. Here, we are specifically concerned with how visual marketing can affect consumers' decision-making along the journey.

Trigger Stage: Motivation for the Shopping Trip

Often, a trigger for a purchase arrives because the consumer has an unfulfilled need that arises. Sometimes, these needs are organic and occur naturally, e.g., the toaster breaks and it's time for a new toaster; other times, they may be encouraged or promoted, "Have you thought about your pet's dental hygiene?" There are also retail seasons that occur almost every month, where shoppers are pro-actively encouraged to go shopping to make purchases, e.g., New Year's Eve, Valentine's Day, St. Patrick's Day, Easter, Mother's Day, Memorial Day, Father's Day, Graduation, July 4th, "Back to School," Halloween, "Black Friday," and the all-important holiday season. All these holiday-motivated occasions are supported by active in-store visual cues.

In addition to a trigger stage for a specific purchase, there are varying motivations for making the shopping trip. One framework characterizes shopping trips primarily on two dimensions. The first dimension is defined as whether there is a purchase goal or not. Typically, when there is a goal, people want to find something specific, and the marketing incentive is to help them search for appropriate alternatives. When there is no goal, consumers are in a discovery mode and more likely to react to stimuli in the shopping environment.

The second dimension of this framework is related to whether the trip is intrinsically motivated or socially driven. While this is important for understanding the ultimate purpose of the trip, this dimension has less specific correspondence to visual cues per se. These two dimensions yield 12 different types of shopping trips (which are italicised below).

Goal-Driven Shopping Trips

Goal-driven and intrinsically motivated trips are classic shopping trips or ones that parallel the standard decision funnel and are usually used for high-involvement, first-time purchases like furniture for a new apartment. This classification also includes *routine* trips, generally made for repeat purchases or those that are *outsourced* or *required* purchasing where there are explicit criteria to follow.

Goal-driven shopping trips that are socially motivated rather than intrinsically driven would be trips to buy *gifts* for others or could be *joint* or *opportunistic* shopping trips. Gifting trips are interesting because they may combine exploration and discovery with the specific goal of finding the "right" gift.

In all these cases, anything that would help shoppers reach their goals would be beneficial, so marketers should prioritise visual cues that help make **search** easier. The various types of search tools will be discussed below.

Non-Goal Driven Shopping Trips

Trips that are intrinsically motivated but without an explicit goal might be those that are generated for "*retail therapy*" or "*entertainment*" or are merely *impulsive*. Retail therapy trips are those whose purpose is to mitigate a negative state through engaging in shopping or browsing. Here, the goal is not to buy something specific but to feel better because of the experience. Similarly, shopping for entertainment is more concerned with the feelings generated by the experience rather than any items purchased. Impulsive shopping can result in a response to attractive bargains, treasure hunt incentives, or creative marketing.

Socially driven, no-goal trips might be those undertaken for *learning* purposes or building a *social network*. In both cases, accumulating information from the shopping trip makes the trip successful. Learning results in a better understanding of the product category, whereas for social network building, the goal is for peer-to-peer sharing, either to share information or manage impressions or status.

In these cases, the process is more discovery-driven and thus more influenced **by bottom-up processing** of sensory inputs from the store. Below, we discuss how these types of visual cues influence processing and perception formation.

Consideration Stage

Once the shopping trip is triggered for whatever reason, the shopper may move towards considering options for purchase and evaluating them to form relative preferences. Here, the marketer plays an important role. Whether shopping online or in the store, the creation of a consideration set of alternatives can be formed by actively searching for information (or "top-down processing) or by responding to the stimuli presented and choosing items to consider from reactions to those stimuli ("bottom-up" processing). While we will describe these two ideas separately, they can operate jointly and interact in the final choice process.

Top-Down Processes: Search

The goal of search is to help shoppers find the alternatives that best suit their needs. With the availability of sophisticated technology, more and more of the search process is either done online or facilitated by technology in the store.

To best serve the customer, the marketer needs to understand where the consumer is in the decision-making process, and various search engines have reflected this knowledge. For example, people search differently on Amazon vs. Google.

Amazon vs. Google Search

When shoppers search on Google, they can be anywhere along the customer journey, whereas when shoppers search on Amazon, they are typically very close to making a purchase. This distinction and the different revenue models (e.g., Google makes money from advertising revenue, which means they have to optimize results for every search query, whereas Amazon prioritizes sales and conversions) result in very different visual prioritizations that result from typing keywords into a search engine.

When a consumer searches on Google, the page will exhibit sponsored ads, links to articles and reviews, videos, "People also ask" questions, ratings, maps where to buy it, and consumer reports—in other words, information for any spot in the purchase journey. On the contrary, surveys show that when people are ready to buy, 55–60% start on Amazon rather than Google. This means that the Amazon pages need to be visually optimized to make it easy to justify making a rapid purchase. The Amazon search results feature filters that allow shoppers to go precisely where they want and find what they are looking for; there are price deals, star ratings, or recommendations that give the shoppers easy justifications for making the purchase, and limited-time offers create time pressure.

Other Search Processes: TikTok, Instagram, Snapchat

While Google and then Amazon were the traditional places to start search processes, that trend is changing. TikTok is grabbing more market share. This move to using TikTok for search is a global phenomenon. In the US, almost 40% of young users go to TikTok (or Instagram), 27% of Southeast Asians use TikTok for information about products or services, and the number doubles if just considering younger people. Notably, the search process and the visual interface are very different on TikTok than on the historical search sites. Typically, searching on TikTok yields thousands of short videos and personal perspectives.

This very different visual interface changes consumers' perceptions. Since the information viewed comes organically from community members, users believe that the content on these sites is more credible and authentic. Being more community-based allows the user to feel like they have an equal seat at the table in shaping the brand's identity and narrative. This inspires more trust and loyalty. Searching on these sites is typically considered higher in the funnel, meaning consumers are seeking information and inspiration and have not decided whether to purchase. Users are looking for ideas and to be introduced to new topics they didn't even know they liked. Even people searching on TikTok, further down in the funnel—when they are ready to buy, still appreciate the community-based inspiration. This is because they trust the information more, but also because of the belief in homophily, that people like them will value and prioritize things similarly.

Visual Search

This new emphasis on video and imagery rather than word searches also creates a desire for different types of search. In this visual world, consumers may want to search for ideas or products, even if they don't know exactly what they want or how to put their ideas into meaningful words. This spawns the need for camera-powered visual search. Here, consumers are encouraged to take a photo of items they like and then search for visual similarities to that photo. This helps users who do not know how to articulate what they want but will "know it" if they can see it. This way of visual searching can build more emotional connections, and building on these images can allow for cross-selling opportunities.

Related to this idea of camera-based visual search is the use of augmented reality (AR) tools, which allows users to integrate digital information into their real-time physical environments. AR will enable consumers to blend digital and 3D virtual items into their natural world. These tools have been especially useful in home design and beauty, allowing users to place a virtual item in their camera view to see how it fits with the consumer's reality. So, a user can see how a new couch will fit into their existing living room or how a new shade of lipstick will look on their face.

Bottom-Up Processes: Stimulus-Driven

In addition to going to the store for a purpose, shoppers also respond to in-store or online stimuli. As noted above, this is particularly relevant when shoppers engage in non-goal or discovery shopping.

We know that visual search is not random, and shoppers respond to what draws their attention or what is salient. What people pay attention to is a function of what they think is most important, motivated by the goals we described above or the environmental cues that attract their eye. The more visually salient an item is, the more likely it is to be considered or chosen. Studies showed that even controlling for top-down motivations, attention (as measured by eye-tracking) correlated strongly with brands identified for inclusion in consideration sets.

Attention: Visual Salience

The retailer controls these visual cues to get shoppers' attention. Colour blocking, for example, on a shelf will make a specific brand stand out from the others. If you stroll down the feminine hygiene aisle of a grocery or drug store, you will notice that most of the packaging is in pastel colours: light blues, pinks, and beiges. When the brand managers of "U by Kotex" wanted to invigorate its branding strategy and appeal to the Gen Z consumer, they embraced a bold, innovative black package with a reframed U logo on the face of it. Against the pastel background of the other feminine brands, this colour popped out on the shelf and caught consumer attention.

In addition, product variants within the line featured bold, bright colours on the black background, which again "popped." The motivation for the brand design, as described by the designer, was very visually motivated. She called the box

> a little black dress; the different colours of the products are the 'accessories.' The swirls, the circles, and the colour hits on the box are based on research on what's relevant to young girls. They're much more fashion-forward, individualistic, and have their own personal style, and they tend to be loud and obnoxious.

This is a clear example of using visual design cues to get attention. It doesn't have to be colour; it can be product or package shape, size, brightness, or the distinctive use of imagery or a logo. For example, Kellogg's large K on their Special K cereal attracts attention.

Many retail shelving design elements can create salience, e.g., the number of facings or items stacked horizontally or vertically. These visual cues can also be used to create different categories on a shelf that can easily be discerned without using words that require more processing. These category perceptions can be natural or invented.

The relative location of the product placement on the shelf can also attract shoppers' attention differentially. Products on the lowest shelf are not seen as often, whereas eye level in a physical store [and the equivalent popular spots online] attract more attention. Consumers also may infer quality standards by where something is on the shelf; studies have shown that sometimes people infer higher quality for products stacked higher on a shelf. Studies have shown that shoppers believe high-quality brands are on the top shelves and cheaper brands are on the bottom. If shoppers scan items from left to right, that can affect perceptions.

In addition, retail visibility can result from reducing clutter or the number of objects in a set. Frequently, white space and sparse items on a shelf are used in luxury settings to catch the eye and promote a more exclusive look. The research suggests that since the visual cortex is limited to the amount of information that can be processed at one time, too much clutter reduces the attention to any specific item. In luxury settings, each item may deserve special attention to appreciate the legacy and quality. Learned associations have also linked more sparse shelving with scarcity, enhancing luxury perceptions.

Colour or attention-grabbing visual stimuli in the store environment, independent of the product being sold, can also be used to get attention. For example, marketers may put showy accessories or unusually coloured shoes on a mannequin just to catch shoppers' attention, but these are not necessarily the items for sale. Although basic colours, like black or neutrals, are more frequently purchased in athletic sportswear, retailers insert flashy coloured items on the shelf to get attention, even knowing they are unlikely to sell. On a car lot, most of the cars sold are standard colours like black, silver, grey, and

Figure 8.1 Nike Soho store. Photograph by Barbara Kahn.

white. Still, occasionally, there will be the bright yellow model or Lava Orange or Electric Blue car on the lot—these colours don't often sell, but they do attract customers to look and wonder. This suggests that online or offline retailers can create "eye-catching regions," regardless of whether these regions are directly attached to the products sold. Then, once the shopper is attracted to those regions, the surrounding products are more likely to be seen.

Ease of Processing (Fluency)

Once consumers' attention is obtained, the next step is to ensure they can quickly process what they are seeing. If consumers can automatically parse what they see, it is easier to understand marketing appeals. The more consumers can appreciate what the marketing is communicating, the higher the likelihood they will ultimately like the items. Increasing fluency feels good and affects judgment; it also boosts confidence and defers delays in decision-making. Packaging, store design, or in-store features that are confusing or disfluent are avoided; it's not worth the stress or anxiety to try and understand what is going on.

Similarly, colour schemes or highlights that make sense or help explain the brand name or the feature are preferred. Simpler fonts in typography, redundancy when the visuals and the texts support each other, or more photos to make the points much quicker to understand than long texts help the consumer quickly grasp the benefits of what they see and instantly create more positive emotions.

And the gestalt principles described earlier come into play as well. As we mentioned in Chapter 4, describing Gestalt Theory, we do not perceive every feature of a product or shelf display. Instead, we use guiding principles to draw conclusions more quickly. So, for example, consumers prefer symmetrical shapes (as opposed to asymmetrical shapes) because the redundancy makes it easier to process.

The Gestalt principle of similarity is also used frequently. Store or private brands are often designed to look like famous national brands, so consumers assume they have the same quality, even though the packaging per se does not guarantee that. This is such a big issue that there are lawsuits to determine if there is brand confusion or trademark infringement. The U.S. Lanham Trademark Act of 1946 states that a product may not compete by presenting itself as substantially similar to a competitor when it is confusing to the public.

The Gestalt principle of proximity is also helpful in getting shoppers to consider new options automatically. For example, in the produce sections, a grocer may feature a special salad dressing next to the salad ingredients, even though the other salad dressings are in a different store section. The proximity here makes it clear that these items belong together. Similarly, merchants will group beauty items or fashion items together on a shelf to encourage purchasing the entire bundle of goods.

Evaluation Stage: Principles of Visual Assortment, Is Too Much Variety Too Much of a Good Thing?

