

OWNING COLORS

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INTRODUCTION

Color is powerful. Historically, colors have been invested with mystical, symbolic, and religious significance. We are biologically wired to respond to color cues. A particular color may stimulate emotion, activate memory, and influence perception of the passage of time.¹ Yet the omnipresence of color in our visual world is just the beginning of the story.² We have learned to attach many meanings to colors through our lived experiences. Colors have become heuristics for even our abstract ideas. They connect communities. They unite and divide sports fans. They may be shorthand for gender identity, sexual orientation, race, and political identity. Although the ubiquity of color stimulation may be thought to dull sensitivity to it, studies find otherwise. One review of the academic literature asserted that, “People make up their minds within 90 seconds of their initial interactions with either people or products. About 62–90% of the assessment is based on colors alone.”³

Given their significant persuasive potential, it is not surprising that colors are sometimes the subject of intellectual property claims. For decades, the United States Patent and Trademark Office (USPTO) has granted patents for plants in which the invention specifies a particular color, such as the particular hue of a flower or vegetable.⁴ Patents have

¹ See, e.g., Hyojin Lee et al., *Monochrome Forests and Colorful Trees: The Effect of Black-and-White Versus Color Imagery on Construal Level*, 41 J. CONSUMER RES. 1015 (2014); Benjamin H. Detenber et al., *The Emotional Significance of Color in Television Presentations*, 2 MEDIA PSYCHOL. 331 (2000); Gerald J. Gorn et al., *Waiting for the Web: How Screen Color Affects Time Perception*, 41 J. MARKETING RES. 215 (2004) (background color of a website affected perceived loading time).

² See Andrew J. Elliott & Markus A. Maier, *Color Psychology: Effects of Perceiving Color on Psychological Functioning in Humans*, 65 ANN. REV. PSYCHOL. 95, 96 (2014) (“Color is perceived on essentially every object that we view in daily life; it is even present in our dreams.”) (citation omitted).

³ Satyendra Singh, *Impact of Color on Marketing*, 44 MGMT. DECISION 783 (2006).

⁴ Registration No. 17,976 (claiming multiple inventive features related to color, specifically that “This new and distinct sweetpotato variety is identified as ‘Stokes purple,’ and is distinguished from all other varieties of *Ipomoea batatas* known to the inventors by its large storage roots having deep purple skin and deep purple flesh. It is also distinguished because it is the only purple-fleshed, purple-skinned sweetpotato known to the inventors able to grow in the

also been employed to protect the process for creating colors, such as a paint claimed to create the “blackest black.”⁵ Copyright law confers exclusive rights to copy and display original pictorial and graphic works, which include color field paintings.⁶ Trademark law protects colors as symbols of commercial source and collective identity.⁷ In this Article, we focus on the third category to explore whether trademark protection for colors is warranted given the vast expressive potential in the color wheel.⁸ We review how different disciplines approach color meaning, and we enrich these understandings with survey evidence we collected to verify whether colors serve an informational trademark function. We then empirically examine how trademark law contends with color meaning by analyzing a wealth of data from the USPTO.

Part I explores how different disciplines have contended with understanding color as a signifier of embodied and referential meaning. As a path towards understanding embodied meaning, we summarize what scientific literature teaches about the process behind color vision and biological responses to different color wavelengths. We then turn to the referential or learned meaning of colors. The scholarly literature from psychology, art, religious history, marketing, political science, and

Southeastern United States. The inventors are aware that others in Southeastern United States have, however, been able to grow plants producing white-skinned, purple-fleshed storage roots. It is further distinguished based on its ability to maintain its purple color after cooking.”); Registration No. 4,440 (claiming a “uniform color of French Rose from bud to well-developed open flower.”)

⁵ There are at least nine patents that reference Vantablack as part of their process. See *Results of Search in US Patent Collection Db for: Vantablack*, U.S. PAT. & TRADEMARK OFF., <http://patft.uspto.gov/netahtml/PTO/search-adv.htm> (search “Vantablack” in search bar) [<https://perma.cc/5FUK-Y3XH>] (last visited Apr. 26, 2019) (showing as the search results U.S. Patent Nos. 10099839, 10083772, 9992391, 9905005, 9720103, 9582877, 9448389, 9392155, and 9357116); see also Danny Lewis, *One Artist Has a Monopoly on the World’s Blackest Black Pigment*, SMITHSONIAN (Mar. 2, 2016), <https://www.smithsonianmag.com/smart-news/one-artist-has-monopoly-worlds-blackest-black-pigment-180958264> [<https://perma.cc/7G9W-RNWL>] (describing the controversy over the patenting of Vantablack, which is produced by growing carbon nanotubes).

⁶ See 17 U.S.C. § 102(a) (2018) (providing copyright protection for pictorial works of visual art including color field paintings such as those created by Barnett Newman and Mark Rothko and the minimalist monochromatic work of Yves Klein and Frank Stella).

⁷ *Qualitex Co. v. Jacobson Prods. Co.*, 514 U.S. 159 (1995).

⁸ See, e.g., *Univ. of Ala. Bd. of Trs. v. New Life Art, Inc.*, 683 F.3d 1266 (11th Cir. 2012) (asserting trademark claims against artist Daniel Moore for using Alabama’s team colors in depicting iconic moments from the team’s games).

behavioral economics overwhelmingly supports the proposition that color sends varied and contradictory expressive signals that are elastic over time and cultural context. Given the many possible and contradictory messages color can express, we raise the question of whether colors are capable of serving as commercially distinctive trademarks.

Part II responds to that question. It sets forth empirical data we collected to learn more about how consumers perceive colors. By asking a panel of consumers questions about color preferences and color associations with certain emotions or qualities, we collected additional evidence to support the theory that colors are associated with socially constructed patterns that vary depending on context. To determine whether consumers also use colors to signify trademark meaning, we asked whether they found color useful in differentiating brands when they shop. Our data reflect that even when cued to think about many expressive possibilities, consumers overwhelmingly report that color assists them in differentiating products in the marketplace. These responses support the theory that color does communicate trademark meaning.

Part III describes how trademark law sorts these signals. In 1995, the Supreme Court, in *Qualitex Co. v. Jacobson Products Co.*,⁹ defined a standard for protecting colors as marks, independent of other source identifying symbols. It held that color alone may be protected as a trademark but only if it has acquired secondary meaning and is not functional.¹⁰ After explaining how the Supreme Court arrived at its standard for protecting color marks, we explain how the USPTO has implemented the standard to determine which color marks may be protected only at common law and which may obtain national protection through federal registration on the USPTO's Principal Register.

Some scholars asserted that *Qualitex* would open the floodgates to an undue expansion of federal protection for nontraditional marks such as color.¹¹ In Part IV, we consider whether those dire predictions were realized. We empirically analyze three decades of USPTO trademark

⁹ 514 U.S. 159 (1995).

¹⁰ *Id.*

¹¹ See *infra* note 136 and accompanying text.

data from 1987–2017 to show how frequently colors are claimed in trademark applications and how often such claims succeed. Using publication and registration rates as our measures for success in the trademark application process, we compare success rates for marks claiming color to those that do not. We also compare the registration data to the survey results from Part II to illuminate how color choices for trademarks map onto consumer color preferences and associations with quality and luxury. Part V sets forth our conclusions.

I. COLOR AS A SIGNIFIER

Aesthetic philosophy teaches that stimuli may convey two types of meaning: embodied and referential.¹² Embodied meaning results from the human body's biological reaction to a particular stimulus.¹³ The meaning arises from physical properties intrinsic to the stimulus itself, independent of context or learned associations.¹⁴ While embodied meaning is fixed in the stimulus itself, referential meaning is triggered by cultural associations that are wholly external to the stimulus.¹⁵ Referential meaning is learned.¹⁶ It results from a complex network of associations acquired through repeated contact with the stimulus and is highly dependent on cultural context.¹⁷ Color evokes both embodied and referential meaning.

The embodied meaning of a color can be described as the physical response generated when the human eye processes different wavelengths of light. Color is everywhere in our world, but we see it only when light collides with objects.¹⁸ In darkness, objects appear in shades of black and dark grey, like overexposed black and white photographs. White light makes it possible to see the broadest array of

¹² See PHILIP M. ZELTNER, JOHN DEWEY'S AESTHETIC PHILOSOPHY 41–42 (1975).

¹³ See *id.* at 41 (“Embodied meaning is that which presents itself directly as possessions of objects which are experienced.”).

¹⁴ See Lauren I. Labrecque et al., *The Marketers' Prismatic Palette: A Review of Color Research and Future Directions*, 30 PSYCHOL. & MARKETING 187, 188 (2013).

¹⁵ *Id.* at 192.

¹⁶ *Id.*

¹⁷ Elliott & Maier, *supra* note 2, at 99.

¹⁸ VICTORIA FINLAY, COLOR: A NATURAL HISTORY OF THE PALETTE 4–5 (2002).

colors because white light contains all color wavelengths.¹⁹ When exposed to the full spectrum of white light, an object will absorb some wavelengths and reflect back others.²⁰ The light that bounces back to the human eye triggers the perception of color.²¹ When we perceive a tomato as red, it is because its chemical structure permits it to absorb every wavelength of white light except the red wavelength that travels back to the human eye. Ironically, the perceived color of an object is the one color that it repels.²²

Color perception of an object is dynamic and can change over time as its chemical composition changes how the object absorbs light.²³ When white light strikes a green tomato, all of the light is absorbed into the object except the wavelength we see as green. As the tomato matures, its chemical structure changes so it absorbs the green light and reflects light that may be one of many shades of red or yellow.

By its nature, a particular color conveys embodied meaning that distinguishes it from other hues. Consider red. Cognitive science has demonstrated that the embodied meaning of red is particularly salient. Relative to the rest of the color spectrum, red light has the longest wavelength.²⁴ Multiple studies have demonstrated its extraordinarily strong embodied meaning. Red induces feelings of “arousal,” “excitement,” “strength,” and “activity.”²⁵ Red triggers increased blood pressure, respiratory rates and eye blink frequency, while blue has the opposite effect.²⁶ Red excites feelings of hunger²⁷ and speeds up our sense of the passage of time.²⁸ Because of this innate quality, it is not

¹⁹ *Id.*

²⁰ *Id.* at 5.

²¹ *Id.*

²² *Id.*

²³ *Id.* at 5–6.

²⁴ See Lauren I. Labrecque & George R. Milne, *Exciting Red and Competent Blue: The Importance of Color in Marketing*, 40 J. ACAD. MARKETING SCI. 711, 715 (2012).

²⁵ *Id.* at 714.

²⁶ See Simon Lee & V. Srinivasan Rao, *Color and Store Choice in Electronic Commerce: The Explanatory Role of Trust*, 11 J. ELECTRONIC COM. RES. 110, 111 (2010).

²⁷ Singh, *supra* note 3, at 785.

²⁸ Gorn et al., *supra* note 1, at 221 (background color of a website affected perceived loading time).

surprising that many fast food companies incorporate red in their trademarks.²⁹

While embodied meaning affects our biological reactions, learned referential meanings also influence our responses to color. Referential color meanings vary with context and are complicated by the fact that a single color may send an array of varied and contradictory messages, even in a similar context.³⁰ Research has shown that the learned associations of red with flavors will trigger most consumers to choose a red product as the one most likely to be strawberry scented.³¹ Still, color signals vary with context. Red can signal flavor perceptions as diverse as red meat, strawberry, cherry, apple, cinnamon, hot peppers, cola, and red wine. Red signals danger (hot water, fire, spilled blood) and safety (firefighters and the Red Cross). Red can be a symbol of religious purity, as in the robes worn by Catholic Cardinals and the wine symbolizing the blood of Christ. For centuries, European artists depicted the Virgin Mary wearing red.³² Brides in India and China wear red.³³ Yet red may also connote moral depravity, as in *The Scarlet Letter* and “red light”

²⁹ See, e.g., KFC, Registration No. 3,749,344 (“The mark consists of the letters KFC in red.”); CHICK-FIL-A, Registration No. 2,335,546 (CHICK-FIL-A design mark claiming the color red); PIZZA HUT, Registration No. 5,341,046 (“The mark consists of white words ‘PIZZA HUT’ in a stylized font under a white image of a stylized roof over in the middle of a red swirly circle.”); MCDONALD’S, Registration No. 1,631,967 (claiming the colors red and yellow in connection with the word McDonald’s); IN-N-OUT BURGER, Registration No. 1,516,560 (“The mark comprises the words ‘IN-N-OUT BURGER’ in the color red superimposed over a stylized arrow of the color yellow outlined in red.”).

³⁰ See Elliott & Maier, *supra* note 2, at 109 (“The extant literature shows that red carries negative, threatening meaning when seen on an opponent or test of ability and evokes avoidance-relevant affect, cognition, and behavior; but red carries positive, appetitive meaning when seen on a potential mate and facilitates approach-relevant responding.”).

³¹ See Lawrence L. Garber, Jr. et al., *The Effects of Food Color on Perceived Flavor*, 8 J. MARKETING THEORY & PRAC. 59 (2000); see also Laimona Sliburyte & Ilona Skeryte, *What We Know About Consumers’ Color Perception*, 156 PROCEDIA—SOC. & BEHAV. SCI. 468, 470 (2014) (explaining that 97% of respondents to a survey “associated the smell of strawberries with red color of these berries”); Elliott & Maier, *supra* note 2, at 110 (flavor expectations triggered by color are so strong that “violations of these expectations . . . can lead to difficulty in taste discrimination”).

³² See generally Fra Filippo Lippi, *Madonna and Child*, c. 1460; Sandro Botticelli, *Madonna of the Pomegranate*, c. 1487; Raphael, *Madonna in the Meadow*, c. 1506; Lucas Cranach the Elder, *Madonna and Child in a Landscape*, c. 1518; Eugene Delacroix, *The Virgin of the Harvest*, c. 1819.

³³ ANNE VARICHON, COLORS: WHAT THEY MEAN AND HOW TO MAKE THEM 92–95 (2006).

districts. While red is the color of love, lust and passion, it is also the color of stop signs and red traffic lights.

In politics, red can be shorthand for communists on the left (as in the “Red Scare”) and conservatives (as in “red states”) on the right.³⁴ In some contexts, “red” signals racial divisions. For more than a decade, a group of Native Americans litigated whether the federal registration for “Redskins” should be cancelled for disparaging Native Americans.³⁵ In 2017, the dispute was rendered moot when the statutory bar was found to violate the First Amendment of the United States Constitution.³⁶ While the preceding examples show that red may be divisive, in other contexts, it is unifying. The red, white, and blue of the American flag are unifying symbols in times of crisis and moments of civic pride.³⁷ The rallying power of red appears to have universal appeal. It is the color used most frequently in national flags worldwide.³⁸

Human reactions to stimuli are influenced by the circumstances in which they are experienced. Scientists have identified an array of these contextual variables.³⁹ Color meaning also varies with the context in which it is perceived. Andrew J. Elliot demonstrated that, with respect to academic achievement, “red’s connection to failure activates an

³⁴ Television networks reporting presidential elections did not use a consistent color system to identify states by political orientation until the end of the twentieth century. Before the 1988 election, states voting for Democratic Party presidents were sometimes depicted in red, and states voting Republican were sometimes depicted in blue or yellow. Kevin Drum, *Red State, Blue State*, WASH. MONTHLY (Nov. 13, 2004), <https://washingtonmonthly.com/2004/11/13/red-state-blue-state-2> [<https://perma.cc/RZR5-HT5N>]. Since 1988, television news media have consistently used red for Republican states and blue for Democratic states. But the idea of “red states” and “blue states” as socio-political signifiers appears to have solidified soon after the 2000 presidential election. See Philip Bump, *Red vs. Blue: A History of How We Use Political Colors*, WASH. POST (Nov. 8, 2016), https://www.washingtonpost.com/news/the-fix/wp/2016/11/08/red-vs-blue-a-brief-history-of-how-we-use-political-colors/?utm_term=.1cf0ff9565f8 [<https://perma.cc/883R-MZW8>].

³⁵ *Pro-Football, Inc. v. Blackhorse*, 112 F. Supp. 3d 439 (E.D. Va. 2015), *vacated*, 709 Fed. Appx. 182 (4th Cir. 2018) (Mem.).

³⁶ See *Matal v. Tam*, 137 S. Ct. 1744, 1747–48 (2017).

³⁷ MARC LEEPSON, *FLAG: AN AMERICAN BIOGRAPHY* x, 3 (2005).

³⁸ See *What is the Most Patriotic Color?*, TIME, <http://time.com/patriotic-flag-colors> [<https://perma.cc/585Y-49MZ>] (last visited Apr. 29, 2019).

³⁹ Rebecca Tushnet, *Gone in Sixty Milliseconds: Trademark Law and Cognitive Science*, 86 TEX. L. REV. 507 (2008).

avoidance motivation, which can impair a subsequent cognitive task.”⁴⁰ In a social context, “red’s connection to passion, love, and arousal activates an approach motivation and increases the attractiveness of a dating candidate.”⁴¹

Both embodied and referential meanings have direct implications for marketing and can be combined in a trademark to express a desired value. A large red fast food mark may stimulate hunger while simultaneously activating referential meanings of experiencing the fast food chain based on imagination or memory of personal experiences or advertisements.⁴² Mindful of the fact that embodied meaning influences human color perceptions, our primary focus will be on referential meaning. Specifically, we seek to better understand the extent to which colors may signal trademark meaning notwithstanding the many other referential meanings that consumers have learned to associate with a particular hue.

Psychological literature on color associations demonstrates that each color triggers a particular set of emotions, meanings, personality characteristics, and ethical viewpoints. Neuroscientists have demonstrated that this cognitive stimulation occurs in “early stages of visual processing as a key mechanism for quick decision-making and survival.”⁴³ Sometimes these experiments contain surprising findings that may be of particular interest to trademark professionals. For example, learned expectations associated with a color may be so robust that they trump other sensory stimuli. In one study, the visual influence of color was shown to dominate the experience of tasting food. Participants perceived a significantly greater difference between the taste of two identical food samples in different colors and the same pair with no color variation.⁴⁴ Color has been shown to exert even more persuasive power than text. Visual depictions of colors convey stronger

⁴⁰ Labrecque et al., *supra* note 14, at 194 (citing Andrew J. Elliot et al., *Color and Psychological Functioning: The Effect of Red on Performance Attainment*, 136 J. EXPERIMENTAL PSYCHOL: GEN. 154 (2007)).

⁴¹ *Id.* (citing Andrew J. Elliot & Daniela Niesta, *Romantic Red: Red Enhances Men’s Attraction to Women*, 95 J. PERSONALITY & SOC. PSYCHOL. 1150 (2008)).

⁴² ZELTNER, *supra* note 12, at 42–44.

⁴³ Labrecque & Milne, *supra* note 24, at 713.

