The Business of Color

– BLACK & WHITE

Color is our business but how much do we really know much about it? In this eBook I will address issues about its use and how people perceive it. I will gently touch on black and white and then delve deep into red, yellow, green and blue in that order. That order was chosen because it is the same sequence that all known human languages developed words for those colors. Meaning, the first color to be given a name - in any and every language - was black, then white, then red, yellow, green and blue; again, in that precise order. Speaking of blue it should be noted that blue is the world's most popular color. Scientists hypothesize that this is because blue is the color of water, pure water, and water is associated with life. Blue is however the least favorite color for food or food items as blue, and to a certain degree purple, carry the connotation of spoiled or rancid food.

Color actually affects your physical experience with food. Test subjects were given four bowls of UNFLAVORED Jello. Each bowl was a different color; red, yellow, green and blue. Because of the colors people actually tasted flavors (like tart green apples for the green Jello) while it had no flavoring. Their taste experience was real, in that they actually tested the flavors because of what they eyes/brain told them when they saw the color. In a blind taste test, all subjects agreed the Jello had no flavor. Testing with a colored sugar pill scientists have established that colored pills come with popular preconceptions. People believe that red pills kept them awake. Blue pills put them to sleep (except in Italian men - more on that later). Yellow pills were good for depression (because yellow is a happy color). Green pills reduce anxiety. White pills soothed the stomach. The black pill was perceived as being the most potent of all colored pills and good for many ills.

For reasons unknown, black is the color of aggression. A 25 year study of NFL and NHL teams that wore black bears out that those teams received substantially more penalties than teams who didn't wear black because they appeared more aggressive. In fact, teams that wear black receive substantially more penalties than when they wear their white alternate uniforms. Makes me wonder why any team wears black? If you want to get a date don't wear black, wear red and NEVER blue; especially for a woman. If you are a legal defendant you should not wear black; again you'll appear too aggressive. Wear light colors. Animal shelters experience “black dog syndrome” which is when any color dog is adopted instead of a black dog; which again, appear more aggressive even when they are not. Also, when working your booth at Toy Fair you should wear white or a light color and never black as it scares people away. Sharp contrasts of black and white can make you seem aggressive and even unethical which is why many political ads show their opponent in black and white (and slow motion). Sneaky huh?

As bad as black is for you in the trade booth or court of law it is king in product design. Black and white along with natural elements like wood or even steel symbolizes status and quality. The iphone originally only came in black or white and originally incorporated a stainless steel back. For consumer products there is actually an inverse relationship between the vibrancy of color and perceived value. Meaning, colorful products are perceived to be worth less than black and white products. Again, think of Apple, Dell and makers of high end TV’s and electronics as they hew closely to this theory and rarely produce products in anything color other than black.
Interestingly, as we age we actually prefer items with less color. This is due to the decrease of hormones in our body. After middle age we prefer little color in our consumer products but do still appreciate an accent color if tastefully added. For younger children, you should keep black and white away from your designs; but I trust you already know that. The bottom line on black and white is of you want to design something seminal, something that will define design for generations make sure you design it in black or white and never in everyone's favorite color blue.

So, why does every person in the world believe blue pills put them to sleep other than Italian men? Because of the Italian National Soccer team, or the "Blues", as they are called because of their azure blue (azzurro, in Italian) uniforms. From a youthful age Italians associate blue with their beloved team and that team with action and speed...and not sleep.

- RED

Red is a unique and vibrant color with many meanings specific to its contextual usage. Red means different things at different times depending on the context. Let’s explore some of the meanings of red and we’ll circle back to its contextual nuances.

Red is the color of **dominance** and **aggression**. Wearing red on an athletic playing field makes you feel more aggressive and it distracts your opponent while third-party observers see you as the more dominant player. Red has a dramatic effect on the outcome of sporting events, namely the Olympics, as individuals who wear red (the athletes who are randomly assigned the color (as in wrestling, boxing and martial arts)) win their matches at a significant statistically higher percentage.

Red is the color of **courtship**. Red is an **aphrodisiac**. Red signals **fertility** in females which is a primal driver for men. When a woman’s estrogen levels rise (and thereby she becomes more fertile) the blood flow under the skin increases and her skin becomes flushed red. Women are historically keen to this which is why they wear red lipstick and rouge. Red is so powerful that a woman who merely stands in front of a red backdrop appears 15% more attractive than a woman not in front of a red backdrop. Quite obviously, men also find a woman who wears red more attractive than a woman who does not wear red. If you want to post a picture of yourself for an online dating service, make sure to wear red lipstick, rouge and either wear a red dress or be photographed in front of a red backdrop/wall. Interestingly, a waitress can increase her tips 20% by wearing red – but only from men. Their tips remain unchanged from women.

