

The Heuristic Nature of Hues

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ABSTRACT

Oscar Wilde once said that, “Mere colour can speak to the soul in a thousand different ways.” Similarly, the researcher too believes that colours are an inseparable aspect of every individual’s life and play an essential role in one’s perception of the world. As a striving artist, the researcher often stumbles across the same question – ‘Which colours should she use?’ As she thought about this, she realised that this question can never have a correct or incorrect answer. The colour of the painting should always enhance the artists vision and highlight their opinions or concerns. However, now the question was - ‘How could a mere colour put across an individual’s belief or emotions?’. Thus, the researcher delved deep into the colour theory, where she found a strong connection between the interpretations of colour and society’s mindset, behaviour, and beliefs. She realised that most people often underestimate the power of colours and consider them to be just a breath-taking result of the refraction of light, but only a few understand the way in which this wide spectrum influences almost every moment of our life. Each colour in society represents a different message, sets a different mood, and elicits a varied emotion, which is used as a mode of communication. In this research article, the researcher plans to dig deeper and understand the relation between colours and society. She intends to regard colour as stimulus and then record society’s attached meanings and interpretations, because hues are one of the most powerful guiding forces in the world. If you think about it, our choices of clothes, our response to people, our shopping choices, our interactions, all are influenced by this spectrum of hues. Every colour speaks to us in a different way. Every shade influences our path and decisions. Every tone makes us wonder. Secretly whispering in our ears, colours help society write and tell its own story. Thus, the researcher hopes to provide her readers with all the information needed to decipher society’s colour story, while writing their very own.

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Importance of Colours: Are colours so important to human existence?

Colour is a central feature of social life, yet its value in sociological theory is ambiguous. Using theories from materiality studies and cultural sociology, we can say perception is an unstable and contestable phenomenon shaped by social and material factors. However, to establish this theory the origin of colour must be explored. According to linguists and sociologists, there was a time when there were no colour-names as such and that not very remote in many cases, when the present colour-words were terms that could be

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used in describing quite different qualities: gay, lively, smart, dashy, loud, gaudy dull, dead, dreary, tarnished, stained, spotted, dirty, smeared, faint, faded, and feeble. Sociologists then observed that as man evolved and developed civilised interests, the importance of colours began to increase. The early settlers used etching, carving as a mode of expression. These works of art were supplemented with naturally made hues. Thus, as language began to develop, colours started obtaining names. These names were inspired by their surroundings—where they were found. e.g., black is derived from a word that means ‘to burn’ – as black was found in the ash. Slowly as names were attached with colours, so were emotions and beliefs. These attached emotions and beliefs were a result of differences and similarities in society. As different cultures interacted, problems rose which led to stratification. As language wasn’t developed to the level of fluent communication, art and colours were used to depict superiority and opinions. Over the ages, the meanings and interpretations of colours have changed but the hierarchy has remained the same.

Colour is one of the most prominent features of human experience but has often been ignored or overlooked in archaeological research. All practising archaeologists are aware of the colour of the materials which they handle — be they stone artefacts, painted pots, prehistoric monuments (frontispiece) or historical buildings. Yet all too frequently these items are robbed of their colour when they are published as black and white photos, abstract plans or reductionist line drawings. Equally discouraging is the fact that original colours are frequently missing or faded, removed by the passage of centuries. We know, for example, that the famous marble Cycladic figurines were originally brightly painted, but few traces of colouring survive. Yet such traces are enough to alert us to the radical transformation which colour could bring to old and faded remains. The meaning of colour may be approached at a variety of levels. In literate societies, or those with a rich and detailed iconographic tradition, it may be possible to explore the particular significance of different colours in myths or rituals. Such understanding is more difficult in the case of prehistoric societies, yet even here we can gain some insight into colour symbolism by careful consideration of context, or by cautious appeal to common human experience. Context may suggest that red ochre in burials equates with blood, common experience that yellow is associated with the sun, and blue with the sky or the sea. The value accorded to particular colours can also be indicated by the workmanship and finish which objects received, and the distances that materials travelled: polished jadeite from the Alps to Scotland, or lapis lazuli from Afghanistan to Mesopotamia. All societies are concerned about colour, and such concern can be traced back to at least the Upper Palaeolithic, if not before. To what extent particular colours, such as red or black, have cross-cultural significance, is an altogether more difficult question. Colour awareness and colour sensitivity must however be an integral part of any archaeological analysis concerned with the development and nature of human cognition.

In examining the roots of colour terms, we often find conventionalized meanings. White comes from the Indo-European root "hwit" meaning to gleam; red from "rhudira," blood; green from the root "gro," to grow and grass (Heifetz 1994). We teach our children their colours by means of conventionalization of salient and culturally central physical objects that are typified by those colours. In one children's book (Reiss 1969) red is exemplified by strawberries, apples, a firefighter's hat, watermelon, lobster, and tomatoes; yellow by baby chicks, lemons, bumblebees, bananas, and daisies; blue by the sky, the sea. blueberries, cornflowers, and a police officer's coat; green by leaves, frogs, gooseberries, pickles, and peas in a pod: and black by liquorice sticks, zebras, blackberries, penguins, and night (white is not included). Of course, colour symbolism can be generalized from these objects to include the cultural images of the objects, such as giving a red apple to one's teacher, or

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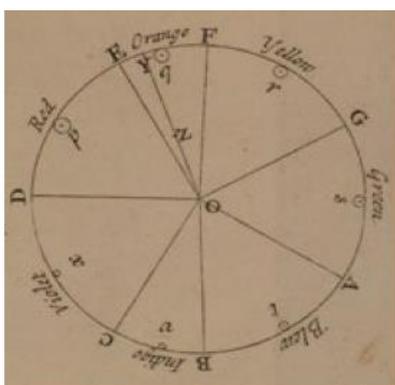
opposing pollution because it transforms "pretty" blue water into "ugly" brown. There is a cross-cultural perception that darker colours are associated with negativity over lighter colours.

Origin of Colour: How are colours organised in the perceptual world?

Divisions of colours into groups helped scientists and others form the colour theory. In Visual Arts, colour theory is a body of practical guidance to colour mixing and the visual effects of a specific colour combination. When most people think of colour, the first thing that comes to mind is the colour wheel, an abstract representation that shows the relationships between certain colours in the wheel, and denotes the "primary", "secondary", and "tertiary" colours, which can be combined in various ways to create a broader spectrum. There is a vast history behind the colour wheel and the discoveries which were integral to its invention and standardization. The work of many theorists and artists led to the standardized colour wheel and colour space that are now used across arts, science, and mathematics in a multitude of colour research. Their approaches, both scientific and artistic, set the foundation for studies of colour for generations to come.

Colour theory principles first appeared in the writings of Leone Battista Alberti (c. 1435) and the notebooks of Leonardo da Vinci (c. 1490), a tradition of "colour theory" began in the 18th century, initially within a partisan controversy over Isaac Newton's theory of colour (Optics, 1704) and the nature of primary colours. From there it developed as an independent artistic tradition with only superficial reference to colourimetry and vision science. The purpose of colour theory ranges from renaissance fine art to modern commercial advertising. Colours affect our mood and perception. Colour theory is not new but also seen in old traditions. Colour was mentioned many times in the ancient bible and every colour has its specific definition and interpretation. This has led to many misconceptions in society where the individual thinks that the colour you wear dictates your personality and attitudes. Society has created a new factor to judge people without getting to know them. Colour is a powerful and important communication tool, and it is tied to religious, cultural, political and social influences. A single colour may have totally contrasting meanings, depending on where in the world you live. For example, white is perceived as purity and virtue in western society, while in many Asian countries it represents mourning. White in India is associated with peace, serenity and purity. That is why during mourning symbolically people use white in large part of India. Colour is very much subjective and extremely difficult to judge measure globally. Recent globalization has successfully implemented some of the aspects to rationalize its application. While cultures are complexes of learned behaviour patterns and perceptions, societies are groups of interacting organisms.

The first colour wheel was presented by Sir Isaac Newton in the 17th century when he first

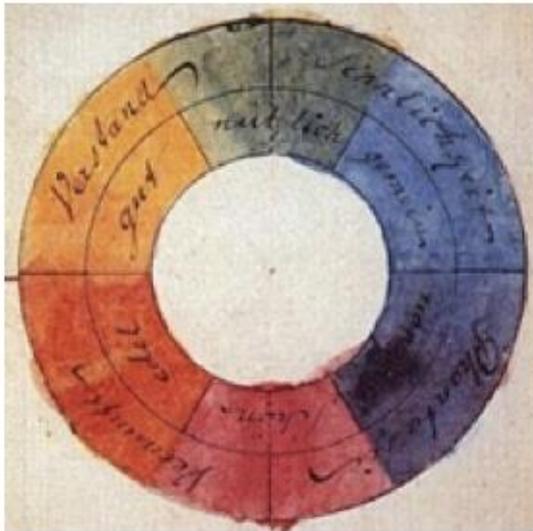


discovered the visible spectrum of light. Around this time, colour was thought to be a product of the mixing of light and dark, with red being the "most light", and blue the "most dark". Newton saw that this theory was flawed and began testing the properties of white light and "to try therewith the celebrated Phenomena of Colour". In his classic prism experiment, he noted that white light is composed of a variety of colours. He then mapped these colours into an octave schema as the first colour wheel and the original ROY G BIV. His experimentations also led to the discovery that all secondary colours can be

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made by mixing primary colours. The mixtures of colours in varying ratios resulted in different “hues” of novel colours from the classic ROY G BIV baseline, and resulted in the first hue wheel, which is likely the colour wheel we are most used to seeing.

Well after Newton’s publication of *Opticks* in 1704, Johann Wolfgang von Goethe began his own experiments with colour. Like Newton, Goethe attempted to “conceive nature in her simplest, most conspicuous creations,” although he proposed to do so “without the aid of mathematics”. His experience as a painter and artist led to a fascination with the phenomena of colour much like that of Newton’s, though he fervently disagreed with Newton’s idea that darkness was just an absence of light. Instead, he insisted that darkness was an active



ingredient in the production of colour. Strikingly, Goethe’s investigation of colour mirrored that of Newton’s. Goethe conducted numerous experiments with colour to address the gaps he perceived in Newton’s theory; a holistically scientific approach similar to the rigor of Newton’s prism experiments. Perhaps due to his background in poetry and the arts, Goethe also went into detail about the psychological aspects of colours and their relationship to human emotions and behavioural traits. He especially hoped that his investigation would aid painting, which he deemed “an art which has the power of producing on a flat surface, a much more perfect visible world than the actual one can be”. His work was also in part a contemplation of the effects of light and

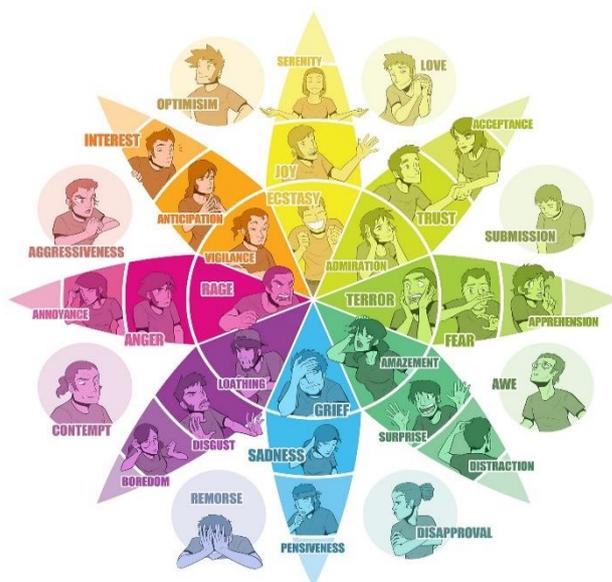
dark on human colour perception, such as the way in which ratios of light and dark produce differences in the colour spectra. These observations led Goethe to develop his own colour wheel, which is more akin to the one we use today. In his wheel, colours opposite each other have a visually antagonistic role. Surprisingly, this observation later became the foundation for our knowledge of how colour is interpreted by the human brain.