⁴⁴ See JoAndrea Hoegg & Joseph W. Alba, *Taste Perception: More than Meets the Tongue*, 33 J. CONSUMER RES. 490 (2007).

meaning than words describing them. While the word “green” connotes environmental responsibility, the color green expresses this message even more powerfully.⁴⁵ A series of experiments also demonstrated that the color blue is perceived by consumers as even more eco-friendly than green.⁴⁶

Multiple studies test the extent to which different hues affect consumer perception of values or personality. In several studies, blue has been shown to be associated with trust or competence.⁴⁷ In another study, when participants were presented with fictitious logos in different hues, they identified the red brands as “exciting.”⁴⁸ Pink and white logos were linked with sincerity; blue was associated with competence, and brown (but not green) was associated with ruggedness.⁴⁹ Black, pink, and purple logos were all associated with sophistication.⁵⁰ Given these reactions, color may be used to infuse new brands with specific qualities even before the mark itself generates any referential meaning. Hue is not the only color variable. Changes in a color’s saturation and value have also been shown to impact brand perceptions as well.⁵¹ Colors that are pure and vivid have high saturation, while more faded hues are low on the saturation scale; value refers to the spectrum of how luminous or dark a color appears.⁵²

⁴⁵ See Aparna Sundar & James J. Kellaris, *Blue-Washing the Green Halo: How Colors Color Ethical Judgments*, in *THE PSYCHOLOGY OF DESIGN: CREATING CONSUMER APPEAL* 63, 69 (Rajeev Batra et al. eds. 2015).

⁴⁶ *Id.*

⁴⁷ See generally Jinwoo Kim & Jae Yun Moon, *Designing Towards Emotional Usability in Customer Interfaces—Trustworthiness of Cyber-Banking System Interfaces*, 10 *INTERACTING WITH COMPUTERS* 1 (1998); Lee & Rao, *supra* note 26; Labrecque & Milne, *supra* note 24, at 714.

⁴⁸ Labrecque & Milne, *supra* note 24, at 714.

⁴⁹ *Id.*

⁵⁰ *Id.*

⁵¹ Mohammad Ghaderi et al., *Understanding the Impact of Brand Colour on Brand Image: A Preference Disaggregation Approach*, 67 *PATTERN RECOGNITION LETTERS* 11, 16 (2015).

⁵² Elliot & Maier, *supra* note 2, at 95, 98 (explaining saturation as referring to the amount of pigment in a color). High saturation of pigment results in vivid colors while low saturation makes a color appear faded. Value refers to the amount of lightness or darkness in a color as one moves from a spectrum of white to grey to black. *Id.*; see also EMILY VANDERPOEL, *COLOR PROBLEMS: A PRACTICAL MANUAL FOR THE LAY STUDENT OF COLOR* 26–27 (Sacred Bones Books 2018) (1901).

Colors also appear to affect consumer buying behaviors. Cooler colors, such as blues, have been demonstrated to promote simulated purchases, fewer purchase postponements, and a stronger inclination to shop and browse.⁵³ In one study, consumers indicated a blue store was significantly more likeable than one that was orange, and the color preference increased their purchase intentions.⁵⁴ In another study, respondents were shown websites that were identical—except one had the background color of blue while the other had a green background (blue and green are adjacent on the spectral range).⁵⁵ The participants overwhelmingly reported that they preferred the store with the blue background—a finding that remained significant even when the regression analysis accounted for color preference and order of presentation.⁵⁶

Contemporary cultural perceptions add another layer of complexity to referential meaning. Color associations signifying gender identity have shifted over time. In the late nineteenth and early twentieth centuries, babies and young children were dressed in white.⁵⁷ Style magazines from the time indicate that when color was selected, blue was preferred for girls and pink for boys. Back then, these color choices were not necessarily gender identifiers.⁵⁸ Both colors were among the pastel palette considered appropriate for young children irrespective of gender.⁵⁹ It was not until the 1950s that the color associations flipped, and pink came to signify femininity.⁶⁰

This literature teaches that color matters to consumers and influences their perceptions and purchasing decisions.⁶¹ Human reactions to color stimuli are both biological and learned, and the meaning of any particular color may vary across time, cultures, age

⁵³ Lee & Rao, *supra* note 26, at 111.

⁵⁴ Barry J. Babin et al., *Color and shopping intentions: The intervening effect of price fairness and perceived affect*, 56 J. BUS. RES. 541, 542 (2003).

⁵⁵ Lee & Rao, *supra* note 26, at 120.

⁵⁶ *Id.*

⁵⁷ JO B. PAOLETTI, PINK AND BLUE: TELLING THE BOYS FROM THE GIRLS IN AMERICA 85–94 (2012).

⁵⁸ *Id.*

⁵⁹ *Id.*

⁶⁰ *Id.*

⁶¹ Lee & Rao, *supra* note 26, at 111–12.

groups, and nations.⁶² Accordingly, the expressive message sent by any particular color is affected by an infinite array of variables that contribute to visual qualities and context. Because of color's strong influence, it has been found to impact consumer personality ratings of brands.⁶³ This vast expressive potential raises the question of whether color may also communicate distinctive trademark meaning. Like most trademark questions, the answer lies in the elusive quest to understand consumer perception.

II. EMPIRICAL DATA ON CONSUMER PERCEPTION OF COLORS

Color's potential influence on purchasers has been demonstrated in studies that look at consumer populations around the world.⁶⁴ Still, much more research is needed to understand the extent to which color and designs (as distinct from text) convey trademark meaning. To begin filling that gap, we designed a survey to determine whether color communicates trademark meaning to consumers even if they recently reflected on color's other referential meanings. Specifically, we asked a series of questions designed to elicit whether consumers who were asked to evoke non-trademark color associations would also identify color as useful in identifying products when they shop. In the next Part, we will explore how this consumer data maps onto trademark registration data for marks claiming color.

Our survey was completed by 1,009 respondents from June 6–9, 2016 via SurveyMonkey Audience (SurveyMonkey).⁶⁵ The survey asked

⁶² Labrecque & Milne, *supra* note 24, at 725.

⁶³ *Id.* at 723.

⁶⁴ See, e.g., Saad Ahmed Javed & Sara Javed, *The Impact of Product's Packaging Color on Consumers' Buying Preferences Under Time Pressure*, 2 *MARKETING & BRANDING RES.* 4, 12 (2015) ("Color of packaging plays a very important role in decision making by customers [in Pakistan] to purchase a good.").

⁶⁵ The survey was administered to 1,085 respondents. The 93% completion rate is favorable to surveys of this size and complexity. Given the number of survey responses, the margin of error for the results on the U.S. adult population is 3% at a 95% level of confidence. SurveyMonkey maintains an online panel of more than 30 million United States consumers. See Dan Savitzky, *Tips for Increasing Survey Completion Rates*, SURVEYMONKEY, <https://www.surveymonkey.com/curiosity/tips-increasing-survey-completion-rates> (last visited Mar. 1, 2018).

nineteen questions, eight of which elicited demographic information on age, gender, and geographic location to ensure that the respondents were a balanced representation of the consumer population.⁶⁶ The questions about color were divided into two sections: one on general referential meaning and one on color helpfulness when shopping. In all responses where we asked consumers to identify colors, we used the USPTO's eleven color categories as a starting point to facilitate comparisons with federal application and registration data.⁶⁷ The USPTO combines some colors, such as red and pink. To permit survey respondents to distinguish between these hues, we asked about each separately so that we would have more robust and nuanced results.⁶⁸ To avoid bias from visual color depiction, we identified each color by name in black text on a white background.

A. *Color Preferences*

The first set of substantive questions asked respondents to provide information about color associations apart from any referential meaning specific to trademarks. We began by asking the respondents to identify their favorite color.⁶⁹ Figure I illustrates our results.

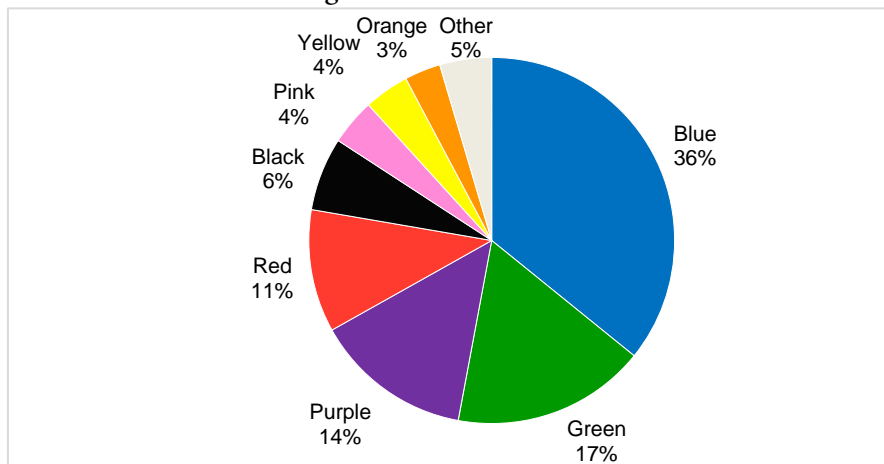
⁶⁶ The demographic questions were cross-referenced against the demographic information provided by SurveyMonkey to ensure that the respondent's characteristics were indeed the ones that were targeted.

⁶⁷ The USPTO categorizes color claims into the following coded groups: (1) red or pink; (2) brown; (3) blue; (4) gray or silver; (5) violet or purple; (6) green; (7) orange; (8) yellow or gold; (9) white; (10) clear or translucent; and (11) black. See *Design Search Manual: Category 29: Miscellaneous Designs*, U.S. PAT. & TRADEMARK OFF., http://tess2.uspto.gov/tmdb/dscm/dsc_29.htm [<https://perma.cc/WV7N-2LUL>] (last updated May 22, 2019, 3:07 PM) (identifying the codes associated with trademark applications that claim color as part of the proposed mark).

⁶⁸ In addition to providing separate response possibilities for pink in addition to red, we provided our consumer panel with the opportunity to select silver in addition to gray, and gold in addition to yellow.

⁶⁹ Respondents were given the following choices: red, orange, yellow, green, blue, purple or violet, pink, black, white, brown, gray, silver, gold, and clear or translucent.

Figure I. Favorite Colors:



Each segment in Figure I represents the percentage of respondents who selected the particular color as their favorite.⁷⁰

Blue was the clear winner. More than one-third of respondents (36%) identified blue as their favorite color. Green was the second favorite at 17%. More than twice as many respondents preferred blue over green. Purple came in third at 14%. The percentage of respondents selecting blue was so robust, it exceeded the second and third place colors (green and purple) even if their votes were combined. Red followed in the fourth position at 11%.

These findings are consistent with multiple other studies.⁷¹ Survey data reflects interesting patterns in color preferences over time and across cultures. Surveys on color preferences conducted in 1934 and 1959 also found the favorites to be first blue, followed by green, purple/violet, and then red.⁷² Blue's decisive lead in our data is consistent with multiple studies from around the world, confirming that

⁷⁰ In Figure I, all colors selected by 1% or fewer respondents were combined into an "other" category. For Figure I, the "other" category consists of white, brown, gray, silver, gold, and clear or translucent. A similar approach was adopted for the Figures that follow.

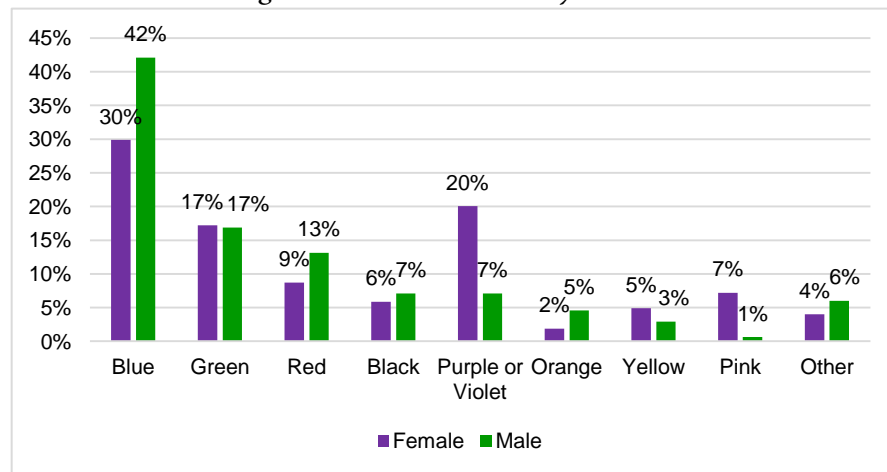
⁷¹ See Patricia Valdez & Albert Mehrabian, *Effects of Color on Emotions*, 123 J. EXPERIMENTAL PSYCHOL. 394, 396 (1994) (citing prior studies).

⁷² See *id.*

blue is a universal favorite.⁷³ A 2015 survey of ten nations found that in all of them, blue was the most popular color.⁷⁴ “Between 23% (in Indonesia) and 33% (in Great Britain) like blue most out of the colors listed, putting it 8-18 points ahead of any other colour.”⁷⁵

Because many products and services target gender-specific consumers and color has been found to signal gender identity, we sorted the favorites data by gender to see if the preferences data would yield interesting differences. Figure II illustrates our results.

Figure II. Favorite Colors by Gender:



In each pair of bars in Figure II, the percentage of women who selected that color as their favorite appears in purple on the left. The corresponding percentage for men appears in green to the right. The first set of bars illustrates that blue was most popular among women (30%) and men (42%). Although blue was the overall favorite, a much greater percentage of men selected it as their first choice. Green also has quite a following—coming in second place among men and third

⁷³ See Natalie Wolchover, *Pie Chart: Humanity's Favorite Colors*, LIVE SCI. (July 31, 2012, 4:05 PM), <https://www.livescience.com/34105-favorite-colors.html> [<https://perma.cc/N28Q-9GNV>] (finding 42% of men and 29% of women selected blue as their favorite color); William Jordan, *Why is Blue the World's Favorite Color?*, YOU GOV (Mar 12, 2015, 7:13 PM), <https://today.yougov.com/topics/international/articles-reports/2015/05/12/why-blue-worlds-favorite-color> [<https://perma.cc/59QN-LUXA>].

⁷⁴ See Jordan, *supra* note 73.

⁷⁵ *Id.*

among women, with 17% of each gender group choosing green as their favorite.

The data suggests some gender disparity in preferences for purple and pink. Among the women, 20% chose purple or violet as their favorite compared to 7% of men. More women (7%) than men (1%) identified pink as their favorite color but even among women, pink trailed blue, red, purple, and green as a favorite.

Interestingly, many color preferences appear to be consistent across genders.⁷⁶ In all but three of the color categories, the percentage of men and women who favored a particular color was relatively close, differing by three percentage points or less. The three exceptions to this overall pattern were blue, which was still the overall favorite, and purple and pink, which were both preferred more frequently by women.

B. *Colors and Value Associations*

Next, the respondents were asked to identify whether they associate particular colors with expressive signals that were not linked to a particular brand. We asked the participants to identify the colors they associate with happiness, luxury, and high quality. Figure III illustrates these results.

⁷⁶ This low level of gender differentiation is consistent with prior studies. See, e.g., Valdez & Mehrabian, *supra* note 71, at 407.

Figure III. Values Associated with Colors:

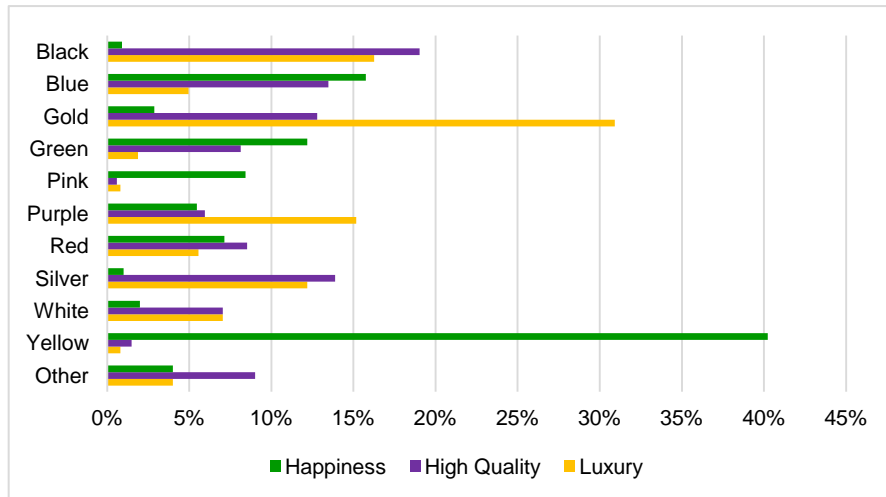


Figure III affirms what the scholarly literature suggests—that different colors trigger dramatically different referential meanings. The positive values of happiness, quality, and luxury do not cluster around the same color. While 40% of consumers associate yellow with happiness, only 1% associate it with luxury or high quality. While 3% of respondents associated gold with happiness, 13% associated it with high quality, and 31% associated it with luxury.

Another interesting feature of the data is that positive attributes differ from consumer favorites. Despite blue's place of prominence in the favorites category, its selection rate was much lower when consumers were asked which color they associated with happiness (16%), high quality (13%), and luxury (5%). Some colors that scored low on the favorites question, such as yellow and gold, were selected much more frequently in these follow-up questions about value associations. These observations suggest that selecting a less popular color may be desirable, especially if its embodied or referential meaning communicates an expressive message that is consistent with brand values.

The following three charts sort the value data by gender. Figure III.A displays the colors survey respondents associated most with happiness.

Figure III.A. Color Associated with Happiness:

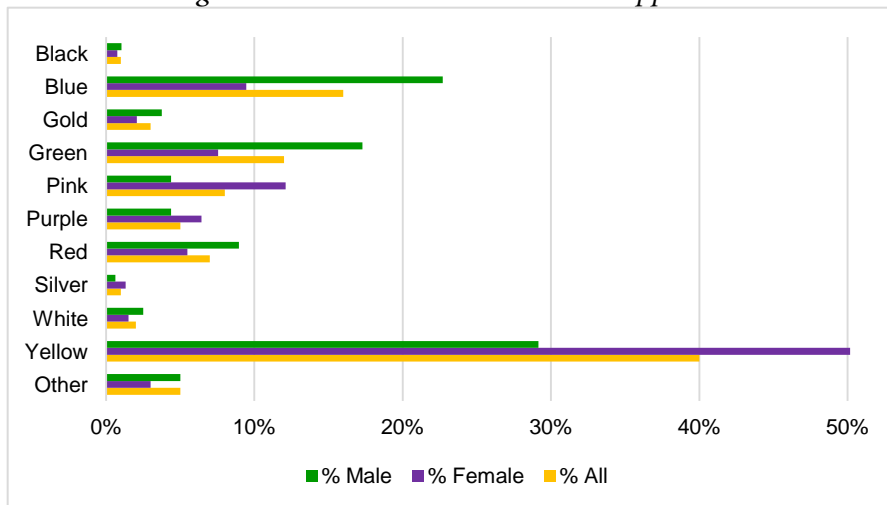


Figure III.B displays, again by percentage, the colors survey respondents associated most with luxury.

