



## Color Associations

■ in part defined by:

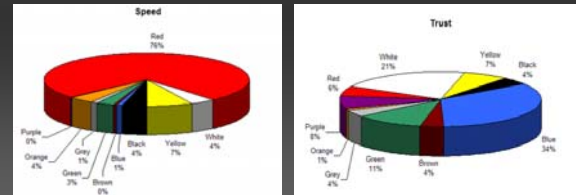
- senses
- language
- objects (or forms)
- personality characteristics

■ Color conveys moods which attach themselves to human feelings and our psychic make-up in an almost **automatic fashion**



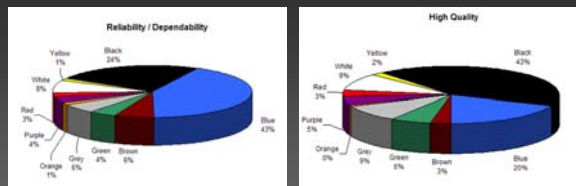
## Color Associations

■ In association, colors appear warm, cool, dry, and wet (to name a few)



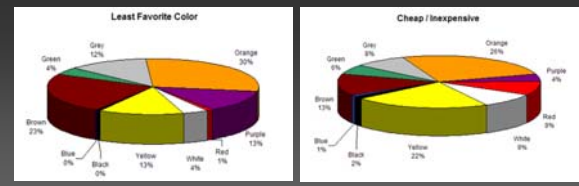
## Color Associations

■ This reaction is inherent in the psychological make-up of most humans



## Color Associations

■ Both personal and cultural associations affect experience of color

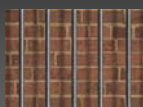


## Color Associations

■ Color has psychological effects on users that are different across cultures

- in France

- green is associated with criminality!
- not with safety



## Color Associations

■ In Different Cultures

Culture	Red	Blue	Green	Yellow	White
United States	Danger	Masculinity	Safety	Cowardice	Purity
France	Aristocracy	Freedom/Peace	Criminality	Temporary	Neutrality
Egypt	Death	Virtue/Faith/Truth	Fertility/Strength	Happiness/Prosperity	Joy
India	Life/Creativity		Prosperity/Fertility	Success	Death/Purity
Japan	Anger/Danger	Villainy	Future/Youth/Energy	Grace/Nobility	Death
China	Happiness	Heavens/Clouds	Ming Dynasty/Heavens/Clouds	Birth/Wealth/Power	Death/Purity

## Some common associations of color in United States culture

Color	Positive Associations	Negative Associations
Red	passion, strength, energy, love	blood, war, danger, aggression
Green	nature, spring, fertility, environment	inexperience, envy, misfortune
Yellow	sun, summer, gold, optimism	illness, cowardice, hazard
Blue	sky, sea, stability, calm, unity	depression, conservatism, obscenity
White	snow, purity, innocence, peace	cold, clinical, sterility
Gray	intelligence, dignity, maturity	shadow, boredom, concrete
Black	power, formality, depth, style	fear, evil, anonymity, death

## Color Associations

- Colors are seen as warm or cool
  - Mainly because of long-held (and often universal) associations
  - Yellow, orange and red are associated with the heat of sun and fire
  - blue, green and violet with the coolness of leaves, sea and the sky



## Color Associations

- Warm colors seem closer to the viewer than cool colors
- Vivid cool colors can overwhelm light and subtle warm colors



## Color Associations

- Using warm colors for foreground and cool colors for background enhances the perception of depth



## Color Associations

- red, yellow and orange are in general considered high-arousal colors
- blue, green and most violets are low-arousal hues



## Brilliance can alter psychological message

- Psychological association of a color can be more meaningful than the visual experience

- light blue-green
  - tranquil, wet and cool
- brilliant turquoise
  - more exciting, lush tropical ocean



### A specific color stimulation

- Accompanied by a specific response pattern of the entire organism
  - All parts of the nervous system are connected together
  - No part is capable of reaction without affecting and being affected by various other parts
  - The system is never absolutely at rest

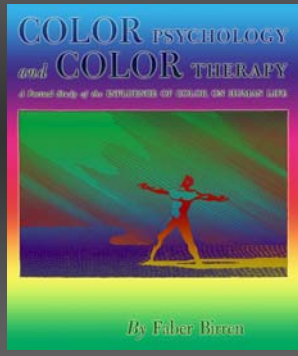
### Colors act upon the body as well as the mind

- Red has been shown to stimulate the senses and raise the blood pressure
- Blue has the opposite effect and calms the mind
  - People will gamble more and make riskier bets when seated under a red light as opposed to a blue light