Colour perception used the fundamentals of Goethe’s Theory of Colour to further investigate the role of colour in psychology, ecology, and evolution, as well as the physiology of human sight and colour discernment. These artists and scientists both desired to explore the nature of colour in their own mediums, and only through the synergy of their research can understanding the fundamental human experience of colour vision move forward. As famous colour theorist Josef Albers said, “Ah, the creative process is the same secret in science as it is in art. They are all the same absolutely.”

Warm and Cool Colours: How has society associated this dichotomy to moods and beliefs? Most theories start with the classic six-point colour wheel (three primary colours and three secondary colours). A dividing line splits the wheel into warm and cool. The concept of warm and cool colours has been written about for hundreds of years. Designers are always throwing around terms such as warm colours and cool colours. But what do they mean?

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'Warm colours' is the term used to describe any colour that is vivid or bold in nature. It includes shades of red, yellow and orange. This colour group is usually associated with feelings of happiness, optimism and energy. In most societies around the world, Red is used to convey excitement, passion, urgency and caution. Red is a dynamic colour as it is used to represent two ends of the feeling spectrum - a romantic nature or extreme rage. Legend has it that red is associated with love because the early settlers considered red berries as a



gesture of good faith and an act of rage is associated with blood which is red. Orange, on the other hand, is used by many communities to represent independence, creativity and gives a very fresh, encouraging impression. Societies use Yellow to symbolize enthusiasm and opportunity. This association was derived by travellers from the concept of the Sun as the Sun is the one constant, seen by them irrespective where they moved. Yellow is used to energize and create awareness especially in social groups. The colour now is often used to show a positive mindset and represent a relaxing atmosphere.

The second major group of colours is 'cool colours', which is a term used to describe any colour that is relatively subdued and evokes poise. It includes shades of green, blue, pink and purple. Most societies associate the colour Green with tranquillity, good luck, health, and jealousy. Green colour is also associated with growth, harmony, reliability, balance, and serves to provide a relaxing environment where one gets in touch with their roots. This was based on the fact that the environment around the early settlers was constantly growing. How does blue make you feel? It is a colour found in abundance in nature and is described as calm and serene or icy, distant and cold. This conservative and traditional hue is favoured by many because it represents wisdom, trust, security and stimulates productivity and precision. This feeling of security came from the fact that the ever-flowing river ensured their survival and the vast sky protected them. For generations, pink and violet have been considered feminine colours as they are associated with love, softness and kindness. Pink evokes joy, creativity, vibrancy, euphoria, and has a sense of childish mischief with it. It symbolizes immunity, playfulness and admiration which is used to increase pulse, motivate action and fascinate. Purple or violet is the symbol of royalty, wealth, exotic things and regality. It is a sensual colour which shows wisdom and mystery by creating an inspiring, luxurious environment.

Although Black and White are not considered colours, colourists often refer to them as neutral colours because they have a very important effect on our minds. On one hand, Black is associated with dark power while on the other it creates an atmosphere of formality and sophistication. The use of this colour often hides feelings, intimidates and creates fear amongst people. It is also used as a symbol of evil associated with death and mourning. White represents purity, innocence and sterility. Some positive meanings of White are cleanliness, freshness and simplicity while the negative meanings are coldness and isolation.

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Both are neutral colours which are formal, practical, conservative and create a sense of composure.

Stereotypes associated with colours in media, advertising, and the design world: What is the impact of this stereotyping?

When you look closely at commonly used colours in advertising for your industry, you'll see many of the same ones popping up again and again. It's not a coincidence, and they're not just your competitors' favourite colours! Research shows that these are the colours that audiences tend to connect with their needs and expectations from brands in your industry. The associations our brains make with certain colours are key to bridging the gap between marketing materials and their target audiences. Choosing which colours are the ideal palette for your marketing and advertising efforts is part aesthetic, part testing and part science—much more a part than you probably realize. The science of colour marketing is what helps you communicate your messages most effectively. Colour was supposed to be simply a hue, but society has made it into something more- consciously or unconsciously. It has become a parameter for value, status, attitudes, and more. It has transformed from a decorative element to an influential one.

Society and its cultural references influence choices made by brands as each company strives to build a specific brand image in the minds of target customers. Every company spends considerable time, effort and money to choose a colour which conveys the image it wants to build, attracts the attention of their target audience and serves for easy, instant identification. The Japan Airlines logo is a good case in point. The JAL logo is called

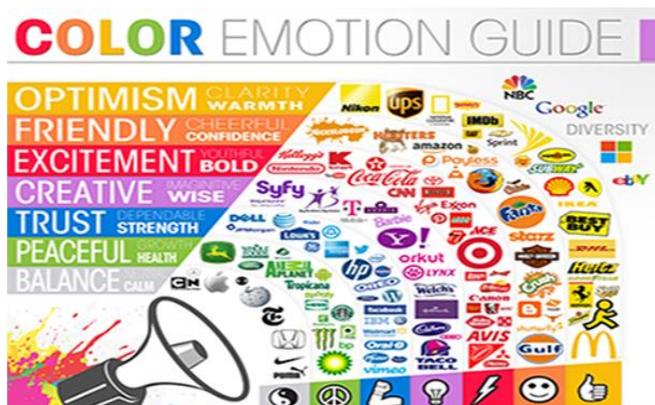


the tsurumaru (鶴丸) or "crane circle" in red colour. It is an image of a Japanese red crown crane with its wings extended in full flight. The logo was inspired by the personal crests of Samurai families. On the choice of the crane, the creator Huff writes: "I had faith that it was the perfect symbol for Japan Air Lines. I found that the Crane myth was all positive—it mates for life (loyalty), and flies high for miles without tiring (strength.)" In Japanese and most Asian culture,

Red colour is associated with power and good luck. Therefore, the brand image of a red crane was the perfect choice to communicate loyalty, strength with power and good luck for the journey. Similarly, FedEx uses 'universal' symbolism of colours. The green symbolizes ground services while orange communicates high energy and speed of transportation.

Fast food majors, McDonald's and KFC use red in their logos and advertisements as the colour red is considered to evoke hunger. It is a known fact that Media companies like News

Channels prefer warm colours in their logos and branding to show power and importance. Animal planet, Woodlands, Starbucks each a name in their domain, use shades of green to showcase their raw origin and effort to 'bring the outside inside'. Computer companies like IBM and DELL use blue in their logos to show reliability and professionalism which is critical messaging for their branding. Twitter and Facebook, both social media



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leaders, use shades of blue in their logo to create a sense of trust, comfort and similarity and an atmosphere where one can feel free to express without any reservations. Barbie, the fashion doll manufacturer, uses hot pink in its logo to show a feminine streak and attract young children with the promise of adventure. Cadbury, Yahoo and Taco Bell use shades of purple to create a fascinating atmosphere guaranteeing an unforgettable, exotic experience. The versatile black is combined with other colours by brands like Blackberry, Nike, and Adidas to communicate their sleek and modern designs. White is used in marketing by Apple, Gap, Lego and Ford to show safety, new beginnings and sophistication.

No matter how much we try to deny it, we always judge books by their covers. Society is mostly concerned with images and appearances. At first sight, we are not attracted by the promise of the product, but by the promise of the brand identity and what it conveys. Thus, using the correct colours to depict a message to target audiences is one of the most important jobs for designers. Even when you're trying to communicate or transmit something through interior design, there's no better way to do it than through colour. After all in a community individual believe that your home, its design and location reflect your status in society. Let's start with warm colours in interior design. Red is considered great for kitchens as it is known to increase appetite. Red is used in living rooms and front offices as it stimulates conversation and creates a strong first impression. Like red, orange stimulates appetite and is a great kitchen and exercise room colour. An apricot or terra cotta orange (increasingly popular in the Midwest) is used in meditation rooms and places of worship as it can be relaxing. Yellow is the perfect colour for hallways and cafes because it is welcoming and associated with joy, happiness, intellect, and energy (Nicolae). Now, let's move on to cool colours. Green is a versatile colour and is extensively used to create contrast, drama, richness, and balance in bedrooms and living rooms. Shades of blue are the most popular for medical waiting rooms and bedrooms because they have a calming effect and bring down blood pressure and slow the heart rate. Light or pastel blue can create tranquillity and softness in the room but can come across as 'chilly' on the walls in a room that receives very little natural light. Deep midnight blue can create a feeling of luxury when used in a bedroom. Interior designers use purple to add drama, create a hip feel by combining purple, pastels, and modern art; add a bold statement with neon purple, or give a room a mysterious feel with dark purple as an accent. Baby pinks and Baby blues are a popular choice to paint nursery for girls and boys respectively. Interestingly, the demure pink is used to paint prison cells to calm and pacify prison inmates, and sport teams paint their rivals' lockers with pink to keep the players passive and less energetic. In a retail setting, stores will use a neutral colour scheme and offset it by placing their products in a high contrast colour shelf to draw your attention to the product like in the picture below on the left.

Colour has actually become a dictating factor in this world, yielding unimaginable power. Even large multinational corporations are typified by particular colours. The global reach of Coca-Cola, revealed in the public recognition of its linkage with the colour red, is a prominent example, as is IBM, known as "Big Blue." and its chess champion. "Deep Blue." Less dramatic is the image of the black Cadillac or a green John Deere tractor. It is not that when one sees red, blue, black, or green in other contexts one will immediately think of the corporation, but with a connection primed, the link is easily made. By virtue of choices made in advertising, and the reach of that advertising, the link between colour and corporate identity is obvious.

Given the use of colour to represent institutions and organizations, individuals and groups may attempt to build upon the power of colour as meaning. This concept also relates to

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sociological imagination as people have looked into the history, biography of objects and then attached colours and interpretations to it. Marketers use green to indicate that their products are environmentally friendly or healthy (Healthy Choice cookies. Tide Fragrance-Free detergent). This association is also related to the Looking Glass Self Theory, where individuals think what colour they wear affects their judgments of themselves and others critique of their appearance. This has led to stereotyping in products. Companies believe their product will be more appealing to the target audience if they use a colour of their 'preference'. Especially in supermarkets, you see products stereotyped as pink for girls and blue for boys. The Shrink It, Pink It strategy is used by many companies to make products more appealing for women as they feel women only like 'pink'. This stereotyping has resulted in narrow-mindedness and the attachment of unwanted roles.

Evolution of meaning of colour: How has the perception of colours by society for different cultures and religions evolved over ages?

Culture is an umbrella term which encompasses not only the social behaviour and norms found in human societies but also the knowledge, beliefs, arts, laws, customs, capabilities, and habits of the individuals in these groups. It is considered a central concept in anthropology, encompassing the range of phenomena that are transmitted through social learning in human societies. Cultural universals include expressive forms like art, music, dance, ritual, religion, and technologies like tool usage, cooking, shelter, and clothing. In the humanities, one sense of culture as an attribute of the individual has been the degree to which they have cultivated a particular level of sophistication in the arts, sciences, education, or manners. The level of cultural sophistication has also sometimes been used to distinguish civilizations from less complex societies. Such hierarchical perspectives on culture are also found in class-based distinctions between a high culture of the social elite and a low culture, popular culture, or folk culture of the lower classes, distinguished by the stratified access to cultural capital.