Figure III.B. Color Associated with Luxury:

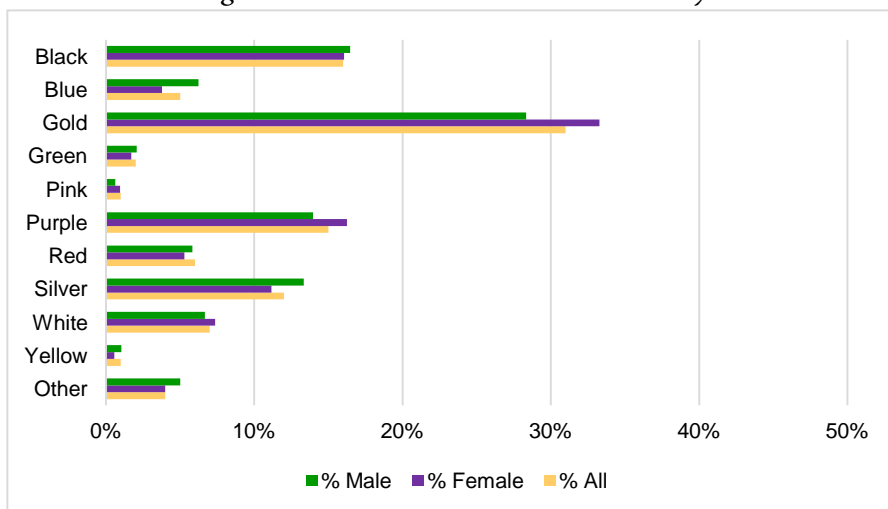
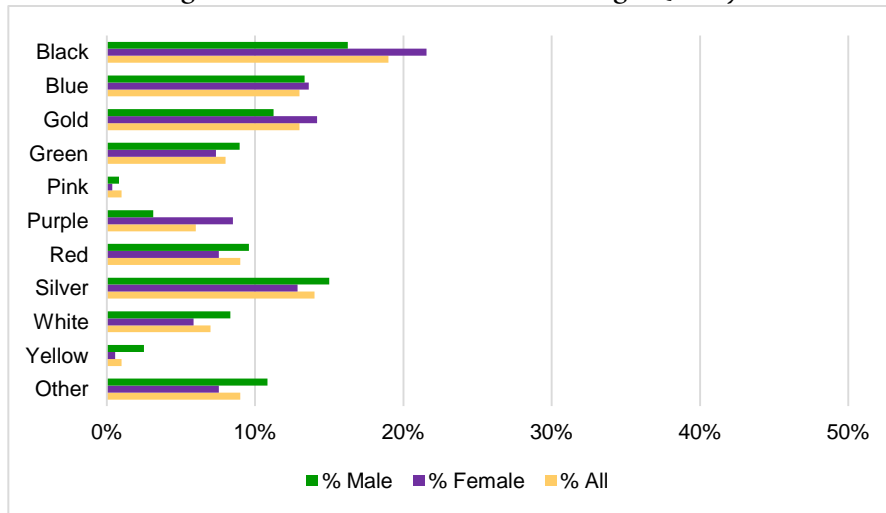


Figure III.C reflects the percentages of respondents who selected each color as most associated with high quality. Referential meaning showed different patterns than the preference data. Gold was selected by less than 3% of respondents as a favorite, but was the leading color

selected by both genders (28% of men and 33% of women) as the color of luxury.

Figure III.C. Color Associated with High Quality:



Interestingly, there was substantial consistency between genders regarding the colors associated with expressive signals for high quality and luxury. Figures III.B and III.C show that men and women consistently associate the same colors with high quality and luxury. The greatest points of divergence were in the association of black with high quality (22% female versus 16% male). Apart from that 6%-point spread, the difference between men and women for each color differed by 3% points or less.

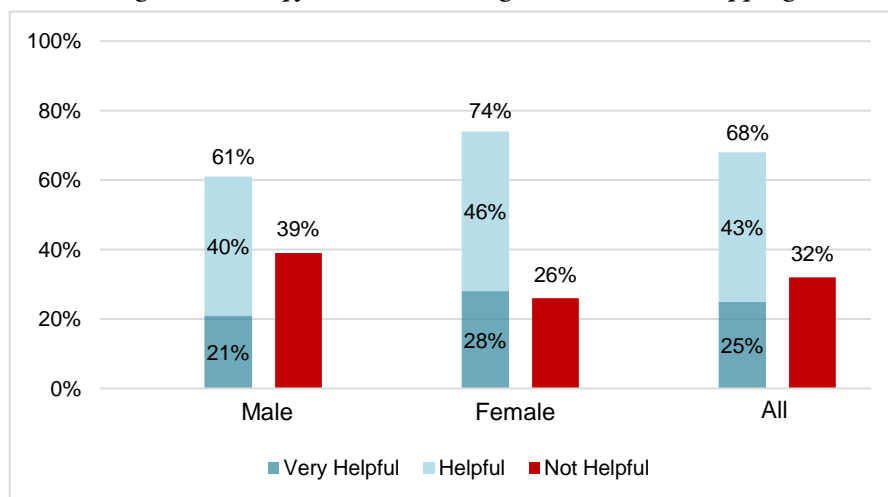
The referential meanings were more consistent than expressed preferences. While there was a 13%-point disparity between men and women regarding purple as a favorite color (20% for women compared to 7% for men), there was only a 2%-point difference in the luxury ratings. Purple was selected as the color most associated with luxury by 16% of women and 14% of men.

Referential meaning did diverge by gender in the colors associated with happiness. Whereas women overwhelmingly associated yellow with happiness (50%), only 29% of men reported this association. By contrast, a considerably greater percentage of men than women associated the colors blue and green with happiness (23% versus 9% for blue, 17% versus 8% for green).

C. Brand Association with Colors

After our respondents answered the questions about color preferences and referential meanings that were not directly source related, respondents were asked to identify their favorite brands and state whether they associated their favorite brands with a particular color.⁷⁷ The first question in this series asked, “How helpful is color in finding brands when you shop?” Respondents were asked to select “not helpful,” “helpful,” or “very helpful.” Figure IV sets forth the responses.

Figure IV. Helpfulness in Finding Brands when Shopping



In Figures IV, V, and VI, we illustrate the responses in three pairs of bars—for men, women, and all respondents. The entire blue bar on the left depicts the percentage of respondents in that category who found color helpful. The darker blue segment represents those who indicated that color is very helpful, and the lighter blue segment above it illustrates the percentage who reported that color is “helpful” but not “very helpful.” The red bar on the right of each pair represents the percentage of our panel who reported that color was not helpful.

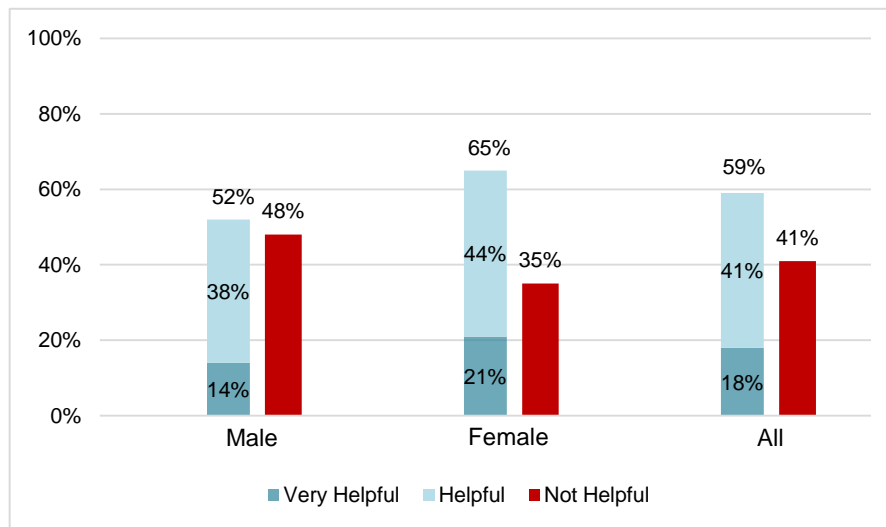
Figure IV illustrates that more than two thirds of respondents reported that color is helpful or very helpful in selecting products when

⁷⁷ Our survey defined a brand as “a category of products or services that are all sold by the same company.”

they shop. Overall, 68% reported that color is helpful (43%) or very helpful (25%), while 32% indicated color is not helpful. Here, the data also revealed an interesting gender gap. A higher percentage of women (74% compared to 61% of men) reported that color is helpful or very helpful. While 39% of men claim color is not helpful, only 26% of women indicated color is not helpful.

After asking the general question about color helpfulness we limited the context to online shopping. Because internet search queries are often initiated with a textual query, we theorized that color helpfulness would drop significantly in response to the question: “How helpful is color in finding brands when you shop online?” Figure V indicates that reported reliance on color drops in the online setting, but not as dramatically as one might have expected.

Figure V. Helpfulness when Finding Brands Online:

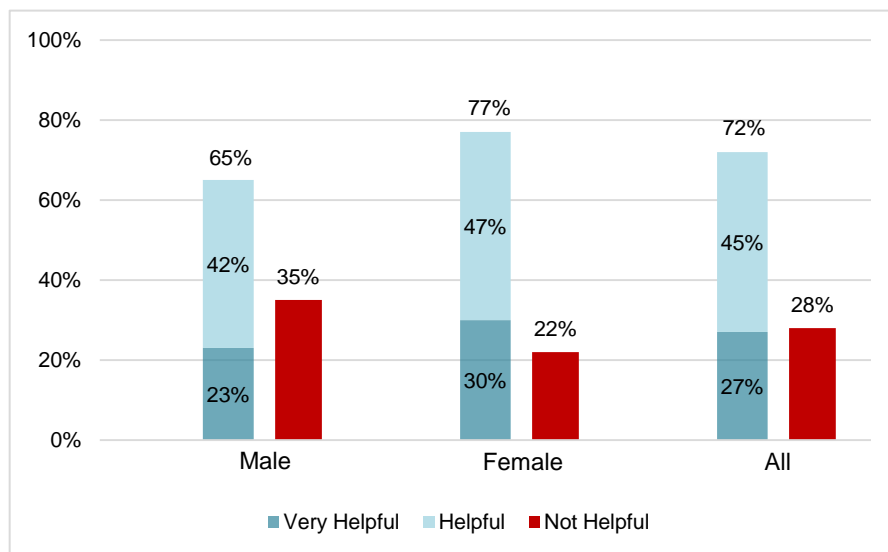


More than half of consumers (59%) still reported that color is helpful or very helpful in finding brands when they shop online. Women, again, reported color as more helpful than men did. While 65% of women said color is helpful or very helpful in online shopping, only 52% of men reported that same level of reliance. Even when shopping online, 59% of consumers indicated that color is helpful or very helpful in finding brands.

The final question in this series limited the context to offline shopping. We asked: “How helpful is color when selecting a particular

brand from a group of comparable products in a store?” Figure VI shows the results.

Figure VI. Helpfulness when Selecting from



Comparable Products in Store: When asked to think about selecting brands in a store, consumers indicated they were even more inclined to consider color as helpful in their purchasing choice. While 32% of respondents indicated that color is generally not helpful when shopping and 41% said it is not helpful online, only 28% indicated it is not helpful when selecting products in a store. When sorted by gender, women again reported greater reliance on color. While 77% of women indicated color is helpful or very helpful when selecting a product in a store, 65% of men reported a similar reliance.

In sum, consumers reported that although colors signal multiple meanings, many use color as an informational tool when they shop. Women and men have relatively consistent color preferences. Though the majority of all respondents reported that they rely on color to differentiate products when they shop, women report a somewhat greater reliance on color for this purpose. These data affirm the idea that color is capable of having trademark meaning for consumers. The next Part explores whether trademark law’s protection of colors is consistent with consumer reliance on color as a helpful signifier in selecting brands when they shop.

III. PROTECTING COLOR AS A TRADEMARK

Sometimes, a particular color may meaningfully symbolize the story and values of a brand. Tiffany and Company built its reputation around a distinctive shade of “robin’s-egg” blue.⁷⁸ Receiving a gift in a Tiffany’s box has become an iconic event in itself—no matter what is inside. But, should that mean the company can obtain federal registration for that color—even to wrap baby gifts—given the ubiquitous use of pastel blue and pink for children’s goods?⁷⁹ As distinct and specific as the Tiffany’s mark is, the Lanham Act does not give the company a monopoly over it. Others are free to use the same color in a way that is not confusing. Given the vast expressive possibilities of color, the Supreme Court and the USPTO were faced with the challenge of articulating when federal trademark law may protect colors when claimed as the sole feature of a mark, without any identifying text or design. The next Section describes the standards created by the Supreme Court and the USPTO to answer such questions.

A. *The Supreme Court Sets the Standard*

Qualitex was the first Supreme Court decision to confirm that the color of a product—independent from other subject matter—may be protected as a trademark. It was not the Court’s first encounter with the issue. Given color’s many referential meanings and the evolving trademark doctrine of aesthetic functionality, it took some time for the courts to affirm that colors may be owned as trademarks.

⁷⁸ See Registration No. 2,416,794 (“The mark consists of a shade of blue often referred to as robin’s-egg blue which is used on catalog covers. The matter shown in broken lines represents covers of various sizes and serves to show positioning of the mark. No claim is made to shape of the catalogs.”); Registration No. 2,416,795 (“The mark consists of a shade of blue often referred to as robin’s-egg blue which is used on bags. The matter shown in broken lines represents bags of various sizes and serves to show positioning of the mark. No claim is made to shape of the bags.”); Registration No. 2,359,351 (“The mark consists of a shade of blue often referred to as robin’s-egg blue which is used on boxes. The matter shown in broken lines represents boxes of various sizes and serves to show positioning of the mark. No claim is made to shape of the boxes.”).

⁷⁹ PAOLETTI, *supra* note 57, at 85–94.

In 1906, the Supreme Court raised the question without answering it, cautiously suggesting—albeit with express doubt—that color alone may be protected as a trademark.⁸⁰ In 1946, the Lanham Act broadened trademark protection to any subject matter that could be distinctive of goods or services.⁸¹ This revised definition of marks that could be registered provided no federal statutory impediment to protecting colors as trademarks. However, in 1982, when the Supreme Court first confronted the question head on, it said “no.”

In *Inwood Laboratories v. Ives Laboratories*,⁸² the Court concluded that the colors of a medicinal capsule could not be protected as a mark. The drug at issue was a patented vasodilator used to treat vascular disease in elderly patients.⁸³ The medicine itself was a white powder.⁸⁴ Ives sold two dosages: a 200 mg capsule colored light blue and a 400 mg capsule which was red and blue.⁸⁵ Once the Ives patent expired, Inwood entered the market and, at first, tried to sell the drug in a green capsule. When the new color created marketing challenges, Inwood copied the Ives colors and fared much better. Convinced that the color change amounted to unfair competition in violation of the Lanham Act, Ives brought a trademark claim.⁸⁶

Relying on a now defunct standard from *Pagliari v. Wallace China Co.*,⁸⁷ Inwood convinced the District Court that the capsule color was functional and could not be protected because it was an “important ingredient in the commercial success of the product.”⁸⁸ Since then, the

⁸⁰ *A. Leschen & Sons Rope Co. v. Broderick & Bascom Rope Co.*, 201 U.S. 166, 171 (1906) (“Whether mere color can constitute a valid trademark may admit of doubt.”), *abrogated by* *Hurn v. Oursler*, 289 U.S. 238 (1933).

⁸¹ *See* 15 U.S.C. § 1127 (2018).

⁸² 456 U.S. 844 (1982).

⁸³ *Id.* at 846.

⁸⁴ *Id.*

⁸⁵ *Id.* at 846–47.

⁸⁶ *Id.* at 844.

⁸⁷ 198 F.2d 339, 343 (9th Cir. 1952).

⁸⁸ *Ives Labs., Inc. v. Darby Drug Co., Inc.*, 488 F. Supp. 394, 398 (E.D.N.Y. 1980). Inwood offered evidence that elderly patients associated the color with the medicine’s therapeutic effect, that patients would refuse to take the drug in another color, and that switching colors—even with physician assurance—“caused considerable anxiety and confusion.” *Id.* at 399. The trial judge found that Ives had not proven that the color had secondary meaning, and that the colors in this context served other purposes. The court also found that consistent color would help

Pagliari standard has been denounced by scholars and rejected by courts.⁸⁹ According to the “important ingredient” logic of *Pagliari*,⁹⁰ the iconic shape of the Coca-Cola bottle and the red and silver designs on its cans would also be functional because they are “important ingredients” in the soda company’s success, notwithstanding that both have acquired massive distinctiveness as trademarks.

The Second Circuit Court of Appeals reversed the finding of the district court. The Second Circuit’s analysis of the evidence indicated that color was sending a signal about source and that the defendants and pharmacists were using like color copies to increase the likelihood consumers would not know that a generic substitute had been given to them in place of the branded medicine.⁹¹ The Second Circuit noted that Ives demonstrated that generic drugs were generally not sold in a “look-

doctors communicate with patients and help patients differentiate this drug from other medicines. There was also testimony that “the color of a capsule provides one clue in an often difficult and hurried effort to determine what a patient has ingested.” *Id.* Finally, Inwood argued it first tried to sell the capsule in green, but when it encountered questions from hospital buyers, it switched to the colors used by Ives. Ives called a hospital official who said he would not buy the drug in green. Based on this evidence, the court concluded that “the different color was not accepted by hospitals, pharmacies and wholesalers in the light of the potential for confusion.” *Id.*

⁸⁹ See, e.g., *Christian Louboutin S.A. v. Yves Saint Laurent Am. Holding, Inc.*, 696 F.3d 206, 221 (2d Cir. 2012) (rejecting “the circular ‘important ingredient’ test formulated by the *Pagliari* court, which inevitably penalized markholders for their success in promoting their product”); Mark P. McKenna, *(Dys)functionality*, 48 HOUS. L. REV. 823, 851 (2011) (“Courts that apply the aesthetic functionality doctrine today overwhelmingly rely on the test the Supreme Court endorsed in *Traffix* [rather than the *Pagliari* test], . . . asking whether exclusive use of the claimed feature put competitors at a significant non-reputation-related disadvantage.”).

⁹⁰ See generally *Pagliari*, 198 F.2d at 343.

