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A Colourful Memory

Colour is believed to be one of the most important visual experiences to humanity. It functions as a powerful information channel to the human cognitive system, enhancing our everyday experiences. (Wichmann, 2002). Unconsciously colour may play a large role in relation to our cognitive memory, detail attention and daily way of remembrance. As bad as we are at remembering names, phone numbers, and word-for-word instructions, it has been proven that we have really exceptional visual and spatial memories. (Dzulkifli and Mustafar, 2013). However, can colour actually enhance our memory abilities?

Before even addressing this question, we must first define what memory is to understand its relationship with colour and attention. According to Oxford Dictionary, memory is defined as; “the faculty by which the mind stores and remembers information” (Oxford, 2017). It has been said, that many great memories are learned. At the most basic level, we remember when we pay attention; we remember when we are deeply engaged, and we remember when we are able to take a piece of information and experience, and figure out why it is so meaningful to us. (Dzulkifli and Mustafar, 2013).

Advertisement companies are aware of how important attention is in relation to memory. Knowing that humans have a great visual memory, colour induces moods and emotions, influences consumers perceptions and behaviour. It also helps companies position or stand-out

from their competitors. (Aslam, 2006). However, its important to note that the literature in the public domain has a largely Western focus on the notion of colour. According to, *The Malaysian Journal of Medical Science*, “Coloured advertisements can attract people to read up to 42% more often than a non-coloured advertisement” (Dzulkifli and Mustafar, 2013). Why, and importantly how is this possible?

It has been seen that certain colours can alter the meanings of objects or situations which they are associated with (Mubeen, 2006). When it comes to branding, the power of colour is both emotional and practical. On an emotional level, it can affect how consumers feel when they look at a brand, while on a practical level it can help a brand stand out and hopefully be more memorable (Gross, 2017). When mastering colour theory, companies can make educated predictions on consumer behaviour when trying to decide how to market their product. (Aslam, 2006).

Warm colours such as red, have a number of different contextual associations and in branding can deliver a highly visible punch. The colour red can symbolize a multitude of different feels such as, danger, blood, love, sexuality and passion. As a vibrant hue it has a bold, energetic and lively personality that can symbolize strength, confidence and power (Gross, 2017). These could be reasons that explain why red is seen as colour that draws your attention so quickly. Yellow, also being a part of the warmer scale, is a cautionary colour; mainly used in life vests, police cordoning tape and hazardous areas. However, it does not quite give off the same heat as red does. (Gross, 2017) Darker yellows, bordering on gold, can give off a feeling of prosperity and security. This can have a great effect for financial orientated organizations and

companies (Design Group Inc, 2017). Blending the power and warmth of red and the optimism of yellow, orange gives off the influence of activity and energy. It can be often seen as youthful and creative. Surprisingly it is not a very common colour used in many mainstream branding companies.

Cooler colours of the visual spectrum have the ability to influence a feeling of relaxation and tranquility due to their natural correlations. Blue and its calming qualities can be associations with the sea and sky. However, on the emotional side, it can create the feeling of being 'blue' expressed as sadness or depression. Blue has also been associated with the feeling of trust and reliability. This can be seen through many different social media companies creating logos with a similar blue scale design; such as, Facebook, Twitter, Tumblr, and LinkedIn. (Gross, 2017) Green, being a cooler colour, is firmly linked with nature and the environment in most people's minds. It is also associated with reliability, safety, sustainability and freshness. It is an excellent colour to form the basis of marketing material for companies concerned with the environment or financial matters. Finally, purple is associated with luxury, royalty, dreams, and elegance. Darker shades of purple often represent luxury while lighter shades, such as a beautiful shade of lavender can be sentimental and to some audiences even nostalgic (Design Group Inc, 2017) This colour theory can also be applied into various political movements and patriarchies. For example the colour of a country's flag can actually represent their political stance and identity following the aforementioned colour meanings. This could explain why many flags have the colour red incorporated in the design to symbolize power and strength (Aslam, 2006).

A factor that needs to be taken into account when talking about colour theory and memory is when there are combinations of colours involved. The right combination of colours is important because it can produce a high level of contrast which can influence the level of memory (Dzul kifli and Mustafar, 2013). Certain combinations of colour can also be associated with various socialization effects. There are colours associations with historical festivals, holidays and rituals. For example, red and green are immediately associated with Christmas, black and orange with Halloween and Thanksgiving, and red and pink with Valentine's Day. (ASLAM, 2006). Without even thinking about it, these colours influence our memory when thinking about the different times throughout the year.

Further research on colour and its relationship with memory and attention has been tested on patients with Alzheimer's Disease. According to a study conducted by The University of Nebraska, the use of vivid colour cues can help to enhance our short-term memory performance. After testing sixty-three elderly patients with Alzheimer's Disease, there were evident cases of warmer types of colours such as yellow, red and orange, having a greater effect on attention spans compared to those of cool types of colours like purple, green and blue. (Cernin, Keller and Stoner, 2003). Further research needs to be conducted, yet the study allowed Phycologists to gain an insight into developing potential colour treatments for those affected by cognitive disabilities.

Colours play a huge role in affecting learners' cognitive skills in an academic environment. (Dzul kifli & Mustafar, 2013). When trying to determine if colour enhances our memory performance, it's important to know the influences on what colours are best for specific age levels and environments. Educators must consider the age, gender and culture of their

audience when designing, choose colours wisely and use them generously or sparingly where appropriate (Omoniyi and Oluwakemi, 2015). It is crucial for us to know how to use colour for educational purposes. Within education colour and memory can be very useful at getting attention, enhancing clarity, establish a code and labeling things. Teachers also use various colours and techniques to influence learning outcomes through memory. For example in schools we are asked to stick to blue or black ink. Therefore red ink can be used by teachers to correct assignments, notebooks, and class works (Omoniyi and Oluwakemi, 2015). It is definitely done to draw our attention to the mistakes we make to hopefully enhance our memory so they no longer happen.

There are many factors in trying to determine how colour enhances everyday life due to individual and cultural influences. However, from the studies reviewed, there appears to be a foundation for associating colour with daily life. Colour has been shown to improve memory abilities in relation to attention. Colour draws on cognitive skills to affect learning and facilitate memorization. Colours can also influence the way we see and process information, improving our ability to remember both words and pictures. Colour is definitely a powerful tool and how we process it's association to emotional, historical, political and social understanding. That being said, there still needs to be further research on how to understand how colours benefits and enhances our way of remembrance.

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