The way different cultures see and describe the meaning of colour varies dramatically around the world. Let's explore the variations using the colour Blue. Blue is considered the safest colour choice around the world. It has many positive associations around the world, but the exact associations vary by region. In North America and Europe blue represents trust, security, and authority, and is considered to be soothing and peaceful. In some countries, blue symbolizes healing and evil repellence. Blue eye-shaped amulets, believed to protect against the evil eye, are a common sight in Turkey, Greece,

Iran, Afghanistan, and Albania. In Eastern cultures, blue symbolizes immortality, while in Ukraine it denotes good health. In India, as per Hinduism, blue is strongly associated with Krishna, who embodies love and divine joy. An entire period in art is called 'the blue

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period' where Picasso produced lonely, sad, forlorn themed paintings. Blue was also associated with jazz music to symbolize grief during a time of struggle for the African Americans.

The other popular colour is Green. In the Middle East, Green represents fertility, luck, and wealth, and it's considered the traditional colour of Islam. In the 15th century wedding gowns were made from green cloth as they symbolized fertility of the woman. On the other hand, green can also mean infidelity. In fact, in China, green hats are taboo for men because it signals that their wives have committed adultery!

White is worn in some religions during a funeral; however, it is worn on the wedding day in other cultures. Asians prefer to wear red on their wedding day and it symbolizes passion and luck. In Hinduism, saffron (a soft orange color) is considered auspicious and sacred. In the Netherlands, orange is the colour of the Dutch Royal family, while it represents sexuality and fertility in Colombia. Historically, in Japan only royalty and the highest ranked Buddhist monks wore purple robes. Purple is also a colour of honour — the Purple Heart is the oldest military award still given to US military members. Purple is also associated with piety and faith but in Catholicism, its associated with penitence. In Brazil and Thailand, purple is the colour of mourning. In Western cultures, white symbolizes purity, elegance, peace, and cleanliness; brides traditionally wear white dresses at their weddings. But in China, Korea, and some other Asian countries white represents death, mourning, and bad luck, and is traditionally worn at funerals. In Peru, white is associated with angels, good health, and time. Ancient Egyptians believed the colour black means life, rebirth but other cultures wear black to mourn during a loved one's funeral. In Africa, Black symbolizes age, maturity, and masculinity.

Numerous cross-cultural analysis has explored the extent to which widely accepted colour symbolism is locally determined. For example, to what extent do tribes in the Pacific have colour meanings similar to those of African groups. Do Central Asians share colour codes with Caribbean Islanders? Do the French share their colour preferences with the British, just as their flags contain the identical colours? Michael Schudson (1989) in his article, "How Culture Works," suggests five dimensions of the potency of a cultural object. Schudson speaks of the importance of retrievability, rhetorical force, resonance, institutional retention, and resolution. While these concepts, as presented, do not apply perfectly to the analysis of colour, they are suggestive. Retrievability refers to the extent to which a cultural object reaches or is available to the audience. Obviously, colour as physical sensation is readily available, barring for the moment differential rates of colour blindness, but the conventionalized meanings may not be known. Thus, young boys in Africa or middle east may not know the meanings of red lipstick, black stockings, or blonde women those American men frequently do. Up to a certain age these meanings are not retrievable, and socialization to these symbols is part of the boy "becoming a man." Likewise, different racial or ethnic groups may have limited access to the cultural meanings of others. Rhetorical force refers to the effectiveness of cultural symbolism.

Religion, race and social origin have greater impact on certain forms of colour symbolism more than others. The racial divide of Black and White is a vivid example. The linkage of yellow with disease or green with envy, while evident in part of Western culture, does not have the same vividness and perhaps has lost some of its power over time. Resonance relates to the extent to which one set of symbols fits with other symbols in the culture. Cultural images bolstered by the continuing alterations of the culture is often questioned. The linkage

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of red with love, seen in "hearts" throughout the culture, suggests that this is a resonant symbol. For instance, the image of the blue collar may be fading or becoming a ritualistic symbol, now that elites wear blue shirts and manual laborers wear T-shirts. The meanings of "true blue" or "blue nose," while still occasionally present, have lost their power as their referents have faded. Further, as other cultural symbols change (different meanings of gender, for instance), particular colour symbolism can become more or less effective. When cultural styles mutate, some meanings are lost, and others are gained. Institutional retention is linked to the role of colour in organizational communication. Flags are the most evident example of this, but the usage of colour by social movements—red on the left and green among environmentalists—suggests that organizations have much to say about which colour linkages will have retrievability. Political conventions and other media events are tightly scripted. One of the elements which is scripted is the colour of the background used, designed typically to enhance the positive emotions of the audience, but on other occasions, as with Nazi rallies, to point to the need to attack an evil or implacable foe.

Colour as a catalyst for change: How has colour influenced public administration and community progress?

Colour Psychology has some interesting tales to tell when used by Public Administration. In the city of Glasgow in Scotland, in the early 2000s the civic authorities changed the colour of some streetlights from yellow to blue to improve the appearance of the city. What they saw was an unexpected drop in the number of crimes committed in those streets. Similarly, in the year 2005 in Nara, a city in Japan, railway authorities installed blue lights onto train platforms to curb suicides. Subsequent reports have shown that no suicides have happened in the years following the installation of the blue lights. Since then, Japan has gone on to install blue lights in railway platforms across the country. The fact that the blue lights had an effect is indisputable. Was it because blue calms a person or simply because blue lights are usually attributed to cop cars thereby giving suicidal people a feeling of being watched?

A prominent topic in sociology is the problem of the colour line. Colour is acting as a differential factor. The world problem of the 20th century is the problem of the colour line—



the question of the relation of the advanced races of men who happen to be white to the great majority of the undeveloped or half-developed nations of mankind who happen to be yellow, brown or black. Colour is an institutional resource. Colour represents institutions in dramatic and subtle ways. As Karen Cerulo (1995) notes in her analysis of national symbols, colour and design are not randomly tied to national flags but are correlated with ideology and location in the world system. Colour becomes a mnemonic for institutional power. The absence of the colour black in the flags of core nations is notable. Black, in contrast, is represented in the national flags of many African nations (for instance, Angola, Kenya, Malawi, Sudan, Tanzania, Uganda, Upper Volta, and Zimbabwe) (Talocci 1982) and in most cases refers to the "colour" of their citizens. The creation of the national flag of newly democratic South Africa deliberately included a black triangle. Arab and Caribbean nations are also prone to use black, although for Islamic nations, black typically stands for warfare and the end of colonialism. In contrast, in Europe only Belgium and Germany



have black stripes in their flags. Red, white, and blue represent not only the United States, but also the United Kingdom and France. Those colours, representing purity, blood, and dominion over sky and sea, are characteristic of core nations. States use colours in other

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ways as well, such as in the colour of their currencies or evening the external and internal colours of their national buildings.

Colour may be generalized to represent the people. Within societies colours may serve as an integral and defining part of a uniform as a group emblem (Joseph 1986). The white that hospital personnel wear suggests cleanliness and health (Boys in White [Becker, Strauss, Geer. and Hughes 1961). The linkage of the police with the colour blue {Hill Street Blues, NYPD Blues and the army with khaki.' the Green Berets, and the redcoats are examples that easily come to mind in which colours come to represent in visual form the power and reach of the state. A policeman does not simply wear a blue uniform, but the uniform provides visual legitimation for the use of deadly force. The linkage between governmental units and colour may also be institutionalized through "official" flowers, birds, and other symbolic representations of nature. The official flower of the state of Texas is the bluebonnet. Lady Bird Johnson used her influence to encourage the spread of bluebonnets throughout the Texas Hill Country. As a result, the colour of bluebonnets comes to constitute images of a Texas spring to Texans, as bluegrass does in Kentucky. The Baltimore Orioles (black and orange) come to represent the city and the state of Maryland. The colours of other institutional actors serve as images of community. The uniforms of Pittsburgh professional sports teams (the Steelers', Pirates, and Penguins) use the colours of black and gold, which come to represent the city to itself.

University colours, such as Alabama's "Crimson Tide," or "Carolina Blue" of North Carolina, or "Big Red" of Nebraska, typify the state beyond the confines of stadia. Social movements similarly use conventions of colour to represent themselves and their ideologies to the public. We speak of the "green movement" or "green politics" and within this context have a clear meaning as to what is involved. Indeed, this has become a predominant reference of green: of 475 current book titles starting with the word "green," 60 (12.6 percent) also include the words environment, ecology, conservation, sustainable, or earth. Many other books with green in their title are similarly environmental. The establishment at the Rio Earth Summit in 1992 of the Interactional Green Cross to address environmental problems that cross-national boundaries is a case in point (Linden 1993). Perhaps the most obvious linkage of colour to social movements is the use offered by revolutionary communist and other socialist movements. The former Soviet Union and its movement allies used red to represent themselves. Even members of the more moderate British Labour Party for many years stood together tossing "The Red Flag" at their annual party convention. The "Red Scare" of 1919 in the United States made clear that colour was associated with revolution in the minds of many. Members of the Ku Klux Klan wear white sheets to indicate their purity and to emphasize the boundaries with Blacks and others who are not considered sufficiently white. Fascist black shirts also serve as a linkage between colour and social movements. On a more limited basis, street gangs typically have "colours." which serve as markers of identification and boundary. The red of the Bloods and the blue of the Crips are potent symbols, and a youth wearing the wrong colour (and thus revealing improper group affiliation) may suffer painful or deadly consequences.



Consumption choices are often linked to the use of colour. To claim that black and white are essential, if constructed (Frankenberg 1993). social categories are to state the obvious. Each defines the other by virtue of the salience of cultural boundaries. Some argue that it was not

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until Europeans came to America and had lasting contact with darker-skinned humans that the idea of white became prominent (Lyman 1994. p. 135: but see Jordan 1968). Black and white gain a range of meanings, as evident in phrases such as "Whites only." "Black is beautiful." "White power." and "blaxploitation films." or in "coloured people" and "people of colour." Perhaps most symbolic was the belief that virtuous Blacks would find themselves rewarded with white skin at the Second Coming (Washington 1984. p. 19). The terms "yellow peril" and "redskins" suggest that colour symbolism is not limited to black and white. "Blond-haired, blue-eyed" Aryans find the colours of their physical features serve as markers for their internal virtues. Divisions in the East Asian, Hispanic, and African American communities are based on gradations of skin tone (thus, light skinned African Americans are "high yellow" [Foulkes 1994]). Women know well that their hair colour can serve to indicate their intelligence (blondes are alleged to be bimbos, as dumb-blonde jokes attest), their sexuality (redheads are said to be fiery), or their personality (for instance, mousy brunettes). While other social categories are not directly linked to aspects of physical features, colour still plays a role. Boys now routinely are associated with blue, and girls with pink (early in this century the appropriate colours were reversed [Kimmel 1996. p. 160]). Consider "scarlet women" who like Hester Prynne, may be forced to wear a Scarlet Letter. In part because of the link to sexuality, women are frequently advised not to wear red in the workplace (Molloy 1977). Today yellow is becoming an increasingly popular, politically correct "neutral" colour for children's clothing and decorations, in part because it allows one to make purchases for the child in the months prior to birth and in part because yellow does not stereotype. Yellow, unlike black, brown, and grey, is seen as a colour appropriate for dressing the young (Lurie 1981. p. 197). an unserious colour for clothing (McDowell 1992. p. 7).