⁹¹ See *Ives Labs., Inc. v. Darby Drug Co.*, 638 F.2d 538, 543–44 (2d Cir. 1981), *rev’d sub nom.* *Inwood Labs., Inc. v. Ives Labs.*, 456 U.S. 844 (1982) (“The additional evidence introduced by Ives at trial was clearly sufficient to establish a § 32 violation. By using capsules of identical color, size and shape, together with a catalog describing their appearance and listing comparative prices of CYCLOSPASMOL and generic cyclandelate, appellees could reasonably anticipate that their generic drug product would by a substantial number of druggists be substituted illegally for Ives’ trademarked CYCLOSPASMOL or that bottles of their lower-priced product might be mislabeled as CYCLOSPASMOL, all to the druggists’ economic advantage. This amounted to a suggestion, at least by implication, that the druggists take advantage of the opportunity to engage in such misconduct. By using look-alike capsules, appellees also reduced the likelihood that patients who were given a generic substitute would bring that fact to their doctor’s (or their druggist’s) attention. Similar activity has been enjoined as enabling druggists to defraud by palming off.”) (internal citations omitted).

alike” color, shape, and size, that no patients testified about confusion or anxiety, and that when instructed that the drugs are chemically identical, patients would agree to take the generic drug in a different colored capsule.⁹²

Without expressly overruling *Pagliari*, the Supreme Court affirmed the district court’s conclusion, but it articulated a different functionality standard that would pave the way for color to be treated as a mark in later decisions. The *Inwood* majority held that a product feature will be deemed functional “if it is essential to the use or purpose of the article or if it affects the cost or quality of the article.”⁹³ Based on this standard, the Supreme Court found the capsule colors functional.⁹⁴ The *Inwood* decision established two evidentiary hurdles that must be overcome before color alone could be protected as a mark. First, the color must not be functional, and second, the color must have acquired distinctiveness as a source identifier.⁹⁵ Going forward, trademark protection for color alone would be theoretically attainable, but not easy to prove.

Because of color’s innate ability to communicate embodied and referential meaning in addition to trademark meaning, color might always affect an object’s quality. Therefore, the *Inwood* standard looked hard to meet, especially with a color like blue that is a cross-cultural favorite and known to inspire feelings of trust.⁹⁶ Perhaps it was no accident that the first color to be upheld by the Supreme Court as a mark was not a popular favorite or one with a positive referential meaning.

Since 1957, Qualitex Company has sold green-gold press pads to commercial dry cleaners.⁹⁷ This shade of green has been associated with

⁹² *Id.* at 544–45.

⁹³ *Inwood Labs., Inc. v. Ives Labs.*, 456 U.S. 844, 850 n.10 (1982).

⁹⁴ *Accord Id.* at 862 (White, J., concurring) (finding the colors functional because “patient anxiety and *confusion* were likely if accustomed medicine were dispensed in a different color; capsule colors assist patients in identifying the correct pill to take; standard colors help physicians identify the drug involved in case of overdose.”) (emphasis added).

⁹⁵ *Id.*

⁹⁶ *See supra* note 93 and accompanying text.

⁹⁷ Registration No. 1,633,711 (“The mark consists of a particular shade of green-gold applied to the top and side surfaces of the goods.”).

sickness⁹⁸ and in one psychological study was found to be among the least pleasant colors.⁹⁹ Some color was necessary to mask staining on its ironing pads, and over time this particular hue became distinctive of the company's products. Decades later, it is still proudly displayed on their ironing press pads and their website.¹⁰⁰

In 1989, riffing on the same look-alike theme that worked so well for Ives, Jacobson Products began selling press pads dyed to look just like the green-gold Qualitex pads.¹⁰¹ Qualitex sued Jacobson for unfair competition, registered its color as a trademark with the USPTO, and then added a trademark infringement claim to its complaint. Qualitex won at trial, but the United States Court of Appeals for the Ninth Circuit reversed the decision, holding that color alone could not serve as a mark.¹⁰²

The issue on appeal to the Supreme Court was whether color could serve as a trademark when claimed independent of any design or text element, or if, due to its aesthetic nature, it was incapable of doing so.¹⁰³ The USPTO had already registered color marks, in combination with simple designs, such the brown and orange Tootsie Roll wrapper.¹⁰⁴ The Federal Circuit and Eighth Circuit had concluded that color alone could

⁹⁸ Karen B. Schloss & Stephen E. Palmer, *Aesthetic Response to Color Combinations: Preference, Harmony, and Similarity*, 73 ATTENTION, PERCEPTION, & PSYCHOPHYSICS 551, 568 (2010) (showing that people dislike colors associated with unpleasant objects such as “dark yellows (olive-colors) because the dislike feces, rotting food, vomit, and many other . . . objects they associate with these colors.”).

⁹⁹ Valdez & Mehrabian, *supra* note 71, at 406.

¹⁰⁰ See *Sun Glow Press Pads*, QUALITEX, <http://www.qualitexco.com/http/pads.html> [https://perma.cc/S278-FE5S] (last visited Apr. 4, 2019).

¹⁰¹ *Qualitex Co. v. Jacobson Prods. Co.*, 514 U.S. 159, 161 (1995).

¹⁰² *Qualitex Co. v. Jacobson Prods. Co.*, 13 F.3d 1297, 1300 (9th Cir. 1994).

¹⁰³ *Qualitex*, 514 U.S. at 160–61.

¹⁰⁴ Registration No. 1,527,209 (“The design is characterized by cylindrical package wrap with tucked ends and brown center panel bordered on each end by orange/red stripes.”); Registration No. 1,532,232 (“The mark consists of a by cylindrical paackage [sic] wrap with tucked ends and brown center panel on each end by white and orange/red stripes.”); *see also* Registration No. 1,489,883 (“The trademark consists of a plurality of relatively spaced apart, parallel, blue colored stripes disposed in a helical pattern upon the outer surface of a tubular, cylindrical ball bearing retainer); Registration No. 1,498,327 (mark consisting of “red and white stripe applied to the end of the handle of a tool” registered in 1988); Registration No. 0,342,467 (“Trade-mark consists of a circumferential band of black color displayed on the tip or end of a lead pencil or penholder, or on the ferrule, mouthpiece, point protector, or any other attachment to a lead pencil.”)

be entitled to federal trademark registration.¹⁰⁵ The Ninth and Seventh Circuits had held that the Lanham Act did not permit “color alone” to be recognized as a mark.¹⁰⁶ The Supreme Court’s acceptance of certiorari led to resolution of this circuit split.

In an attempt to block the registration of color marks, Jacobson made four arguments: one about precedent and three related to color as a signifier.¹⁰⁷ On the subject of precedent, Jacobson claimed that color alone was not capable of serving as a mark before passage of the Lanham Act in 1946 and, therefore, it could not do so under the current law.¹⁰⁸ The Court rejected this argument because the federal trademark statute that preceded the Lanham Act incorporated a relatively narrow conception of protectable subject matter.¹⁰⁹ Because the Court did not reject the historical premise of the argument, one might expect color marks to emerge soon after the Lanham Act was passed in 1946. Interestingly, the first color mark we found in the USPTO data is for a gold band around the eraser end of a pencil first registered in 1904,¹¹⁰ and it remained registered until March 2015.¹¹¹ The Court did not cite this registration or others registered under the federal trademark provisions preceding the Lanham Act, even though these federal registrations may have been used as non-judicial precedent to establish that the USPTO’s Principal Register included marks claiming a single color on part of a product’s surface that had been registered decades before Qualitex litigated its claim to the green-gold hue of its press pads. Some of these older marks, such as the gold bands claimed on the end of a pencil, were for designs appearing in a particular color, not the color *per se*. After passage of the Lanham Act in 1946, the USPTO issued

¹⁰⁵ See *In re Owens-Corning Fiberglas Corp.*, 774 F.2d 1116, 1127–28 (Fed. Cir. 1985) (upholding trademark registration for the color pink on insulation); *Master Distribs., Inc. v. Pako Corp.*, 986 F.2d 219, 224 (8th Cir. 1993) (declining to recognize *per se* prohibition of color alone as a trademark).

¹⁰⁶ See *Qualitex*, 13 F.3d at 1302; *NutraSweet Co. v. Stadt Corp.*, 917 F.2d 1024, 1028 (7th Cir. 1990) (recognizing absolute prohibition against protection of color alone as a trademark).

¹⁰⁷ *Qualitex*, 514 U.S. at 166–74.

¹⁰⁸ *Id.* at 170–71.

¹⁰⁹ *Id.* at 171–73.

¹¹⁰ Registration No. 0,043,074 (“The trade-mark consists of a circular gold colored band on the ferrule of a leadpencil.”).

¹¹¹ *Id.*

additional registrations claiming color for a product segment or its entire surface. For example, since 1986, Owens-Corning has held a federal registration on the color pink for residential insulation.¹¹² Consistent with USPTO's practices, Jacobson's argument about precedent was quickly brushed aside.¹¹³

Jacobson's three arguments relating to color were also rejected. First, Jacobson argued that color perceptions are too unstable to enable the underlying colored subject to work as a mark.¹¹⁴ They asserted that colors appear dramatically different as lighting, time of day, or an individual's eyesight alter perceptions of it. Jacobson argued that such variability could create "shade confusion" leading to uncertainty about alternative colors available to competitors and difficult decisions for courts. Jacobson had a point here. Different lighting situations do change our perception of colors. But this argument is not unique to color. Words and designs also cannot be seen in the dark. The Court rejected the shade confusion argument, finding that courts are up to the task of line-drawing in trademark decisions involving similar words, and they could make such decisions for color marks as well.¹¹⁵ It cited a string of decisions where lower courts had already done so.¹¹⁶

Second, Jacobson argued that desirable colors are in limited supply. This argument may seem odd given that scientists have estimated that people with normal color vision can discern millions of color variations.¹¹⁷ However, in hindsight, the argument looks prophetic. Barton Beebe and Jeanne Fromer have done an empirical study indicating that trademark depletion and congestion are becoming increasingly serious problems.¹¹⁸ Rebecca Tushnet has identified

¹¹² Registration No. 1,439,132 ("The drawing is lined to indicate the color pink.").

¹¹³ *Qualitex*, 514 U.S. at 171–73.

¹¹⁴ *Id.* at 167.

¹¹⁵ *Id.* at 167–68.

¹¹⁶ *Id.* at 168.

¹¹⁷ See ENRIQUE RUIZ, DISCRIMINATE OR DIVERSIFY 174 (2d ed. 2010) (citing studies by Gunter Wyszecki and David Myers); Elliott & Maier, *supra* note 2, at 96 (stating that humans with normal vision can see approximately "2.3 million discernible colors" and "an almost infinite number of possible [color] combinations") (internal quotation marks and citations omitted).

¹¹⁸ See Barton Beebe & Jeanne C. Fromer, *Are We Running Out of Trademarks? An Empirical Study of Trademark Depletion and Congestion*, 131 HARV. L. REV. 945 (2018).

situations in which this problem may be affecting design marks as well.¹¹⁹

When *Qualitex* was decided, so few color marks had been registered that the idea of running out of color marks seemed abstract and theoretical.¹²⁰ If *Qualitex* had selected a primary color (and perhaps if its business was in a more visible consumer products industry), this argument might have been persuasive. In 1949, it had been successfully used to stop the Campbell Soup Company from monopolizing the colors red and white on food product labels.¹²¹ Ultimately, the Court was not concerned that suppliers to the commercial dry-cleaning industry would run out of colors. The Court dismissed the argument, stating that “it relies on an occasional problem to justify a blanket prohibition” and when the problem arises, the functionality doctrine would take care of it.¹²²

Finally, Jacobson argued that protecting color alone was unnecessary because mark owners could protect it in connection with other elements like words or designs and could protect color as unregistered trade dress.¹²³ The Supreme Court dismissed this assertion as begging the question. The Lanham Act’s broad definition of a mark as “any symbol” created a clear statutory basis for protecting color as a mark when it does not serve a functional purpose.¹²⁴ However, the Court emphasized that color would not be eligible for automatic protection like other symbols that, in the court’s judgment, automatically signaled brand meaning.¹²⁵ The court noted that colors often signal expressive messages other than source.¹²⁶ It listed decisions in which lower courts had applied the functionality doctrine to prohibit

¹¹⁹ See Rebecca Tushnet, *Registering Disagreement: Registration in Modern American Trademark Law*, 130 HARV. L. REV. 867, 927–29 (2017).

¹²⁰ See *infra* Figure XIII (part of Section IV.B).

¹²¹ See *Campbell Soup Co. v. Armour & Co.*, 175 F.2d 795, 798 (3d Cir. 1949), *abrogated by Qualitex Co. v. Jacobson Prods. Co.*, 514 U.S. 159 (1995) (“The primary colors are few, and as the evidence shows those suitable for light products, such as milk, are even more limited. To allow them to be appropriated as distinguishing marks would foster monopoly by foreclosing the use by others of any tasty dress.”).

¹²² See *Qualitex Co. v. Jacobson Prods. Co.*, 514 U.S. 159, 168–70 (1995).

¹²³ *Id.* at 173.

¹²⁴ *Id.* at 164–65.

¹²⁵ *Id.* at 171.

¹²⁶ *Id.* at 169–70.

one entity from having a commercial advantage by monopolizing a color that communicated “non-reputation related product features.”¹²⁷ The Court listed examples of functionality bars: when color signals ingredients (blue for nitrogen in fertilizer), affects perception of product size or neutrality with other colors (black for outboard motors), reduces manufacturing costs (clear tip of fishing rod), or is expected in an industry (green for farm equipment).¹²⁸ The Owens-Corning registration of pink for insulation was provided as the counter-example for when color served only a reputation-related trademark purpose.¹²⁹ The Court indicated that the primary device to protect against color monopoly decisions would be the functionality doctrine.¹³⁰

The Supreme Court reaffirmed the functionality standard articulated in *Inwood* and then added a phrase that became the basis for the aesthetic functionality doctrine. The *Inwood* decision provided that “a product feature is functional,” and cannot serve as a trademark, “if it is essential to the use or purpose of the article or if it affects the cost or quality of the article.”¹³¹ The *Qualitex* decision added that a product feature would also be deemed functional “if exclusive use of the feature would put competitors at a significant non-reputation-related disadvantage.”¹³² On this basis, the Supreme Court reversed the Ninth Circuit¹³³ and set the stage for color alone to be registered as a mark with the USPTO. After *Qualitex*, in order to obtain federal registration for a color apart from a design, an applicant has the burden of proving that its mark is not functional and has acquired distinctiveness.¹³⁴ Trademark registrations would not result in outright ownership of a color. But a registration does create a presumption of validity that may be enforced in litigation or used by the USPTO to block other

¹²⁷ See *id.* at 169–70.

¹²⁸ *Id.*

¹²⁹ See *id.* at 168–69.

¹³⁰ See *id.* at 169–70.

¹³¹ *Id.* at 165 (quoting *Inwood Labs., Inc. v. Ives Labs., Inc.*, 456 U.S. 844, 850 n.10 (1982)).

¹³² *Id.*

¹³³ *Id.* at 174.

¹³⁴ *Id.* at 166.

trademark applications claiming the same color for similar goods or services.¹³⁵

B. *How The USPTO Applies Qualitex to Select Which Color Marks Merit Federal Registration*

After *Qualitex* cleared a path to granting trademark protection for colors, it was up to the USPTO to determine how to implement the decision through the federal registration process. Scholars generally viewed *Qualitex* as a decision that expanded trademark rights and some criticized it for opening trademark protection to nontraditional subject matter, warning that color registrations would harm competition and create illegitimate expressive cartels.¹³⁶ Now that the *Qualitex* standard has been in force for more than two decades, our next objective is to empirically examine whether these dire predictions have been realized. In this Section we first explain the benefits of federal registration and then turn to the administrative standards the USPTO has developed to implement *Qualitex*. In Part IV, we empirically analyze USPTO data to determine whether the USPTO's gate-keeping strategies have been

¹³⁵ See 15 U.S.C. § 1057(b) (2018) (“A certificate of registration of a mark upon the principal register . . . shall be prima facie evidence of the validity of the registered mark and of the registration of the mark, of the owner’s ownership of the mark, and of the owner’s exclusive right to use the registered mark in commerce on or in connection with the goods or services specified in the certificate, subject to any conditions or limitations stated in the certificate.”). The USPTO presumption of validity extends to all goods or services of the type described in the application. TRADEMARK MANUAL OF EXAMINING PROCEDURE § 1207.01(a)(iii) (21st ed. 2017) [hereinafter TMEP]; see also *Levi Strauss & Co. v. Abercrombie & Fitch Trading Co.*, 719 F.3d 1367, 1373 (Fed. Cir. 2013).

¹³⁶ See Ann Bartow, *The True Colors of Trademark Law: Greenlighting a Red Tide of Anti Competition Blues*, 97 KY. L.J. 263, 263–64 (2008) (“The Supreme Court was wrong to facilitate this abuse of trademark powers when it decided in *Qualitex v. Jacobson Products Co.* that colors alone could constitute protectable trademarks. . . . [The *Qualitex* decision] reduced competition and consumer choice by creating illegitimate aesthetic and communicative cartels.”); Daniel M. McClure, *Trademarks and Competition: The Recent History*, 59 LAW & CONTEMP. PROBS. 13, 36 (1996) (“The willingness of the Supreme Court to expand trademark protection under the Lanham Act was illustrated most recently by the Court’s 1995 opinion in *Qualitex Co. v. Jacobson Products Co.*”); Jerome Gilson & Anne Gilson LaLonde, *Cinnamon Buns, Marching Ducks and Cherry-Scented Racecar Exhaust: Protecting Nontraditional Trademarks*, 95 TRADEMARK REP. 773, 782 (2005) (describing *Qualitex* as a “stunning breakthrough” expanding protection for nontraditional marks including color).

effective, and how registration data maps onto the consumer understandings set forth above.

1. Benefits of Federal Registration

Federal trademark registration provides important benefits, but it is not required to protect marks. Unlike patent and copyright law where federal law supersedes state law protection,¹³⁷ trademark law provides multiple mechanisms for protecting marks that are used but not registered. Even if a mark fails to obtain federal registration, the mark may be registered in states where it is used. Marks that are not registered at all may be protected through common law trademark infringement claims and state statutory or unfair competition laws. Section 1125(a) of the Lanham Act provides a federal cause of action for infringement of marks that are not federally registered.¹³⁸ At common law, trademark rights arise from use by a business in its geographic region.¹³⁹ The right is bounded by market sector so that the same symbol can be used in multiple industries if each use is different enough that consumers would not be confused that one was associated with another. In this way, the law recognizes that a color, such as light blue, may be advertised for Tiffany's luxury gifts and the University of North Carolina's educational services without a likelihood of causing source confusion.

Physical turf marks a second boundary. At common law, the exclusive right to a symbol extended to the geographic region in which it was used.¹⁴⁰ Both Harvard University and the University of Alabama (along with many other colleges and universities) claim trademark

¹³⁷ 17 U.S.C. § 301(a) (2018); 28 U.S.C. § 1338(a) (2018).

¹³⁸ See, e.g., Bd. of Supervisors for La. State Univ. Agric. & Mech. Coll. v. Smack Apparel Co., 550 F.3d 465, 475 (5th Cir. 2008) (acknowledging that University "color schemes" may be protected under the Lanham Act because trademark rights arise from "use, not by registration") (internal citation and quotation marks omitted).

¹³⁹ See Hanover Star Milling Co. v. Metcalf, 240 U.S. 403, 412–16 (1916); Borden Ice Cream Co. v. Borden's Condensed Milk Co., 201 F. 510 (7th Cir. 1912).