In the evaluation stage, consumers are considering an assortment of items. Here, we are interested in the visual cues that a retailer can provide (1) to offer enough variety to attract shoppers to the display or assortment and (2) to make sure that assortment variety is not too overwhelming so that it defers choice.

In a well-known academic study, researchers set up tables that displayed jams in a gourmet grocery shop. The tables had two different set-ups; one had six jams to sample, while the other had 24. The researchers then counted the number of people who visited the tables and the percentage of people who used a coupon offered to buy the jam within the next week.

More people were attracted to the table with 24 rather than with the six jams. However, more of the people who came to the tables redeemed the coupons to purchase jams from the table, with six than 24. The authors concluded that consumers faced with "too much choice" were more likely to delay or defer purchase. Other studies that looked at this phenomenon of "too much choice" concluded that it was not the actual number of items in the assortment per se that mattered but rather the perceived variety, or the amount of variety that a shopper could process effectively, that was telling. Actual variety could be high if the *perceived* variety were manageable.

Thus, there are two marketing goals to consider when using visual cues to increase shoppers' likelihood of buying your products. First, marketers do not want to overwhelm shoppers with too many choices, and they want to use visual principles to reduce the clutter and complexity in the assortments. Second, remembering that more people were initially attracted to the tables with 24 jams rather than six, marketers don't want to present too few choices. We know product variety is the third most important factor in choosing a physical store (behind location and price), and the importance of having a large variety has only increased in online shopping, where Amazon has made the "everything store" a common expectation. Thus, retailers also do not want the assortment to seem so small that consumers judge that they won't be able to find something to please them.

Using Visual Principles to Reduce Choice Overload

There are many reasons that having a lot of variety in an assortment is positive. First, given the enormous consumer heterogeneity in preferences, consumers will gravitate towards larger assortments that can offer them exactly what they want. With the advent of e-commerce, which can minimize the costs of maintaining large in-store inventories, online marketplaces have been offering enormous assortments profitably. Second, larger assortments offer consumers flexibility, variety, and the ability to try something new. Consumers also appreciate large assortments if they are collectors or are buying for different occasions. Finally, allowing for a larger assortment can help mitigate risks from both supply and demand sides.

Deleting Items in an Assortment

The problem, though, with large assortments is that they can become overwhelming and complex and cause shoppers to delay or defer purchasing. One way to lessen the complexity is to edit the assortment to get rid of items that may not be needed. However, indiscriminate pruning of items within the assortment can result in lost sales. If reduction of items is done strategically, e.g., figuring out for which items there are no substitutes and which ones are necessary, marketers can delete items in an assortment and increase *perceived* variety. For example, studies showed that for tomato sauces, retailers did not need so many different varieties of ingredients and sizes, so deleting some of those would reduce actual variety but would not decrease perceived variety. Deleting the extraneous items sometimes decreased actual variety but *increased* perceived variety.

It is also essential to consider the global visual cues when considering how to lessen the complexity when deleting items. For example, when removing items from the assortment, shoppers are less likely to detect a reduction in variety if the space allocated to the product category remains constant, even if the number of variants within that space is reduced.

Reducing Complexity *without* Reducing Actual Variety

As mentioned above, there are many reasons why retailers may want to keep assortment variety large, so there may be better strategies than deleting options. However, retailers will still be concerned about choice overload and complexity. Visual principles and strategies can be quite helpful here in finding ways to maintain actual variety while increasing consumers' ability to process and cope with the large variety.

The primary strategy for reducing complexity is to make the processing of the variety in the assortment easier and more fluent. Here, the visual strategy is explicitly designed to help the shopper parse the variety.

Alignability of Attributes: One way a shopper can appreciate the overall assortment of options is if the attributes that create the variety are alignable or ones that can be placed in an ordinal order. For example, size and prices are alignable; thus, it is easier to choose which ones you want and which you do not want. Shoppers can easily decide which size fits and instantly only look there and eliminate the others. However, when features are less alignable, like design features or any "bells and whistles," one must look at the entire set to make meaningful trade-offs. Forming preferences is much more complex, so the variety feels more overwhelming.

Retailers can use visual cues to make non-alignable attributes easier to parse to lessen the complexity and reduce cognitive effort. For example, in paint stores, colours can be lined up by hue and saturation, which goes from light to dark and creates an alignable scale that allows shoppers to focus on a region they like and reject others not in that region. Another way to do it is to simplify non-alignable attributes by providing guidance. For example, the retailer Gap tries to make a non-alignable feature like the design of jeans more alignable by showing the dimensionality of the various cuts. Or non-alignable attributes can be illustrated on some numerical rating scales even if the scales are subjective. For example, wine stores will help consumers decide among varietals by providing star ratings. Sometimes, scales can be created to eliminate options, such as when bakeries help align offerings by providing calorie information.

Filtering Tools: Retailers can help reduce complexity through online or in-store tools that help shoppers categorize or filter alternatives by simplifying decision rules. As mentioned above, Amazon provides many filtering tools to help shoppers simplify their tremendous assortments down to the few that meet their criteria. In this case, retailers must think strategically about how many and which levels to include in hierarchical filtering schemes. Generally, the research shows a "moderate" level of categories is best, although what this "moderate" level is differs by category. If there are too few filtering categories, the variety seems small, and the decision process gets complex if there are too many.

Learning Preferences: Another use of visual tools is to help consumers learn their preferences. Once consumers know their preferences, it is easier to appreciate the variety. Research has shown that when assortments are extensive, and options within that set are comprised of many different attributes, consumers can learn their preferences and appreciate the variety better if they are asked to consider how they feel

about each of the different attributes that the set of options contain, rather than trying to form preferences for each item as a multi-attribute option.

For example, rather than calculating preferences among different sofas in a furniture store (typically characterized by many dimensions), it would be easier first to consider each attribute and form some preferences there. For example, online tools can help shoppers determine whether they want a sofa with one back pillow or three, with rounded or square legs, etc. Breaking the options into manageable pieces and thinking about preferences at that micro level makes it easier to parse the variety of the assortment.

When the assortment variety available is small, and the number of controllable attributes is smaller, consumers can better form preferences and parse the variety by being shown multi-attribute alternatives or prototypes. An example is salad bars, which are less complex than the sofa example above. Here, if there are a few sample salads that together comprise most of the possible ingredients, consumers can easily choose the salad they want, even if they ask for some substitutions. Even here, though, if the set of possible customizable salads becomes very large because there are so many different attribute combinations to consider, it may still be easier for consumers to learn their preferences and to create salads they will enjoy if they choose by attributes to compose a salad, rather than making substitutions within a set of alternatives that span the variety.

Organizational Structure and Labeling: The other visual tool marketers can use to try and reduce the complexity of large assortments is the organisational structure of the assortment. Consumers often have their own way of categorizing products within an assortment. For example, in wines, consumers may think about the category by the grape varietal, or they may think about the category by the region in which the grape grows (e.g., France vs. California). If the category is organized in the store in a way consistent with the shopper's internal categorization of that category, then shoppers have higher perceptions of variety and higher satisfaction with product choices.

Eye-tracking research has found that when consumers can easily find an item within an assortment, they enjoy the shopping experience much more. Consumers may form these internal categorizations of how they think product categories should be organized based on their knowledge structures, or these categorizations could be learned as a result of frequent exposure to the organisation within a store. Either way, once shoppers have internalized their ways of thinking about a category, store organizations that go counter to that structure feel disfluent and increase complexity.

Marketers can also add verbal labelling to an assortment to make it easier to parse. Research has shown that holding all product information constant, shoppers prefer visual depictions of products; it increases their perceived variety of the assortment. However, when the assortment is very large, having verbal descriptions or labels of

the products in addition to visual images (this is especially relevant in online assortments when shoppers cannot touch and feel the product) can reduce complexity.

Using Visual Principles to Increase Perceived Variety

In some categories, like desserts, jewellery, accessories, or food, consumers may prefer more variety, and they may not be attracted if the choice set appears too small. That was the situation with the jam study discussed above when shoppers were more attracted to the tables when there were 24 flavours of jams to choose from instead of only six. In this case, visual tools can increase the perceived variety when the actual variety is small.

One way to do this is to create the impression that although the assortment is small, it is curated, and only the best options are presented. This is what designers are typically asked to do. It is also the appeal of small upscale boutiques. Another example is when Steve Jobs initially offered iPhones in two colours, white or black, and the simplicity of the choice set was appealing.

Over time, as consumers get more sophisticated or competition comes in with different alternatives, the variety of the assortment can naturally increase to meet demand. Even for iPhones, eventually, shoppers wanted to customize their phones, and the available colours, sizes of phones and types of features increased. Personalization, and hence more variety, also became available through accessories such as cases that varied in colour and materials.

When the magic of a merchant's celebrity or the promise of a curated assortment that suggests expertise is not enough to draw shoppers in who expect more choice, other visual cues can increase the perceived variety of an assortment with few options. These will be discussed next.

Increasing Perceived Variety through Packaging Design

Increasing packaging colours, changing the shapes of the packaging, and using different font types can increase the perceived variety of an assortment or product line, even if the products themselves are not differentiated significantly. While M&M has various flavours of candies (e.g., peanut, plain, or cookie dough), they could also create tremendous variety even for their basic plain candies by offering dozens of different colours.

Research has shown that when packaging has less uniformity, shoppers see the products as more novel, complex, and arousing. This is noticeable during the holiday season when special holiday packaging and in-store design features can increase the excitement and perceived variety of an assortment, even if the products are essentially the same underneath the festive veneer.

Other design features can be used to increase perceptions of variety, like mirrors or display cases with false bottoms. Providing a category with more square footage, even without changing the number of items within the category, can also increase perceptions of variety.

Figure 8.2 Holiday display of Hershey's candy. Image provided by The Hershey Company, used by permission.

In complex categories, even duplicating the same items in different places in the store can make the variety seem larger while not increasing the number of possible options offered. For example, Warby Parker initially had far fewer options for glasses frames than more traditional eyewear stores. To overcome this disadvantage, they lined up their assortment from left to right on one wall and then duplicated the assortment on the other wall but ran the same assortment from right to left. Given the complexity of choosing frames, shoppers were not always aware they were looking at the same assortment when they scanned one wall and then went to the other. Small boutique jewellery and apparel stores frequently move their stock around their stores, and shoppers who come in to browse often feel there are new items to see, even if the actual assortment has stayed the same.

Nuances in variety can also be appreciated more keenly using descriptive labels that provide psychic benefits even if they do not really offer an advantage. Research showed that shoppers respond positively to creative colour names like "Galactic orange" or "drunk tank pink," even if they do not provide any descriptive value.

Moment of Purchase

Finally, visual cues can nudge shoppers into buying one option over another. A vast literature on choice context effects shows that people whose preferences are not stable are influenced by the choice architecture decisions that are used to create the choice set. These ideas have

been summarized in a recent book by Eric Johnson, in which he discusses how the number of options presented, the way attributes are described, and the presence of a "default" can influence the ultimate choice.

Visual cues discussed in this chapter can also be used at the final choice level. Colour, packaging design, focused lighting, and signage are all examples of visual design factors that can make one item more salient than another and influence the final choice.

Packaging or in-store marketing that increases the comprehension and importance of a product benefit can make an item more likely to be chosen. We will discuss how specific packaging strategies can increase choice in Chapter 9. However, increasing the importance of a product benefit can also be done at the store level. For example, store displays that force comparisons between products, where the product features of one seem to dominate the other, can also increase the likelihood of purchase. One such strategy has been labelled the "decoy effect," when an item is added to the choice set that will never be chosen because another item completely dominates it. Still, its inclusion makes it more likely to select the dominant object.

One famous example of this effect was described in Dan Ariely's book, where he presented data that showed that when shoppers were offered a digital subscription to the *Economist* for $59, a print subscription for $125, or a print & web subscription for $125, 84% of the participants chose the print & web subscription, 0% chose the print only subscription (which was the decoy option), and 16% chose the digital subscription. When the decoy was removed (which is reasonable since no one chose it), the choices switched; 68% chose the digital version, and only 32% chose the print and digital alternatives.

Signs or labelling that indicate one product is the "manager's recommendation" is another visual cue that can increase the likelihood of purchase. Given that people's preferences are often unstable and can change due to context, any visual cues that make it easier to justify a decision will increase purchase.

Finally, even location in the store can increase the likelihood of purchase. Placing items near cash registers as shoppers wait in a queue **increases impulse** purchases. Similarly, end-of-aisle displays will increase purchases.

Conclusion

In conclusion, visual marketing is crucial in influencing consumers' decision-making along their shopping journey. From the trigger stage to the moment of purchase, marketers can interact with shoppers at each touchpoint and continuously design and optimize the decision journey using visual cues. These cues can nudge shoppers into buying one option over another, increase their perceived variety, and reduce the complexity of large assortments. Ultimately, visual marketing can significantly impact the shopping experience and the likelihood of purchase.