### Chromotherapy

- Use of color as a therapy has a long history
  - ancient Egyptians and ancient Greeks built healing temples of light and color
  - use of color became deeply embedded in Chinese and Indian medicine



### Chromotherapy

- Most people have skeptical opinion about color healing
- The medical profession makes use of color in certain treatments
  - premature babies with jaundice are cured by a chemical reaction triggered by exposure to blue light for several days
  - relation between blue light and jaundice is beginning to be well understood scientifically

### Chromodynamics

- Actual physiological changes take place in human beings when they are exposed to certain colors
- Colors can
  - stimulate, excite, depress, tranquilize, increase appetite and create a feeling of warmth or coolness

### Chromodynamics

- An executive for a paint company received complaints from workers in a blue office that the office was too cold
- When the offices were painted a warm peach, the sweaters came off even though the temperature had not changed



## Environmental Applications

### ■ Wall Paint

- hospitals and schools now a pale green, rather than the previously universal dull gray, buff or glaring white
- soft green hue more relaxing to eye and soul



## Environmental Applications

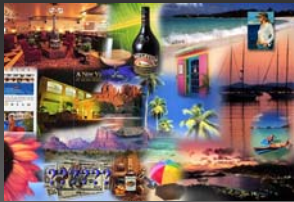
### ■ Wall Paint

- a small room looks bigger if painted in light tones
  - lighter color gives a feeling of space
- even larger if one of its walls is done in a different hue
  - the different color appears to open on another vista



## Graphical Applications

- ### ■ In fashion, advertising, and presentations, color is one of the most effective tools



## Graphical Applications

- ### ■ Psychologists have suggested that color impression can account for 60% of the acceptance or rejection of that product or service



## Practical Applications

- ### ■ Most outstanding graphic quality of any color image is its color
- ### ■ More important than
- Outline
  - Form
  - Design
  - May overshadow the subject matter

## May overshadow subject matter



## Marketing Psychologists

- A lasting impression is made within ninety seconds

- *decisions about color are a critical factors in success of any visual experience*
- **Color can sway thinking, change actions, and cause reactions**



ARE YOU  
**SEEKING**  
THE COLOR  
OF  
SUCCESS

## Marketing Psychologists

- Colors used for a product, web site, business card, or logo cause powerful reactions

- *Color sends a subliminal message, one which plays a critical role in success or failure*



COLOR  
OR THE LACK OF IT  
SENDS A  
**POTENT**  
MESSAGE

## Marketing Psychologists

- Color combinations can attract or distract

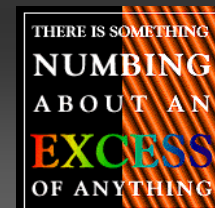
- *The human brain requires a sense of order or it will reject whatever it sees*



## Marketing Psychologists

- Color combinations can attract or distract

- *If too many colors are used, the viewer will become visually confused and will reject the image*



THERE IS SOMETHING  
NUMBING  
ABOUT AN  
**EXCESS**  
OF ANYTHING

## Marketing Psychologists

- Color combinations can attract or distract

- *If not enough color is used, boredom results*
- *The right color combinations can be as important as the individual colors*



## Color illusions

- Sometimes combinations of colors can deceive the viewer
  - *sometimes can be used to advantage in communication*
- Can also cause unfortunate graphic effect
  - *be sure to watch out for these little traps*

### Color context

- When you look at a colored object, your brain determines its color in the context of the surrounding colors
- Identical colors, when surrounded by different backgrounds, appear to be different from each other



### Similar colors appear to be identical

- Even though the two symbols are actually slightly different tones
  - *contrasting backgrounds cause our brains to think that they are the same color*
  - *same way that one color can appear different in different surroundings*

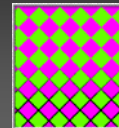


### Color fatiguing

- Feeling you get when looking at bright complementary colors next to each other
  - *a vibrating or pulsing effect*
  - *seems that the colors are pulling away from each other*
- When one color strikes a portion of the retina long enough
  - *the optic nerve begins sending confused signals to the brain*

### Mixing brilliant complementary colors

- Gets attention
- The effect is disconcerting
  - *should be used with restraint*
  - *can make your eyes feel like they've been shaken around*



### Similar colors touch

- Both colors appear to wash out and become indistinct
- This is because the borders between the colors are difficult to distinguish and your brain blurs the colors together



### Stained glass technique

- Outline each of the colors with a thin neutral white, gray or black line
  - *complementary colors or similar colors*
  - *outlines separate the two colors*
    - helps your brain keep them separated
    - reduces blurring of the colors



## *Color is only Sensory Perception*

- The outside world is colorless
  - *It consists of colorless matter and colorless energy*

- Vision is as much in the brain as it is in the eye

- Color exists only as an observer's sensory perception