¹⁴⁰ See United Drug Co. v. Theodore Rectanus Co., 248 U.S. 90, 98–101 (1918); Stone Creek, Inc. v. Omnia Italian Design, Inc., 862 F.3d 1131, 1140–41 (9th Cir. 2017), *aff'd in part, rev'd in part*, 875 F.3d 426 (9th Cir. 2017).

rights in the color “crimson.”¹⁴¹ From a common law perspective, this coexistence makes sense because although they offer services in the same field, they are geographically distant.

Federal registration is advantageous over common law protection because it extends the geographic scope from the area of actual use to the entire United States. Once a mark has federal registration, its owner has nationwide priority in the symbol, even in places it has not yet conducted business.¹⁴²

Therefore, a primary advantage of federal registration is that it provides a mark owner with the opportunity to secure exclusive rights nationally in a particular market sector.¹⁴³ Even if a brand owner is not using its mark in every state, federal registration creates the opportunity to require later adopters to choose another symbol.¹⁴⁴ The registration certificate also constitutes prima facie evidence that the mark is valid and owned by the applicant.¹⁴⁵ Because all marks are published and easily found by an internet search on the USPTO website,¹⁴⁶ a mark’s appearance on the Principal Register provides important deterrent value. A new organization searching for a distinct name may eliminate

¹⁴¹ See *Color—Identity Guidelines*, HARV. BUS. SCH., <http://www.hbs.edu/marketing/color.html> [<https://perma.cc/8TZU-8WAT>] (identifying PMS 1087 as the Harvard crimson); UNIV. OF ALA., GRAPHIC STANDARDS 18, 40 (2016), https://strategiccommunications.ua.edu/img/BRANDINGSTANDARDS_Aug17_Updated102115.pdf [<https://perma.cc/RX27-9TJV>] (last visited Apr. 29, 2019) (identifying PMS 201 as the official crimson color for the University of Alabama).

¹⁴² 15 U.S.C. § 1115 (2018).

¹⁴³ 15 U.S.C. § 1057(c) (2018) (“[T]he filing of the application to register such mark shall constitute constructive use of the mark, conferring a right of priority, nationwide in effect, on or in connection with the goods or services specified in the registration against any other person . . .”).

¹⁴⁴ See *Dawn Donut Co. v. Hart’s Food Stores, Inc.*, 267 F.2d 358, 362–63 (2d Cir. 1959).

¹⁴⁵ 15 U.S.C. § 1057(b) (2018) (“A certificate of registration of a mark upon the principal register provided by this chapter shall be prima facie evidence of the validity of the registered mark and of the registration of the mark, of the owner’s ownership of the mark, and of the owner’s exclusive right to use the registered mark in commerce on or in connection with the goods or services specified in the certificate, subject to any conditions or limitations stated in the certificate.”).

¹⁴⁶ See *Search Trademark Database*, U.S. PAT. & TRADEMARK OFF., <https://www.uspto.gov/trademarks-application-process/search-trademark-database> [<https://perma.cc/4JUN-HM8L>] (last updated Feb 21, 2019, 3:18 PM).

from its list of candidates any mark that has already been registered by another similar organization.

The USPTO maintains two trademark registries: the Principal Register and the Supplemental Register. The Principal Register confers many superior statutory benefits, including those identified above.¹⁴⁷ A mark that fails to qualify for the Principal Register may be placed on the Supplemental Register.¹⁴⁸ If, for example, an applicant cannot establish that its color mark has acquired “secondary meaning,” it may still obtain a place on the Supplemental Register. If the mark ever acquires distinctiveness, the applicant may reapply for acceptance on the Principal Register.¹⁴⁹ Supplemental registration does confer some benefits. It allows the mark owner to use the symbol “®” to notify the world that it is registered with the USPTO.¹⁵⁰ This notice and the appearance in the searchable USPTO online database of registered marks provide some deterrent value. When checking on the availability of a mark in the USPTO’s Trademark Electronic Search System (TESS) database, a new entrant who finds the mark already registered may choose to adopt a different symbol to avoid any hassle in the registration process and the risk of an infringement claim by the senior user. Marks on the Supplemental Register may also be used as a basis to prevent look-alike marks from being registered, especially for marks like color that require proof of exclusivity.

2. The USPTO’s Application of *Qualitex*

Qualitex provides that one may only obtain registration in a color if the applicant can prove that its mark is not functional and has obtained secondary meaning.¹⁵¹ While Harvard and Alabama may be able to overcome the functionality hurdle, they will not be able to show acquired distinctiveness sufficient to meet the USPTO’s registration standard for marks consisting only of color. Courts and the USPTO have required certain symbols such as descriptive text, colors, and

¹⁴⁷ 15 U.S.C. § 1094 (2018).

¹⁴⁸ 15 U.S.C. § 1091.

¹⁴⁹ 15 U.S.C. § 1095.

¹⁵⁰ 15 U.S.C. § 1111.

¹⁵¹ *Qualitex Co. v. Jacobson Prods. Co.*, 514 U.S. 159, 163–65 (1995).

product design to have secondary meaning before they will treat them as trademarks. These symbols all may be used for decorative or descriptive purposes, therefore, to protect fair competition, they are not protected as marks unless “consumers understand the design elements to signify the goods’ *origin* and not just its attributes.”¹⁵² This understanding of the symbol as signifying a particular source is referred to as “secondary meaning” or “acquired distinctiveness.”¹⁵³

The secondary meaning standard differs from the functionality doctrine in an important respect. Functionality does not exist in degrees like secondary meaning; it is an absolute bar. If a trademark is deemed functional it will not be afforded federal or common law protection as a mark.¹⁵⁴ Secondary meaning is a question of degree. Marks that are not distinctive when they are first adopted may become distinctive over time.¹⁵⁵ While the *Qualitex* Court provided that functionality or lack of secondary meaning would bar color from trademark protection, it did not answer how much secondary meaning must exist or how this meaning would be proven. The USPTO and the courts were left with this task.

At common law, all that is required is consumer recognition that the color mark is viewed as a signifier of source.¹⁵⁶ The USPTO, by contrast, applies a high standard in determining whether a color mark has acquired distinctiveness. When seeking to register a mark consisting of color alone, an applicant has the burden of proving *substantially*

¹⁵² *Bretford Mfg., Inc. v. Smith Sys. Mfg. Corp.*, 419 F.3d 576, 579 (7th Cir. 2005).

¹⁵³ *Coach Servs., Inc. v. Triumph Learning LLC*, 668 F.3d 1356, 1378–79 (Fed. Cir. 2012); *In re Gen. Mills IP Holdings, II, LLC*, 124 U.S.P.Q.2d 1016 (T.T.A.B. 2017).

¹⁵⁴ *See generally* *Traffix Devices, Inc. v. Mktg. Displays, Inc.*, 532 U.S. 23, 29 (2001) (“In a civil action for trade dress infringement under this chapter for trade dress not registered on the principal register, the person who asserts trade dress protection has the burden of proving that the matter sought to be protected is not functional.’ This burden of proof gives force to the well-established rule that trade dress protection may not be claimed for product features that are functional.”) (quoting 15 U.S.C. § 1125(a)(3) (1994)) (citing *Qualitex*, 514 U.S. at 164–65).

¹⁵⁵ *Qualitex*, 514 U.S. at 163.

¹⁵⁶ *Bd. of Supervisors of La. State Univ. v. Smack Apparel Co.*, 438 F. Supp. 2d 653, 658–59 (E.D. La. 2006), *aff’d sub nom.* *Bd. of Supervisors for La. State Univ. Agric. & Mech. Coll. v. Smack Apparel Co.*, 550 F.3d 465 (5th Cir. 2008) (articulating factors the Fifth Circuit uses to assess secondary meaning, which do not include exclusivity).

exclusive use of the color.¹⁵⁷ This standard requires that the applicant prove not just that the color is recognized as a source identifier, but that its use has sufficient national exclusivity that it would be perceived to be commercially distinctive in its field. That is not an easy bar to clear. For example, General Mills failed to gather sufficient evidence to protect the iconic yellow design of its Cheerios box. While we expect a Cheerios box to be yellow, General Mills was not able to prove its yellow packaging has sufficient secondary meaning to merit federal registration because other cereals are also packaged in yellow boxes.¹⁵⁸ Therefore, it could not meet the strict standard of proving that it engaged in substantially exclusive use of the color yellow in this context.

In the case of red for institutions of higher education, many have achieved secondary meaning at common law and have succeeded in protecting their common law color combination marks through litigation in federal and state court.¹⁵⁹ Nonetheless, there are too many prominent competitors using red in combination with another color for any one of them to meet the USPTO's secondary meaning standard and obtain a federal registration for the color.¹⁶⁰ Notwithstanding the fact

¹⁵⁷ 15 U.S.C. § 1052(f) (“[N]othing herein shall prevent the registration of a mark used by the applicant which has become distinctive of the applicant’s goods in commerce. The Director may accept as prima facie evidence that the mark has become distinctive, as used on or in connection with the applicant’s goods in commerce, *proof of substantially exclusive and continuous use* thereof as a mark by the applicant in commerce for the five years before the date on which the claim of distinctiveness is made.”) (emphasis added). See TMEP § 1202.05(a) (“Color marks are never inherently distinctive. . . . Therefore, the examining attorney must refuse to register a color mark on the Principal Register, unless the applicant establishes that the proposed mark has acquired distinctiveness under § 2(f). The examining attorney must issue this refusal in *all* color mark applications where acquired distinctiveness has not been shown, regardless of the filing basis of the application. The ground for refusal is that the color is not inherently distinctive and, thus, does not function as a trademark under §§ 1, 2, and 45 of the Trademark Act, 15 U.S.C. §§ 1051, 1052, and 1127.”) (internal citations omitted).

¹⁵⁸ *In re Gen. Mills IP Holdings II, LLC*, 124 U.S.P.Q.2d 1016 (T.T.A.B. 2017).

¹⁵⁹ *Bd. of Supervisors of La. State Univ. v. Smack Apparel Co.*, 438 F. Supp. 2d 653, 655 (E.D. La. 2006), *aff’d sub nom.* *Bd. of Supervisors for La. State Univ. Agric. & Mech. Coll. v. Smack Apparel Co.*, 550 F.3d 465 (5th Cir. 2008) (finding that the following unregistered color combinations had obtained secondary meaning for the school’s colors: “purple and gold for LSU, crimson and creme for OU, scarlet and gray for OSU, and cardinal and gold for USC.”)

¹⁶⁰ The University of Alabama has registered the word “crimson” in its “crimson tide” mark (Registration No. 1,338,772) and has registered the word “crimson” in connection with design marks that do not claim color. See A CRIMSON TIDE, Registration No. 1,322,955; ALABAMA CRIMSON TIDE, Registration No. 3,730,292; A ALABAMA CRIMSON TIDE, Registration No.

that some schools may have acquired trademark meaning in a color or color combination and may register them in connection with distinctive text (such as the school's name) or source identifying designs (such as the drawing of a mascot), none are likely to be able to register color alone because proving substantially exclusive use will be difficult. Unlike functionality, which would eliminate both common law and federal protection, it is possible for a mark to have sufficient secondary meaning to be recognized at common law but not enough for registration on the USPTO's Principal Register.¹⁶¹ Nonetheless, the USPTO's higher secondary meaning standard is an important barrier to maximizing intellectual property protection because federal trademark registration provides important advantages. The next Part provides our empirical analysis demonstrating the extent to which color trademark applications have succeeded in overcoming the *Qualitex* hurdles as implemented by the USPTO.

IV. EMPIRICAL ANALYSIS OF USPTO TRADEMARK DATA

Federal trademark registration data provides an illuminating window into how exclusive intellectual property color claims are asserted and affirmed. Concerns about clutter on the USPTO Principal Register raise questions about whether the USPTO has been too permissive as a general matter in granting federal trademark registrations, thereby contributing to anticompetitive effects.¹⁶² Given color's expressive potential, decorative appeal, and usefulness to consumers, the USPTO trademark registration data provide an ideal opportunity to enrich our understanding of how the USPTO sorts signals into those that may and may not receive exclusive nationwide

4,298,328; A ALABAMA CRIMSON TIDE, Registration No. 4,156,102. The President and Fellows of Harvard University have the word "crimson" registered in connection with the standard character mark GOCRIMSON.COM, Registration No. 4,229,166, and a design mark for "HarvardX," where in addition to the text, the color crimson is claimed for a portion of the letter "x." Registration No. 4,551,935.

¹⁶¹ See, e.g., *In re Gen. Mills IP Holdings II, LLC*, 124 U.S.P.Q.2d 1016 (T.T.A.B. 2017) (finding applicant yellow unregistrable for the Cheerios cereal box due to an inability to prove substantially exclusive use, even though out of 419 survey respondents, "221 (52.7%) identified the brand as CHEERIOS").

¹⁶² See, e.g., Beebe & Fromer, *supra* note 118.

protection. The USPTO data do not show how often color is used in branding, but they do indicate how often color is of sufficient strategic value that the mark owner attempted to claim it as an element of its federal registration in order to secure exclusive trademark rights. Below we explain our methodology for analyzing the USPTO data and then illustrate how color claims have fared in the USPTO registration process.

A. *Methodology For Analyzing Success Rates Before the USPTO*

Until 2010, little was known about the overall patterns of trademark registration data. The USPTO trademark application data were not available online in an aggregate format.¹⁶³ In June 2010, the USPTO partnered with Google, Inc. to make its data freely available for download.¹⁶⁴ As a result, basic application information can now be more easily studied empirically. Accessible information includes registration numbers, descriptions of marks (including whether or not they claim colors), and the details of opposition proceedings.¹⁶⁵

To better understand trends in trademark applications claiming color, we analyzed trademark applications filed between 1987 and 2017. We used 1987 as a start date because it is the first year with substantially complete information for the variables relevant to our analysis. The availability of nearly eight years of data before *Qualitex* was decided in 1995 makes it possible to examine whether the decision correlates with an increase in applications claiming color. We included the most recent data available for our end dates, given the constraints of the filing process. Because many applications are delayed by office actions, wait

¹⁶³ See Press Release, U.S. Patent & Trademark Off., USPTO Teams with Google to Provide Bulk Patent and Trademark Data to the Public (June 2, 2010), <https://www.uspto.gov/about-us/news-updates/uspto-teams-google-provide-bulk-patent-and-trademark-data-public> [<https://perma.cc/P3BU-K3EM>] (describing the origins of the partnership between the USPTO and Google to offer bulk data to the public).

¹⁶⁴ *Id.*

¹⁶⁵ See *USPTO Bulk Downloads: Trademarks*, GOOGLE, <http://www.google.com/googlebooks/uspto-trademarks.html> [<https://perma.cc/WYB3-HMU5>] (last visited May 24, 2019); *Bulk Data Products*, U.S. PAT. & TRADEMARK OFF., <https://www.uspto.gov/learning-and-resources/bulk-data-products> [<https://perma.cc/D8VP-7S3X>] (last updated Oct. 29, 2018, 7:08 AM).

times for statements of use to be filed, requests for extensions of time, and opposition proceedings, a substantial number of applications do not register for months or even years after the application is filed.¹⁶⁶ Therefore, we examined application data between 1987 and 2017, and success rates (based on publication and registration rates) for applications filed between 1987 and 2015. The USPTO trademark data are stored in dozens of multi-gigabit extensible markup language (XML) files, each in a similar format.¹⁶⁷ The data include over 170 variable categories. Because single variables may capture an array of information throughout the life cycle of an application, the dataset contains approximately 1,500 possible data points.

The USPTO assigns a serial number to each trademark application, which we used as a unique identifier for each application in our dataset. Each application contains fields identifying the owner, the type of mark (e.g. trademark, certification mark, collective mark), the filing basis (e.g., use, intent to use), the date of first use for each category of goods and services, and whether the mark claims color. Every application also identifies if and when the USPTO approved the mark for publication in the *Official Gazette* and the date on which the mark was admitted to the Principal or Supplemental Register. Each application also contains a current status code, indicating whether a trademark is currently registered and, if not, the code provides some insight into whether it was abandoned or failed to register for other reasons.

Unlike other empirical studies of trademarks in which researchers have analyzed a sample of the population,¹⁶⁸ this study includes all

¹⁶⁶ Indeed, the registration rates for 2016 (49%) and 2017 (21%) were much lower than the rates in the immediately preceding years (for example, the 2015 registration rate was 55%).

¹⁶⁷ For more information about the data structure and variables, see generally U.S. PATENT & TRADEMARK OFFICE, TRADEMARKS APPLICATION DAILY XML V2.0 DOCUMENTATION, <http://www.uspto.gov/products/tmdailyapp-documentation.pdf> [<https://perma.cc/LJR6-TXDK>] (last visited Apr. 4, 2019). After compiling the initial database using the available XML files, the USPTO made additional data sets available in CSV format. See *Trademark Case Files Dataset*, U.S. PAT. & TRADEMARK OFF., <https://www.uspto.gov/learning-and-resources/electronic-data-products/trademark-case-files-dataset-0> [<https://perma.cc/5ZDH-FKAW>] (last updated Feb. 27, 2019, 8:49 AM). Although these datasets are less complete, the authors have performed the analysis on both the original and compiled data sets whenever possible to affirm their validity.

¹⁶⁸ See, e.g., Paul J. Heald & Robert Brauneis, *The Myth of Buick Aspirin: An Empirical Study of Trademark Dilution by Product and Trade Names*, 32 CARDOZO L. REV. 2533 (2011)

substantially complete trademark applications filed during the specified time period.¹⁶⁹ Before analyzing the data, we excluded applications with incomplete or highly suspect records. For example, we dropped a small number of applications whose final status code was “Misassigned serial number,” as those records contained little substantive information and the status code itself suggested that the records had been subject to a coding error.¹⁷⁰

After an application is filed, the USPTO assigns a trademark examiner to review it. The Lanham Act and corresponding regulations give the USPTO authority to deny registration for a host of reasons listed in 15 U.S.C. § 1052.¹⁷¹ A common basis for a refusal to register is that a proposed mark is likely to be confused with a mark already on the Principal Register.¹⁷² Consistent with *Qualitex*, an application to register a color mark will also be barred if it is functional or if the applicant cannot establish proof that the mark is distinctive.¹⁷³

In the federal trademark registration process, an applicant faces two hurdles: (1) review by a USPTO examiner; and (2) an opportunity for third parties to object to the registration. The first of these is the more frequent barrier to registration.¹⁷⁴ After the application is filed, a trademark examiner will review the file and determine if it poses a problem that must be remedied for the application to proceed. Unless the defect is ministerial and may be fixed over the phone, the examiner will issue a written Office Action identifying the deficiency. After

(analyzing a sample of thirty-three famous trademarks to measure the impact of trademark dilution over time).

¹⁶⁹ For this reason, the traditional measures of statistical significance are inapplicable to this Article, as they assess the level of confidence that the differences measured in the sample are present in the population. Furthermore, given the extraordinary number of observations in this dataset (7,220,113), all noted differences in the primary categories would have been statistically significant had such measures been applicable.