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9 Packaging Is a Canvas to Influence Consumer Perceptions and Increase Purchase Likelihood and Repeat

Chapter Outline

This chapter examines the role of packaging in influencing consumer perceptions and behaviour. It explores how visual elements of packaging, such as colour, shape, and imagery, can affect attention, emotion, and associations and how these can impact product quality judgments, consumption volume, and category identification. It also provides examples of how marketers can use packaging design to achieve different goals, such as modernizing, differentiating, or communicating values, and how they can test the effectiveness of their packaging using various methods. Furthermore, it discusses the opportunities and challenges of packaging in the context of e-commerce, unboxing, and sustainability, and how packaging can be combined with technology to create immersive brand experiences.

Learning Objectives

- Defining "bottom-up" automatic packaging elements in packaging design.
- Using "top down" packaging design decisions to influence consumer behavior.
- The important role of colour.
- Use of visual marketing principles to modernize packaging over time.
- Assimilation vs. contrast guidelines.
- Modern packaging research methodologies.
- "Unboxing" and consumption practices in determining optimal packaging designs.
- Role of technology and sustainability in packaging.

Packaging provides a unique opportunity for marketers to communicate directly with consumers and can be used to fulfil many goals. First, the package can be a useful point-of-sale canvas to catch attention and persuade the shopper to buy. Second, since it physically surrounds the product, it can directly influence consumers' perceptions about the intrinsic aspects of the product. Third, even after the product

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is purchased, the packaging can communicate brand messaging at the unboxing occasion. This is especially important if the product is purchased online or as a gift. Finally, the packaging can remain relevant as a communication device as the product is consumed.

The package can communicate functional information such as nutritional information, ingredients or guarantees. In addition, using QR (quick response) codes or NFC (near field communication) on packages, the marketer can link the user to their website to capture data, offer detailed product information, or make promotional offers. NFC technology can also help track luxury products to combat counterfeiting and can communicate product origins.

As we have expressed in other chapters, visual packaging cues can operate from a "bottom-up" automatic perspective or can be used as a top-down strategy through the lens of marketing goals or customers' expectations, prior beliefs or motivations.

"Bottom-Up" Automatic Packaging Elements

Packaging design typically uses a hierarchical system to organize information on the packaging façade where vital marketing information, e.g., the brand identity, and the product identity information that is required by regulatory authorities (e.g., FDA food labelling guides, net quantity statements, etc.), occupy prominent locations on the primary display panels of a package. Visual cues or product imagery are the supplementary design elements that support the brand and product messaging strategy.

Consumers often shop with "their eyes" and ignore package labelling information and guidelines. Visual information on a package, such as colour, typography, shape, or illustrations/photography, is more vivid than informational text, is noticed earlier, and attracts more attention. The graphic information can also break through the clutter on a shelf or a website, which increases the likelihood that the shopper notices the item or thinks about a specific feature. All these factors influence brand and product attitudes and purchase intentions.

When people look at the visual elements of a package, their brains process this information instinctively or automatically because of our innate or learned ability to recognize colours, shapes, or patterns. We also know that people process visual information faster than text; graphics can convey messages quickly, often without conscious thought. As mentioned in Chapters 6 and 7, we know that visual imagery and colours can evoke emotions and associations and thus influence perceptions and memory recall.

The formation of perceptions is one of the most crucial processes in customer decision-making for two reasons. First, what consumers perceive affects their actions. Second, what they perceive is only sometimes true and can be influenced by marketing tactics. Consumers' perceptions of products are constructive, meaning people construct

interpretations on the fly. These constructed meanings are based on two significant factors: (1) the actual stimulus, which is a function of what consumers are exposed to and what they pay attention to—in other words, what is salient to them, and (2) their prior expectations, product knowledge, and motivational desires.

Early Packaging Research

In the 1930s, when self-service supermarkets were becoming more popular, Louis Cheskin, a marketing researcher, conducted studies to determine how packaging might influence the choice of products from a shelf. Rather than directly asking consumers for their opinions on the packaging, he ran tests where he experimentally changed package features and watched how these changes affected choices.

He found these packaging changes, including colour and other aesthetic differences, significantly affected market share, even when holding the product inside the package constant. For example, he found that the same detergents in packages with circles were preferred over those using triangles. Margarine, which was white when first introduced, was chosen much more often when its colour was changed to yellow and its wrapper was changed to foil from waxed paper, even though the product formulation had not been changed.

Perhaps more surprising, though, was that these differences in packaging not only affected choice in the supermarket but also directly influenced people's perceptions of the quality of the products when they were used. He called this concept "sensation transference," or the idea that people unconsciously evaluate a product based purely on its visual appearance.

In one of his experiments, Cheskin mailed three deodorants to consumers in three different coloured packages, telling them that the formulations were different—although they were the same product. The data showed the customers had strong preferences, indicating one of the three as their favourite. Some perceived one of the less-preferred choices (which again was identical to the most preferred option) so negatively that they reported rashes and trips to the dermatologist.

This early research has often been replicated in academic studies and industry trials. We know many elements in packaging can affect consumer perceptions. For example, the choice of material in the package can influence the product's perceived quality. Sustainable packaging materials can reflect the brand's values.

We will focus on two graphic elements, colour and shape, used extensively in marketing and packaging applications to affect product perceptions and brand identity.

Colour

To see colour, we need light. The sun gives off energy in the form of electromagnetic radiation, consisting of waves, and some of these waves are in the range that can be detected and processed by the human eye, known as visible light. The visible light spectrum is a tiny fraction of

these wavelengths (from roughly 380 nanometers to 700 nanometers (a nanometer is one-millionth of a meter)); the sun also emits ultraviolet energy, X-rays, and gamma rays (these shorter wavelengths are dangerous for cells, tissue, eyes, and skin), infrared light (longer wavelengths, which we often label "heat"), microwave waves, and radio waves (which can have wavelengths of thousands of kilometers).

Colour can be organized based on the wavelength of visible light associated with each colour, from red (longest), orange, yellow, green, and blue to violet (shortest). This list is consistent with the mnemonic for the colours of the rainbow, Roy G. Biv (ROGBIV), but includes indigo as a seventh colour. Indigo helps with the mnemonic, but it is not very easily distinguished from blue and violet, so most of the research in marketing and psychology studying colours focuses on the primary six.

The number of colours we can differentiate is enormous, much more than 6 or 7 – paint manufacturers make thousands of colour options, and smartphone and computer screens can display millions of different colours. For example, there are non-spectral colours, i.e., those that do not appear in the spectrum noted above, which are mixtures of other colours. One example is magenta, which is a mix of blue and red. We also perceive many different colours because we consider three perceptual dimensions that help us differentiate: hue, saturation, and value. Hue is the dominant wavelength we have been discussing. Saturation is the strength of the colour relative to white (inversely related to whiteness). When hues become desaturated, they take on a faded or washed-out appearance. We use words like "vivid" and "deep" to describe saturated colours. Value is the light-to-dark dimension of colour. Colours become darker as the value decreases and lighter as the value increases. Value is related to apparent brightness (a perceptual phenomenon) and luminance (the photometric measure of the amount of light emitted, passing through, or reflected from an object).

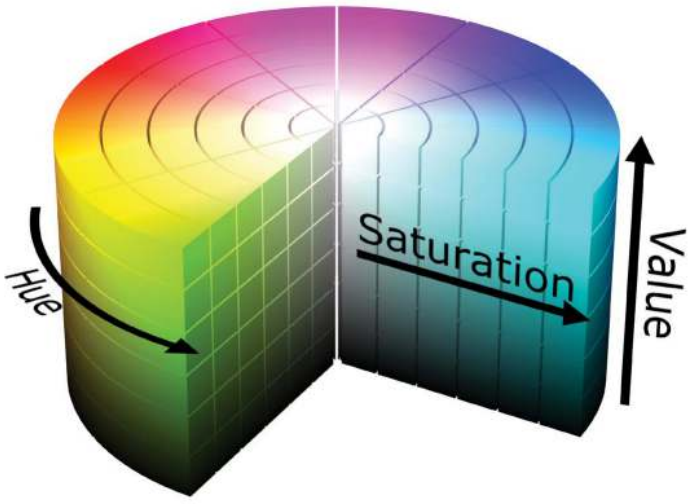

Figure 9.1 Color wheel showing hue, saturation, and value. Image copyright by SharkD/CC-BY-SA-3.0.

Marketing Research on Colour

As mentioned above, most academic research on colour in marketing and psychology has focused on the six spectral colours, sometimes organized on a two-dimensional grid where one axis is arousal and the other is evaluative. The arousal dimension has been associated with stimulating brain wave activity and skin conductance, and studies have shown that this relationship with wavelength is U-shaped, where red is shown to be more physiologically activating than other colours and similarly for violet at the other end of the range. Less arousing are the colours in the middle, blue and green.

On the evaluative dimension, colours have been dichotomized into a warm group (red, orange, and yellow) and a cool group (green, blue, and violet). Cool colours (especially blue) are consistently preferred over warmer ones, although there are some cross-cultural differences: individual differences, different situations, product categories, etc., moderate these preferences.

Many studies have focused on differences between red and blue with the idea that red is the most activating or arousing and blue is the most preferred, at least in most cases. For example, some experiments showed that red stimulates appetite, making red a popular colour for food products and restaurants. Yellow and red have both been used to get attention. Blue has been associated with calm, and some studies have shown that blue can be an appetite suppressant since very few natural foods are blue. A pharmaceutical study on people's perceptions of the efficacy of pills, where the only difference in the pills was their colour, showed that red-, yellow- and orange-coloured pills were associated with a stimulant effect, while blue- and green-coloured pills were associated with a tranquilizing effect.

There has also been some research on the perceptions associated with colour saturation. In one study, participants had to guess the size of two similar objects that were coloured the same hue, but the saturation differed. When the two objects were presented simultaneously, more than 65% of the observers judged the object with deeper colour saturation as larger than its counterpart. Further, when the purchase goal was to buy a larger product, observers rated the more saturated version as more favoured and were willing to pay more for it. Higher saturation has also been associated with increased arousal and excitement.

Learned Associations with Colour

Attitudes towards colours can also be influenced by exposure and learning. Specific associations with specific colours are triggered in memory through repeated exposure in the real world and in marketing. These associations can be quite strong, especially if there is extensive repetition. Not only are specific colours repeatedly used in similar ways, but brands connect their brand names with their brand colours so that often consumers will identify a specific brand just by the colours, even without any words.

A growing body of scientific research now suggests that our experience of taste, perceived quality, and emotions can be primarily determined by the expectations we generate (often automatically) before sampling. These expectations can result from branding, labelling, packaging, and other contextual effects and are primarily visually driven—and most often, colour is the cue that helps identify these subjective qualitative attributes.

Marketing research studies have shown the following associations with colours: white is linked to sincerity, purity, cleanness, simplicity, and peace; yellow is linked to optimism, extraversion, happiness, and friendliness. Pink is related to nurturing, warmth, and softness; red is arousing, exciting, and stimulating. Blue is linked with competence, intelligence, trust, efficiency, logic, security, and duty. Brown is associated with seriousness; black stands for sophistication, glamour, richness, and dignity; purple is associated with luxury, authenticity, quality, and royalty. Green can be associated with nature, health, fertility, and money.

These associations are consistent with the brands that use these colours in their logos. For example, Kellogg's, Coca-Cola, Target, and Nabisco, among many others, primarily use red logos that signal food, excitement, and boldness. Blue logos, which signal trust and strength, are used by financial, electronic and phone companies like Dell, AT&T, IBM, American Express, and HP. Green logos may signal health, like Whole Foods or Tropicana.

Colours are often associated with flavours, e.g., red with cherry, purple with grape, yellow with lemon, etc. These perceptions frame expectations that are sometimes next to impossible to dislodge. Further, the more saturated colours, the higher the expectations that these products have a more intense taste or flavour. For example, in one experiment, liquids were coloured a deep purple but flavoured cherry, and participants were more likely to judge the flavour by the colour (i.e., as grape) than by the actual taste, cherry.

If brands can uniquely own a colour, it can be quite powerful because shoppers can automatically identify those branded items by seeing the colours. However, it is difficult to trademark specific colours, and there have been many legal disputes over whether a brand owns a particular colour or whether a competitor can copy it.

Some brands have been successful, though. For example, Tiffany trademarked their iconic blue (Pantone No 1837) in 1998 to prevent low-quality competitors from falsely using their blue-coloured boxes to convey quality. Owens Corning trademarked its pink-coloured insulation, and 3M trademarked the colour canary yellow used on its Post-it Notes. Home Depot has legal rights to the orange they use in their signs and advertising. While other companies have used this Home Depot orange colour, they cannot use it in combination with their bold, stencilled font. Similarly, certain product categories or causes have been linked to specific colours, e.g., breast cancer charities are associated with pink, and natural foods with green. Activating these colour associations and their influence on beliefs, emotions, attitudes, and even behaviour may occur without a conscious awareness or intention.