There are some “**Red Rules for Interviews**”. If you are male, and are interviewing for an executive level job in a one-on-one interview, you should wear a red tie. A red “power” tie makes you look like a **winner; confident** and **capable**. However, if you are going to be interviewing with a panel do not wear a red power tie as it makes you appear like a **threat** and not a team player. Your color choice for a tie should be far from red; perhaps blue.

If you are female and will be interviewed by a man, wear red; especially a red outfit. You will appear more **attractive** and more **capable**.
If however you are being interviewed by a woman, red will hurt your chances as you will appear **threatening** and **superficial**. As you can see, red has different meanings depending on context.

Here is another example of contextual nuances. Imagine you are selling an item on Ebay. If it is an auction and you want to spur bidding, take a picture of your item on a bright red background. **Bids double** when items are on a bright red background as it makes the bidders more aggressive. Now, if you have an item and you want to sell it via a “Best Offer” or “Make an Offer” option, then remove all red from your item because the color red will make your bidders **aggressive negotiators** and their offers will be lower, up to 25% lower if they see red. Choose a blue background when you want someone to “make an offer”. If you are selling an item at a “Fixed Price” (as in using Ebay as your storefront) again remove all red cues from the page as items on a “store front” sell poorly when accompanied by red cues on the page.

As for us in the toy industry, it is essential to **keep red away** from your design team. That means no red walls, red furniture, red flowers or red artwork as red **taxes** our cognitive resources and inhibits their performance. IQ test scores are decreased when the test taker takes his test from a red notebook because red interferes with higher order thinking.

Red is a complex color but if you understand it, you can use it to your advantage. In closing I would be remiss if I didn’t address a long standing myth regarding red cars and tickets. Red cars do **not** get more tickets than other cars; in fact, they get the same amount. I had a red car for four years and I never got a ticket...I did get one when I drove a white car however. Maybe white is the new red?

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### YELLOW

Of all the colors we see, yellow is the least liked. It is a color that is divisive and fraught with negative connotations. Therapists have observed that suicidal patients tend to use a preponderance of yellow in their artwork. Van Gogh used a predominance of yellow in his last painting before his death: **Wheatfield with Crows**. Yellow cars, or colors associated with yellow like gold or golden brown, are the least desired color for cars. Yellow is the most visible color to the eye. For this reason fire trucks are now changing their color from their traditional red to a new high visibility lime yellow. Because these trucks are more visible, the accident rate of lime yellow fire trucks is now three times less than their red counter-parts.
In general, yellow is not a flattering color for us to wear. If you want to appear more attractive to the opposite sex, wear red or black. Yellow is your worst choice followed closely by green. The color yellow is generally associated with fear, weakness and sickliness. Especially if you are a man and want to appear attractive to the opposite sex, do not wear yellow of any kind.

Yellow can however improve cognitive performance. Long-term university studies have shown that student’s test scores are considerably higher when they take exams on yellow (or white) paper as opposed to blue, green or red. Pink (see below Drunk Tank Pink) is the worst color for a student to take an exam on and those that do generally score in the bottom 10% of the class when issued an exam on pink paper.

Some believe that the reason legal pads and post it notes are yellow is because yellow improves cognitive abilities. Historians disagree and believe that the inventor of the legal pad, Thomas Holley in 1888, made his pads yellow because the pads were made from paper crap and getting them pure white was too big a chose. As for the post it notes, they were yellow because the office next door to product development had reams of yellow paper not in use and easy to pilfer. Notwithstanding the reasons, yellow is the perfect choice for both as yellow is intellectually stimulating.

As for the use of yellow in products, that can be tricky as well. In the 1950’s Proctor & Gamble wanted to know what color to make the flecks in their new powder detergent Cheer. They gave three tests Cheer with different color flecks, red, yellow and blue. The red test group said the Cheer was too strong and damaged their clothes. The yellow test group said the Cheer was too weak and didn’t get their clothes clean. The blue test group loved Cheer and to this day, Cheer remains blue.