¹⁷⁰ Also excluded from consideration were applications that had a current status code of “969,” which corresponds to “Non-Registration Data.” Records were also excluded in particular aspects of the analysis where appropriate. For example, when analyzing registration rates by filing basis, records without a basis were excluded.

¹⁷¹ See 15 U.S.C. § 1052 (2018).

¹⁷² See 15 U.S.C. § 1052(d).

¹⁷³ 15 U.S.C. § 1052(e)–(f).

¹⁷⁴ See Deborah R. Gerhardt & Jon P. McClanahan, *Do Trademark Lawyers Matter?*, 16 STAN. TECH. L. REV. 583 (2013).

receiving the Office Action, the applicant may respond. If the applicant fails to respond or cannot overcome the objection, registration may be denied at that stage. If the defect is resolved and the trademark examiner approves the application, it will proceed to “publication” in the USPTO’s *Official Gazette*.¹⁷⁵

Publication opens the second window of vulnerability. Once a mark appears in the *Official Gazette*, third parties who believe they may be harmed by its registration (such as another company using a similar color mark) have thirty days to oppose it.¹⁷⁶ If no opposition is filed (or if the applicant overcomes a third party opposition), the application will proceed to registration.¹⁷⁷ Marks that constitute color alone must be based on use sufficient to establish secondary meaning, but a mark that constitutes color in addition to a design may be deemed inherently distinctive if the color and design elements create a unique commercial impression.¹⁷⁸ In such cases, a mark may be filed on the basis of a bona fide intent to use it in commerce.¹⁷⁹ For applications filed on an intent to use basis, the USPTO will issue a “Notice of Allowance” after the publication period has elapsed, and registration will occur after the applicant demonstrates that it has commenced use of the mark in commerce.¹⁸⁰

Because we sought to uncover the prevalence and success rates for trademark applications claiming color as a feature of the mark, we applied the color categories available in the USPTO data, and further refined the data when we sought additional detail. Included within the USPTO dataset is a wealth of information about the designs and colors that are claimed in a trademark application. The categories for design elements include “Animals,” “Geometric figures,” “Supernatural beings,” and “Human beings.”¹⁸¹ Each of the primary categories is

¹⁷⁵ TMEP § 15.02

¹⁷⁶ *Id.*

¹⁷⁷ *Id.*

¹⁷⁸ See *Seabrook Foods, Inc. v. Bar-Well Foods Ltd.*, 568 F.2d 1342, 1344 (C.C.P.A. 1977).

¹⁷⁹ See 15 U.S.C. § 1051(b) (2018).

¹⁸⁰ *Id.* § 1051(d)(1).

¹⁸¹ See *USPTO Design Search Code Manual*, U.S. PAT. & TRADEMARK OFF., <http://tess2.uspto.gov/tmdb/dscm/index.htm#toc> [<https://perma.cc/S37R-8Y2T>] (last visited Apr. 4, 2019).

further divided into subcategories that more specifically identify the type of design being claimed in the application.¹⁸²

Perhaps because of the initial uncertainty about whether color could be claimed as a distinct feature of a trademark at the time the categories were created, the colors are contained in the design code categories under the final catch-all category, termed “Miscellaneous.” The color designations do not fully capture the spectrum of color shades that may be associated with a mark but are instead categorized into the following relatively crude categories: (1) red or pink; (2) brown; (3) blue; (4) gray or silver; (5) purple or violet; (6) green; (7) orange; (8) yellow or gold; (9) white; (10) clear or translucent; and (11) black.¹⁸³

Often, trademark applications will have considerably more detail about the precise shade being claimed. Some applications specify a specific color using a textual description, such as Tiffany’s registrations for “robin’s-egg blue.”¹⁸⁴ Others claim colors with reference to a third-party classification system. For example, the color mark registered for the WD-40 spray can asserts trademark rights in Pantone “Process Yellow” and “Reflex Blue.”¹⁸⁵ The Munsell numeric identification has also been used to both identify and exclude specific hues.¹⁸⁶

The dataset also indicates whether an application claims a single color or multiple colors, and whether the color is being claimed for the entire object or only part of the object. Unfortunately, these data are not

¹⁸² For example, the category of “Celestial Bodies” includes subcategories for stars, comets, clouds, and planets. *See id.*

¹⁸³ *Design Search Manual: Category 29: Miscellaneous Designs*, *supra* note 67 (identifying the codes associated with trademark applications that claim color as part of the proposed mark).

¹⁸⁴ *See* Registration No. 2,416,794 (“The mark consists of a shade of blue often referred to as robin’s-egg blue which is used on catalog covers.”); Registration No. 2,416,795 (“The mark consists of a shade of blue often referred to as robin’s-egg blue which is used on bags.”); Registration No. 2,359,351 (“The mark consists of a shade of blue often referred to as robin’s-egg blue which is used on boxes.”).


¹⁸⁵ Registration No. 3,416,712 (“The color(s) Pantone (PMS) Process Yellow and Pantone (PMS) Reflex Blue is/are claimed as a feature of the mark.”).


¹⁸⁶ *Compare* Registration No. 1,536,106 (“The mark is lined for the particular shade of the color blue, sometimes known as ‘Channellock Blue’, best identified by No. 10 B 5/12 of Munsell Color.”), *with* Registration No. 1,193,557 (“The lining on the drawing represents the color blue, but excludes those colors designated in the Munsell Color Atlas as the following hues; 10BG, 2.5B, 5B, 7.5B, 10B, 2.5PB, 5PB and 7.5PB having a value of 8 or more and a chroma of 4 or less.”).

stored in a consistent fashion, and therefore they pose challenges to compiling them on an aggregate basis.

We began by using the USPTO codes to divide the application pool into four groups: (1) “Text” consisting of marks containing no visual design element, such as those consisting of text irrespective of the form in which it appears; (2) “Design” marks that do not claim color; (3) “Design and Color” for marks that do claim color as a design element; and (4) “Color” design marks claiming only color. For example, Target’s marks claiming the word “Target” are classified in the first category because the applications did not claim any design element, color, or font specification. Target’s concentric circle design mark (that does not claim color or the word “Target”) falls into our second category.¹⁸⁷ Target also registered the design mark in red, and this version fits into our third category.¹⁸⁸ We first looked to determine whether this initial sorting of the applications would identify the marks claiming only color.

We quickly discovered that this initial attempt at categorization based on USPTO codes did not adequately separate out the color claims we sought to study. We noted that some marks in the second and third categories contained text as well as design and color. In these marks, a specific typeface and color palette may be claimed for a particular word.¹⁸⁹ Accordingly, we further refined our classifications to examine six categories: (1) text only; (2) text and design; (3) text, design, and color; (4) design only; (5) design and color; and (6) color only. These refined categories permitted us to examine the impact of each element

¹⁸⁷ See Registration No. 4,029,537 (“The mark consists of concentric circles representing a target or bullseye design.”) .

¹⁸⁸ Registration No. 2,473,434 (“The color red is claimed as a principle feature of the mark as shown.”)  Design marks (with or without color) are also claimed for services, such as the United Parcel Service’s mark claiming the color brown used on vehicles for its delivery services. See Registration No. 2,131,693 (“The mark consists of the color brown applied to the vehicles used in performing the services.”).

¹⁸⁹ See, e.g., GOOGLE, Registration No. 3,140,793. The description of the mark provides: “The color(s) blue, red, yellow, and green is/are claimed as a feature of the mark. The mark consists of a stylized version of the word GOOGLE. The first letter ‘G’ is blue; the second letter ‘O’ is red; the third letter ‘O’ is yellow; the fourth letter ‘G’ is blue; the fifth letter ‘L’ is green; and the sixth letter ‘E’ is red.” *Id.* This mark was registered years after other registrations on which it was based. For example, in 2001, Google registered the word “Google” in a revised black and white stylized font. See GOOGLE, Registration No. 3,990,185. In 2012, Google registered a different stylized font that appeared in the same colors specified above. See GOOGLE, Registration No. 4,168,118.

on success rates. The exclusion of textual marks from our design categories also permitted us to isolate the variables of color and design from textual elements.

When we used the USPTO data codes to isolate the marks claiming only color and/or design, the color mark category did not emerge accurately. Out of the 6,375,276 viable trademark applications filed between 1987 and 2015, 174 applications claimed color but not a text or design element (color only application) and only 44 (25%) succeeded to registration. Because these numbers were lower than we expected, we took a closer look at the list. Zagat's mark for the crimson color of its restaurant guide books and Ipex's blue drainage pipe were among the small group of registered color marks. We were surprised to see that the list did not include some of the most famous color marks, including Qualitex's registration of green-gold for press pads and Tiffany's registration for robin's-egg blue. We suspected that many of the trademark applications claiming only color were in fact coded in the dataset as an application claiming both design and color. Examination of the applications that fell in the design and color group verified this theory, as we found both the Tiffany and Qualitex brands coded as design and color even though they claimed color for the entire surface in question and expressly disclaimed any other design element.

We expected that applications claiming color on a portion of the goods would be in the design and color category. For example, the application for the famous Louboutin shoe sole claimed both design and color as a feature of the mark: the color red was claimed in connection with the "design" identified as the entire surface of the sole of women's shoes.¹⁹⁰ What we did not expect was that applications claiming color for an entire surface area of an object would also be coded in this way.

To better understand trademark registration of color-only marks, we designed a classification that more accurately captured these applications. The *Qualitex* Court did not ask or answer exactly what it means for a mark to consist only of color. We rejected the

¹⁹⁰ Registration No. 3,361,597 ("The mark consists of a red lacquered outsole on footwear that contrasts with the color of the adjoining ('upper') portion of the shoe. The dotted lines are not part of the mark but are intended only to show placement of the mark."). The color(s) red is/are claimed as a feature of the mark. *Id.*

categorization of color marks reflected in the USPTO dataset¹⁹¹ as too narrow, given that it omitted even the Qualitex mark covering the entire visible surface of the press pad.¹⁹² In its trademark application, Qualitex indicated that, “[t]he drawing is lined for the color gold. The mark consists of a particular shade of green-gold applied to the top and side surfaces of the goods. The representation of the goods shown in phantom lining [is] not a part of the mark and serves only to indicate position. The drawing is lined for the color gold.”¹⁹³ The Supreme Court considers color alone to be a mark when it is the subject of the application and is claimed for an entire surface. However, even on this application, color is not claimed for every surface of the product. If Qualitex had made such a claim, it would have asserted protection for all sides of the object, including the bottom of the pad.

From the USPTO data identifying color only and color plus design marks, we selected the applications in which a single color was claimed as a feature of the mark. Within this group, we designated an application to be a “color only” mark if either no other design feature was claimed or if the color covered the entire surface of an object or the entire surface of a portion of an object. Under our revised definition, both the color marks claimed for the Qualitex press pad and the Louboutin red shoe sole are included in our “color only” category.¹⁹⁴

Due to the inconsistent nature of the USPTO color codes, isolating the color only category required examination of each application claiming color and color in connection with design in order to confirm whether the application was in fact claiming only color.¹⁹⁵ We conducted this analysis and learned that to have an accurate sense of a

¹⁹¹ See *supra* note 67.

¹⁹² Registration No. 1,633,711 (“The mark consists of a particular shade of green-gold applied to the top and side surfaces of the goods. The representation of the goods shown in phantom lining not a part of the mark and serves only to indicate position.”).

¹⁹³ *Id.*

¹⁹⁴ See Registration No. 3,361,597 (“The color(s) red is/are claimed as a feature of the mark.”); Registration No. 1,633,711 (“The mark consists of a particular shade of green-gold applied to the top and side surfaces of the goods.”).

¹⁹⁵ After November 3, 2003, color claims are easier to discern from the USPTO data because if an applicant is claiming color, it must submit a drawing accurately depicting such use. TMEP § 807.07(a). “If the mark includes color, the drawing must show the mark in color, and the applicant must name the color(s), describe where the color(s) appear on the mark, and submit a claim that the color(s) is a feature of the mark.” 37 C.F.R. § 2.52 (2019).

particular category of the USPTO data, this scrubbing is essential. We found the USPTO coding to be erroneous in multiple respects. In some instances, reliance on the coding would have led to underinclusion. For example, the applications claiming brown for UPS uniforms, green for Mars “greenies” pet treats, and orange handles for Fiskers scissors all include the standard coded text that “Color is not claimed as a feature of the mark” even though each application contains more specific language indicating that color was the only subject matter claimed.¹⁹⁶ One possible explanation for this error in the USPTO data is that an applicant may erroneously check a box in the TEAS electronic application resulting in the inclusion of canned text not claiming color in addition to language specifically describing the mark as claiming color.

In instances that reflected such a conflict in the language of the application, we coded the application in a manner consistent with the specific language drafted by the applicant. This decision may be validated in some instances, such as UPS brown, for which other applications contain similarly specific descriptive language but not the contradictory assertion that color is not claimed.¹⁹⁷ In other instances, the USPTO coding could have led to overinclusion, especially with respect to the color black. Sometimes the design code specified a “single color used for the entire goods/services,” but actually did not claim

¹⁹⁶ See Registration No. 3,197,824 (“The mark consists of the color orange as applied to the handle portion of the goods. The broken line outline is intended only to show the position of the mark and is not a part of the mark.”); Registration No. 3,066,873 (“The mark consists of the color green as applied to the entirety of the goods. The dotted outline of the goods is intended to show the position of the mark and is not a part of the mark. The drawing is lined for the color green.”); Registration No. 2,901,090 (“The mark consists of the color chocolate brown, which is the approximate equivalent of Pantone Matching System 462C, as applied to the entire surface of vehicles and uniforms. The mark consists of the color brown alone. The broken lines indicate the position of the mark and do not form part of the mark. The drawing is lined for the color brown.”).

¹⁹⁷ See Registration No. 2,131,693 (“The mark consists of the color brown applied to the vehicles used in performing the services. The drawing is lined for the color brown.”); Registration No. 2,901,090 (“*Color is not claimed as a feature of the mark.* The mark consists of the color chocolate brown, which is the approximate equivalent of Pantone Matching System 462C, as applied to the entire surface of vehicles and uniforms. The mark consists of the color brown alone. The broken lines indicate the position of the mark and do not form part of the mark. The drawing is lined for the color brown.”) (emphasis added).

color at all. Other times, the claimed mark was for a linear design¹⁹⁸ or text¹⁹⁹ depicted in black. Because these applications did not claim color, we recoded them into the appropriate categories.

Starting from the two sets of UPSTO coded “color” and “design and color” categories, we selected for our “color only” category all marks in which the applicant claimed a single color in connection with goods or services, if the color claim was not restricted further by a linear design or three-dimensional shape. For product design trade dress, we included marks for which the color was claimed for the entire product, such as 3M’s canary yellow post-it notes²⁰⁰ and blue masking tape.²⁰¹ We also included applications that claimed color for an entire portion of a product, if the particular shape or other design elements were not claimed. For example, we included in the color only category the mark claiming orange for the bottle cap on Elmer’s glue²⁰² and the red undersole of the Louboutin shoe.²⁰³

We excluded from our “color only” category marks consisting of a color and a design element if the color was claimed in a particular shape that did not correspond with the shape of the object or a piece of it. If a color claim included a linear design or particular shape, we categorized the application as “design and color.” For example, we put the red and white Target design mark and the blue UNC basketball jersey design in the design and color category. Marks claiming colors in shapes or stripes

¹⁹⁸ See Registration No. 4,229,871 (depicting a design in the form of a brush stroke). U.S. Trademark Application Serial No. 85,633,537 (filed May 23, 2012) (“Color is not claimed as a feature of the mark. The mark consists of an octopus.”).

¹⁹⁹ See U.S. Trademark Application Serial No. 85,439,625 (filed Oct. 5, 2011) (“Color is not claimed as a feature of the mark. The mark consists of Korean characters.”).

²⁰⁰ See Registration No. 2,390,667 (“The mark consists of the color canary yellow used over the entire surface of the goods.”).

²⁰¹ See Registration No. 2,176,916 (“The mark consists of a particular shade of the color blue, sometimes referred to as medium blue, applied to the entire surface of the goods.”).

²⁰² See Registration No. 3,453,552 (“The color(s) orange is/are claimed as a feature of the mark. The mark consists of the color orange as applied to caps in various shapes for various product containers. The dotted outline of the packaging of the goods is intended to show the position of the mark on the goods and is not part of the mark”).

²⁰³ Registration No. 3,361,597.

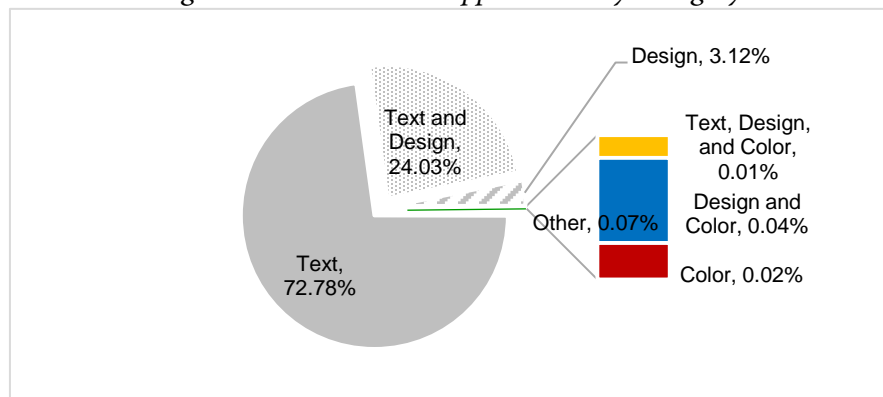
were also included in the design and color category.²⁰⁴ The next Section provides the results of our empirical analysis of marks claiming color in the USPTO trademark registration process.

B. *Trademark Applications Claiming Color*

After the U.S. Supreme Court's 1995 affirmation that color alone may be registered and protected as a mark, a reasonable hypothesis is that there would be a dramatic increase in federal trademark applications claiming color. Once we had the color only applications isolated, our first task was to use our compiled data to test this hypothesis. We began by determining the aggregate number of trademark applications that claimed color.

Figure VII displays the percentage of federal trademark applications with claims falling into the following categories: text only; text and design; text, design, and color; design only; design and color; and color only.

Figure VII. *Trademark Applications by Category:*



Each segment identifies the percentage of each category relative to the total universe of trademark applications filed over the thirty-year period between 1987 and 2017. The solid grey segment demonstrates that the

²⁰⁴ See, e.g., Registration No. 2,170,851 (United Van Lines registered a mark consisting “of two yellow stripes of varying lengths including an upper thinner stripe and a lower wider stripe. The drawing is lined for the color yellow.”).

vast majority of marks claim text, such as a word or phrase, in standard characters. These applications did not claim design or color elements.²⁰⁵ The striped grey segment designates marks claiming a design element but not color, and the shaded gray segment designates marks claiming both a text and design element.