Colour Labelling

So far, we have focused on the visual properties of colour, but the labels and names can also influence perceptions. Several research studies have shown that colour descriptions are not only helpful in distinguishing among closely related colours (think about choosing among the different light pink nail polishes in the salon and how helpful the labelling is!) but can also affect relative preferences. One study showed that participants who were evaluating identical coloured swatches were more likely to give favourable ratings to those swatches that had fancy names as opposed to generic names. Other research showed that consumers reacted favourably to unusual colour (or flavour) names like Alpine Snow, Blue Haze, or Razzmatazz because they expected the marketing messages embodied in that name to convey helpful information even if they did not understand it. The more ambiguous and less specific labelling increased satisfaction compared to generic colour labelling when the colours were held constant. Other practical marketing applications, such as the paint industry, support this intuition, where colour names can create a narrative and increase usefulness. For example, labelling a soft green paint "hush green" can increase its choice for use on a bedroom wall.

Pantone

Building on the idea of the importance of colour labelling both to enrich the storytelling and to identify a specific colour amongst the thousands possible is part of the mission of the Pantone Company. The importance of the Pantone Company in the fashion industry is illustrated in the famous clip from "Devil Wear Prada," where Meryl Streep, playing a powerful fashion magazine editor, explains to the lowly assistant, played by Anne Hathaway, how the industry chooses the colours that will dominate fashion lines, home décor products and even cars, each year. While not directly mentioned, Streep is talking about Pantone, who each year chooses a "colour of the year," a colour palette, and provides colour forecasts and trends for the industry.

In the 1960s, the founder of Pantone created a standardized colour reproduction system that allowed manufacturers to make the same colour in different locations. He created a system that precisely measured the mixture of pigments needed to produce a specific shade and gave that shade a unique Pantone number. Pantone's colour library has over 10,000 unique shades, and its colour chips have become the "lingua franca of the visual world," according to *The New York Times*.

One of Pantone's services each year is to choose the "colour of the year," which is "a colour snapshot of what we see taking place in our global culture that serves as an expression of a mood and an attitude." During the prior year (the "colour of the year" is announced in December for the following year), Pantone uses various forecast and marketing research techniques to identify the chosen colour, which the media, designers, and manufacturers will pick up. It is possibly a bit of

a self-fulfilling prophecy as well as a forecasting tool, as many people rely on Pantone's expertise to determine the appropriate colour palettes that they will use for the upcoming year.

Over the years, the Pantone colours of the year have taken on important meanings. The first colour they identified as the year's colour in 2000 was Cerulean, the very colour Meryl Streep discusses in the movie. In 2021, the colour of the year chosen in December 2020 was not one, but two colours to reflect both the unexpected global pandemic in 2020 and the newly available vaccine that would change the future. The colours chosen were Ultimate Gray and Illuminating Yellow—the first selected as a hue of stability and the second as the colour for hope and sunshine. In 2022, when people started discussing virtual reality and the metaverse, Pantone partnered with Microsoft, who released their Windows 11 screen design in Pantone's colour of the year, Very Peri, a vibrant purple colour that encourages courageous creativity and imaginative expression. A new colour is announced each year, and the motivation and inspiration for the colour is always provided. In 2024, the colour of the year was Peach Fuzz, a tone "softly nestled between pink and orange." This tone was chosen to "resonate with compassion, offer a tactile embrace, and effortlessly bridge the youthful with the timeless."

Other Elements of Package and Product Design: Spatial/Location Framework

We can think of package or product design in either two (length and width) or three dimensions (adding height), depending upon whether we are just looking at the façade or the package or product as a whole. Using graphic tools to indicate perspective, we can add a third dimension to a two-dimensional package façade. This would include showing the foreground and background, for example, by putting the product image in front or behind text or other graphic elements.

We can also define "space" within this framework as the distance within, between, or around components of the package or product. Positive space refers to the space of a shape representing the item. Negative space refers to the space around and between the items.

Marketers play with both the positive and negative space to influence perceptions. For example, some research showed that holding the number of items on a shelf constant but varying the space between the items, i.e., the interstitial or "negative" space, can affect perceptions of aesthetics and prestige. The researchers found that the more interstitial space between items, the higher the perceived prestige, which increases product preferences. This effect held in the lab and the field and worked for edible, nonedible, and hedonic and utilitarian products.

The positive space, or the shape of the item or product, is the area that stands out from the space due to its defined or implied boundary or because of its value, colour, or texture. Shapes can be organic, functional or geometric; they can be used to add interest or style. This is an important marketing tool; we will discuss it in detail in the next section.

A fourth dimension that can be considered in terms of package design is time. Time can be depicted on a package through an implied change in direction or movement of an image along any of the three dimensions. Movement on packaging can be expressed by arrows, where images are placed (e.g. if they appear to be floating), through shadowing, etc. Movement can also be indicated through patterns and texture. For example, flow or progression can be shown by a sequence of repeated forms that gradually move away or towards the observer or are gradually increasing or decreasing in size. Adding movement can affect perceptions of the heaviness or lightness of a product or can draw attention to a specific graphic element.

Use Shape in Marketing to Create Differentiation

Marketers frequently use various dimensions of product shape to create differentiation and to affect perceptions. For example, angularity is associated with conflict, dynamism, and masculinity, whereas roundness is associated with harmony, softness, and femininity. Symmetry in product shapes or advertising imagery increases fluency because it is easier to process. Studies have also shown that symmetry, for example, in faces, is preferred and considered more attractive. On the other hand, asymmetry can add excitement or uniqueness to perceptions about a product. The relative size of products can also affect perceptions; miniature versions of a product are considered "cute," whereas big can be seen as strong or awkward, depending on the circumstances.

Some marketers have used unusual shapes of their products to build brand identity. For example, the very famous Absolut vodka ads, which won advertising awards for over a decade, capitalized on the shape of their bottle. Most vodka bottles have long necks to make it easier to pour. Absolut's bottle had a short neck, and the creative advertising featured that distinction for years. Early campaigns featured the shape of the bottle in creative executions; then, the shape was lifted from the bottle to unusual situations, creating visual puns. For example, one ad portrayed a swimming pool in the shape of the bottle; another featured Central Park in the bottle shape in the middle of a map of NYC. The campaign also commissioned famous artists to put the Absolut bottle shape in artwork for the ads. The campaign won numerous advertising awards and was credited with helping to increase sales from 10,000 cases in 1980 to 4.5 million by 2000.

Other famous marketing brands that differentiated based on the product's shape, which was then featured in advertising, include the Heinz ketchup bottle, the Coca-Cola bottle and the fragrance CK, introduced by Calvin Klein. Heinz ketchup, a product shape so famous it is included in the Smithsonian, is renowned for its impracticality in pouring ketchup. Coca-Cola differentiated its product by its famous advertising but also considered the shape of its contoured fluted-lines bottle so crucial that it ensured it was reproduced when packaging changed from glass to plastic. Coke also trademarked the bottle shape

to protect it from competition. When the fragrance CK was introduced, it was quite different from other perfumes as it was marketed for men and women, which was unheard of then. To emphasize the uniqueness of the positioning, CK was introduced in a bottle that resembled a flask, typically used for liquor and not fragrance, to emphasize its "down-market chic" ethos. The logo was asymmetric, with a small c and a large K, to further highlight its edginess.

More contemporary advertising campaigns highlighting the uniqueness of their product shape include Croc's "Find Your Fun" campaign, where the focal point of the advertising is Croc's unusual hole-punched clog. In 2023, Heinz and Absolut created a new viral campaign that featured a collaboration to launch a limited-edition tomato vodka pasta sauce. The advertising featured the unique product shapes of the Absolut bottle and Heinz shield.

"Top-Down": Using Packaging Design Decisions to Influence Consumer Behaviour

Marketers can use design and visual marketing strategies on packaging and product design to achieve specific goals. For example, one of the goals of marketers is to ensure that their packaging is continually updated and does not get out of date. Another goal for packaging might be to stand out or be differentiated in a crowded marketplace. The packaging and graphic design can also be used to change consumer perceptions about products.

Modernize Packaging Over Time

Time does not stand still, and neither should package or product design. Packaging that always stays the same can get stale or out of date. Newness or innovation can also provide a fresh reason to buy. On the other hand, if consumers have strong loyalties to a specific product, they may resent change or may not even recognize their tried-and-true brands if the packaging changes too much at one time.

To help structure these decisions, it is helpful to introduce two concepts: absolute threshold and differential threshold. An absolute threshold is the minimum amount of a stimulus that can be detected at least 50% of the time. For example, in determining sound detection, a researcher may vary the volume, and the lowest level that a participant can detect is the absolute threshold. When the stimulus is at a very low level, it may only be detected part of the time, so that is the reason for the caveat that it be detected at least 50% of the time. A differential threshold is the minimum required difference between two stimuli for a person to notice the change 50% of the time. This difference threshold is also called "just noticeable difference" or JND. So, the JND in packaging change would be the minimum difference in packaging design that a person could detect at least 50% of the time.

Sometimes, although marketers want to update their packaging over time to appear modern, they also want to avoid calling attention to the changes for fear of alienating their consumers. As we mentioned earlier, packaging affects people's perceptions of the product inside the packaging (sensation transference), so modernization is frequently done slowly over time to avoid triggering any unfortunate assumptions about changing quality.

Sometimes, though, marketers want to call attention to the trend, to signal "new and improved," or to signal a significant price change. Then how much change should be warranted? Ernst Weber defined "Weber's Law" as the amount of change that is necessary to be noticed is systematically related to the original intensity of the stimulus. It is defined as:

$$K = \Delta I/I$$

Where K is a constant, I stands for intensity, and the delta is the change in intensity. In other words, how much change is warranted is a constant ratio related to the intensity of the original stimuli or stimulus. Tests showed that K needs to be at least 20% for appreciable notice in marketing contexts. If a retailer wants a price discount to be appreciated, it should be at least 20% less expensive than the original price. Similarly, in packaging design, if marketers do not want the changes in packaging to affect consumers' perceptions, it should be smaller than a 20% difference from the original. However, if the difference is to be appreciated, it should be greater than 20% different.

Another reason people want packaging to change over time is because of adaptation. In some categories, people ignore unchanged aspects of their environment, get bored with repeatedly buying the same thing, and then hunger for change or some new stimulation. In this case, marketers might change the packaging by more than 20% to create new interest. However, if they change the package too drastically, the research shows that it is sometimes considered too extreme. So, when newness is desirable, for repositioning or going after a new segment, or just for renewing interest, moderate but not extreme changes in packaging work best.

Examples of Major CPG Packaging Changes

Since consumer package goods (CPG) companies know that their packaging significantly drives consumer decision-making, they are very conservative regarding package changes that are more than minor refreshes. So, major changes may be significant for the company, but they may seem rather subtle to the consumer.

Over the years, Campbells Soup has experimented with several changes to their iconic condensed soup cans, immortalized by Andy Warhol. Campbells dominated the soup aisle historically, but when new competitors, such as Progresso, entered the market, they felt they had to do something to keep faithful consumers loyal and to attract new users to their brand. Their market research indicated they would benefit from a package change, NOT a product change. They were aware that their cans were so iconic that a change that was too big

might confuse consumers, cause "blindness" to the products by consumers who were shopping on auto-pilot, or worse, alienate people who thought the product quality was sacrificed.

The key was determining what parts of the packaging and shelf displays they had to keep and what they could change. They spent years using neuromarketing techniques, focus groups, deep interviews, and studies in-store and at home to understand what consumers spontaneously and specifically recalled about the current packaging from unaided recall. They also wanted to determine what gets attention or any emotional or cognitive reaction.

They determined that the red and white on the can was critical and could not change, and the font for the logo should remain largely similar. Other contributors, such as the gold medallion, are not essential for recognition, but they signal quality.

They tested three areas of stretch-goal territories: (1) how far they could stretch their heritage and still keep loyal consumers engaged, (2) how much they could experiment with photos of the soup or of natural ingredients to increase the perceived healthiness of the product, and (3) how much they should change to make the product seem more contemporary and to celebrate the "joy of soup." They knew some changes would be polarizing and others might be playing it too safe, so they tested it all.

Significant package changes occurred for Campbell's packaging every 10–15 years, with minor changes in the intervening years. The most recent package change in 2023 might seem subtle. However, every aspect was rigorously tested to find the perfect sweet spot, such that the product would still be recognizable even if the shopper was not paying too much attention, but could also signal quality, innovation, and creativity. (See Figure 9.2 below; the one on the left is the older version, and the one on the right is the newer version)

Figure 9.2 Campbell's tomato soup packaging designs. Older version (left) and more recent (right). Used by permission.