Colour is linked to class position and public identity. For instance, black is usually not a colour that is widely used among casual, middle-class dressers. Black leather jackets and



black-tie clothing connect the ends of the social structure. The black and white of the traditional habit of nuns is immediately recognizable, as is the red of a cardinal's garb. Men's red ties are considered to be an example of "power dressing"; bright red lipstick on women communicates something about the wearer's moral character, as does black lipstick. With the exception of shirts and undergarments, white clothing is linked to leisure and summer—between Memorial and Labour Days. Dressing in flashy colours, say, all in yellow or red, reveals to others that one is placing oneself (for the moment at least) outside of conventional social norms. In short, colour can tie one to a community or separate one. Despite the dazzling range of consumer products available (e.g., Toffler 1970), it is striking to note that automotive manufacturers do not include yellow as a standard option for most car models, houses are rarely painted deep blue, and, excepting picnics, food is rarely served on red plates. Usage of inappropriate colours can place one outside social boundary.

Over the past few years due to feminism, activism for equality etc. the meanings associated



with colour have evolved. But no matter how the meaning of evolves, colour plays a very important role in administration and progress. Traditionally, pink and blue were thought to be specific colours for girls and boys respectively. However, now in some parts of the world like Belgium, pink is the colour for baby boys and blue is the colour for baby girls. In many cultures blue food meant traces of poison, but now, weight

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loss experts recommend having blue fruits and eating from a blue plate as it decreases appetite. Usually associated with seriousness, depression and death, in today's fashion world, black has a new meaning. It is the colour worn by most as it is believed to have a slimming and sultry effect. For years, the word and colour, black has been associated with inferiority. Even today, the on-going 'Black Lives Matter' movement has opened the eyes of people worldwide and strives to eliminate the stereotypes and negative associations with this colour.

Use of colour in the field of psychology: Is there a correlation between science, society and colour?

The psychology of colour is used by many psychologists and therapists to diagnose and treat their patients. The importance of colour psychology, creativity and art therapy for health well-being and self-development should not be underestimated as therapists have established that image language comes before verbal language. Colour helps bring forth many stories and helps patients to express themselves, especially when it may be difficult to express themselves verbally. For example, when a patient is shown a red screen their response and reaction help determine their emotional fragility. If one sees red and immediately associates it with feelings of rage, it can be concluded that they are frustrated, and something is eating them from inside. On the other hand, in the same picture if one sees love, it can be said that they are hopeful and to a certain extent satisfied. Yellow is a 'pick you up' colour as it lifts your spirits and helps you think optimistically. Blue and purple are used as anti-inflammatory colours and yellow helps stimulate the lymphatic system which helps one think clearly. White is used to represent the lightness of the soul and black is stereotyped to depict the burdens carried. The colour black is also used in inkblot assignments as it effectively tests a person's perception of closure and ability to deduce forms. In a safe environment with directional guided art therapy using colour psychology skills and expertise, people can find their voice.

There is a strong relation between the pure sciences and colours. Chromotherapy, sometimes called colour therapy, colorology or cromatherapy, is an alternative medicine method, which is considered pseudoscience. Chromotherapists claim to be able to use light in the form of colour to balance "energy" lacking from a person's body, whether it be on physical, emotional, spiritual, or mental levels. Chromotherapy is a pseudoscience; practitioners claim that exposure to certain hues of light can help people to feel better physically or mentally, which has not been backed up by experimental, peer-reviewed research. This belief is also used in Ayurveda where a colour is associated with a chakra- particular part of the body. Colour therapy is a non-invasive and holistic treatment that brings balance and health to your mind and body. The vibrations of the colour in colour therapy class improve your mood and overall health. Colours are made up of reflected lights that hit our retinas as the wavelengths vibrate. Our brain interprets these wavelengths, which ultimately makes our perception of colour as a physical and sensory experience. Colour therapy is based on the idea that colours create an electrical impulse in our brain, which stimulates hormonal and biochemical processes in our body. These processes either stimulate or calm us. The shades of colours used in your colour therapy session will vary depending upon the type of ailment you are trying to correct. For example, blue or purple lights are anti-inflammatory and calming. Green colour helps to purify and cleanse, white and yellow colour light stimulates the lymphatic system. Red light is invigorating but it may cause agitation if you are already tense.

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According to Indian philosophy, the chakras are considered the centres of spiritual power and energy within our bodies. There are seven chakras and different colours represent a different chakra. The root chakra located at the base of the spine is represented by red colour. The chakra has to do with our connection with the Earth. The Sacral Chakra, which



is located 2 or 3 inches below the navel is represented by orange colour. This chakra is said to be associated with reproduction, kidneys, adrenals and pleasure. The chakra is the mind-body chakra. The solar plexus chakra associated with liver, pancreas, digestive system, gallbladder, empowerment and well-being is represented by yellow. The chakra is located between the navel and sternum. Green represents the Heart Chakra. It's associated with heart, lungs and immune system, energy, nervous system, mental focus, compassion and empowerment. Blue represents the chakra is associated with thyroid and metabolism and also with a peaceful expression. The third eye chakra is located between the eyebrows and it is

shown by indigo. It is associated with the pituitary gland and pineal gland. It influences our sleep cycle, clarity, wisdom, self-esteem and intuition. Violet is associated with the Crown Chakra and is located at the top of the head. It is associated with clarity, dreams, spirituality, sleep cycles, dreams, pineal gland and light sensitivity.

Significance of colour in our everyday lives: Do colours really speak louder than words?

The importance of colour in our daily lives cannot be denied. Colour association not only helps with easy identification but also helps convey meaning and add emotions and feelings to objects around us. School buses are painted yellow to improve visibility and Fire trucks are painted red to convey danger, caution and urgency. Both yellow and red are colours that get noticed almost instantly and get one's attention faster. Green and Red dots are now synonymous with vegetarian and non-vegetarian food respectively on food-shelves. From personal choices to indication of status in society, colour indicates all.

Colour of the uniform tells a lot about the profession. We see colour differentiation in the different spheres of work. White collar workers, blue collar workers or even pink-collar workers. The colour of their uniform is linked to their profession. Doctor white coats symbolize purity and instil confidence amongst patients visiting the doctor. Wearing black business attire makes professionals feel confident The Blue uniforms for attendants make them more approachable which is critical to their line of work. Blue light from phones may keep people up at night but the same colour of lighting in offices during the day increases alertness in its occupants.



Colour also helps enforce rules and regulations in a community. As a tool of formal control, colours in the signals, colours in electronic devices, machines all help to lay ground rules which dictate activities. Most often, we do not perceive colour or just the object alone, but colour and objects as a whole. In first-order symbolism, objects that have a particular colour have certain aspects of their meanings rub off on the colour—sky. butter, blood, night,

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sugar. Any given object can have multiple meanings but to be clearly understood colour helps add context for e.g. a 'red ball' has more meaning to a child than just a 'ball'. Here, the red colour helps to typify the ball as an object.

In film colour schemes are used to set the tone of the scene. This is so effective that you know what emotion the scene carries even before the actor utters a word. Joyous scenes are set in warm colour schemes whereas sad, melancholic tones are portrayed with cold colour schemes. In scenes building up for passion look for reds, impending doom look for greys, creativity and fantasy is usually purple.

Although colour has rarely been examined as a sociological topic, colour is linked to numerous social domains and serves as a collective representation. Through my research I strongly feel that over the ages, the mindset, behaviour, stereotypes, and cultural beliefs of society have attached various interpretations and meanings to different colours. Creative people and visual learners have now found a new medium in colour to communicate and convey their ideologies. The significance of colours has evolved majorly to become a dictating factor among individuals of a community. Colours now represent almost everything under the sun, from status and roles to positions and attitudes. When we look around us, we see several examples emphasizing the fact that colours do speak louder than words. Colours now unconsciously convey messages which words cannot. Sometimes things we are unable to express in letters or words, are conveyed through the use of colours.

However, I do feel society and its individuals have in some cases overanalysed and exploited the meanings of colours. Colours are supposed to be just a shade, a hue that adds beauty and an ornate element to a physical object. Society is so bent upon stratifying everything that they have attached incorrect meanings and interpretations to colours too. On one hand, colour theory has led the foundation for a new higher level of communication and on the other hand, this beautiful phenomenon of light and its mesmerising simplicity has been ruined by associating some colours with unnecessary complex beliefs, traditions, mindsets to these hues.

Hypothesis

Over the ages, the mindset, behaviour, stereotypes, and cultural beliefs of society have attached various interpretations and meanings to different colours.

RESEARCH METHODOLOGY

As part of the research, the researcher has analysed various case studies to draw out similarities and differences between the use and perception of colour in society.

List of Case Studies

Case 1- Impact of classroom colour on primary education

Case 2- CRAYOLA'S – Skin colour crayon collection

Case 3- Cultural influence to the colour preference according to product category

List of Case Studies

Case 4- What colour is your anger? Assessing colour-emotion pairings in English speakers

Case 5- Colour preference and its relation to gender and age

Case 6- Theories on how society perceive colour

Case 7- Consumer choices towards products are influenced by colours

Case 8- Colours used by different industries

Case 9- How colours guide the making of flags

Case 10- Wearing your politics on your sleeve: the role of political colours in social movements

Case 1 IMPACT OF CLASSROOM COLOUR ON PRIMARY EDUCATION

Experimental Case Study

Anshika Hettiarachchi-(October 2017)

Source:

https://www.researchgate.net/publication/320831687_THE_EFFECT_OF_CLASS_ROOM_COLOUR_ON_LEARNING_WITH_REFERENCE_TO_PRIMARY_EDUCATION_A_CASE_STUDY_IN_SRI_LANKA

Need of the Study

As highlighted by Mahnke (1996), the choice of colour in schools directly correlates with its efficiency, quality, security and the cost factor. However, the impact of colour has been overlooked when designing learning spaces. Choosing the colour scheme in most cases is done by the administrators or teachers in an extremely subjective basis without considering any of the established scientific principles.

Objectives of the Study

The impact of colour on primary learning environments could be distinct based on its composition. Whether it is a single (Monochromatic) colour, or a combination of several colours may bring about different impacts on the learner. On the other hand, this impact also will be determined based on whether the colours are warm, cool or neutral and the time of

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exposure. This investigation claims its originality for examining the impact of long-term exposure to a monochromatic classroom in enhancing skills and behaviour.

A study implemented in a boy's primary school, Colombo. It specifically attempts to identify colours which positively impact skills and behaviour while recognizing the distinction of the impact between the dichotomies of warm vs cool colours.

Scope And Limitation -The investigation was carried out in a primary section of a leading boy's school with adequate learning facilities. The research is limited only to boys (n=213) in a specific age category (7years). Also, the research focuses on investigating the impact of six selected colours: three warm colours (yellow, orange, pink) and three cool colours (blue, green, purple).

Importance Of Colour in Visual Learning Environ-Ment – A Review of Literature



The design of the visual learning environment can have major consequences on attention, cognition, and learning of children. Colour plays a predominant role in a child's visual environment. The long-

held belief that the school environments should be coloured in white is not valid anymore due to the established sterile, neutral and non-stimulating effects of colour white on children. As established by literature, the design elements in the classroom should be manipulated in such a way to stimulate children, provoking feelings of liveliness, excitement and happiness making them better thinkers and learners. Under-stimulation and lack of visual pleasure in a classroom channels the children's feelings towards irritability, fidgeting, etc. (Mahnke 1996). On the other hand, environments conducive to learning should be designed carefully without over-stimulating learners. As clarified by Mahnke (1996), under no circumstances should it be believed that by pinning drawings, cartoons or the like on the wall the children's need for change in hue, colour intensity and lightness is satisfied or that it will reduce a monotonous room experience (Mahnke, 1996). Numerous colours and details found in such material on walls may cause visual noise distracting the learners. Accordingly, as a principle, the presence of colour in classroom design should neither over-stimulate nor under-stimulate a learner. Colour for the sake of colour accomplishes little that is constructive, just as bleak, less coloured environments accomplishes nothing constructive (Mahnke 1996). As per the theory of colour, the colour wheel makes a clear division between warm and cool colours.