While textual marks constitute a substantial majority of all marks claimed (72.78%), a significant percentage (24.03%) include text and claim design. In total, applications containing text (whether alone or in combination with a design) constitute 96.81% of all trademark applications. Indeed, the only other significant category in terms of size is the set of applications claiming design but not color. This set of design marks constitutes 3.12% of all applications. Applications seeking protection for colors (either alone or in connection with text or design) constitute only .06% of the universe of applications—such a tiny collective percentage that none of the three categories claiming color are visible in Figure VII. In view of the ubiquity of colors on labels and in advertising and numerous studies indicating the tremendous influence that colors exert on consumer decisions, this small percentage raises many questions, which we will discuss in greater detail below. Certainly, in terms of overall percentages, the predictions that color marks would overwhelm the trademark system have not been realized.

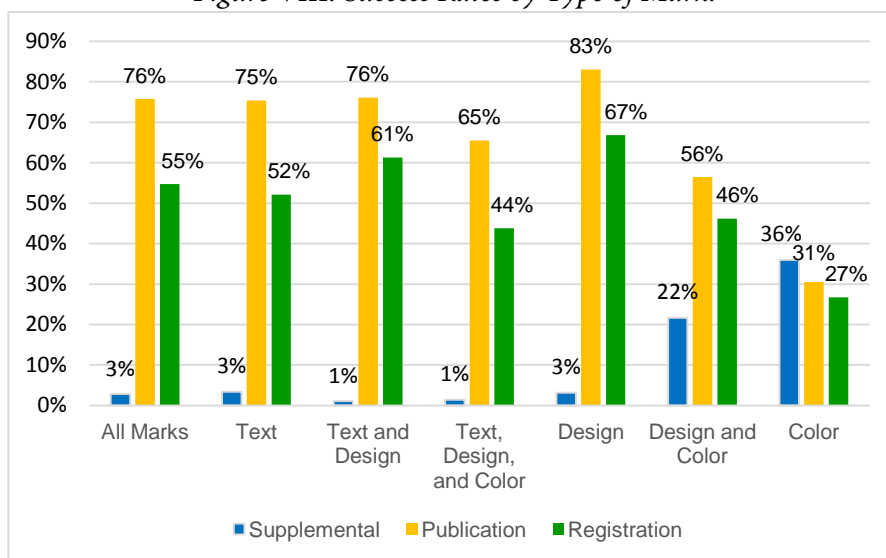
In terms of absolute numbers, out of 7,220,113 trademark applications filed between 1987 and 2017, there were 5,254,831 applications claiming neither a color nor a design element, 1,735,087 applications claiming text and design, and 225,304 applications claiming a design only. By contrast, there were 767 applications claiming text, design, and color; 2,887 applications claiming a design and color; and 1,237 applications that claimed color alone. These numbers paint a cautionary picture about how important it can be to verify the USPTO coding. Had we relied on the codes alone, our study would have looked at only 174 applications, a mere 14% of the 1,237 applications actually claiming only color as a mark. In this instance, the coding yielded a

²⁰⁵ We identified 666 marks that constitute sounds, scents, and other elements that do not contain a visual design element. Because these marks contain neither design nor color claims, we collapsed them into the category of “text,” as the two types of marks share features that make them distinct from design and color marks, which are the focus of this Article.

sample that was likely not representative of the population.²⁰⁶ Therefore, verification of the applications in question was necessary in order to describe trends based on reasonably reliable data.

To assess how color marks succeed in the USPTO trademark application process compared to other symbols, Figure VIII displays success rates by subject matter. For each category, we display a set of three bars. In each set of three, the first bar (depicted in blue) represents the percentage of marks placed on the Supplemental Register. The second bar, in yellow, shows the percentage of marks that survived USPTO review and were published in the *Official Gazette*. The third bar (in green) shows the percentage of marks that achieved the applicants' ultimate goal: a place on the USPTO's Principal Register.

Figure VIII. Success Rates by Type of Mark:



²⁰⁶ See PATRICK DATTALO, DETERMINING SAMPLE SIZE: BALANCING POWER, PRECISION, AND PRACTICALITY 4-5 (2008) (discussing availability/convenience sampling and warning about its tendency not to be representative of the population at issue). Given a population of 1,237 trademark applications, a sample of 294 applications would be needed in order to have a confidence level of 95% with a margin of error of +/-5%. See *Determining Sample Size: How to Ensure You Get the Correct Sample Size*, QUALTRICS, <https://www.qualtrics.com/experience-management/research/determine-sample-size> [<https://perma.cc/KF38-S2AS>] (last visited May 24, 2019) (describing one common technique for calculating an appropriate sample size based on known population size, desired confidence interval, and desired margin of error). Indeed, the differences in success rates between the population and color-coded records suggests that the latter may not have been representative (supplemental: 36% versus 25%, publication: 31% versus 35%, registration: 27% versus 25%).

Figure VIII demonstrates that marks claiming color (but not text) are much less likely to publish and be granted admission on the Principal Register, and significantly more likely to end up on the Supplemental Register. The first set of bars shows the overall average percentages. Looking at the data as a whole, 76% of marks publish and 55% succeed in obtaining a place on the Principal Register, while only 3% end up in the Supplemental Register. Publication signifies the moment when the USPTO approves the mark for registration. Marks that publish but are not registered were generally filed on an intent to use basis and did not register because the applicant chose not to file a statement of use. With some minor variation, this pattern holds for all categories of marks that do not claim color. In all categories containing text or design but not color, 1–3% end up on the Supplemental Register, 75–83% publish and 52–67% are placed on the Principal Register.

The pattern changes for marks claiming color. Supplemental registration increases dramatically, while publication and principal registration rates drop. When text and design are eliminated from the applications, the change is even more prominent. But visual subject matter alone does not account for the difference. The fifth set of bars in Figure VIII demonstrates that design marks have even higher publication and registration success rates than the impressive success rates for textual marks.

For applications claiming color, the results look quite different. The publication and registration success rates drop precipitously, and the number of marks relegated to the Supplemental Register reflects a dramatic increase, especially for marks claiming color alone. One can see how color correlates with success in federal registration by comparing the success rates for marks claiming design and color to those claiming only design. Design applications claiming design but not color had a publication rate of 83%; those claiming color were published at a rate of 56%. Success on the Principal Register shows similar differences. While 67% of design marks not claiming color registered, only 46% of design marks claiming color succeeded on this metric. The supplemental registration rate for design and color marks is dramatically higher at 22%, compared to 3% for design marks not claiming color.

The final set of bars in Figure VIII reflects success rates for applications that claim only color. Here, the differences seen above are

magnified. The supplemental registration rate rises to 36%, which even exceeds the principal registration rate of 27%. As one would expect for color only marks, the rate of publication of 31% closely tracks the principal registration rate.²⁰⁷ However, it is much lower than the 56% publication rate for marks that claim design and color.

A possible explanation for these differences may be found in the legacy of *Qualitex*. The Supreme Court created two gatekeeping devices for color marks: (1) the functionality bar and (2) the need to prove secondary meaning. A mark that is deemed functional can never be distinctive. Applications for symbols deemed functional are not protectable as trademarks. Because of this absolute bar, colors deemed functional will not be admitted to either the Principal or Supplemental Register.²⁰⁸ In our data, applications for subject matter deemed functional are not reflected in any of the bars asserting success in the trademark registration process.

The data suggest that the secondary meaning bar may be the reason color marks have such a relatively low principal registration rate and appear so frequently on the Supplemental Register. It is of course possible for other absolute bars in 15 U.S.C. § 1052 to be applied to color marks. However, the bars to color marks are less numerous because many of the statutory exclusions target textual deceptiveness,

²⁰⁷ One might expect these two numbers to be identical, and in a world where all marks claiming only color were required to demonstrate secondary meaning, that would be so. However, if an applicant files a mark claiming color for part of an object instead of an entire surface, the applicant may file an Intent to Use application, hoping the examining attorney will take the “and design” portion seriously and not require secondary meaning. Because some marks we classify as “color only” are filed in this strategy, the publication number is a bit lower, reflecting some color only marks filed as intent to use (ITU) applications, that may obtain USPTO approval to publish but not register because the applicant failed to file a statement of use or chose not to do so. Our data supports this explanation as it contains 141 ITU applications that we classify as color only, and only 9 of these ITU applications ended up on the Principal Register. Of the marks that did not register, 11 were published for opposition; of these, 6 did not file a statement of use and the rest contained status codes that indicated that the applicant failed to follow through administratively with registration. Figure XIII also shows that the registration rate diverges from the publication rate most significantly in 2015, which could indicate a small lag between the reporting of publication and registration for the most recent year of data analysis.

²⁰⁸ See 15 U.S.C. § 1091(c) (2018); *Qualitex Co. v. Jacobson Prods. Co.*, 514 U.S. 159, 163–65 (1995).

such as geographic misdescriptiveness or the unauthorized use of a celebrity's name.²⁰⁹

The Supplemental Register was created as a trademark purgatory for marks that are not yet distinctive but could acquire secondary meaning in the future.²¹⁰ If the USPTO declines to publish a mark because it has not acquired sufficient commercial distinctiveness, the mark may be placed on the Supplemental Register if all other bars are overcome.²¹¹ Consequently, the Supplemental Register reflects the power of secondary meaning to block federal trademark registration. Overall, the Supplemental Register is relatively small. During the 28-year time period we examined, 95% of registered marks were placed on the Principal Register, and only 5% of marks were relegated to the less desirable Supplemental Register.²¹²

Overall, fewer color marks survive USPTO review than end up on the Supplemental Register. This finding may be explained by the need to prove secondary meaning before any color mark may register. Text and design marks, unlike color, are capable of being inherently distinctive, and therefore the applicants need not always prove exclusive use. The data suggest secondary meaning is doing the work *Qualitex* intended by exerting a stronger barrier to color marks in the federal registration process.

On the subject of secondary meaning, the data reveal an interesting irony. Proof of acquired distinctiveness in litigation requires a lower standard than in the registration context. The Lanham Act provides a mechanism to enforce unregistered trademarks through § 1125(a). The Supreme Court noted that “the general principles qualifying a mark for

²⁰⁹ 15 U.S.C. §§ 1052(a), (c), (e).

²¹⁰ 15 U.S.C. § 1091(a) (“All marks capable of distinguishing applicant’s goods or services and not registrable on the principal register provided in this chapter, except those declared to be unregistrable under subsections (a), (b), (c), (d), and (e)(3) of section 1052 of this title, which are in lawful use in commerce by the owner thereof, on or in connection with any goods or services may be registered on the supplemental register . . .”).

²¹¹ TMEP § 815 (“Upon approval of the mark for registration, the record will indicate that the mark has been ‘Allowed for Supplemental Registration’ rather than that the mark has been approved for publication. Marks on the Supplemental Register are not published for opposition, but are issued as registered marks on the date that they are printed in the *Official Gazette*.”).

²¹² Our data reflect 179,820 marks were placed on the Supplemental Register while 3,489,859 were placed on the Principal Register.

registration under § 2 of the Lanham Act are *for the most part* applicable in determining whether an unregistered mark is entitled to protection under § 43(a).²¹³ If such consistency is a general rule, some federal courts have not followed it here or have carved out an exception permitting trademark protection for color claimants who could not (and do not) claim they are exclusive users of their colors in their business sector. For example, in *Louisiana State University v. Smack Apparel*, several university plaintiffs won infringement claims for unregistered color marks even though none of them could have proven secondary meaning under the “substantially exclusive” standard used by the USPTO in registration proceedings.²¹⁴ Litigation data we collected over the same time period indicate that unregistered marks are just as likely as registered marks to prevail in trademark infringement litigation even though none of the unregistered marks passed the elevated USPTO secondary meaning standard.

Returning to our original hypothesis, we next examine the extent to which *Qualitex* opened the floodgates to color mark registrations. The next four figures illustrate trends in trademark applications over time. Figure IX depicts the landscape of all trademark applications whether or not they claim color. The purple line shows applications. The yellow line reflects applications that publish. Registrations are depicted in green if the mark is on the Principal Register, while supplemental registrations appear in blue. The registration and publication lines converge until 1989 when the USPTO began accepting applications based on a good faith intent to use the mark instead of actual use, which was previously required.²¹⁵ After that date, some marks that publish are not registered if the applicant makes a business decision not to use the mark or fails to file a statement showing use in commerce. With the exception of the supplemental registrations, applications and registrations all manifest a generally upward trajectory as their numbers increase over time. Supplemental registrations remain virtually flat.²¹⁶

²¹³ *Two Pesos, Inc. v. Taco Cabana, Inc.*, 505 U.S. 763, 768 (1992) (emphasis added).

²¹⁴ *Bd. of Supervisors for La. State Univ. Agric. & Mech. Coll. v. Smack Apparel Co.*, 550 F.3d 465, 475 (5th Cir. 2008).

²¹⁵ 15 U.S.C. § 1051(b) (2018).

²¹⁶ The data reflects a modest increase in the number of supplemental registrations between 1987 and 2015, but such increases seem more cyclical (e.g., increases around 2000 reflecting a

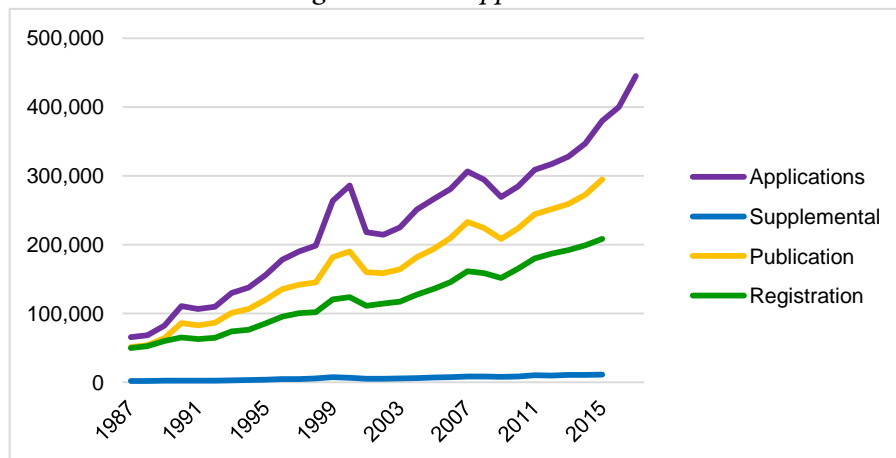
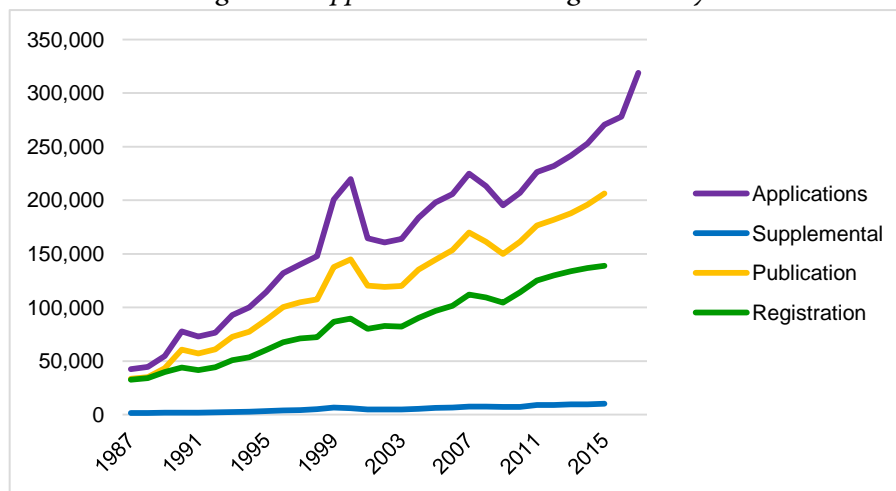
Figure IX. All Applications:

Figure X depicts marks that claim text but not design or color. Given that this set comprises the vast majority of trademark applications, the upward trends, the divergent publication and registration lines in 1989, and the generally flat Supplemental Register trends appear nearly identical to those in Figure IX.

Figure X. Applications Claiming Text Only:

spike in applications). Nevertheless, the percentage of applications admitted to the Supplemental Register ranges from 2.1 to 3.3% of applications.

Figure XI shows the second largest subset of trademark applications in our data: marks claiming design but not color. Interestingly, the patterns illustrated above remain very similar, suggesting that, generally, the use or addition of a design does not appear to impact the trademark registration process. If anything, design applications are more likely to publish and register than their text counterparts. Supplemental registrations remain flat over time while the number of principal registrations, marks published, and applications all increase in a similar manner over time.

Figure XI. Applications Claiming Design Only:

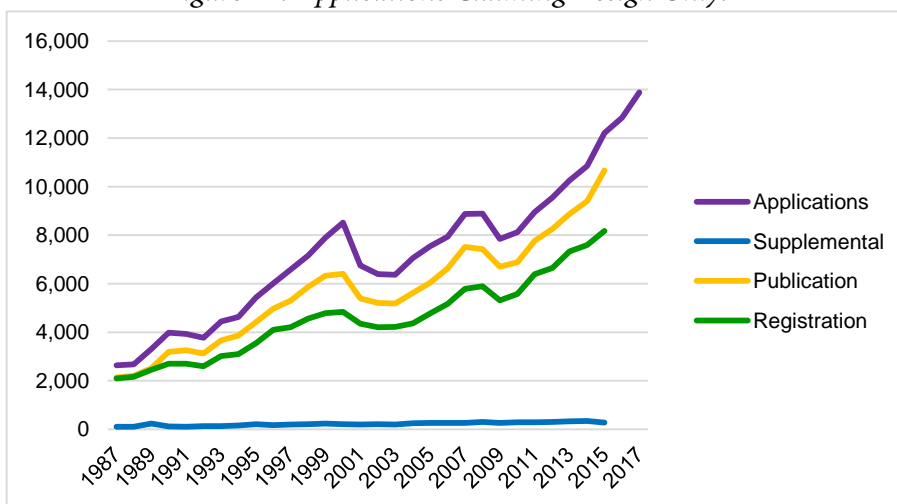


Figure XII displays marks that claim both a design element and color. Here, differences from the general population of marks begin to emerge.

Figure XII. Applications Claiming Design and Color:

The number of applications seeking protection for design and color triples between 1994 and 1995.²¹⁷ This dramatic spike does not appear in Figures X (text marks) or XI (design marks). One possible explanation for this difference is that *Qualitex* was decided on March 28, 1995, and may have drawn attention to the possibility of protecting color as an element of a mark. Of course, design marks claiming color could have been—and in fact were—registered before this date, but the decision’s holding that color alone may be protected could have prompted renewed interest in claiming color in trademark applications and a strategic focus on color in branding more generally.

Another interesting feature of the design and color category may be seen in the relative percentage of marks admitted to the Supplemental Register compared to text and design marks not claiming color. In Figures X and XI, there is quite a distance in the trend lines for supplemental and principal registration rates. In Figure XII, that distance is significantly reduced, reflecting that a much greater percentage of marks claiming color ultimately land on the Supplemental Register.