Although the changes are subtle, careful study will reveal that the newer package has a tad less red. The logo is different, too; the shadow is removed from Campbell's brand name, the letters are disconnected, and the font is a little simpler. Relief has been added to the shield; the word soup has been changed to sans serif typeface. The most significant change, of course, was the addition of the photograph of ingredients.

Other CPG companies take the same care in making changes to iconic packaging. Again, what the company touts as significant changes may seem less dramatic to the casual observer. For example, Pepsi recently announced a change in its logo on March 1, 2024, the first change in 14 years. It was a global launch for the new visual identity, which now includes the Pepsi wordmark in the midst of its yin-yang globe, as it was 30 and 40 years ago. Before this new one, the most recent logo had the word Pepsi and was separate from the logo. The new look features a bold colour palette and retro-inspired uppercase typeface, which the brand states reflect its "unapologetic mindset."

Packaging and Product Designs for Contrast or Assimilation

Marketers can also use packaging and product design to help consumers determine the product's category. For example, a casual scan of Vodkas will reveal that the bottles are often slender and tall and feature blue somewhere on the bottle or the logo. Therefore, if a new entrant wants consumers to code their product as vodka automatically, they would likely follow these graphic cues. Rums are typically in wider bottles and feature more colourful labels. Similarly, airlines in the United States usually use blue or red in their logos or brand typeface. Southwest Airlines plays with these colours by adding orange to their logo, signalling they are different.

On the other hand, sometimes, a brand wants to stand out from the crowd. The isolation effect, where the packaging or product design contrasts with others in a product class, results in better memory for the unusual item. The research shows that when products "stand out like a sore thumb," shoppers are more likely to recognize and recall those items. For example, the relatively new green and white logo for TD Bank (Toronto Dominion) stands out from other bank logos, which tend to be designed in more subdued colours like blue and sometimes red. The green is not only more memorable, but it also signals the bank's environmental focus.

Innovative products also use these principles of contrast or assimilation to cue values. For example, in high-involvement and prestige products, originality tends to be rewarded, so innovation in these categories frequently presents unusual forms that differentiate them from the others. For example, the Alessi coffee maker does not look like other coffee makers. Dyson differentiates itself by the shape of its products relative to the product categories that it competes in, and that reinforces its innovative features. The differentiation also lessens

comparison with other products in the same category. These products with unusual features are noticed more quickly, are believed to be more critical, and are remembered more easily.

On the other hand, in low involvement, uninteresting or typical categories, consumers do not want to exert much effort in decision-making. Here, products that look like others in the category are easier to consider and justify purchasing.

Using Packaging to Create Volume and Quantity Perceptions

Research has shown that the shape of the package influences judgments about the perceived volume of the product. More elongated containers are perceived to contain more than shorter, fatter containers, even when the amount contained is constant. This bias even extends to consumption; people think they drink less when the beverage is served in a short, wide glass instead of a thin, tall glass, so they drink more overall. To counter the bias that comes from the shape of the glass, many restaurants pour wine into the glass from standard containers at the table so patrons do not feel they are getting too little.

People also use the size of the container as a consumption norm to determine how much they should eat. People who were given large buckets of popcorn ate significantly more than people who were given medium-sized buckets. Research also shows people think products that are "complete" have more quantity than those that are incomplete. Incomplete shapes, such as half sandwiches compared to whole sandwiches, are perceived to be smaller and lighter, even when the contents are designed to be equivalent. Because of this belief, people in experiments ate more sandwiches when served as halves instead of wholes, even when the actual bread and meat were held rigorously constant in the two situations.

Another way to create different perceptions of quantity or amount is by placing the product imagery on the package. Research has shown that the location of that image can affect the perceived heaviness of the product inside the package. Marketers trying to promote healthy or fewer calories may want their products to appear lighter; companies that want to provide a "more is better" mentality or "heavier is associated with tastier" idea may want their products to appear heavier. Research has shown that the bottom and right sides of a package façade are considered the "heavier" side of the product, so when images of the product are placed there, consumers think the product is "heavier" than if the image of the product is located on the lighter sides of the façade, i.e., on the top or the left. Although these ideas were tested in a laboratory, a field experiment verified that manufacturers were using these ideas in the packaging. According to a survey of 138 cookie packages in a metropolitan supermarket, 66% of the packages with a health claim (e.g., no trans-fat, no hydrogenated oils, no or low cholesterol, etc.) displayed the cookie image at a "light" location (e.g., top location: the

cookie is floating on the "air"), whereas for cookies with no health claim, the product imagery was on heavier side (e.g., bottom location or on the right) 83% of the time.

Commercial Packaging Research

There are commercial packaging research companies that help brands test their packaging concepts to determine their effectiveness in driving sales and market share. The research is conducted in lab experiments, controlled store experiments, actual stores, and online. Many different designs are used. Sometimes, shoppers only see one design each, called between-subject or multi-cell monadic studies. Sometimes, shoppers see designs compared to each other, called within-subject designs or paired comparisons.

Research conducted in circumstances more similar to the actual purchase environment tends to predict success better. One mistake often made in the lab is when shoppers are asked to judge which packaging they prefer. In these cases, the participants make judgments based on aesthetics, not the criteria they use in the store. Also, as mentioned above, packaging influences perceptions of the product within the package. Whereas some packaging may be perceived to be aesthetically preferred, and that opinion is offered in a laboratory, other packaging may be signalling attractive features of the product inside, and that packaging may be chosen in the store. Also, when people shop, they are often in automatic mode, so they may be attracted to products that get their attention. There may be more involvement and cognitive processing in the lab, so different features are prioritized.

Researchers aggregated extensive packaging studies using AI tools and managerial expertise, resulting in large data sets with over 30,000 records. This analysis resulted in a few generalizations. First, improvements in on-shelf metrics were correlated with significant visual changes, structural package changes, and major colour changes. On the other hand, changes in brand logo and variant descriptors were associated with declines in purchasing and consideration.

Experience in packaging research also shows that solid brand blocking on the shelf draws attention to the brand. Repeating distinctive assets, like a brand colour, over a large area on a shelf in a grocery store is effective at getting the shopper's eye. The brand architecture and layout must be consistent, making it easy for the shopper to understand quickly.

"Unboxing" and Consumption Packaging Practices: Immersive Brand Experiences

Most of the discussion has focused on packaging on the shelf at the time of purchase. However, the package remains even after the purchase and can continue influencing consumer perceptions. In fact, for

e-commerce purchases, the physical packaging is only encountered once it is received at home. This provides an opportunity to use the package to create an experience, e.g., "unboxing opportunities," or to use the package to create a narrative or experience around what is inside.

Apple products have produced some of the most well-known unboxing experiences. Apple's former Chief Design Officer, Jony Ive, has said that he and Steve Jobs spent a lot of time on the packaging and unpacking process. They understood that unboxing the Apple products could become a ritual and help make the product feel special. They defined their packaging as theatre, part of the story.

Different rules can be applied when the packaging does not have to do service on the shelf at the point of purchase. It is no longer about getting attention or standing out on the shelf. Once purchased, the package now stands on its own. Many online products have elaborate packaging that is only appreciated at home and used to tell a story and provide a legacy for the brand. This is especially important for products purchased as gifts or even for self-gifting. Sometimes, this type of packaging is used to transport the consumer back in time and create a nostalgic look. Packaging at this stage is not as much about logos, brand colours, or consistency. Aesthetically beautiful packaging may be appropriate now. Some brands specifically incorporate actual artwork into the package or bottle, with the thought of keeping the package even after the product is used up.

The brand Pressed, a plant-forward beverage company, celebrated Black History Month by commissioning three Black female artists passionate about increasing food accessibility within their communities to design specific artwork for their bottles and unique tote bags created for the promotion. These designs were limited-edition, and a portion of the sales were donated to an international mutual aid organization with a mission to reduce food insecurity and food waste.

Packaging for Sustainability

Even without marketing materials or specific use of colour or shape, packaging can communicate a firm's values and commitment to sustainable practices. Packaging can be made from recyclable materials, special plant-based inks, and avoidance of unnecessary additions or insets. A particular trend is the "rightsizing" of packaging that reduces overall packaging size, fill-material, and paper waste through specific design choices.

Patagonia has won awards for their packaging decision-making. They designed the "Sushi Roll" package, which provided advantages throughout the entire manufacturing and distribution system. Rather than differentiate the product through ink and branding, they used the unique shape of the box to differentiate themselves. The solution, which is a hexagonal shape, can hold a wide variety of clothing sizes while keeping the number of master dyelines as low as possible. The solution commands

attention at the point of sale, is easy for the consumer to navigate and respond to and uses only environmental materials. The package can ship flat from the printer to the factory, reducing shipping costs. It is assembled as a no-glue box.

The other trend in sustainable packaging is the reusable container. Unilever has pledged to halve the use of virgin plastic in their packaging and to remove more than 100,000 tonnes of plastic entirely. One of the ways to do that is to provide refillable solutions to their shoppers worldwide effectively and conveniently. They have several "refill and reuse" initiatives. Some of their solutions involve packaging that the user refills, and others involve packaging that is returned to businesses. For example, their very popular laundry liquid, OMO, a tremendous market leader in Brazil, introduced a 6× concentrated formula designed to be poured into a standard 3-litre bottle. This packaging system uses 70% less plastic, is fully recyclable, and contains 50% recycled plastic.

Luxury products have also prioritized sustainability goals in their packaging in a way that adds value to their brands. For example, The Perfume Shop and L'Oréal joined forces to launch the UK's first multi-brand fragrance refill station. Located in The Perfume Shop's Victoria Centra, Nottingham store, the refill station provides L'Oréal's best-selling fragrances, including luxury brands such as YSL, Prada, Armani, and Mugler.

Packaging Combined with Technology

If packaging includes NFC or QR codes, links to online material can be incorporated into the brand experience. QR codes are two-dimensional barcodes that are used to encode information. There are two types. One is static, where information is encoded directly, but the more common type is dynamic, which stores data on an online server that can be edited and changed. NFC is a series of communication protocols allowing devices to share information when they are close. This is typically used for payment through mobile phones at the point of sale but can also be on packaging.

QR codes are commonly used to communicate marketing information or lead to websites offering promotions, product instructions, guarantees, and capturing customer data and behaviours. With a simple tap, NFC technology can offer a more streamlined user experience and lead to websites, apps, and videos.

Some marketers are experimenting with these technologies. For example, Boen Wines, a California—based wintery, used NFC tags on its bottle as part of its connected packaging program. Customers could tap on the cap with their smartphones and access brand history and food pairings. Princes, a leading UK-based food and drinks brand, used QR codes on their tinned tomatoes. The QR code leads to a webpage where every stage of the supply chain, from the farm to the supermarket, can be viewed.

YFT, a Scandinavian nicotine brand, launched the "Tap the Can" campaign in Sweden. They used embedded NFC chips on limited-edition cans to unlock rewards, personalized music mixes, and other experiences.

Conclusions

Packaging is a visual canvas that can change perceptions about the product and the brand. It can drive attention to the shelf and lead to increased purchasing. Well-designed in-store packaging programs can tell a brand narrative in a few seconds. Bottom-up automatic packaging elements that are noticed quickly and can have substantial effects include colour and product shape. Other subtle packaging elements, like the location of the product imagery, can affect important perceived features, like product heaviness, that affect purchase intentions and consumption decision-making.

Marketers can use design and visual features to fulfil goals. Generally, these types of strategies are designed to be minimally noticeable or to stand out from the crowd. For example, suppose marketers want to continually update and modernize their packaging but ensure loyal shoppers are not confused or feel betrayed. In that case, they can make minor adjustments over time that are not salient. On the other hand, if they want to single "new and improved" or feature creativity or innovation, they may use design features that jump out.

Packaging is important at the time of purchase and influences perceptions and experiences once the product is home. Many online merchants use fancy unboxing strategies to make the purchase experience seem unique. Elaborate packaging can also tell brand stories, exhibit beautiful art, and establish historical prominence. Technology, through the use of QR or NFC codes, can augment physical packaging by directing the shopper to materials that are stored on websites. This provides the opportunity for more elaborate marketing and allows the collection of shopper data that can be used for loyalty initiatives.

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Creating a Visual Brand Identity 10

Chapter Outline

This chapter discusses the importance of creating a visual brand identity that can differentiate a product or service from its competitors and connect with its customers on a deeper level. It also discusses the challenges and opportunities of branding in a global and competitive market and the importance of having a consistent and distinctive visual system that reflects the brand's positioning and vision. The concepts of brand architecture and portfolio management are introduced. They provide a strategic framework for leveraging a brand's visual assets across different products, sub-brands, or acquisitions. Finally, the ZMET method, a visually based marketing research, is introduced. ZMET is a technique that uses visual metaphors and deep interviewing to uncover the hidden meanings and emotions that consumers associate with brands.