While yellow is associated with weakness and sickliness, it is also associated with aggression and happiness; yes, it’s complicated to understand. In an observational study conducted in New York City, three identical cocktail parties were thrown for design professionals. Each room was painted white with the same number of stools and tables in them and a bar was placed in the corner of the room. The only difference between the rooms/parties was the color of the light lighting the room. The three rooms were lit with red, blue and yellow light respectively. The researchers observed the following; that people ate and drank twice as much in the yellow room and that they were the most happy and animated. There was more laughing and move movement within the room. People tended to group in clusters and the participants felt like they had more fun than their counterparts in the red and blue rooms. People liked the yellow room 2:1 over the blue or red rooms. Interestingly, those in the red room felt hungrier than any others. Those in the blue room felt more sedate and those participants tended to stay to themselves and not mingle as much.
In closing it is time to dispel one wildly held wives tale (or mom’s tale), in that a yellow room makes a baby cry more. It does not. However, any room, painted a deeply intense color, be it yellow or any other color will make a baby cry more. The intensity leads to aggression and for a baby that means crying. So, you can paint baby’s room yellow, just choose a pastel yellow. Babies do have color preferences and their favorite color is blue with purple being their second favorite color. Babies like blue and purple because these are short wave length colors and are easier for baby to see. Baby does not like long wave length color like green, red and yes yellow. From birth to death, yellow is a tough sell to our eyes.

### GREEN

Our eyes can see more shades of green than any other color in the spectrum…it is truly a green world to us. The word green comes from the Germanic word for *grow*. Green is associated with fertility and is a relaxing color. There exists within all of us the **Savannah Preference** which stipulates that humans have an automatic preference for savanna-like environments, over other natural environments that are simple or complex. Thus, we prefer open areas, scattered trees, water and uniform grassiness over deserts, jungle and mountains. The preference is believed to date back to our early ancestors who lived in such environments with a survival advantage over their contemporaries who lived in other environments, leading to a genetic disposition to favor such landscapes. This preference continues to manifest itself in the resemblance of many parks, resorts and golf courses to the savanna, our ancestral home in East Africa.

The Savannah Preference has some unique professional implications. You should be exposing your employees to healthy doses of the color green as well as natural greens from flowers, plants and trees. Viewing green prior to being creative makes you more creative, even a brief exposure will foster creativity. The color green opens the mind, frees thinking and allows for the creative process to accelerate. Exposure to the color green reduces anxiety and mental fatigue as well and improves problem solving ability.

If you or your employees have just experienced a stressful experience, you should take a walk outdoors and immerse yourself in natural green. Experiencing nature, and the *natural green* helps the body and mind recharge; this is called the **Biosphere Effect**. The Biosphere Effect posits that merely going out into nature improves your cognitive abilities and allows you to distress. If you can’t allow your employees to take a Ralph Waldo Emerson-esque nature walk, simply allowing them to look outside a window at nature will accomplish a near similar effect.

To improve the creativity of your design team, paint at least one wall green. It can be an accent wall but make sure your designers are facing it. You should also consider using green paper during your brainstorming sessions. Also, place some plants and trees near the designers, the more green they see the more creative they will be.
Of course green isn’t a perfect color, it has its disadvantages as well. If you want to make friends or get a date, do NOT wear green. Green changes your complexion and makes you look sickly. Worse than green however is yellow...if you are in the market for a mate, never, ever wear yellow! And if you are in publishing you are already aware of the Curse of the Green Cover. Publishers won’t publish a book or a magazine with a green cover because, well, they never sell.

- BLUE

Saving the best for last we take the opportunity to discuss the most favorite color of all...blue. Blue is a calming color which is the reason the UN chose it for their colors. Blue has significant therapeutic values which can have a positive impact on our body and mind. Interestingly, and sadly, our ancestors (think the ancient Greeks, etc) did not see blue in the wonderfulness we do. The great writers of the time (think Homer) discuss color in all of their writing but never blue...because they couldn’t see it, not the way we do. In fact, your 30th great grandparents couldn’t see blue. The reason for this is that early man’s blue-violet light receptors weren’t developed at that time. Ironic that our favorite color was their least visible.

Speaking to the therapeutic value of blue, the Cleveland Clinic did a study of nursing uniforms and which had the most calming effect on children. Plain blue tops and plain blue bottoms were the clear winner. In this study the Cleveland Clinic also found out that 100% of all patients under the age of 18 have a hatred and/or fear of clowns (called coulrophobia) – just thought you would like to know. The new Boeing 787 Dreamliner makes use of the calming effect of blue with blue LED accent lighting and blue’s ability to reduce claustrophobia (not coulrophobia) with a blue ceiling. Additionally, it is possible to significantly reduce the effects of jet lag with the use of a blue light.