Impact of Classroom Colour on Primary Education

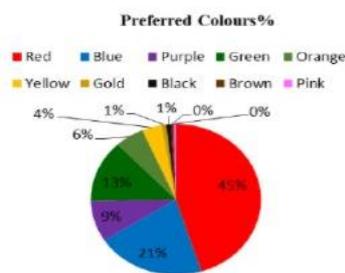


Figure 2, Preferred Colours

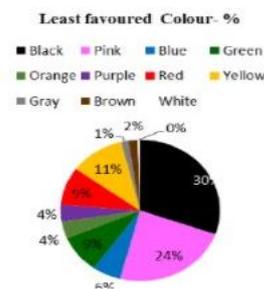
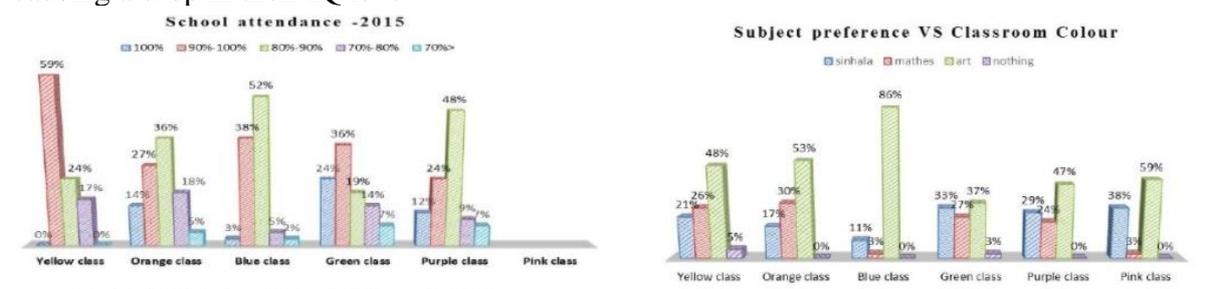


Figure 3, Least preferred colours

A study implemented in a boy's primary school; Colombo 5 based on the aforesaid warm / cool dichotomy. For instance, warm colours are identified to be stimulating and cool colours are pacifying. Hence, integration of de-intensified warm colours (tints, shades and tones of red, orange and yellow) in the

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classrooms are suggestive as a ground rule in creating a stimulating environment conducive for learning. Many studies have established the favourable impacts of incorporating colours in learning environments. For instance, appropriate colours are important in manipulating the visibility of learning material in protecting eyesight, creating favourable surroundings to improve student's attention span, facilitating active learning and in prompting physical and psychological health aspects of children. Many cases of nervousness irritability, lack of interest, and behavioural problems can be attributed directly to incorrect environmental conditions involving poorly planned light and colour (Mahnke 1996). By a study conducted with 10,000 children around the world, Frieling's (1957 cited in Mahnke 1996) identified best suiting colours for school environments based on age groups. His study found black, white grey and dark brown to be rejected by children between ages 5-8 while red, orange, yellow and violet were preferred. The students who were exposed to light and colour changes were found to be least stressed, reporting reduced incidents of destructive behaviour, aggressiveness and habitual disruptiveness (Wohlfarth, 1982). Introducing light and colour was also found to improve academic performance and I.Q test scores of elementary school children in a large percentage (Wohlfarth, 1982). On the other hand, Grangaard (1995) changed the classroom colour from white to blue, which is a cool colour, while removing much of the visual noise and installed full spectrum lighting with UV content. The findings of the study concluded that off task behaviour declined, and academic standings improved. Another study done by Ertel (1973), assessed the impact of environmental colour on learning capacity. Classrooms painted light blue, yellow, yellow-green and orange were found to raise IQ levels while stimulating alertness and creativity in children. Contrastingly, white, black and brown were found to make the learners duller, causing a drop in their IQ level.



Case 2

CRAYOLA'S – SKIN COLOUR CRAYON COLLECTION

Article

<https://www.designboom.com/design/crayola-skin-tone-colours-world-05-23-2020/>

As a child, Victor Casale didn't see himself in the crayon box. He remembers mixing the pink and dark brown colours to create the right shade – learning about inclusion, diversity and the sense of belonging all along the way.

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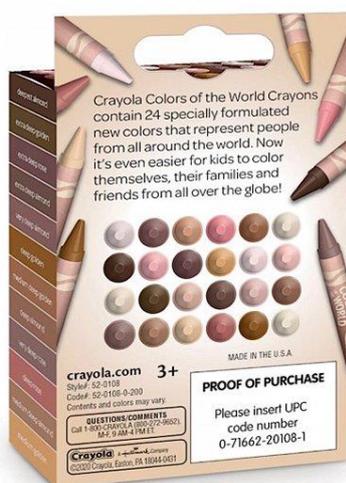
It's no surprise, then, that he jumped at the opportunity to collaborate with Crayola to create Colours of the World, a 24-count box of specially formulated crayons representing skin tones worldwide.

Crayola has unveiled colours of the world, a new box of crayons with diverse skin tones to help advance inclusion within creativity. For the initiative, Crayola teamed up with former chief chemist and managing director R&D of MAC cosmetics

and current co-founder and CEO of MOB beauty, Victor Casale, to create 24 new specially formulated crayons representing more than 40 global skin tones.

Crayola believes that children should be able to creatively and accurately colour themselves

into the world they see around them. With the Colours of the World Crayon Box, Crayola presents 24 new specially formulated crayons designed to represent over 40 global skin tones across the world. The initiative hopes to continue building a more inclusive world for children of all ages, races, cultures and ethnicities.



To land on the 24 shades in the box, Casale started with the lightest and the deepest

shades. Then he worked with the R&D team that "step down" from light to deep by about five percent, while also tweaking them to include pink, neutral, and golden undertones. "We landed on Rose for the pink undertone, Almond for the neutral undertone, and golden for the yellow/olive undertone," Casale says, explaining that each one is designated Extra, Very, Light, Medium, Deep to make it easy to understand and to represent the varying skin tones. "This is exactly the science and treatment I have used to create global shade palettes for the beauty industry."

Inspiration was taken from the ever-lasting discrimination of the colour line. The Black Lives Matter Movement acted as a catalyst for the introduction of this product where Crayola wanted to tear down the walls of discrimination so that tomorrow when a child is told to colour someone's face or arms, they don't only reach out for the peach- they reach out to see a variety of colours representing the diverse world.

Case 3:

CULTURAL INFLUENCE ON COLOUR PREFERENCE ACCORDING TO PRODUCT CATEGORY

Case Study

Kazuko Sakamoto-(June 2014)

<https://ep.liu.se/ecp/100/119/ecp14100119.pdf>

Thirty-six colours were chosen from the Munsell colour system based on intensity, saturation, and hue balance. Participants were interviewed about their favourite colours and their specific colour preference for each product category. Surveys were carried out in the Netherlands, Japan, and China. The Netherlands was chosen from the EU because of its history with Japan. It was



Figure.1 color chart

diplomatically privileged to trade with Japan during the Edo era (1603-1868), called Dejima; thus, it has had a longer relationship with Japan than have other European countries. The Dutch culture, including its knowledge and materials, affected Japan. In addition, the Netherlands, which produced Van Gogh and Vermeer, is a kingdom of design. We then investigated the differences between design tastes in the Netherlands and Japan. Because balance and harmony are needed, it is not necessarily beneficial to collect the best things. Here, a combination of the optimal elements was extracted from a rough set theory.

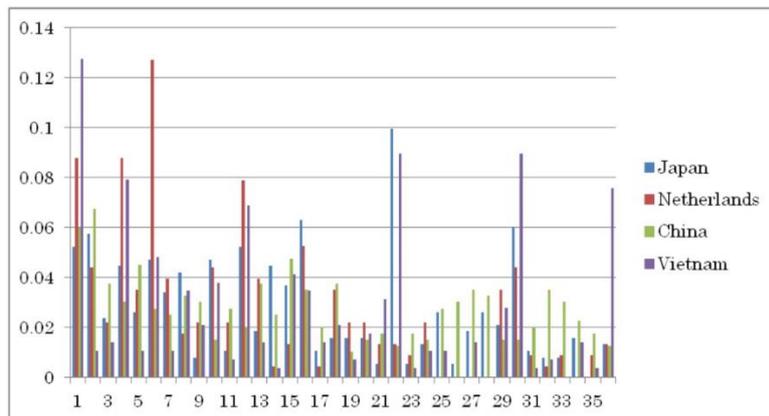


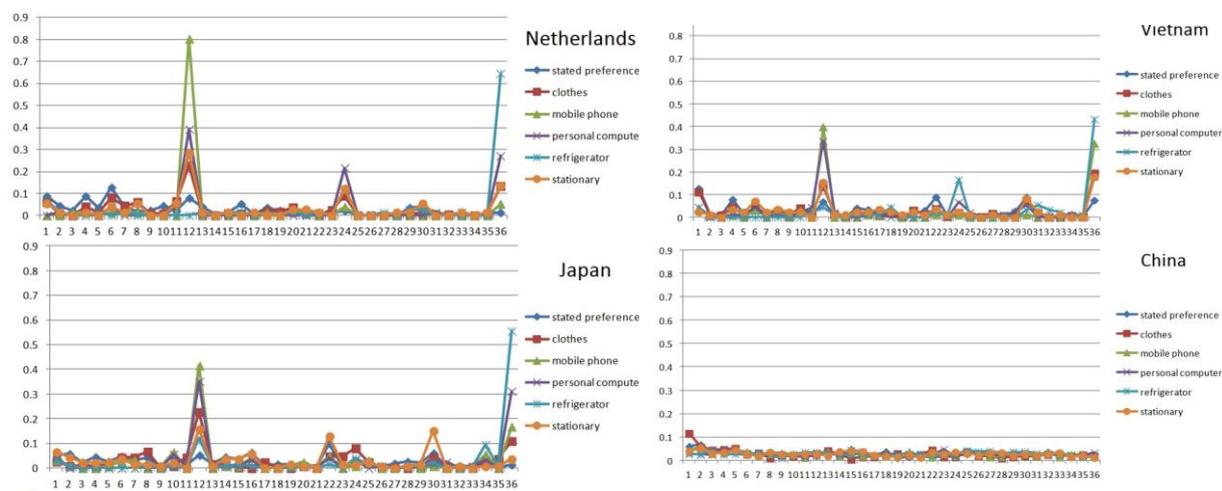
Figure 2 four countries comparison of color preference

Colour preferences in all of three nations other than China show a clear trend. Dutch participants prefer blue, green and red, While Japanese participants tend to like pink and pale green and blue. However, Chinese participants show a wide variety of preferences. An apparent characteristic among the Chinese is that their preferences vary widely. Also,

trends of specific colour preferences within product categories were similar among Japanese, Vietnam and Dutch participants. Only Chinese participants showed a different trend. Japanese participants tend to prefer black for product categories, except for refrigerators and stationery. Black is especially preferred as a colour for clothing. White is preferred for refrigerators, while no specific colour preferences were seen in the stationary category. Specific colour preference in clothing shows trends similar to those of fundamental colour

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preference, while in other categories such the correlation between fundamental and specific was not observed, except in the stationary category where such a tendency existed with the colour pink. Among Dutch participants there was a similar trend. They much preferred achromatic colours, such as black for cell phones and clothes and white and grey for computers. Specific colour preferences in clothes show trends similar to those of simple colour preference.