Learning Objectives

- Difference between a design visual identity and a brand visual identity.
- Understanding the "blanding" phenomenon.
- Strategic Visual Brand Architecture helps leverage brand equity for growth and extensions.
- Importance of designing good brand logos.
- Visual brand strategy that results from mergers and acquisitions.
- Qualitative brand marketing research: the ZMET Method.

The formal definition of a brand is that it is a proprietary trademark for a specific product or service. Another way of thinking about that definition is that a brand is a modern patent—something uniquely special for a product or service. But, as everyone knows, a brand is much more than that.

At its basic level, it is a contract between the firm and its customers that promises specific benefits, quality, and value. The brand messaging must be consistently delivered at every touchpoint. That consistency,

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however, is difficult in today's social media world, where messaging is communicated from consumer to consumer. That means the brand identity should be so strong that customers see it as part of who they are. They should choose the brand because they believe in its values and unique story. Then, the brand messaging aligns with their identity and creates a much more powerful connection.

From a strategic perspective, a brand can be a driver of business growth that will develop from a strong positioning foundation. A strong positioning is built on knowing who the target segment is and what they need, providing a point of difference relative to the competitive set, and giving their customers reasons to believe. Once the correct brand positioning is determined, all design, messaging, and customer experience must speak to that core idea.

A good brand positioning consistently expressed through a cohesive visual system is powerful and goes far beyond the product. Nike is more than just great athletic shoes; Nike has a legacy of addressing social issues (one of the most famous is their Colin Kaepernick ad) and always putting their consumer first, and that is consistently communicated in all their visual messaging, advertising, and branding. Similarly, Apple is far more than just computers; its design aesthetic is legendary.

Global Markets Are Increasingly More Competitive

Globalization, the maturity of most industries leading towards product commoditization, and the emergence of new technology and platforms (e.g., Amazon marketplace, Shopify, and Alibaba), making it easier for new businesses to enter markets, has made the marketplace much more competitive. This makes the differential advantage of a strong brand (the modern patent) more critical than ever. It can be the only real differentiator in some categories, like consumer product goods. For personal expressive brands, it can build the necessary customer loyalty that leads to profitability.

Brands can be more than a differentiator; they can also change the rules of their categories or define new ones. For example, Casper was the first online direct-to-consumer mattress company founded in 2014, radically changing the buying process for mattresses. However, even that advantage was soon copied: as CNBC reported, there are now 175 bed-in-a-box companies in the business, and you can't tell them apart. Without a distinctive and consistently executed brand design system, Casper would literally be just one of hundreds of options.

Design Visual Identity vs. Brand Visual Identity

Competing on product benefits and price becomes more challenging as the marketplace becomes more competitive. Companies, therefore, look to product design and branding strategies for a strategic

competitive advantage. However, as more firms develop innovative, creative designs, good design strategies, once a differentiator, become merely table stakes.

This means that a brand must continue to be visually distinctive; it must stand out from the others. Ironically, though, sometimes just the opposite occurs. Why? Because if a trendy brand creates a compelling visual identity, sometimes the instinct is for everyone else to copy it.

The "Blanding" Phenomenon

Recently, we have seen this happen with the modernistic minimalist look. Apple, Starbucks, Tesla, and others designed new logos that featured minimalism in their branding identity. These new identities were embraced and lauded. With the success of those brands, other mature legacy brands, like Burberry and Balenciaga, started copying this "new" modern minimalistic aesthetic.

This resulted in a trend that was dubbed "blanding," which accurately described the bland, repetitive trends adopted across markets that resulted in generic brand design identities. Graphic elements of this *blanding* trend included sans serif fonts, clean lines, a limited colour palette, just the right amount of white space, and simplification. Blanding removes associations and prioritizes neutrality. That is the antithesis of what a good brand design or mantra should be: brands must take a stand and build their own unique history.

Developing a Good Visual Brand System

The pioneering brand agency, Red Antler, provides one solution to this "blanding" trend. Red Antler, founded in 2007, is one of the leading creative agencies for startups and new ventures and has been named the "most innovative" branding agency by Fast Company. They were responsible for creative pre-launch brand campaigns for Casper, Allbirds, Chime, Sheertex, and Prose, among many others.

Red Antler's philosophy suggests that the key to developing good brand design is understanding the difference between a design system and a visual brand system. The literal design system includes the logo, typeface, colour, packaging, app icon, and art direction that support the brand. These decisions are essential. However, combining all those elements into a powerful brand that rises above merely a design system requires a commitment to a vision at every step. The way these visual components work together to communicate what the brand stands for creates that distinctive brand identity that is continually reinforced by good design decisions. A well-designed brand makes it clear why people should care about it, why the brand is chosen over others, and why that brand becomes part of their consumers' lives.

For example, consider the branding design work Red Antler did for the AllTrails brand. AllTrails is a hiking app that allows people to search for local hikes and trails, plan routes, and follow progress along those routes to ensure that hikers don't get lost. This app was named Apple's "iPhone app of the year" in 2023.

Figure 10.1 Red Antler's branding system for AllTrails. Used by permission.

Red Antler designed both a symbol and a logo to reflect the outdoors. The symbol is characterized by fluid forms that mimic mountain peaks; it is a continuous line, like a trail route, that starts and ends at the same point. In contrast, the font in the logo feels fluid and spirited but provides a strong connection with the symbol. The colour palette for the brand is driven by a set of greens, bringing nature forward. The "frame" illustrated in Figure 10.1 that is used in their advertising features both the logo and the symbol and is also an invitation for their customers, regardless of experience, to fill the space. The purpose of this frame is to "hero" hikers and to illustrate, by the inclusion of a photo and hiking trail, that no two outdoor experiences are the same.

As this example shows, a good brand design system is more than the sum of the design decisions that go into the marketing and advertising campaigns. It is not just the logo, the brand colours or the proprietary font. The brand speaks to a core identity and narrative. Then, it uses various visual tools applied to consumer touchpoints and channel interactions to meet the customer's needs. Every communication with the consumer and with collaborators is viewed through this visual brand lens.

Another brand, this one in the beauty and skincare category, that differentiates itself by building a strong brand design system is The Estee Lauder Companies brand, Origins. Origins is a high-performance skincare product that has Zen and eco-roots. The brand's two-tree logo represents its own duality: "a respect for the past blended with a vision for the future, the need for inner health and outer beauty; a respect for eastern and western cultures and the best of science and nature." The brand identity is clear in the packaging and retail merchandising. Origins is committed to prioritizing the use of local, low-emitting, recyclable or recycled materials in all their store fixtures and visual merchandising. To visibly communicate the natural ingredients used in

the products, the original form of the ingredients, e.g., pieces of vanilla or mushrooms, are shown in marketing materials or on the shelves, alongside scientific instruments like beakers.

Visual Brand Architecture

Implementing a good brand strategy can create enormous brand equity and value. For example, according to Statista, Apple, the most valuable brand in the world in 2023, had an estimated brand value of $880 billion. That is just the brand alone; it does not include any tangible assets. Creating such strong brand equity is very expensive, and like any other investment, it makes sense to leverage that strong brand equity for growth.

While brand equity can be leveraged in many ways, such as through brand extensions, licensing, brand collaborations, sub-branding, brand systems, and branded endorsements, the focus here is on leveraging visual assets. The key to leveraging visual brand assets is ensuring the visual brand identity is distinctive and consistent.

First, we will consider leveraging the visual brand assets in a retail environment in the physical store. While the discussion here will focus on the physical environment, some of these ideas will extend to the digital marketplace. In this situation, the brand assets should be salient in the shopping environment or on the shelf. For example, brands might use striking colour blocking to attract attention. In the candy aisle, there is no missing the bright orange blocking of the various Reese's products. Like a beacon, this orange block can draw shoppers' attention to existing products but also can aid in drawing focus to new products. This is especially important in supermarkets where thousands of items are on the shelf, and getting attention for one new product is difficult.

6-3-1 Framework

Scott Young, who was the Global CEO of PRS IN VIVO (Perception Research Services In Vivo), a company that conducted more than 1,000 shopper and consumer experience research studies annually, created a framework to help brands create visual salience in store. His framework suggests three critical stages to the shopper's journey, and brands should be working to influence shoppers at each stage. First is the initial approach to the aisle, when the shopper is six feet or more away from any specific brand. At this initial stage, shoppers orient themselves and look for a way to identify a brand quickly and easily. Here, familiar branded visual assets play an important role. The large red K of the Special K cereal packages or the purple packaging of Cadbury chocolate can very quickly attract shoppers' attention. The guiding principle is to create contrast at the shelf and to own the visual asset, whether it's the colour, the packaging shape, or a distinctive icon or logo.

As the shopper gets closer, within three feet, the goal is to create shopability or fluency with the brand. Here, the visual assets should help the shopper find a specific flavour, sub-brand or size they desire. In all cases, the sub-strategies within the branding hierarchy should be transparent so that if shoppers know what they want, they can find it, and if they do not know what they want, they can easily understand the opportunities. Clarity and interpretability in visual strategy is critical here. Tactics include designing meaningful colour schemes or branded sub-names to make comparisons easy and help shoppers determine price/quality trade-offs or identify specific attributes that appeal to them.

When the shopper is less than one foot away, the shopper may be examining specific features of the package and is now deciding whether or not to choose that particular product. Here, the strategies we talked about in Chapter 9 become relevant. At this point, the goal is to make the sale and provide emotional or rational support for the purchase. The evidence from countless studies that PRS IN VIVO conducted suggests that less is more for on-pack communication in-store and that unique shapes, structures and finishes can be influential in creating premium or distinctive identities.

The Role of Brand Logos

The brand logo is another visual element that can help differentiate a product and be leveraged to lower the costs of introducing new products. Like a brand name, a unique logo can be trademarked with the United States Patent and Trademark Office (USPTO). Trademarking a logo protects it against copycats or counterfeiters. Trademarking is different from copyrighting. A copyright protects the original design from unauthorised copying, while a trademark prevents the logo from being used by a competitor.

A good logo should be memorable, versatile, and relevant to the product market. Features of a logo include its colour (colour was discussed in Chapter 9), the shape of the logo design, the typography or choice of fonts, symbols (as discussed in Chapter 4), and balance and proportion. In addition, scalability needs to be considered. Logos are used in business cards, billboards, packaging, digital banners, mobile user interfaces (mobile UIs), and for the graphical display for apps on smartphones and smartwatches, etc.; it is essential that no matter what the placement is, the logo retains its legibility and aesthetic appeal.

The most important thing about a logo is that it should uniquely reflect the product or service and be easily differentiated from the competitors. It must also contribute to the brand vision. More straightforward logos tend to be recognized and remembered better than complex ones.

Importance of Logo Refreshing

Even good logos sometimes need to be refreshed to stay relevant to changing times and consumer preferences. Sometimes, logos must be refreshed or updated because the business has changed fundamentally.

In an online survey conducted in the United States in 2023, 14% of respondents said that a brand should never change its logo and visual identity, while 28% said that the company should change its logo at least once every ten years.

The marketplace is replete with examples of logo refreshes. Usually, they are done prudently, after a great deal of research, and care is generally taken to avoid making dramatic changes. However, one example of a misstep has come to be known as "Gap gate." This famous failure occurred in 2010 when Gap, the fashion apparel retailer with stores in the US, UK, Canada, France, Japan, Ireland, and soon Asia and Latin America, decided to address plummeting sales with a logo redesign. It was ultimately decided not to go ahead with the refreshed logo. The exercise resulted in valuable learnings about what not to do in logo refreshes.

The original logo, developed in 1990 (shown in an abstract version on the left in the figure below), featured the brand name "GAP" in bold, uppercase letters inside a square dark blue box, which mirrored the company's focus on denim. This original logo (https://commons.wikimedia.org/wiki/File:Gap_logo.svg) was iconic and widely recognized, symbolizing Gap's classic American style. The refreshed logo, designed in 2010 (shown in abstract version on the right of the figure), was only around for one week. The new logo was a significant design overhaul (https://www.reddit.com/r/Design/comments/1aevp9k/why_did_people_hate_this_gap_logo/). It featured the brand name "Gap" using only an initial capital letter instead of the all-caps historic version. It was written in black letters against a white background. The letter "p" of the brand name had a small blue square placed over its lower right corner, the only remaining visual link to the denim legacy.