The use of blue light, some use it to treat seasonal affective disorder, does offer some unique therapeutic value. In addition to the treatment of jet lag, a blue light used in an office setting increases the alertness of the staff while decreasing fatigue. Businesses in Japan are now installing blue wavelength light in their office buildings. If you are feeling depressed, direct exposure to blue light for 15-30 minutes will mitigate those feelings and leave you feeling calm, happy and creative. It does matter as to when you experience this blue light. Blue light during the day is good as it acts to keep your circadian rhythm in order. Blue light at night has a negative impact on the body and can lead to numerous maladies. At a minimum, blue light at night will keep you up and upset your circadian clock. Avoid blue light before bed which is to say avoid items that generate blue light like your ipad or your tv.

As for business applications, the two colors used most in advertising are blue and red. If in your advertising you desire a negative outcome, say for example cavity reduction, that message is best showcased in red. If however, you desire a positive outcome, say for example whiter teeth, that message is best achieved with blue. Aspirational advertising where you are pushing an indirect or abstract message is best achieved with the color blue. Don’t use blue when selling a home or car as that will only dissuade the buyer. If you are conducting a taste test and you want your beverage to win, use a blue cup for your product and a red cup for your competitors. If you have people to your house and you want them to eat less snacks before the meal, serve them on a red plate. If you want them to eat more
before dinner, use a white plate. Blue is stuck in the middle on this one; they’ll eat more than red but less than white.

Notwithstanding the red rules for interviews (see above) here are some blue rules for interviews. If you are a man and you are interviewing for a job where the hiring company is seeking a creative visionary, wear a light blue tie. If the company is looking for a turnaround specialist or a micro manager, wear a red tie. If you are a female and you will be interviewed by a man…do NOT wear blue. If you will be interviewed by women, do wear blue.

Drunk Tank Pink

While not a traditional color like b/w or R,G,Y,B, this flavor of pink is worth mentioning. In the late 1970’s Professor Alexander Schauss began a simple experiment. He took 150 healthy and strong young men and had them perform a test of strength (to squeeze a dynamometer). Immediately prior to the test, half of the men were required to stare at a large piece of cardboard colored in a deep hue of blue. The other half were required to stare at cardboard saturated in a bright pink. Interestingly, those who stared at the pink were weaker than those who stared at the blue; remarkably weaker. Schauss initiated other tests but the results were the same…pink made you tranquil. Schauss published his findings in the academic journal *Orthomolecular Psychiatry*.

Two commanding officers at a US Naval Correction Center, CWO Gene Baker and Cpt. Ron Miller, learned of the article and decided they could use the color pink to tame their (generally agitated and unruly) new inmates. Baker and Miller had their intake holding cells painted bright pink and for 7 months they studied the effects. During this pink period, not a single violent incident occurred. When news of this test broke, the pink was now aptly named “Baker Miller Pink” (or for our designers out there: R:225, G:145, B:175, HEX: FF91AF).

Upon learning of the study, a youth detention center in San Jose painted several cells Baker Miller Pink. However the effect of the bright pink on younger inmates was so severe (it weakened the inmates dramatically) that exposure was limited to a mere few minutes a day. Soon local municipalities started painting their holding cells Baker Miller Pink. Holding cells are the first stop for all inebriated criminals; as such, the *nom de guerre* “Baker Miller Pink” was soon lost to a much trendier name, “Drunk Tank Pink”.

Drunk Tank Pink exploded in the early 1980’s with public housing projects painting their interiors pink and noting a steep decline in violent behaviors. Municipal busses eradicated vandalism by installing bright pink seats. Several college football teams painted visiting locker rooms Drunk Tank Pink until the NCAA ruled that home and visitor locker rooms had to be identical. Most amazing to me is that underdog boxers have beaten more heavily favored opponents by wearing Drunk Tank Pink trunks.

Late into the 1990’s research continued on Drunk Tank Pink but the evidence of pink’s power was underwhelming. Dr. Schauss still considers Drunk Tank Pink a “non-drug anesthetic” but others aren’t convinced. I wonder if pink clothes and layettes are the reason baby girls are more docile than their blue wearing counter-parts. Which leads to wonder, why are girls associated with pink?

How baby girls became associated with pink is undetermined. For centuries, all European children were dressed in blue because the color was associated with the Virgin Mary. The idea of associating
blue with male babies may stem from ancient times when having a boy was good luck. Blue, the color of the sky where gods and fates lived, held powers to ward off evil, so baby boys where dressed in blue. The idea of pink for girls might come from the European legend that baby girls were born inside delicate pink roses. Another theory sprouts from ancient China. While certain dyes were quite rare, pink dye was readily available and inexpensive. Blues on the other hand were rare and expensive, it was therefore more appropriate to dress your son in blue as the male child held higher standing in the family.

My business logo and website are awash in blue but perhaps I will change it to Baker Miller Pink in an effort to force higher fees and more acquiescence from my clients. It is a thought.