Figure XIII illustrates marks claiming a single color for the entire surface of a product (like the *Qualitex* press pad) or the entire surface of a portion of the product (like the *Louboutin* red sole).

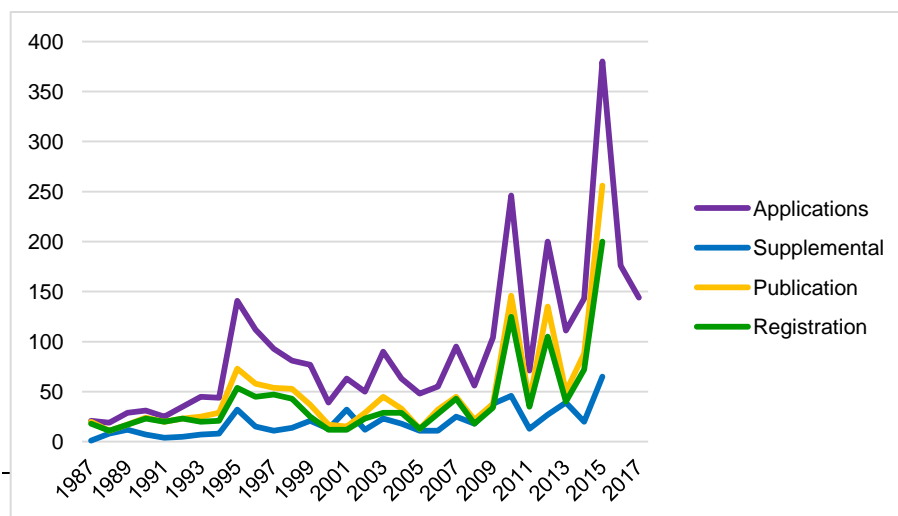
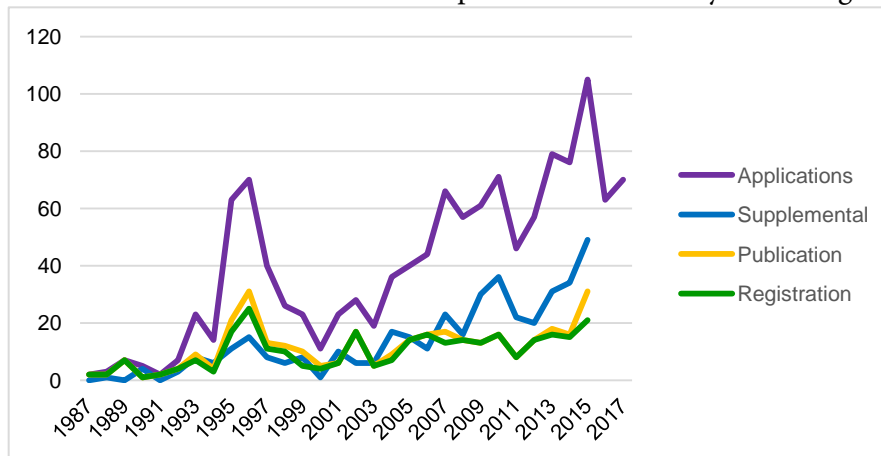


Figure XIII. Applications Claiming a Single Color:

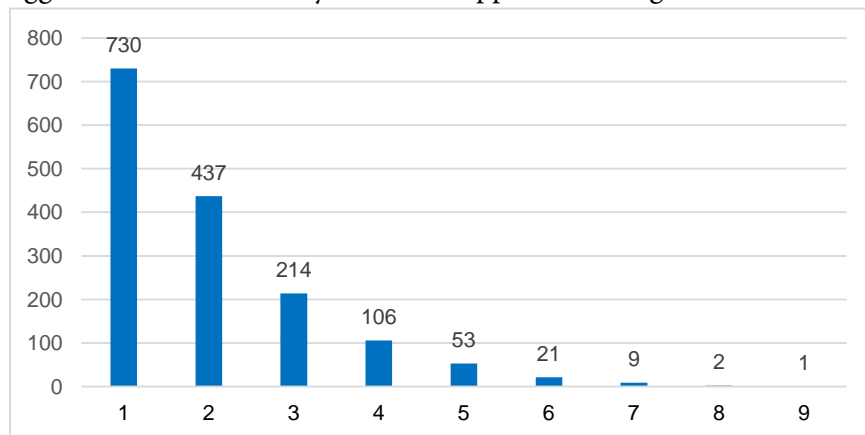
Notably, just two applications claimed only color as a mark in 1987. In the eight-year period between the beginning of 1987 and the end of 1994, a total of 63 color marks were filed. But then in 1995, the year *Qualitex* was decided, an additional 63 applications claiming color were filed. This dramatic spike in color mark applications corresponded with the Supreme Court's consideration of color as a mark in *Qualitex*. As in Figure XII, one can see how closely the supplemental registration line tracks the principal registration line. This pattern indicates that a much higher percentage of color marks end up on the Supplemental Register compared to marks not claiming color. This difference is readily apparent by comparing this close proximity to the much greater distance between the supplemental registration lines (in blue) and the principal registration and publication trend lines in Figures X (text marks) and XI (design marks).

Furthermore, the frequency with which marks are placed on the Supplemental Register is much higher for marks claiming only color in comparison to those that also claim a design element. In Figure XII, depicting design and color, the number of supplemental registrations exceeded principal registrations in only three years. By contrast, Figure XIII shows that the number of supplemental registrations exceeds principal registrations in seventeen—more than half—of the years we tracked. These data show that proof of secondary meaning is



particularly challenging for applicants seeking to register marks claiming color, especially when the color is not claimed in connection with a linear design.

Because functionality is a total bar, a mark deemed functional would not be placed on the Supplemental Register. The reasons for these differences will be fertile ground for further research. Figure XIII suggests that the relatively elevated supplemental registration numbers



for colors show that secondary meaning is a difficult hurdle for color mark applicants to overcome. Future studies may analyze office actions to determine the relative impact of secondary meaning and aesthetic functionality on keeping color marks off the Principal Register.

Our final set of three charts displays color selections in trademark registrations. First, we examined how many colors were claimed when color was noted as a feature of a mark. Figure XIV depicts the number of marks that claimed one or more colors. This figure includes trademarks on the Principal Register that claim both a design element and color and those that claim color alone, but not marks in which color is claimed in conjunction with text.

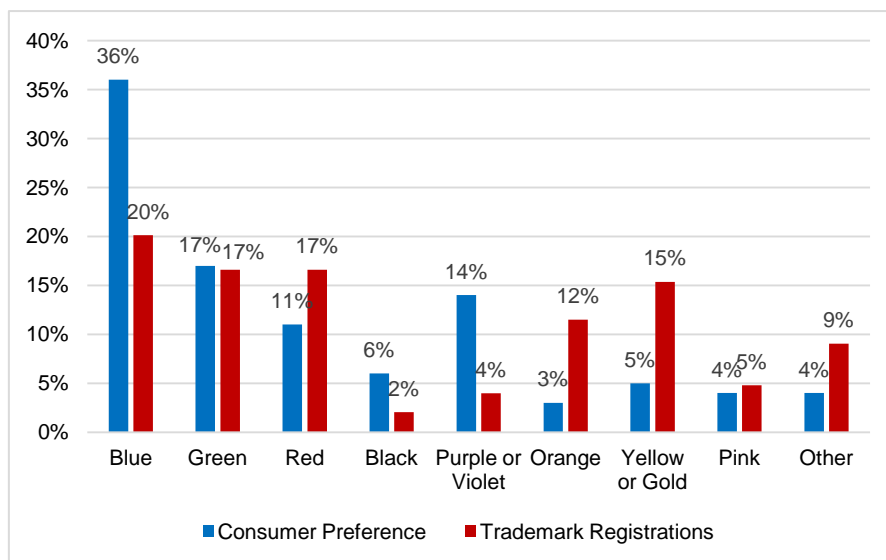
Figure XIV. Number of Colors Claimed:

The first bar in Figure XIV shows that 730 marks claim one color. As the number of colors increases, the number of registrations decreases. Overall, 74% of the marks claiming color assert trademark rights in one or two colors.

Next, we examined the choice of colors reflected in the trademark applications claiming one color that were admitted on the Principal Register. Figure XV displays the colors selected in registrations in which a single color is claimed, either alone or in combination with a design element. Because the USPTO uses the same codes for red and pink, we

manually inspected and recoded those registrations to reflect the color that was registered. Shades of the primary colors—red, yellow, and blue—constitute more than half (57%) of the color claims in trademark registrations. To provide some context in terms of general color preferences, Figure XV compares the frequency of colors claimed in registered marks with our survey data for color preferences.

Figure XV. Consumer Preferences and Trademark Protection:



Blue is registered most frequently in single color marks. This data is consistent with Labrecque and Milne’s finding from 2013 that blue is the most frequently utilized dominant color in brand logos.²¹⁸ Registrations of red, yellow, and orange exceed consumer preferences.

²¹⁸ See Lauren I. Labrecque et al., *To Be or Not To Be Different: Exploration of Norms and Benefits of Color Differentiation in the Marketplace*, 24 *MARKETING LETTERS* 165, 170 (2013) (finding that in marks with one or more colors that “the colors most frequently used for main colors are blue (48.2 %), white (39.3 %), red (31.4 %), and black (26.1 %), while the least frequently used colors are gray (1.1 %), brown (2.1 %), and pink (2.1 %). The color use range is wide across categories. For example, the presence of blue ranges from 20 % in fast food to 76.9 % in credit cards, whereas red ranges from 0 % in apparel to 62.5 % in retail brands. Other colors, such as purple, pink, and metallic, appear only sparingly.”).

While purple/violet was identified as a favorite by 14% of our consumer respondents, only 4% of registered single-color marks claimed it. Purple appears to provide an opportunity to select a color where the consumer preference greatly exceeds the frequency with which it is registered. Purple falls between blue and red on the color wheel, and yet its registration is one-fifth of its two closest primary neighbors. There were more pink registrations than purple, even though many more consumers prefer purple. Even orange, purple's complementary color (appearing opposite to purple/violet on the color wheel) is registered three times more frequently. Although the ability to analyze success rates is limited by the number of applications for each color, there are remarkably similar registration rates among those colors having 40 or more applications—ranging from 25% to 28%, with an average of 28% among all single-color applications.

Figure XVI and XVII graphically display the colors registered in the international classes of goods and services used by the USPTO. This figure is limited to those classes in which there are twenty or more color registrations. Notably, only nineteen of the forty-five classes are depicted, which provides insight into the frequency of such registrations and the concerns about crowding and depletion.²¹⁹ In Figure XVI, the colors in each bar represent the number of registrations for only one color in each international class. Accordingly, the longer the bar, the more single-color registrations exist for that category. The length of the color segment in each bar represents the number of registrations for that color in that class.

²¹⁹ The following classes had fewer than 20 registrations: Chemicals, 19; Transportation and Storage, 17; Leather Goods, 16; Housewares and Glass, 16; Wine and Spirits, 16; Hand Tools, 15; Furniture, 11; Meats and Processed Foods, 11; Hotels and Restaurants, 11; Fabrics, 10; Medical, Beauty, Agricultural, 10; Lubricants and Fuels, 9; Natural Agricultural Products, 9; Light Beverages, 9; Telecommunications, 8; Firearms, 7; Jewelry, 6; Paints, 5; Fancy Goods, 5; Cordage and Fibers, 4; Treatment of Materials, 4; Personal, 4; Smokers' Articles, 3; Floor Coverings, 1.

Figure XVI. Number of Registered Color Marks by Class:

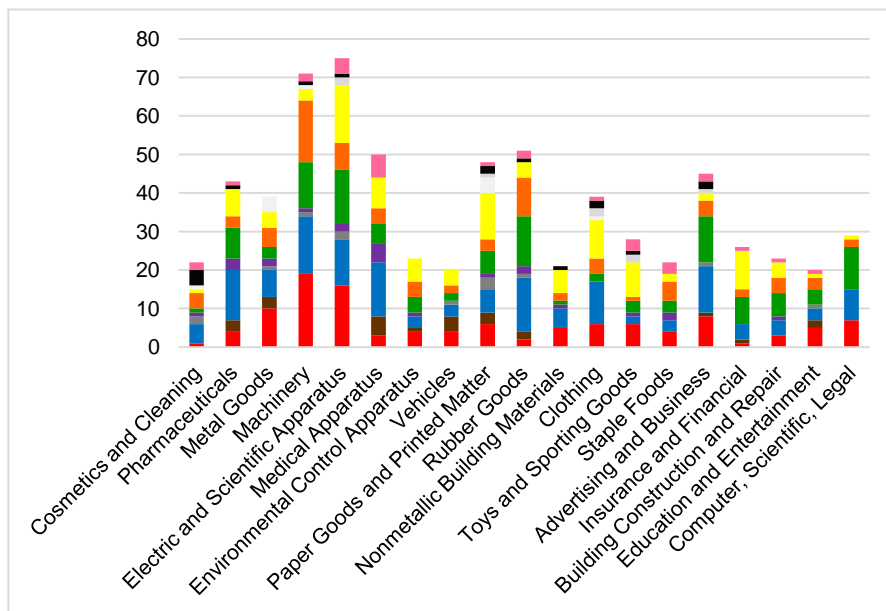
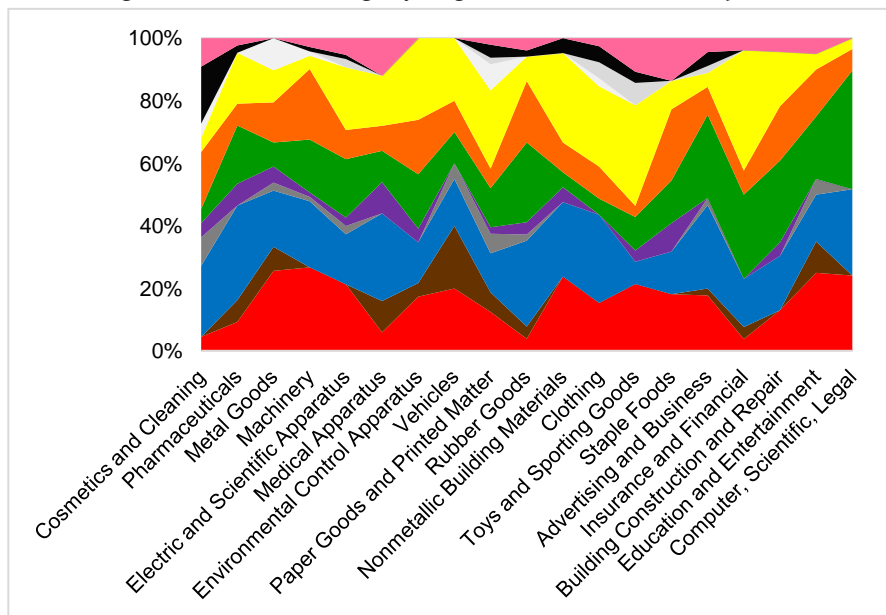


Figure XVII displays the single-color trademark registrations in an area chart to illustrate the colors for which protection is most often obtained. As you scan from left to right, you can see the percentage of applications within each category that claim a particular color, depicted as the amount of shaded area above the category. Figure XVII makes it easy to see how frequently the primary colors—red, yellow and blue—are used across all classes of goods and services. Figure XVII also reflects the smaller percentage of registered marks claiming purple/violet which tracks closer to black, silver, grey, white, and brown rather than red and blue, its neighbors on the color wheel, and even orange, its complementary color.

Figure XVII: Percentage of Registered Color Marks by Class:



Consumer color preferences are well reflected in trademark registration data. The three most preferred colors—blue, red, and green—are highly visible in Figure XVII. Interestingly, the fourth choice—purple or violet—is much less prevalent and may open opportunities for brand owners seeking to make a commercial impression with a relatively popular color. Given the data indicating that women prefer purple to pink, it will be interesting to see if trademark registrations trend in future years to reflect what women actually prefer.

CONCLUSION

Seen against this backdrop, the impact of the *Qualitex* decision should be reconsidered. As applied by the USPTO, it did not open the floodgates to color monopolies through trademark registrations as some scholars predicted. By setting up the two gatekeeping devices of secondary meaning and functionality for color alone, the Supreme Court made it possible to register color as a mark—but only when colors

strongly signal source and result in no competitive harm.²²⁰ Although *Qualitex* is often criticized and taught as a decision that irresponsibly expanded trademark protection, its practical effect—when measured by success through the trademark registration process—has been just the opposite. The *Qualitex* holding that color alone may be protected as a mark has had only a minimal practical effect on the USPTO's Principal Register. While the USPTO has registered millions of marks since *Qualitex* was decided, the USPTO data fields reflect that only 221 principal registrations claim color alone as a mark. Most marks claiming color without a linear design element are registered as color in connection with design. Nonetheless, the USPTO permits these registrations less frequently than marks containing design but not color.

On the other hand, while *Qualitex* focused on functionality as the doctrine that would do much of the work in making sure that colors would not be registered too frequently, the relatively high number of color applications landing on the Supplemental Register indicates that the need to prove secondary meaning is a significant barrier. Indeed, it has blocked more than one third of color applications from the Principal Register. The USPTO's adoption of a higher secondary meaning standard than that employed by federal courts assured that color marks (independent of other subject matter) would not be easily registered.

Given the dearth of successful trademark applications on the basis of color alone, there are many color variations available for future branding entrepreneurs to use to create a meaningful and distinctive commercial impression. Before making that choice, brand managers would serve themselves well to consider actual consumer color preferences. If they do, we can expect to see recognition that women prefer the stronger, more vibrant saturated purples over the softer pinks.²²¹ Trademark professionals should keep in mind an array of information when giving clients advice. By understanding the scholarly studies on color meaning and preferences, they can advise clients on how the embodied and referential meaning can influence consumer perceptions. In making selections, they should also look to confirm that a trademark examiner who conducts a Google search will not find

²²⁰ *Qualitex Co. v. Jacobson Prods. Co.*, 514 U.S. 159, 167 (1995).

²²¹ See *supra* Figure II (in Section II.A).

multiple uses of their color by competitors. Given the high level of exclusivity required to prove secondary meaning for these marks, a search of the USPTO data is not enough.

The scholarly literature indicates that color sends powerful cognitive signals, transmitting many informational messages apart from a product's source.²²² Accordingly, the USPTO is correct to proceed cautiously before permitting registration of color marks. Some content is too valuable to grant any one organization an exclusive right. And yet, despite the ability of color to send mixed and varied expressive signals, data affirms that consumers attribute brand meaning to color and rely on it for selecting a brand when making purchasing decisions. The trick to owning a trademark claiming color begins with recognition that any mark claiming color must compete with color's embodied and referential meanings. To succeed in creating a message of expressive commercial distinctiveness, the color must be used exclusively and curated thoughtfully to create a distinctive commercial impression.

²²² See *supra* Part I.