Changing a retailer's logo is a massive, expensive undertaking because it requires changing all brand materials, including business cards, letterheads, brochures, promotional materials, and all the branding within the retail footprint. This includes signage, product packaging, merchandise labelling, uniforms, and all branded materials within the digital realm. Perhaps because management started having doubts about the wisdom of the logo change, they decided to crowdsource the new logo on their Facebook page and ask for consumer input before implementing the change. The request triggered a significant negative

Figure 10.2 Abstract rendition of original Gap logo and the redesign.

response from consumers and design professionals. In response to the negative input, management decided not to incur the expense of a logo overhaul and returned to the original logo.

Although this logo redesign was deemed a disaster, there were several silver linings. First, while Gap spent money on the redesign, they saved the enormous costs of changing the logo within their retail footprint. Second, although there was some negative publicity about the ordeal, it was relatively short-lived and mostly forgotten. The third benefit was that neuroscience marketing research techniques were used on the new design to determine why the response was so negative.

The company NeuroFocus released a press release with their results. Their first set of conclusions revolved around the potential advantages of the new logo as compared to the old logo. They found that the new logo had no significant benefits in novelty or style. Further, the new logo lost the authenticity of the old logo.

In addition, examining the elements of the new logo itself, they concluded that when words overlay images, the brand tends to overlook the word in favour of the image. Thus, since the "p" is on top of the image in this new logo, the brain bypasses it, making the brand name challenging to process. Also, the old typeface was a little unusual, whereas the new font was very common, and thus, it was liked less and considered more boring. The move to a word with an initial capital letter made the brand name read more like a word rather than a brand name, and that was not a good thing when the literal word meant a space or a break between objects. Finally, although Gap makes more than jeans, the original blue denim box harkened back to its legacy and brand origins, which differentiated Gap positively.

In contrast, a logo refresh that was considered a huge success was Mastercard's logo refresh. In 2016, Mastercard updated its iconic logo by simplifying it to just two interlocking circles in red and yellow, with the brand name in lowercase letters below. This refresh was designed to modernize the brand to make it more suitable for digital and mobile commerce while maintaining the recognizable elements that consumers had come to associate with Mastercard. In this case, since they removed the wordmark "Mastercard" from inside their intersecting circles, the graphic aspect of the logo was more fluent and easier to process in mobile UI contexts, where the small app icon size would make all ten of those letters too tiny to read. The new logo was well-received because of its simplicity and adaptability across various platforms. This example shows that legacy brands can successfully navigate logo refreshes if they balance contemporary needs while maintaining iconic, differentiated elements that resonate with their consumers globally.

Once the critical distinctive visual assets are determined, the next question is to decide which assets can be stretched to create new branded visual equity that moves smoothly to new products or positioning. The key question here is whether the portfolio of new brands is visually consistent, known as a branded house, or are separate entities, known as a house of brands.

Managing a Portfolio of Brands

Another way to leverage brand equity is to consider managing a portfolio of brands. This portfolio of brands can be developed internally through new product innovation or through external mergers and acquisitions. The goal across the portfolio is to leverage the visual brand assets in the most efficient and effective way possible.

David Aaker, professor emeritus at the University of California, Berkeley Haas School of Business, invented the term "brand architecture" to provide a metaphor for managers to think about how to manage their portfolio of brands. He pointed out that a house has different rooms, each serving a specific purpose, but they all work together synergistically to make the home liveable. Similarly, individual brands should be considered members of a brand structure.

Aaker suggested that four goals be considered in determining a good overall strategy for the brand portfolio. The first goal, clarity, suggests that each brand's identity should be clear and that the relationships among the brands must maintain that clarity. The second goal is strength. Elements of a weak brand should not be extended, and any extension of a brand should make the original brand stronger as well as make the extension stronger. The third goal is leverage; all things being equal, the point of bringing brands together in a portfolio is to leverage some of the equity of one brand to another. Finally, the last goal is synergy; while each brand must work by itself, for a system to be justified, the whole must be bigger than the sum of its parts.

House of Brands vs. Branded House

Aaker proposed that the brand systems should range from a "house of brands" to a "branded house" portfolio. The "house of brands" is one in which each brand has an individual identity, and the over-riding connector is not made explicitly. P&G typically has a "house of brands" strategy featuring their well-known portfolio of CPG products, like Tide, Ivory, and Crest. Similarly, Unilever is a "house of brands" featuring their products like Dove, Skippy, Lipton, and Hellmann's. Luxury holding companies, like LVMH, are also a "house of brands." Each of their well-known legacy luxury products, such as Louis Vuitton, Celine, Dior, or Moet & Chandon, maintains its own brand identity and associated visual design systems.

A "branded house" is the opposite of a "house of brands." Here, all brands in the portfolio carry the corporate brand name globally. Disney and Virgin are both branded houses. In determining the branded identity for the portfolio, it is important to determine which visual elements are the drivers of the brand identity and which are less critical, prioritizing the elements unique and distinctive to the brand instead of those that apply to the category as a whole.

In between are ***endorsed brands***, closer to a "house of brands," but with each of the new independent brands endorsed in a secondary capacity by the corporate brand. Courtyard by Marriott is an example; the corporate brand name of Marriott gives credibility to the Courtyard

branding, but eventually, the brand "Courtyard" can stand by itself. A ***sub-brand*** is closer to the branded house concept. Here, a new brand name is created under the corporate brand identity and generally reflects the same visual identity system, but each brand is positioned differently or serves different functions. For example, Microsoft has sub-brands such as Office, Windows, Xbox, and Bing.

The advantage of the "house of brands" approach is that these separate brands can cater to radically different segments. This strategy can also minimize negative interaction between the brands and protect them from any negative fallout that might happen to one brand. A "house of brands" strategy can also garner more shelf space in a retail environment or geographic locale and provide more options for variety-seekers. On the other hand, it is more expensive to develop and maintain each of these separate brand names, and a "branded house" strategy can be more efficient at leveraging assets and investments.

Mergers and Acquisition: Strategies for Combining Logos

Another way companies grow is through mergers and acquisitions. Although there are many issues to work through when this occurs, here we focus on leveraging the associated visual brand assets from the two companies in the best manner possible.

There are four strategies to consider: (1) No change to either visual brand identity, (2) Build a new brand that is independent of either company, (3) Go with the stronger brand name/logo, or (4) Create a new brand name/logo that is a blend of both companies.

In the first case, when acquisitions or mergers occur, and there is no change to either brand, that essentially mimics the "house of brands" strategy discussed above. Here, part of the value of the new acquisition is its brand equity and resulting customer loyalty; changing or modifying the brand name could undermine that. Generally, these kinds of acquisitions are made for the back-office advantages or expanding power or clout within a product category.

In the second case, sometimes, after a merger, an entirely new brand is developed. An example is when GTE and Bell Atlantic merged, and they created a new company called "Verizon," or when Charter Communications acquired Time Warner Cable, and the new name Spectrum was created. In these cases, typically, the goal is to communicate that something new is happening. This might also occur because the older brands are out of step with the times, or maybe there was some negative publicity associated with an older brand, or they were historically positioned for an ageing demographic or declining segment, and the firm wants to signal a new era.

In the third case, sometimes, after a merger or acquisition, one of the brands is left behind, and the decision is to go with the stronger brand. Here, the firms may do significant market research to determine which brand is stronger in the marketplace in terms of reputational qualities and brand potential and then go with that brand. Regarding brand visuals, there can be a continuum of strategies that might make sense.

There are several ways to go eventually with the stronger brand identity. The simplest way is to brand everything from the start with the stronger brand, with no change to that visual identity. The weaker brand disappears. An example is when DHL acquired AirBorne Express; DHL was the stronger brand, and everything got branded with that logo/brand name. Another strategy is to go with the stronger brand name but update that visual identity and logo. An example of this is when Humana acquired United Health Group. The Humana brand name was adopted across both companies, but the typeface, logo, and colour were modified to reflect a new era.

Another way to do this is to create a merged brand name that temporarily identifies both names and creates a blended name. Over time, the weaker brand name is dropped, and the firm becomes identified with the original stronger brand identity and logo. An example of this is when Medtronic acquired Midas Rex. At first, the new company was branded as Medtronic/Midas Rex, maintaining both logos and brand visual systems, but after a short amount of time, the Midas Rex was dropped, and the acquisition was simply branded as Medtronic.

Perhaps the most interesting strategy is the fourth case, when the new entity is a blend of both brand names. This can take many forms. One way is to combine the two brands in one combined brand name; for example, when Exxon acquired Mobil, the new company was called ExxonMobil. Another way to do this is to combine the two companies in name but change the visual brand elements. This is what happened when Conoco acquired Philips 66. The new company was branded ConocoPhillips, and the visual brand elements, e.g., colour logo and font, changed. When United merged with Continental, the brand became United across both organizations, but the logo that was adopted was the Continental logo, and the United logo was dropped.

Finally, the last way to combine both brand names is to follow the endorsed brand strategy described above. An example is when Gannett acquired CareerBuilder. The branding of CareerBuilder was maintained, but there was a tagline under the brand that identified it as a Gannett Company; similarly, when Bank of America acquired Merrill Lynch, they kept the famous bull logo and Merrill Lynch brand name but put a line underneath it that identified it as a Bank of America Corporation.

Using Visual Techniques for Branding Marketing Research: The ZMET Method

The Zaltman Metaphor Elicitation Technique (ZMET), developed by Harvard emeritus professor Gerald Zaltman, uses visual metaphors to provide guidance about the deep meanings consumers find in brands. The underlying premise beneath the methodology is that consumers think about brands in images and metaphors rather than in words. The ZMET technique is designed to identify the metaphors that consumers use to tell stories about brands.

The technique suggests that there are three layers of metaphor. The first level is the surface metaphors used in everyday language. For example, we talk about money running through our fingers or drowning in debt. The second level of metaphor runs just below the surface; it is not buried in the unconscious. So, in the language we use about money, we realize we are consciously comparing money to a liquid; that's the second level of metaphor. The third level is the deep metaphor. This is the heart of the ZMET technique. In our example, the third level is that money is a resource; we need resources to survive.

Essentially, the ZMET technique uses visual imagery and deep interviewing techniques to uncover the deep metaphors that people associate with brands. ZMET assumes that relatively few universal values or metaphors are vital for human beings and are similar across cultures and geographies. These are the influential and powerful ones. This technique shares intellectual roots with the theory of literary archetypes and Carl Jung's "collective unconscious" but is based on imagery and metaphors.

ZMET recognizes seven metaphors as the most universal and powerful: balance, transformation, journey, container, resource, control, and connection. Using the ZMET interviewing technique, which will be briefly described below, surface metaphors and images are collected from consumers about specific brands. Then, skilled interviewers connect these images to the deeper metaphors lurking below the surface. Once a deep metaphor is associated with the brand, that concept can be used to strengthen the advertising and branding decisions and produce campaigns that will connect with consumers on a deep level. The interviewing technique also yields dozens of images and photographs that resonate with consumers and can be used in branding and social media campaigns.

The ZMET Interview Process

To manage the ZMET process, at least 20 participants are recruited. The individuals are asked to collect a minimum of 12 images that represent their thoughts and feelings about the brand. They can use the Internet, cameras, or printed materials, but they are told not to think too deeply about the process, just to collect photographs that fit their conceptualizations about the brand. The image should not be literal representations of the brand or the marketing but rather ideas or images that fit the brand.

The participant and their set of images meet with an interviewer who spends about two hours discussing the images in a structured way. Participants are asked to sort the images into triads where two are similar and one is different; they are asked to provide labels for groupings of the images, to tell narratives about the images, to explain what is missing from the frame, to explain the sensory aspects of the brands that the images represent, etc. At the end of the interview, the respondent is asked to create a mental map for the brand, produce a

summary collage of the photos, and write a concluding vignette. Much like a session with a psychoanalyst, these interviewers are designed to uncover the deep metaphors that underlie the chosen imagery.

Conclusion

A strong brand is one of a firm's most important differentiating assets. The strongest brands serve as quality signals, communicate identity and trust, and create value for companies. Brands are the modern patent, representing a contract from the company to its consumers. They are the promise of specific benefits and emotional connection; consumers form strong relationships with their favourite brands.

An essential aspect of a brand is the visual identity system developed to align with the brand positioning. A brand is more than design decisions, though. A powerful brand uses design and visual properties to commit to a vision at every step. The visual components work together to communicate what the brand stands for in a distinctive way.

The visual design system behind the brand is essential in considering how the brand presents in physical retail environments and digital commerce. It is also important to leverage the visual brand identity system in managing a portfolio of brands. The portfolio of brands can be developed internally through new product innovation or through external mergers and acquisitions. Still, the goal across the portfolio is to leverage the visual brand assets in the most efficient and effective way possible.