Case 4: WHAT COLOUR IS YOUR ANGER? ASSESSING COLOUR-EMOTION PAIRINGS IN ENGLISH SPEAKERS

Experimental Case Study

Jennifer Fugate-(February 2019)

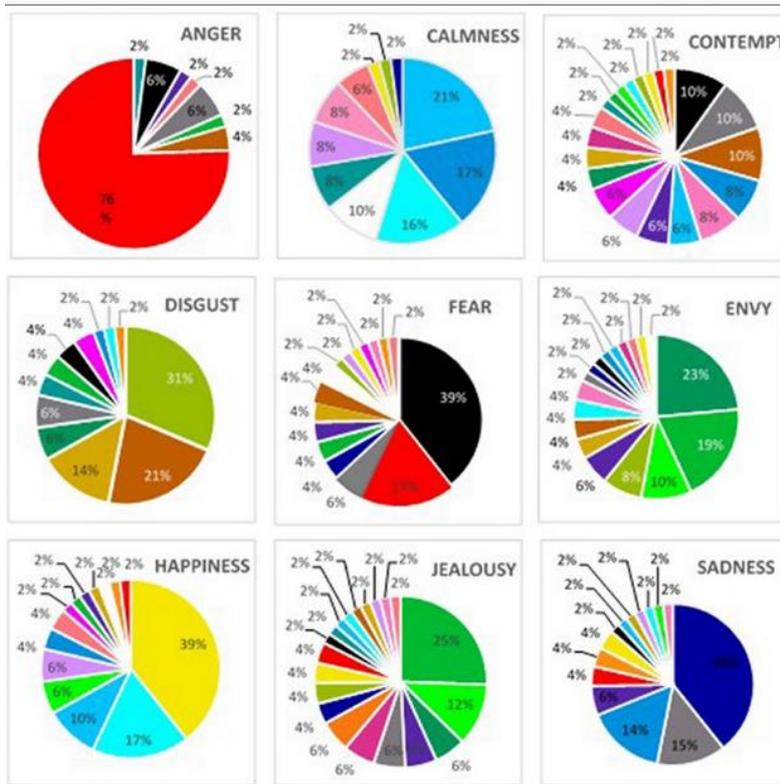
<https://www.frontiersin.org/articles/10.3389/fpsyg.2019.00206/full>

For study 1 and 2, the researchers considered systematic variations in colour, as well as colour terms in English, and past research. We used 10 Munsell hues (R, YR, Y, GY, G, BG, B, PB, P, RP). They chose roughly two different lightness values and saturations at each hue. We also included three achromatic colours: white, black and grey.

For the emotion study 1, they chose ten different “basic” emotions to list as words. Although some researchers identify six basic emotions, others recognize more (e.g., 10 or 12, Plutchik, 1980). The final emotions were anger, calmness, contempt, disgust, fear, envy, happiness, jealousy, sadness, and surprise.

For study 2, we kept all original emotion words, but included an additional ten emotion terms. These terms were recently considered as “basic” by Cowen and Keltner (2017). The added emotions were alert, awe, boredom, disappointed, empathy, guilt, joy, love, pride, and shame.

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For Anger - “Red” was the most frequently chosen colour, followed by “black” and then “grey” (Figure 1). The intensity for the colour “red” was high, whereas the intensities for “black” and “grey” were moderate and low, respectively.

For Fear - “Black” was the most frequently picked colour, followed by “red” and then “grey”. “Black” had a high intensity, whereas “red” and “grey” had low intensities.

For Happiness - “Yellow” was the most frequently picked colour, followed by “sky blue” and then “aqua”. “Yellow” had a high intensity, whereas “sky blue”

and “aqua” had more moderate intensities.

For Sadness - “Gray” was the most frequent colour indicated for sadness, followed by “indigo” and then “black”.

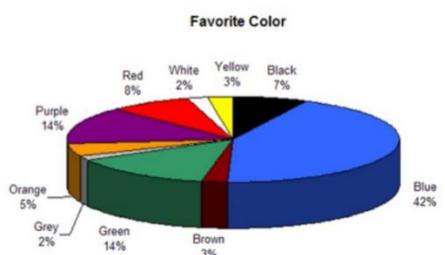
Case 5:

COLOUR PREFERENCE AND ITS RELATION TO GENDER AND AGE

Article + Observation + Survey

Talia Wolf

<https://getuplift.co/colour-psychology-guide/>

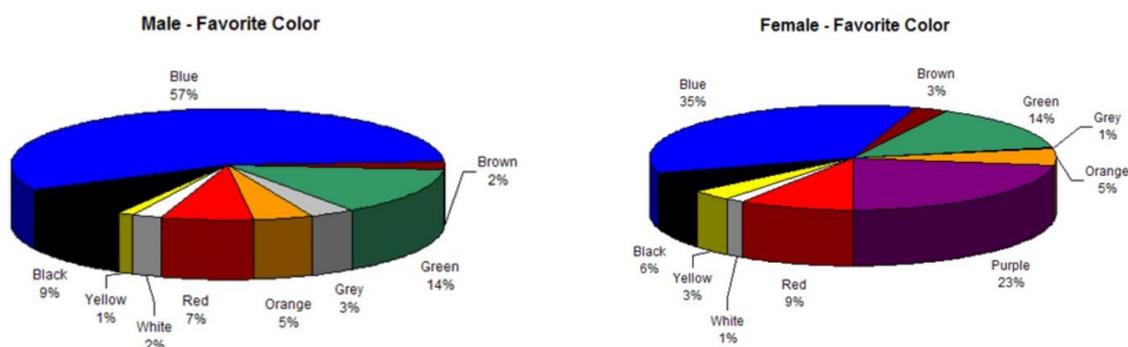


of favourite colour for all participants regardless of gender or age.

Our preference for a specific colour can be related to how we feel in any situation, how we want to feel, and even how we remember certain experiences (to name a few). This section, which is closely associated with the previous section colour Associations, presents the survey participants preferences and how they vary between age groups and gender. This first section examines the question

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FAVOURITE COLOUR BY GENDER: When this data is examined further and filters of gender and age are applied, some interesting results surface. The two pie charts below represent favourite colours of each gender.



FAVOURITE COLOUR BY AGE: Colour preferences differ by the age of the participant. Birren states in his book that blue and red maintain a high preference throughout life, but colours seem to drop down the list while other colours become more preferred. Yellow, for example, is well liked by children, but begins to drop away by people as they become adults. Birren states, "With maturity comes a greater liking for hues of shorter wave length (blue, green, purple) than for hues of longer wave length (red, orange, and yellow). As you can see, blue, green, and purple make up the majority of responses. What's interesting is the preference of green in the younger age groups and the preference of purple in the older age groups. One could say, by looking at this graph alone, that as people become older their preference for purple increases, while their preference for green decreases.

Case 6:

THEORIES ON HOW SOCIETY PERCEIVE COLOUR

Article

Nick Kolenda

<https://www.nickkolenda.com/colour-psychology/>

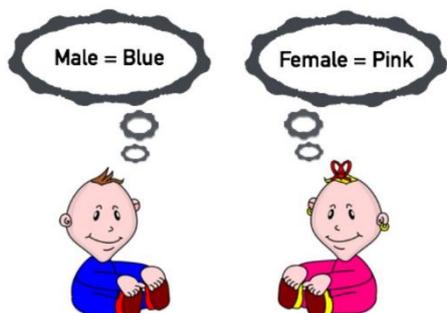
BIOLOGY/EVOLUTION THEORY



Researchers have suggested that colour associations may have been formulated early in human history when man associated dark blue with night, and therefore, passivity and bright yellow with sunlight and arousal. That's also why males prefer blue, whereas females prefer pink. Researchers argue that those differences emerged from an evolutionary bias grounded in a hunter-gatherer mindset (Hurlburt & Ling, 2007). Back in the day, females were the gatherer. They needed to find food sources by identifying red and yellow fruit among green foliage (Regan et al., 2001). Consequently, that role influenced colour preferences for future female

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generations. In other words, female brains developed a preference for reddish colours because of their ancestral duties in gathering food sources.



GENDER SCHEMA THEORY

Once children recognize their own gender, they actively seek out gender-related information and integrate that information into their developing concept of gender. When our children are young, we reinforce gender stereotypes. We dress boys in blue clothes, and we dress girls in pink clothes. Children then integrate those colours into their schema for “male” and “female.”

Because children feel a need to conform to their gender, males become drawn to blue, whereas females become drawn to pink.



ECOLOGICAL VALENCE THEORY

According to this theory, we develop preferences for colours, based on our emotional experiences with those colours over time. Classical conditioning supports that notion. In one study, a researcher paired different coloured pens with pleasant or unpleasant music. At the end of the experiment, participants were more likely to take home a coloured pen that was paired with pleasant music (Gorn, 1982). EVT can also explain gender differences. Instead of thinking about it in terms of

clothing, think about it in terms of toys. We give blue toys to boys and we give pink toys to girls. From a young age, children attach positive emotions to those respective colours. Males attach positive emotions to blue, whereas females attach positive emotions to pink. Those positive emotions, in turn, dictate their colour preferences.



ASSOCIATIVE NETWORK THEORY

Ecological valence can explain the emotional impact of colours. But how do colours acquire semantic meaning? Why do we associate red with passion and romance? Or why do we associate black with mourning? The answer lies in associative network theory (Bower, 1981). Our brain contains an associative network — an interconnected web of knowledge. In that network, each circular node represents a unit of knowledge, whether it's an: Emotion (e.g., happiness), Sensory experience (e.g., smell of the ocean), Semantic meaning (e.g., the term, “beach”). Those nodes are connected to other nodes, based on the degree of similarity between them. Stronger similarities generate stronger connections. Your brain contains a node for each colour. Each time you encounter a colour, you modify that node based on your experience. You can make that adjustment consciously or subconsciously.

Case 7:

CONSUMER CHOICES TOWARDS PRODUCTS ARE INFLUENCED BY COLOURS

Experimental Case Study

Stephen Westland and Meong Jin Shin-(April 2015)

https://www.aic-colour.org/resources/Documents/jaic_14_05.pdf



Figure 1: The seven personal-care products (body wash1, face cream, shampoo, hand soap, cosmetic, body wash2 and toothbrush).



Figure 2: The five images generated for the body wash1 product. Note that the original image for this product was orange (see Figure 1) and four new coloured product images were created (two that were warmer in hue and two that were colder in hue).

Digital images of seven personal-care products (denoted hereafter as body wash1, face cream, shampoo, hand soap, cosmetic, body wash2, and toothbrush) were obtained (see Figure 1) and were each digitally manipulated in Adobe Photoshop to generate two images where the product colour was of a warmer hue and two images that were of a colder hue. An on-line questionnaire was constructed and made available consisting of parts: pages to collect participant age, gender and ethnicity; participants were presented with six different colours and asked to indicate which one was their favourite colour. The six hues used to collect information on colour preference (red, orange, yellow, green, blue and purple).

participants were presented with six different colours and asked to indicate which one was their favourite colour. The six hues used to collect information on colour preference (red, orange, yellow, green, blue and purple).