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Conclusion 11

Chapter Outline

In today's phygital environment, a visual marketing strategy is essential for any firm because of its impact on customer behaviour. The approach taken here is both scientific and practical. Theories such as Gestalt Theory and Semiotics, tools like eye tracking, and concepts like visual rhetorical messaging and Hick's Law are discussed. The book also explores the application of these principles in various marketing contexts, including social media, advertising, retail environments, and packaging, to enhance brand identity and consumer engagement. The overarching theme is the power of visual elements to influence consumer decisions and create memorable marketing strategies.

Learning Objectives

- Introduction of a Visual Marketing Vocabulary.
- Marketing applications of visual principles
  - Social Media and Advertising
  - World of retail
  - Customer shopping journey
  - Packaging
  - Creating a brand identity.

Visual marketing is everywhere. We see hundreds of examples of it daily on billboards, TV, stadiums, buses, our phones, in the supermarket, and all over the internet. Everything we physically buy comes in packaging, a visual medium. Retail stores, restaurants, and concerts use visual design to communicate mood and atmosphere. Omnichannel retail seamlessly merges physical retail with digital interfaces through a visual interface. Our leisure time is increasingly spent immersed in social media or watching YouTube or TikTok videos, all platforms that build on principles of visual marketing.

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In this book, we took a multi-disciplinary focus to explore the power of visual marketing. We showed how visual marketing can be used to attract attention and to improve "processing fluency," in other words, to make the marketing messages easier to understand quickly. Visual marketing can facilitate judgment and decision-making and can help create lasting memories. Visual marketing can elicit strong emotions and promote social interaction, the fundamental underpinnings for advertising and social media campaigns.

Unlike cameras, human vision requires our brains to understand what we see and to help us discriminate objects from one another and the landscape. Vision is the interplay between our attention and our sensory perception. Sometimes, our attention is driven by what is most salient—like a bright light or a sudden movement—this is stimulus-driven attention or bottom-up processing, which can be involuntary or automatic. Other times, our attention is deliberate or top-down, requires voluntary searching, and is motivated by our desires, goals or expectations. Most likely, these two processes operate simultaneously.

Eye tracking can record eye movement patterns. Using eye-tracking tools, we can begin to understand consumers' viewing habits for static and dynamic scenes. The amount of time a viewer fixates on a specific spot can provide a proxy of attention and gives us a sense of the processing that is being devoted to that region. Tracking eye movements can provide insight into the dynamics of visual attention and choice deliberation—and this can be done in real time without requiring verbal protocols, which may be subject to bias. Eye tracking has become a popular tool for marketers in retailing environments to determine how consumers view items in a physical environment or store and assess how people scan web pages or advertisements.

Introducing a Visual Marketing Vocabulary

One of our goals in this book was to provide a solid theoretical foundation for understanding visual marketing techniques and then apply those principles to concrete marketing strategies. To this end, we introduced several frameworks and theories that helped us frame and organize the visual principles so we could more clearly recognise the application to marketing problems.

Gestalt Theory

First, we introduced Gestalt Theory, which suggests that rather than take in or analyze every detail of objects we see around us and then try to synthesize those details into a united whole, we instead use global perceptual principles to recognize the "whole" first. In other words, if we see a bicycle on the street, we don't first take note of the wheels, the handlebars, the pedals, the seat, and the frame; instead, we take in the whole impression of the bicycle.

For example, one of the Gestalt principles is the principle of closure. The closure principle suggests that people expect objects to be self-contained and bounded, so even if the object they are viewing is incomplete or a part is missing, the brain fills in that missing information. Understanding the Gestalt principles and how they work provides shortcuts for marketers to work within this framework to promote their marketing goals. For example, the Gestalt principle of similarity suggests that people naturally group items that are similar. Marketers use this idea to subtly communicate that store brands are similar to national brands in quality by making the store brands look like their natural counterparts.

Semiotics

We also introduce the idea of Semiotics or the study of signs or codes that can convey higher-level associations and meanings. A sign consists of two parts: the signifier, or the form of the sign, and the signified, or the concept or object that is represented. Signs can be relatively easy to understand. The Apple logo is a graphical representation of an apple that signifies Apple's brand name, a relatively easy sign or logo to understand. On the other hand, some signs require learning, like the signs that are frequently used for gendered restrooms or toilets. Marketers sometimes rely on abstract signs that require marketing campaigns to make the connections, like Nike's famous Swoosh.

Visual Rhetorical Messaging

Visual rhetorical messaging is the use of visual images to communicate meaning. Marketers can use visual imagery to create a narrative or to persuade. The combination of the imagery is generally not literally accurate, but rather, is metaphoric. For example, a public service advertisement that was warning citizens about the increased pollution of oceans with trash and other undesirable items used a visual metaphor that featured a beautiful underwater scene with what first looked like a school of fish; however, upon closer inspection, the viewer recognized that bottles and trash had replaced the schooled fish.

Hick's Law

We also introduced Hick's Law which proposes that people take more time to choose an item from larger sets of options than from smaller sets of options. While perhaps obvious on the surface, this law has many interesting implications for marketers. First, it helps explain the idea of "choice overload." Hick's Law suggests that choosing an item from a retail assortment with too many items can be tiring because of the time it takes to process all the information. Another implication of the law is that if consumers are willing to take more time in decision-making,

they will make a more accurate choice. An extension of this idea, which has been verified using eye-tracking experiments, shows that the more individuals look at a stimulus, the more they like it, and the more they want it, the more they look at it.

Memorability

Finally, we also discussed what factors help make marketing materials more memorable. These are the intrinsic qualities of a stimulus that influence the likelihood of it being remembered or forgotten. Research showed that people, interiors, foregrounds and human-scale objects contributed positively to memorability, while exteriors, wide-angle vistas, backgrounds and natural scenes contributed negatively to memorability.

Marketing Applications in Visual Marketing

Ultimately, the purpose of this book is to provide guidelines for marketers who hope to use these visual principles to build better marketing strategies. These sections of the book describe how visual principles and visual communications could be used effectively in marketing strategy.

Social Media and Advertising

Visual content can evoke strong emotions and emotion-laden associations. Marketers frequently want to use emotional content to strengthen their marketing message. By putting together images, either statically or dynamically in video, visual imagery marketing can convey emotional narratives that build brand identity and help persuade. This has been particularly successful in social media campaigns, where engagement needs to be quick but compelling. Visual social media campaigns or postings that evoke strong, arousing emotions are associated with increased sharing. Visual material that is eye-catching is also more likely to go viral.

Visual content that elicits emotion is also likely to result in automatic behavioural responses. Negative emotions typically narrow thoughts and actions, while positive emotions can broaden people's thoughts and actions, which in turn builds personal resources.

Advertisements that feature negative emotions like anger, guilt, shame, or fear can trigger spontaneous coping strategies as consumers naturally try to mitigate their negative feelings. If the marketing campaigns featuring these negative emotions link these coping strategies to recommended actions, they can be extremely effective persuasive appeals. For example, the Truth Campaign, which used emotional campaigns to try and get people to stop smoking, used guilt and shame initially to motivate people to reach out for solutions, which the campaign provided to alleviate the guilt and shame. More recently,

the campaign turned to advertisements that were designed to evoke anger against corporations, like tobacco companies, for propagating marketing campaigns that encouraged people to smoke (especially children). This anger then could be fueled to persuade viewers to take action against these companies.

Advertisements featuring positive emotions encouraged people to follow through on proposed actions by promoting a more flexible and broadening perspective. For example, advertisements promoting positive feelings of hope were designed to give people the feeling of more perceived control. Advertisements promoting love were used to encourage people to show concern towards others.

World of Retail

Even before COVID, but definitely accelerated by the worldwide pandemic, the world of retail is being disrupted, and this disruption is making visual marketing more critical than ever. The pandemic accelerated the move to digital commerce and omnichannel shopping (which is a seamless integration between physical and digital retailing, sometimes called "phygital" or "neutral" retailing). These changes in shopping behaviour have caused marketers to prioritize their customer experience strategies, and these customer experience strategies can be inherently visual.

For example, one strategy used in retailing is the "treasure hunt" experience, perhaps best exemplified by Costco, which is opening stores worldwide. Costco uses discovery and other visual cues to make the shopping experience within their warehouses an extraordinarily fun and rewarding time for their consumers. TJ (or TK) Maxx offers another example of the treasure hunt shopping trip. Here, consumers embrace a chaotic visual environment where they need to search for the special treasures that may be available, e.g., a luxury product, at significant savings.

Global flagship department stores have also engaged in highly effective retail theatre that attracts worldwide tourists as well as local affluent consumers. Typically, on high tourist streets like the Champs Elysees in Paris or 5th Avenue in NYC, these famous department stores like London's Selfridges or Harrods, or Paris's Galleries Lafayette or Bon Marche or NYC's Saks provide glamour and high-art immersive spaces that make lasting impressions. Sometimes, these retail palaces are more popular as tourist destinations than the city's famous historic sites or museums.

On the other hand, retailers also use visual marketing and technology to make shopping easier and more convenient. Visible technology that attracts attention and serves as visible cues of convenience, like self-payout terminals featured in popular retailers like Uniqlo and Zara, make the typical friction point of payment a breeze. Other technology can be used to facilitate the process of buying online/pick up in the store an easy exercise.

Customer Shopping Journey

We know the decision to buy is not a one-stage process but rather a journey, and marketers can use the principles of visual marketing at each touchpoint in the journey. For example, at the trigger stage, the stage that motivates the consumer to buy, retailers can provide visual reminders within the store that encourage purchasing. Typical examples of this are seasonal promotions, which are often visually salient and emotionally rewarding, like Christmas decorations, music and fragrances. Even more subtle reminders, like the "end of the aisle" display, catch shoppers' attention and cause them to buy items.

How a retailer or online merchant organizes their assortment can also affect purchase decision-making. On the one hand, an assortment can be simplified using visual cues to ensure the complexity doesn't overwhelm and cause choice overload or purchase delay. On the other hand, visual cues can be used to increase the assortment variety, make the category more fun or encourage repeat purchasing and variety-seeking.

Various visual marketing strategies are also often employed at the payment stage. For example, grocery or pharmacy retailers frequently put impulse items like chewing gum or candy at the checkout counter. Sephora has small beauty "discoveries" conveniently shelved as shoppers wait in line to pay. "Manager's recommendations" can also provide visual cues that encourage purchasing.

Packaging

Packaging provides a unique opportunity for marketers to communicate directly with consumers. Packaging plays many roles; it can be used as a visual point-of-sale canvas to attract consumers' attention and communicate reasons to buy. The packaging can also shape consumers' perception of the product inside the package. Once at home, packaging can influence consumption.

Marketing research on the effects of packaging has shown that changing the package can be more influential in influencing consumers' purchase decisions than changing the product inside the package. Colour, for example, is especially useful in shaping perceptions. Some of this comes from learned associations, e.g., the colour gold may signal premium, and the colour green may signal natural or organic, associations that shoppers have learned over time. Colour saturation can also influence perceptions; experimental research showed that when two objects were presented simultaneously, the one that had a higher saturated coloured package was judged as larger than its counterpart.

Packaging shape has also been used to differentiate products. Famous iconic product shapes include Heinz ketchup bottle and Coca-Cola bottle. Packaging shapes and colours can also influence consumers' assessment of the appropriate product categories. For example, some new products are designed to look like others in the category, so shoppers instantly know that the new product belongs in a specific category. For example, since many vodka brands are featured in slender,

tall, blue labels or bottles, a new liquor brand with that packaging will be automatically processed as a vodka. Other than hand, using distinctive packaging features can help a product differentiate and signal innovation, a way to "stand out from the crowd."

With the advent of e-commerce, the "unboxing" phenomenon has also provided a new canvas for marketers for communications. No longer bound by point-of-sale considerations, boxes unwrapped in the home can create new experiences. Some marketers use this to create beautiful aesthetic experiences, featuring artwork or creative packaging that tells a story. Others use NFC or QR codes that link the consumer directly to a web page that can provide more in-depth information and marketing communication. Packaging can also communicate sustainability priorities.

Brand Identity

Finally, visual marketing can significantly contribute to one of a marketer's most important assets, their brand identity. Brand identity has been shown repeatedly to create a powerful connection between the product and the consumer. A brand can be a driver of business growth and can provide the point of differentiation that causes a shopper to buy it instead of any of its competitors. Good brand positioning must be consistently expressed though a cohesive visual system that is executed through the customer journey.

A brand must be visually distinctive and stand out from the others, but it must also tell a story that rises above merely a design system. It requires a commitment to vision at every step. A well-designed brand makes it clear visually and automatically why people should care about it, why the brand is chosen over others and why the brand should become part of that consumer's life.

In conclusion, visual marketing provides clear, understandable principles that can be used to design and create effective marketing strategies that differentiate a brand and help promote purchase and loyalty.

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