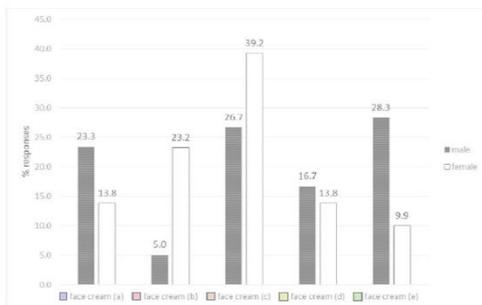


Figure 4: The effect of gender on colour choices for face cream. Females preferred warmer colours (red and orange) and males preferred colder colours (green and purple).

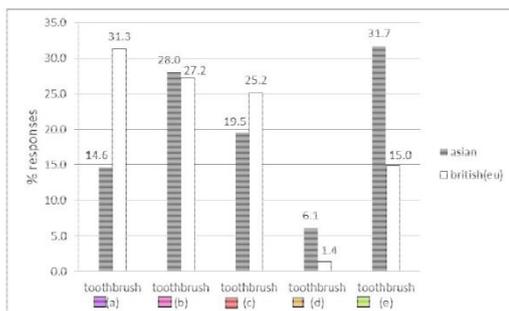


Figure 5: The effect of ethnicity on colour choices for toothbrush. Asian participants tend to chose colder colours than British/European participants.

Two notable colour observations are that (1) yellow-orange colour is seldom chosen (< 3% of participants chose this) for the toothbrush and (2) blue-green colours are chosen more than warmer colours for hand soap. The largest gender effect was found for body wash1 and face cream (in both cases $p < .01$) where females chose warmer colours (red and orange) and males chose colder colours (green and purple).

There was also an effect of ethnicity on colour choices. For example, Asian participants tend to choose colder colours than British/European participants. For example, over 45% of participants who stated a

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preference for green and orange chose green or orange body wash1 product colour respectively.

However, note that 50% of participants who stated a preference for red chose a red toothbrush product colour and over 40% of participants who stated a preference for green chose a green toothbrush product colour. For the hand soap product blue was chosen very frequently irrespectively of consumer colour preferences. A number of factors have been shown to be correlated with consumer product-colour choices. An effect of gender was found with four products. Most significantly, for face cream and body wash1, females chose warmer colours and males chose colder colours.

There was some effect of ethnicity, most notably for the toothbrush where Asians preferred green and British/European preferred bluish purple. Little effect of age was noted. A recent study did conclude that product colour is more important among young adults than older age groups. However, in this study, age was only a factor for one of the products (body wash1) where red was strongly preferred by young respondents. The main focus of this study was to investigate a possible relationship between a consumer's favourite or preferred colour (in an abstract sense) with a colour choice they might make for a specific product.

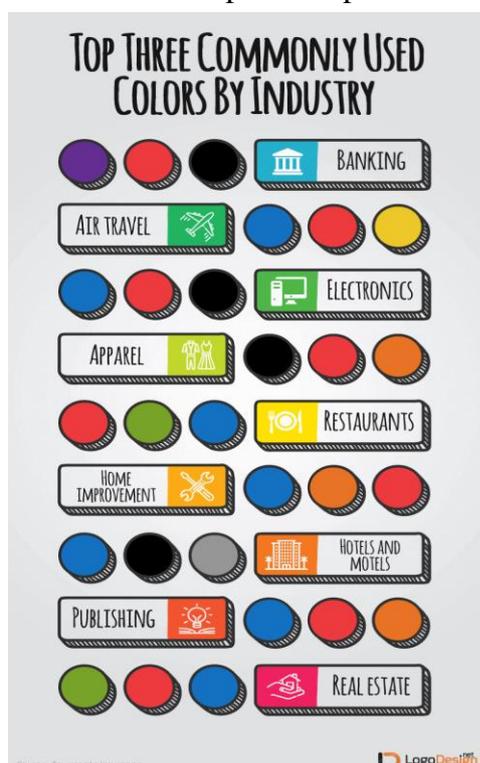
Companies put a lot of thought into what colours best represent them, and this isn't just

Case 8: COLOURS USED BY DIFFERENT INDUSTRIES

Article

<https://www.logodesign.net/psychology-of-colours-logo-design>

based on what the personal preference of the owner is — or, at least, it shouldn't be. Colours send messages, and companies choose colours that are in line with the message they want to present to their customers.



Banking and financial companies, for instance, tend to opt for solid, primary colours with a clear psychological motivation: blues are common, since blue imparts a feeling of trustworthiness and reliability. Two things that everyone wants in their financial institution logos. Financial institutions such as Citibank, Fifth Third Bank, and Chase Manhattan Bank, to name a few, have all found the effectiveness of using strong, calm blues in their bank logos.

Colour psychology plays a part in which banking logos a viewer is drawn to, giving them the equivalent of subliminal messaging: you can trust us.

Real estate interests' trend toward greens. Green is

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a more versatile colour, appealing to both genders, and is strongly connected to nature, growth, and prosperity. Why is this effective for real estate logos? Picture a logo that sends the message: grow with us!

Real estate, house and home improvement logos are centered around fostering a feeling of happy, healthy family, since the idea of "family" is what generally underlies the desire to build or purchase a home of your own. Companies like Trulia and Clover Realty rely on noticeable green in their logo designs. In appealing to both men and women, and promoting growth and prosperity, green gets at the root, so to speak, of what drives the real estate market.

Restaurants frequently opt for red logos. Red is a motivating, stimulating colour, moving the viewer to action, as well as catching the attention more readily than some colours.

It might be faster to mention well known restaurants that don't use red in their logos, but here's a brief rundown of some names you'll almost certainly recognize: McDonalds, In 'N' Out, Arby's, KFC, Pizza Hut, Wendy's, Denny's, Outback Steakhouse, Nando's, Dairy Queen, Dunkin' Donuts — the list goes on. As mentioned in the case study above, it elicits a strong physical reaction: come and eat!

Case 9:

HOW COLOURS GUIDE THE MAKING OF FLAGS

Article

<https://www.allstarflags.com/facts/colour-meanings-in-flags/>

All Star Flags did an analysis of the colours of many nations' flags. They realised that colours often were a make-or-break factor in deciding the final images of flags. These colours guided the making of flags and what each element would represent.

- United States of America – What do the colours on the American flag mean? The red symbolizes valour and bravery, the white stands for purity and innocence and the blue signifies justice, perseverance and vigilance.
- India – The colours of the Indian flag are saffron, white and green, which stand for courage and sacrifice, purity, and faith and fertility respectively.
- Austria – The red and white of the Austrian flag symbolize the remembrance of the Duke's blood-stained coat during battle.
- Germany – The colours black, red and gold have been associated with Germany since the middle ages, but the current German flag colours are traced back to early 19th century volunteers, who fought for the country in the Napoleonic wars. The colours are based on the soldiers' uniforms which were black coats with red braid and gold buttons.
- China - The golden colour of the Chinese flag symbolizes the Chinese race, while the red colour stands for communism.
- Spain – Yellow stands for generosity and red for hardiness, bravery and strength in the Spanish flag.

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- Italy – The Italian flag’s red, white and green colours have two meanings: charity, faith and hope, or the bloodshed in the Wars of Italian Independence, the Alps Mountain Range covered in snow and the country’s plains and hills.
 - Belgium– The black, yellow and red of the Belgium flag symbolize the colours of the arms of the duchy of Brabant, a yellow lion with red claws on a black field.
1. Red, White and Blue: Many American’s claim this combination as our own, but in truth this blend has been used in flags long before the formation of the United States, seen most often in European nations including Croatia, Czech Republic, France, the Netherlands, Serbia, UK and Slovenia.
 2. Green, Red and Yellow: This colour grouping is often symbolic of Pan-African countries, such as Cameroon, Congo, Benin, Ghana, Guinea, Mali and Niger.
 3. Red, White, Green and Black: The colour mixture is seen in Arab nations, including Palestine, Jordon, Kuwait, Syria and United Arab Emirates.

They concluded that flags have been used in battle for symbolizing wins and defeats, or to send signals to allies and enemies. In today’s society, every country in the world flies a representative flag, as well most states and territories within. Many families, organizations, and sports teams have also designed characteristic flags. Regardless of the venue or reason, a flag’s design is created under careful consideration, and the colours used in its foundation represent far greater ideals than what is found on a simple colour wheel.

Case 10:

WEARING YOUR POLITICS ON YOUR SLEEVE: THE ROLE OF POLITICAL COLOURS IN SOCIAL MOVEMENTS

Article + Case Study (May 2007)

https://www.researchgate.net/publication/251329319_Wearing_your_Politics_on_your_Sleeve_The_Role_of_Political_Colours_in_Social_Movements



Red and its dangers

By the late nineteenth century red was being appropriated by the socialist movement. It was associated with the May Day processions inaugurated by the Second International in 1889 at which red flowers were worn. Red had become a symbol of radicalism in the course of the French revolution.

Apart from the red ‘liberty caps’, the red flag also became the symbol of radicalism and revolt. In 1789 the National Assembly, increasingly worried about mob violence, had prescribed the hoisting of a red flag as the signal that martial law had been declared. Two years later La Fayette raised it in an incident on the Champs de Mars, which ended with his troops firing on a pro-republican crowd.

By 1792 the red flag was appropriated by demonstrators, who inscribed their flag ‘Martial law of the people against the revolt of the court’ (Leith 1978, 119). The symbol of state

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power had become the symbol of popular protest and was seen again in the upheavals of 1830 and 1848.

By the time of the Paris Commune of 1870 red was used not only for liberty caps and the radical flag but also for ribbons and armbands, and competed with the tricolour of the moderate republicans. After the bloody suppression of the Commune, Christian and radical iconography became merged in the meaning of the flag that ‘shrouded of our martyred dead’ (words of the ‘Red Flag’, 1889).

Today, modernising Labour parties tend to shy away from the use of red unless in the form of the red rose of the Socialist International rather than the blood-soaked flag of popular revolt. The red rose has long been a symbol of the Swedish Social Democrats and has a range of emotional resonances.

Meanings of Black

The first reports of black flags being flown at anarchist demonstrations come from the early 1880s, when former Commune Louise Michel is said to have flown it at a demonstration in Paris. Soon after it was flown by anarchists in Chicago. In recent years black has been worn and black flags carried by the anarchist and autonomist contingents involved in anti-globalisation protests both in Northern Europe and in the USA. The anarchist symbol of a circle surrounding an A is now regarded as one of the most widely recognised political symbols (Peterson 1987, 8).

In particular it has been interpreted as the colour of nihilism, signifying the negation of the flags of the nation state and outrage at the slaughter perpetrated in their name (Wehling 2004). It is a denial of the traditional call to the colours and the duping and regimenting of the masses through false patriotic emotions.

But black had also become the colour of the fascist movement with the march on Rome of Mussolini’s Black shirts in 1922—as distinct from the Redshirts who participated in Garibaldi’s campaigns in the previous century. This appropriation completely subverted the political meaning of black.

In 1926 the Secretary-General of the Italian Fascist Party sent a circular letter to women’s fascist organisations forbidding them to wear black shirts because they were a symbol of combat. In the United Kingdom the British Union of Fascists followed Mussolini in adopting black shirts, leading to the banning of the wearing of political uniforms under the Public Order Act of 1936.

Shades of Green



Green is the colour of Islam and today of Islamic political parties. It was used by the Chartists in nineteenth-century Britain as a signifier of radicalism, along with the red cap of liberty from the French revolution (Pickering 1986, 154).

Green has been the colour of Irish nationalism (‘They are hanging men and women for the wearing of the green’) but took on new meaning with the rise of the

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environmental movement in the twentieth century. Its use to represent the cause of the environment has links with its traditional Christian meaning of growth, life and hope.

Around the world it has been appropriated as the name of environmental parties (Die Grünen or The Greens)—helping them demarcate themselves from old-style sectional politics by abandoning the word ‘party’. Green has become symbolic shorthand for a whole set of values concerning both the environment and the nature of politics.

This symbolic shorthand may have had its origins in the ‘green bans’ imposed by the Builders’ Labourers’ Federation on development projects in Sydney in the early 1970s. Petra Kelly was inspired by the green bans during a visit to Australia (Brown 1997, 2190)³ and the term ‘Greens’ was used by the German environmentalists when they contested their first national level election in 1980.

Inventions of colours in women movements



Green, white and purple became important colours for the women’s movement in the last quarter of the twentieth century, although they were originally only the colours of one organisation in one country in the years before World War 1.

The Women’s Freedom League (WFL) used the colours gold, green and white and these were the colours worn by Australian Muriel Matters when she soared above the House of Commons in an airship painted with the slogan ‘Votes for Women’.

Other suffrage organisations each had their own unique combination of colours. Nonetheless, the WSPU colours were displayed in dramatic incidents. Davison's funeral was the occasion for a massed display of WSPU iconography in London streets, including the black-draped WSPU flag and the coffin with a purple velvet pall embroidered with silver arrows, the symbol of her earlier imprisonment.

Case Analysis

The researcher has analysed all ten case studies by drawing similarities and differences between them, in order to prove her hypothesis.

Similarities

Cases 1 and 4- Both these cases highlight preference of colour affected by age. Young children do not like tones, shades, and tints of the darker colours. In the first case the children did not want to engage in an environment that was covered with gloomy colours like: black and grey. In the fourth case, by statistics it was proved that youngsters least preferred colours were in the category of brown, black, and grey too. These colours have been shown to have a negative effect on productivity and efficiency. Overall, as a common colour the children preferred yellow and blues in their classroom. This also lends support to the graph that blue and yellow are the most liked colours by children.

Cases 4, 5, and 6- All these cases specifically show the correlation between gender and colour choices. The fourth case shows how males prefer blue, greens, and browns/blacks while women prefer purples, blues, and reds. This is not an attempt to emphasize gender stereotypes or roles, these are actual results of a survey that was conducted. The fifth case

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focuses on the gender schema theory which lays focus on societies conditioning and reinforcement towards young children. This case too shows that as humans we somehow subconsciously associate colours with a particular gender. The sixth case focuses more on how gender affects the colour of the products we use and see daily. Males tend to choose cooler colours (greens, blues, purples), while females preferred products like body soap and toothbrush to be of warmer shades. Overall, these cases show how gender consciously (by society) and unconsciously (by our indoctrinated beliefs) affects our colour choice and creates stereotypes and roles in a community.

Cases 2,5, and 9- All these cases show how colour choices are affected by ethnicity and vice versa. The second case shows how residents from Japan, China, Vietnam etc. all had different colour choices, but as a whole the choices of people coming from the same background and ethnicity were the same. These colour choices are those that are influenced by common surroundings and exposure to the use of colours in traditions and customs. The fifth case talks about the biology, geography, and evolutionary theories that forms associative networks in our brain and affects our colour preference. The ninth case talks about ethnicity with respect to flags. The colour of a nation's flag often reflects or is taken from some ethnic connection, symbols and colours of pride, or symbolic colours. Overall, these cases show how your cultural background and ethnicity has a prominent effect on your colour choices and perception of hues.

Cases 8 and 10- Both these cases show the role of colours in administration and as a catalyst of change. The cases show how colours are actually helping society grow and progress towards a brighter future. The eighth case shows how colours are being used as a medium to spread awareness and break down the barriers of discrimination. Crayola has used colours as a tool to symbolise beauty and unity in diversity. They are inspiring society in a positive way. The tenth case shows how colours have been used in political movements to fight injustice and spread powerful messages non-verbally. Colours have been used to represent and propagate powerful movements in history. Hues have also helped the advancement of women related to suffrage rights. Thus, colours as a whole have acted like a new mode of communication and brought positive impacts and transformations in society.

Cases 3 and 7- Both these cases show the correlation between colours and people's preferences depending on their current emotional state. The third case talks about the relation of colour with emotions and the psychological state of a person. It associates different colours with the varying emotions of individuals. Each feeling is associated with a colour that supports its mood. E.g., Blue is associated with sadness. The seventh case talks about colour in context to consumer psychology. It too takes into consideration the psyche, preference, and emotion of an individual and then assigns colours to industries. It analyses a consumer's emotional state when they view a particular product and then helps assign colours to that particular product line.

Case 9 and 10 – The tenth case talks about how the colour black was used widely during the rise of fascism and by Hitler. A party was called the 'black shirts' whose duty was to protect Hitler, the dictator in Germany. The hue black was a symbol of combat and their political uniform. In the ninth case, we see the colours of Germany's flag: black, red, and gold. The explanation for this is that the black, red, and gold are a abstract representation of the soldiers uniforms and combat during the World Wars. They are a tribute to the political sacrifice the German soldiers made.

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Case 7 and 10- Although one case talks about early political movement shades and the other talks about colours used by the industries in modern times, both these cases offer the same interpretation of the colour green. In the seventh case, green is preferred by real estate and environment associated jobs as it represents nature, growth and prosperity. In the tenth case, it is highlighted how early environmentalists' colour of choice was green too. It was an effective symbol of the environment they were fighting to preserve. Through this hue they wanted to represent the flora and fauna and take a political stand against the evils of industrialisation.

Case 1 and 3 – Both these cases provide similar views on the shades black and grey. The first case talks about how these shades/ tones illicit negative, gloomy effects on children in the classroom. A drop in enthusiasm, concentration and efficiency is seen. Effects as severe as drops in IQ levels were also observed. The third case too highlights how the emotional states associated with black and grey are negative. Black and grey are associated with anger, frustration, sadness, and feelings of malicious nature.

Differences

Case 1 and 3, 10 - Both these cases put forward a different interpretation of the colour red. In the first case, the researcher believes that the colour red has a positive effect on children in the classroom. Students in classrooms painted with red, reported less stress, were less destructive or aggressive. Red was a stimulating colour that helped their concentration and efficiency. In the third and tenth case, red is taken as a slightly more negative light. The colour red is associated with the emotion of anger, frustration, and aggression. These cases also believe that red is used as a cautionary colour- a symbol of danger prominently used in revolts with the promise of bloodshed. At the end, although the interpretations are different, the researcher accepts both of these opinions as the analysis of hues is generation and individual dependent. There can be great variance in the shades of hues that calls for these wide spectrum differences.

Case 7 and 10- Both these cases put forward a different interpretation of the colour black. In the seventh case, the researcher believes that in the modern world, the apparel industry is extremely favourable towards the shade of black. They bring out how in fashion and clothing, designers consider this colour to be the most sophisticated and classiest colour. In fact, even shoppers have an affinity to buy black clothes more as they feel it has a sensual/ formal effect on the viewer. In the tenth case, the colour black is brought out for all its danger. It narrates how in political movements black has an extremely different interpretation. As black was used in the fascist movement, anti-globalisation movement, and the Black Lives Matter movement, some people are hesitant of what this colour conveys. In the modern world, classifying a colour as black and having a prejudice/liking/disliking towards it can be taken incorrectly by society.

Case 4 and 6- Both these cases differ in their belief of which colour each gender prefers. The fourth case uses statistics to prove that females and males both tend to prefer cooler colours as they mature. They statistically prove that as we grow our affinity for warmer colours reduces and we are inclined to purchase and prefer cooler coloured items and products. The sixth case challenges this statement. It shows that in products like refrigerators, stationery and bathroom appliances, females tend to prefer warmer colours while males prefer cooler colours. There is a discrepancy in the information about the preference of females and colours.

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Case 5 and 8- Both these cases differ in their views of colours associated with gender and how children are conditioned with this belief. The fifth case talks about the gender schema theory and the ecological valence theory. Both theories talk about children's conditioning at an early age to associate their gender with a colour, their ethnicity with a colour, and certain hues as positive/ negative. The eight case however brings about the need for change. It talks about how children should be free to explore their views about a colour. Even if they are conditioned about colours, it should be about inclusivity of all shades and no discrimination about ethnicity or gender relating to colour.

Limitations

Limited access to information: Research materials were restricted to websites and online journals as the access to books was limited due to the pandemic. It was time consuming to establish a significant trend and correlation between the variables. The topic explored some pre-historic aspects of colour. It was proved tricky to obtain such dated information from new portals of information.

Standardisation: This was a bit tricky as the topic chosen for the hypothesis was very subjective-there was a large scope for discussion. It depended on a case-to-case basis- one's environment and internal beliefs, values. It depended on an individual's mindset, traditions. Different respondents had different opinions which accounted for their individual differences. However, majority of the respondents expressed their opinions in a way that supported the researcher's hypothesis.

Lack of empirical or quantifiable data: Due to the subjective nature of the topic, data was collected in the form of statements, beliefs, and actions. All of this information is difficult to quantify/ attach a number to. Thus, statistical support to the researcher's hypothesis was lacking and difficult to provide.

Lack of previous studies on the topic: The correlation the researcher chose to establish a connection between is a relatively new one. Although various information was available for individual subtopics, there were very few sources that helped the researcher establish her hypothesis. Connections and relations had to be formed and explored independently. At the end, when the hypothesis was put to test, the researcher's predictions were confirmed adding validity to her prediction.

Conflicts arising from cultural bias and other personal issues: Cultural background, and folkways associated with ethnicity, race played a differential factor in this project. Areas where the researcher thought views would be uniform, presented different views and opinions on account of culture bias or prejudice. Personal issues and previous experiences and correlations also hindered effective establishment of links during the methodology process.

CONCLUSION

To conclude, the researcher's hypothesis has been retained- over the ages, the mindset, behaviour, stereotypes, and cultural beliefs of society have attached various interpretations and meanings to different colours. Although colour has rarely been examined as a sociological topic, colour is linked to numerous social domains and serves as a collective representation. Creative people and visual learners have now found a new medium in colour to communicate and convey their ideologies. The significance of colours has evolved majorly to become a dictating factor among individuals of a community. Colours now

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represent almost everything under the sun, from status and roles to positions and attitudes. When we look around us, we see several examples emphasizing the fact that colours do speak louder than words. Colours now unconsciously convey messages which words cannot. Each colour in society represents a different message, sets a different mood, and elicits a varied emotion, which is used as a mode of communication. In this research article, the researcher understood the relation between colours and society. She regarded colour as stimulus and then recorded society's attached meanings and interpretations. In conclusion, our choices of clothes, our response to people, our shopping choices, our interactions, all are influenced by this spectrum of hues. Every colour speaks to us in a different way. Every shade influences our path and decisions. Every tone makes us wonder. If one had to ponder, they could say that society and its individuals have in some cases overanalysed and exploited the meanings of colours. Colours are supposed to be just a shade, a hue that adds beauty and an ornate element to a physical object. Society is so bent upon stratifying everything that they have attached incorrect meanings and interpretations to colours too. On one hand, colour theory has led the foundation for a new higher level of communication and on the other hand, this beautiful phenomenon of light and its mesmerising simplicity has been ruined by associating some colours with unnecessary complex beliefs, traditions, mindsets to these hues.

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Conflict of Interest

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